Emotion in Discourse

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To the memory of my dear brother, Francisco Alba-Juez,
whose noble emotions touched my heart and made me a better person.
Laura

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Introduction

CHAPTER 1

Emotion processes in discourse

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This chapter contextualizes the book as a whole, surveying the study of emotion in discourse and presenting our own view and definition of the phenomenon. We show how functional, cognitive and social linguistic approaches to discourse analysis, in what is labeled the 'emotional turn', have ceased to ignore the affective functions of language. This redirection of research has been partly inspired by Appraisal Theory's interest in identifying the evaluative component of many forms of discourse. But across the social sciences, scholars are recognizing the essential role of emotional phenomena. This has spawned multiple interdisciplinary studies, which bring together students of the mind, social interaction and, crucially for this volume, language, and deliver a better understanding of the psychological, interactional and social processes triggered by emotions. The chapter ends with a brief summary of the remaining thirteen chapters, showing how they together rise to the challenge of identifying the role of emotion in discourse.

Keywords: emotion, discourse, emotive/expressive function of language, evaluation

One cannot argue for a clean division of labor between areas of grammar assigned to logical and affective functions. One cannot argue, for example that syntax exclusively serves logical functions while affective functions are carried out by intonation and the lexicon. Affect permeates the entire linguistic system. Almost any aspect of the linguistic system that is variable is a candidate for expressing affect. In other words, language has a heart as well as a mind of its own.

Ochs & Schieffelin (1989: 22)

The conceptual is inseparable from the emotional, and vice versa. Lakoff (2016: 4)

Nearly every dimension of every language at least potentially encodes emotion.

Wilce (2009: 3)

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1. Linguistic approaches to emotion

Even though human emotion has been approached scientifically from various perspectives and disciplines, it remains a very complex and mysterious phenomenon, for as in the case of evaluation, emotion has "many faces and phases" (Alba-Juez & Thompson 2014), as will be shown in the different chapters that make up this volume.[1] The general perspective adopted for the study of emotion in this book is a discursive one within the overall field of linguistics, which necessarily entails a functional approach. However, we are well aware of the fact that any perspective is enriched when the views and findings from other fields and subfields of knowledge (in this case, formal approaches to language, neurology, psychology, philosophy, etc.) are taken into account, and for that reason in the present work we have tried to approach the phenomenon of emotion in discourse with an open mind and heart, by welcoming contributions that adopt non-discriminatory views into the scope of their research, in the sense that they are also open to considering the findings of other schools of thought. In fact, and given the complexity of human emotion, we strongly believe that it could not be otherwise: if we examined the phenomenon within the framework of just one linguistic approach, we would be missing a very important, and perhaps the most scrumptious slice of the emotion pie.

Neuroscientist Antonio Damasio (2018) points out that emotions have been neglected in science for a long time, despite their omnipresence in all aspects of human life. He insists on the necessity of considering emotions as instruments and motivators for culture, and even argues that the entire life of intellect is embedded in affect. Damasio's studies form part of what is now judged as the foremost change of paradigm in the humanistic sciences of the 21st century, i.e. the *emotional turn* (LeDoux 2000), a change of paradigm to which linguistics has not been immune: Language is no longer thought to be a totally objective and valid representation of reality; it is, in contrast, viewed as an intersubjective expression of correlational 'truth', where the expression of emotion plays a fundamental part (Lüdtke 2015).

Back in 1872, in *The Expression of the Emotions in Man and Animals*, Charles Darwin laid the foundations for later, more robust theories (e.g. Watson 1930; Dixon 2001; Parr 2001, Harding, Paul & Mendl 2004, or Bekoff 2007) on the existence and nature of emotions in animals. He argued that emotions serve a communicative function in both human beings and animals, and their expression (verbal or non-verbal) constitutes an outward communication of an inner state.

1. The research done for this study and presented in this chapter has been funded by the Spanish Ministry of Economy and Competitiveness through the EMO-FunDETT project (FFI2013–47792-C2–1-P).

Indeed, we all know from experience, for instance, that dogs show their canine teeth when in rage and wag their tails when in joy, or that cats purr when they find something pleasurable. The purring of the cat or the barking of the dog (e.g., when perceiving danger) can be considered (unconscious) vocalizations of their inner emotions, which would perhaps be equivalent to primary interjections[2] in human beings (e.g. *Ouch!* or *Oops!*), although of course human vocalization of emotions goes much further than the unconscious expression of an inner emotional state. Human beings can consciously express and talk about their emotions in very sophisticated ways: It was precisely the need to understand this sophistication in more detail that ignited the fire of emotions within us necessary to embark on the project leading to the creation and editing of this book.

In linguistics, we draw a distinction between utterances such as *Ouch!* and *I feel pain*; this has been explained by Bednarek (2008) in terms of the dichotomy *emotion talk* vs. *emotional talk*. This distinction had been previously noted (though from a formal, logico-semantic perspective) by Kaplan (1999) when he pointed out the contrast between descriptive (truth-conditional/propositional) content and expressive (non-truth-conditional/non-propositional) content. For Kaplan, *I feel pain* has descriptive meaning, and *Ouch!* has expressive meaning. However, utterances such as *I feel pain* may also have expressive content. Thompson (2015) shows that the distinction between emotion talk and emotional talk (the former conveying a kind of meaning closer to Kaplan's *descriptive meaning* and the latter to his *expressive meaning*) is not so clear-cut, for both types of talk can occur together in one utterance, such as for instance, *I love that!*, where the intonation encoding excitement (a feature of emotional talk) is combined with the description of the speaker's feelings or mood at the moment (emotion talk).

Attempts to characterize and understand emotion in language are found not only in functional linguistics but also in diverse subfields across the language sciences (e.g. cognitive linguistics, psycholinguistics, linguistic anthropology and conversation analysis). Cognitive linguists see emotion as a (cognitive) system of knowledge that interacts with language (e.g. Foolen 2012). The tendency in Systemic Functional Linguistics (SFL), in contrast, has not been to study or define emotion in and of itself, but to treat it as a subsystem of language which is completely attached to, and dependent on, evaluation systems. Within Martin &

2. Primary interjections are considered basic because they originated as interjections, while secondary interjections (see Downing & Martínez Caro, this volume) are constituted by words from other categories that come to be used as interjections in virtue of their meaning (e.g.: *My God! Damn!*). Notice that despite this distinction, primary interjections are not completely independent from the language system either, for they take different forms and pronunciations depending on the language of the speaker (e.g. *Ouch!* in English is the equivalent to *¡Ay!* in Spanish).

White's (2005) SFL-oriented Appraisal Theory, which is thought to be the most complete and articulate theory of evaluation to date, emotion is found in the subsystem of AFFECT within the superordinate system of ATTITUDE. The implication is that AFFECT is a type of evaluation, and therefore emotion is not defined outside the scope of its evaluative potential. Alba-Juez & Thompson (2014: 13) also include the expression of emotion within their definition of evaluation, characterized as "… a dynamical subsystem of language, permeating all linguistic levels and involving the expression of the speaker's or writer's attitude or stance towards, viewpoint on, or **feelings**[3] about the entities or propositions that s/he is talking about …" (our bold). Indeed, there is no doubt in our minds as to the close relationship between evaluation and emotion; most definitions, from both cognitive and functional linguistics, or from other fields like psychology,[4] seem to acknowledge explicitly or implicitly that there is a tight relationship between these two phenomena. However, we believe that more research is needed to understand and clarify what exactly their common ground is, as well as how they differ.

As shown for the case of evaluation (Alba-Juez & Thompson 2014), emotion can also permeate all linguistic levels. Authors such as Schnoebelen (2012), Majid (2012), Foolen (2016) or Alba-Juez & Mackenzie (2016) have given numerous examples of the ways in which emotion is encoded in language at the morphological, phonological, syntactic, lexical, semantic and pragmatic levels. We will now briefly introduce each of these levels, except for the pragmatic level, which will be given special attention in Section 1.2.

At the lexical level, we know that words have not only conceptual meaning but also evaluative and expressive meaning. This is encoded in their valence, which may be positive, negative, or mixed. A psycholinguistic study by Van Berkum, Holleman, Nieuwland, Otten & Murre (2009) shows that the affective component of words influences the earliest aspects of language processing, modulating how deeply meaning is processed. As Foolen (2016) observes, the emotional associations attributed to most words in a given social group or culture tend to be the same for different people: For instance, the words *cancer* or *murderer* normally have a negative valence, and in that sense it can be said that this association is "objective", given the consensus among speakers of English in that respect. However, we also know that for certain individuals some words may have a specific valence which does not coincide with the general feeling of the other members of their

3. Some authors, like Damasio, make a distinction between *emotions* and *feelings*. We shall deal with this issue in Section 2 below.

4. Within the field of Psychology, Frijda's (1998) or Myers' (2004) definitions of emotion point to the fact that emotions are complex phenomena that involve physiological arousal, appraisal of the situation, expressive behaviors, and conscious experience.

discourse system, community or culture. For instance, the number 13 is associated with bad luck; however, there are a few people who, on the contrary, associate it with good luck as a result of their positive past experiences with this number.

As with words at the lexical level, so is the case with bound morphemes, many of which may have positive or negative affective valences. Across the languages of Europe (and perhaps further afield), the diminutive affix tends to have positive affective connotations, but numerous other examples of affective affixes can be found in the languages of the world, such as the apprehensive, the avertive and the timitive morphemes in the Amazonian language Ese Ejja (Takanan), all of which express fear or apprehension, i.e. an emotion triggered by an undesirable, (highly) possible event (Vuillermet 2018).

At the phonological level, emotion can be expressed through the management and use of non-segmental, prosodic features (e.g. creaky voice, high pitch, etc.), and even by the strategic use of one phoneme or another. For instance, Myers-Schulz, Pujara, Wolf & Koenigs (2013: 6–7) argue that "certain strings of English phonemes have a non-arbitrary emotional quality", and so it is that the downward frequency shifts in *Darth Vader* (the wicked character in the *Star Wars* movie series) have an inherently negative emotional connotation that other hypothetical names, such as *Barth Faber*, do not have (and therefore would be less likely to have been chosen for this movie character). Another interesting example which impinges on the phonological level (but which embraces the morphological, syntactic and semantic levels as well) is the use of *ideophones*[5] (Dingemanse 2011) like the Japanese *doki doki* (excited) or *hiya hiya* (being nervously fearful of an outcome).

There is also ample evidence of emotion being expressed by means of certain syntactic constructions. An example is the emotion that has conventionally come to be encoded in some cases of insubordination (Evans 2007)[6] in different languages, as seen in, for instance, English *If only I had acted differently!* or Spanish *¡Que te calles!* (literally: 'That you be quiet!') to express regret and annoyance, respectively (see for instance Alba-Juez & Martínez Caro 2017).

At the semantic level, and because of their abstract character, emotions are often conceptualized in the form of metaphors, and consequently it is not uncommon to find emotional metaphors such as *She was boiling with anger* (where anger

5. Dingemanse (2011) characterizes ideophones as "marked words that depict sensory imagery." They are unusual in their sound patterns, morphology and grammatical behavior and seem to be designed precisely to express inner experience. Ideophones are not exclusive to the Japanese language. They are found in other unrelated languages across the globe, such as Siwu, in eastern Ghana (Majid 2012).

6. Evans (2007: 367) defines insubordination as "the conventionalized main clause use of what, on prima facie grounds, appear to be formally subordinate clauses."

is seen as a fluid in a container) or *He has cold feet* (which shows the expressive value of metonymy).

Finally, since the expression and interpretation of emotion is an intersubjective phenomenon, it is essentially pragmatic. For that reason, and because our intention in this chapter and the whole volume is to characterize emotion in discourse, we will devote Section 1.2 to this level of analysis in more detail than the other levels succinctly illustrated above.

1.1 Main research questions motivating this work

In our previous project (FunDETT-FFI2009–7308), reported on in Thompson & Alba-Juez (2014), the focus was on evaluation. As the project members moved on to consider the closely related field of emotion, they reached the conclusion that evaluation and emotion are not exactly the same phenomenon, especially if we take into account the functions they realize in discourse. For that reason, we found it necessary to carry out further research on the topic that would allow us to answer questions such as:

– *How does the emotive/expressive function of language differ from the evaluative function*?
– *Is evaluative discourse always emotive/expressive as well*?
– *Is emotive discourse always evaluative*?
– *Can we describe and characterize emotion in all its potential by using exactly the same parameters we use for evaluation*?
– *What is the relationship between evaluation and emotion*?
– *Can the existing linguistic theories of emotion and/or evaluation be improved and refined by drawing on the psychological theories of emotion*?
– *What is the relationship between emotion systems in discourse and other systems such as (im)politeness*?
– *What is the relationship between pragmatic competence and the use of emotion systems in discourse*?
– *What kind of pragmatic phenomena or aspects have not been contemplated in linguistic theories of emotion and/or appraisal*?

And finally, considering the possible social application and relevance our research could have:

– *Is pragmatic emotional competence related to so-called emotional intelligence and in turn to good and successful performance in life in general and in work environments in particular*?

These were the main questions that led us to embark on a new project (EMO-FunDETT – FFI2013–47792-C2–1-P), one of whose results or 'deliverables' is this volume, in which we present and discuss some possible answers. The first question was previously addressed in Alba-Juez (2018), which elaborates on Thompson's (2015) review of Martin & White's (2005) Appraisal Model regarding the common ground shared by evaluation and emotion. The author shows that emotion permeates not only the AFFECT subsystem but also the other two subsystems of ATTITUDE (JUDGEMENT and APPRECIATION), as well as the two other main systems or domains of Appraisal (ENGAGEMENT and GRADUATION), and this is one of the reasons she suggests that emotion needs to be given special treatment, in connection with, but also independently from, evaluation.

And in order to be able to answer the other questions and thus achieve a more complete understanding of how emotion operates in language and discourse, we believe that, among other things, it is necessary to supplement the above-mentioned linguistic findings with further linguistic studies centered on discourse-pragmatic[7] aspects or phenomena, such as *common ground, contextual knowledge* (Van Dijk 2014), *expectations* (e.g. Escandell-Vidal 2017), *reference*, *pragmemes* (Mey 2001; 2010), (*im*)*politeness* (e.g. Brown & Levinson 1987; Culpeper 1996), *affective inferences* (Rossi, Dominicy & Kolinsky 2015), or *emotional implicatures* (Schwarz-Friesel 2010; 2015). We now turn to these matters.

1.2 Emotion as a discourse-pragmatic phenomenon

The comprehension of the emotion encoded in a given text or discourse would be incomplete if we only looked into the valence of words, the affective affixes used, or the emotive syntactic constructions. A discourse approach to emotion entails a multimodal analysis, attempting to contemplate as many of the variables affecting the phenomenon as possible. Schwarz-Friesel (2015: 167) notes that emotions can be expressed on three different levels: (1) detectable bodily symptoms (trembling, blushing, etc.), (2) non-verbal expressions (gestures, laughter, etc.) and (3) verbally, through intonation, interjections, affective words, expressive speech acts, emotional metaphors, emotional implicatures, etc. Furthermore, we argue that if we are to analyze and comprehend a given discourse in its whole emotional potential, we should also look into its macrostructure and the different types of context (Van Dijk 1972; 1977; 2014) that are affecting the knowledge that is shared – or not – by the interlocutors.

7. Van Dijk in Andor (2018: 110) points to this fact in general, when he states that "systemic grammar actually missed many aspects", like systematic semantics, pragmatics, cognition, and many other developments of the last 40 years.

We also argue that one of the aspects of context that is crucial for the appropriate expression and interpretation of emotion has to do with the *expectations* of both speaker and hearer. Escandell-Vidal (2017) points out that the notion of *expectation* is a crucial component of *pragmemes*, a notion that is defined by Mey (2001: 221) as "a generalized pragmatic act, characterizing a general situational prototype, capable of being executed in the situation." He defines the *situation* as:

> the place where the linguistic interactants meet, not as disembodied 'talking heads', but as agents on the societal scene, bringing along their entire baggage of world knowledge: tacit and explicit presuppositions, expectations, and prejudices, as well as prior linguistic and world experiences. (Mey 2010: 2883)

Summerfield & Egner (2009: 403) define expectations as "brain states that reflect prior information about what is possible or probable in the forthcoming sensory environment." For her part, Escandell-Vidal (2017: 493) argues that "expectations are the cognitive, internalized image of the general prototype for each situation" and "they lie at the heart of what we perceive as normal, 'smooth interaction.'" And we follow the thread of these two definitions to add and argue that, in emotionally charged situations, it is also normal to have certain kinds of expectations, which have to do with the sensory or inner perceptions, presuppositions, prejudices or shared knowledge of the participants, and for that matter we additionally argue that this notion has to be contemplated in relationship with the notion of *emotional implicature* (Schwarz-Friesel 2010), a kind of implicature about the emotions of the speaker that is based to a certain degree on culturally shaped encyclopedic knowledge. By way of illustration, in a situation where Molly is our coworker and Kevin is her friend, and Molly utters (1):

(1) Kevin has been sent to jail.

the normal expectations are that people love their friends, and consequently Molly loves her friend Kevin. Therefore, the emotional implicature (e-implicature) that is triggered is that she is sad and worried about her friend having been sent to jail. However, if the context were different, and the shared knowledge among Molly's co-workers were that Kevin had sexually assaulted Molly in the past, then the expectations would be different too, and this would equally affect the e-implicature: in this case the emotional implicature would be that Molly is relieved and perhaps even happy about Kevin's sentence.[8]

8. Alba-Juez (2018) explains that some e-implicatures are more generalized and conventionalized than others, and therefore we can distinguish, as with other kinds of implicatures (Levinson 2000), between Generalized Conversational e-Implicatures (GC e-I) and Particularized Conversational e- Implicatures (PC e-I). The GC e-I for this example would be the one emerging

Expectations are also inextricably associated with the pragmatic concept of (im)politeness: Intensifying or preventing positive or negative effects requires the anticipation and prediction of expected consequences to what is said or implicated. And in so doing, speakers at the same time unavoidably have to consider their emotional relationship with their interlocutors and weigh their possible emotional reactions. Consider Example (2), which illustrates a real-life embarrassing gaffe committed by the American Vice-President Joe Biden in 2008, when asking Chuck Graham, a Senator who was confined to a wheel chair, to stand up:

(2) Biden: Ah, Chuck Graham, state Senator is here. Chuck, stand up, Chuck! Let me get to see you … (Biden then notices Graham is sitting in a wheelchair). Oh, God love you, what am I talking about! I'll tell you what: You're making everybody else stand up though, pal. Thank you very, very much I'll tell you what: stand up for Chuck! (the audience cheers) Thank you pal … (Transcribed directly from YouTube at https://www.youtube.com/watch?v=_JdigPbYZMc
(Published October 30th, 2012, searched February 7th, 2018).

As can be observed, Biden is completely unaware of Graham's physical impairment, and when he realizes he is sitting in a wheelchair, he tries to repair his mistake by reprimanding himself (*Oh, God love you, what am I talking about!*) and by making everyone else stand up for Graham, in a round of successive *on record, positive politeness acts* (Brown & Levinson 1987) expressing love and gratitude, showing that he regrets his *faux pas* and that he cares about Senator Graham's public image (face) and feelings. This shows that the adaptation of one's behavior to the social circumstances and the macro-structure of discourse (in this case, a talk in a political campaign) involves not only an evaluative ability to calculate the possible effects of one's utterances, but also the capacity to adapt to the emotional context of the situation. And because of this adaptation, we are capable of extracting the main generalized pragmatic speech act, or better, pragmeme (Mey 2010), of Biden's discourse in the example, which is totally expressive, in spite of the fact that it contains a speech act that has the form of a directive (*Stand up for Chuck!*) and others which have the form of representatives (e.g. *I'll tell you what: …*): After appraising the situation, he 'emotes' by apologizing on the one hand, and showing his respect and love for Senator Graham on the other. Also, the e-implicature that would normally be worked out here is that Biden felt extremely embarrassed about his mistake.

from the first context, i.e. that Molly is sad about her friend being in jail, and the PC e-I the one worked out in the second, more specific context, i.e. that she is relieved and happy.

But e-implicatures are not the only kind of inference that can have affective meaning: Rossi, Dominicy & Kolinsky (2015) write about particular linguistic structures, such as CTR (Creative Total Reduplication), i.e. the intentional and immediate repetition of a word (e.g. "It's a *little little* cat" 2015: 351), which, in addition to its explicit meaning ('very little') conveys an affective meaning. Although these authors do not define the type of pragmatic inference this would be, we understand that given its characteristics, it is not a conversational, but a conventional implicature, for this kind of repetition seems to have become conventionalized in English and other languages (e.g. Spanish) as vehicles for the expression of affect, and therefore the implicature cannot be canceled.[9] All the expectations and inferences in relation to the emotions expressed in discourse have to do with our mental models and what Van Dijk calls the "k-device" (in Andor 2018: 138), i.e. the knowledge device that calculates at each moment what my interlocutor "knows or does not know, or wants to know, or what do I now know, and so on." This knowledge is precisely the pragmatic knowledge[10] that allows competent speakers to assess all kinds of discursive situations, including emotional ones.

Another pragmatic phenomenon that very frequently conveys affect is *reference*. In (2), for instance, we see that Biden refers to Graham as "state Senator" when he addresses the audience in order to show his respect for his person and position to them, but when he addresses Graham he uses his forename, as a sign of friendship and affection for him. Any competent speaker of any language can draw conclusions about the emotional relationship between two people by paying attention to the way in which these two people refer to or address each other. In other words: the way we refer to others also generates certain expectations on the part of our interlocutors regarding the feelings we may have for those people, and that is why reference (along with other phenomena such as implicature) is another of the pragmatic variables worth considering when analyzing emotion in discourse.

As long as the expectations related to an emotional situation are fulfilled, the participants' behavior will go unnoticed and will be accepted as appropriate. When, on the contrary, the participants do not share the same set of expectations about their emotional behavior related to a situation, it is very probable that both parties will judge the other's discourse as inadequate or inappropriate. This has been one of the motivations for many psychological and linguistic cross-cultural studies on the expression of emotion, such as Izard (1980), Russell (1991), Wierzbicka

9. Notice that one of the features of conversational implicatures that differentiate them from conventional implicatures is that they are cancelable.

10. But notice that Van Dijk does not use the term 'pragmatic knowledge'. He speaks of common-ground knowledge, and points to the fact that in the same way as we have discourse and language communities, we also have *knowledge communities* (in Andor 2018: 137).

(e.g. 1999, 2003), Bosque (2010, 2016), Culpeper, Schauer, Marti, Mei & Nevala (2014), Larina (2015), Soriano, Fontaine & Scherer (2015), or Ogarkova, Soriano & Gladkova (2016), to name only a few.[11]

The study of emotion in narrative is also of interest to discourse analysts. Majid (2012) points out that understanding the emotional significance of events in narrative is crucial for allowing us to overhear the characters' motivations and thought processes, as well as to identify the key plot moments, all of which suggests, in line with Sanford & Emmott (2012), the existence of very tight links between emotion systems and language processing systems. Majid also writes about the importance of emotion in everyday conversation, a genre where "the expressions of basic emotions 'erupt' in speech, often involuntarily, as one of the neurophysiological consequences of experiencing the emotion by the 'sender' or *encoder* of the expression" (Pell, Paulmann, Dara, Alasseri & Kotz 2009: 417).

The evidence brought to us by all these pragmatic and discursive aspects calls for a characterization of emotion that takes them into consideration, along with all its other linguistic features. In the following section we present our view and a proposal in this respect.

2. Emotion processes in discourse: towards a definition

2.1 The terms used

Scholars from the different disciplines that research emotion have used different terms to describe and define it. Batson, Shaw & Oleson (1992: 295) state that in psychology, the terms *affect*, *mood* and *emotion* are most often used interchangeably. However, this is not totally accurate. Psychologist Silvan Tomkins (1981: 354), for instance, distinguishes between *affect* and *feeling*, the former being "the primary motivational system" (an innate biological mechanism) and the latter being a conscious awareness of an affect. He also distinguishes between *affect* and *emotion*, the latter being a combination of an affect, a feeling and memory of previous experiences of the initiating affect, and between *affect* and *mood*, the latter being a persistent state of emotion. Neuroscientist Damasio, on the other hand, does not use the term *affect* in this sense; he prefers the term *emotions*, which he defines as "complex … automated programs of actions concocted by evolution" (2010: 108) which are triggered by external stimuli related to the exteroceptive senses (vision, hearing, taste and smell) and are instinctual, i.e. biologically preset.

11. A recent publication also covering cross-cultural issues and other aspects of the discourse of emotions is Alba-Juez & Larina (2018).

He differentiates *emotions* from *feelings*, which to him are "composite perceptions of what happens in our body and mind when we are emoting" (2010: 109).

Within the field of linguistics, the best developed studies of emotion come from two main strands: cognitive linguistics and functionalism. From the cognitive-linguistic perspective, Schwarz-Friesel, for instance, defines emotion as "a complex internally represented knowledge system having a primarily evaluative function within the human organism" (2015: 161). In the case of Martin & White's Appraisal Theory, the predominant term used is *affect*, which as noted in Section 1, constitutes one of the subsystems of ATTITUDE, and is "concerned with registering positive and negative feelings" (2005: 42), but these feelings or emotions (they do not seem to make any special difference between these two terms) are not treated beyond their evaluative potential. Within the broader framework of Functional Linguistics, in a corpus-based study focused mainly on the lexicalization of emotions in different genres of British English, Bednarek (2008) distinguishes between *emotion talk* and *emotional talk*, equally treating emotion as a feature of the language of evaluation.

Scholars in both linguistics and psychology support (explicitly or implicitly) the idea that the emotions people feel and/or express are predictable from their appraisal of their circumstances and conversely, their interpretation of the situation is predictable on the basis of their emotional expression or behavior. By way of example, if I appraise a situation as aggressive or unfair, it is very likely that the emotion system having to do with anger will be activated, or conversely, if I show signs of anger (verbal or non-verbal), my interlocutor may infer that I am facing a situation that I find aggressive or unfair. Ellsworth & Scherer (2003) note that the first scholar to use the term *appraisal* was Arnold (1960), to refer to direct, immediate and intuitive evaluations to account for qualitative distinctions among emotions. A very influential early appraisal theorist was Lazarus (1966), who rejected the idea that there is a limited number of categorically distinct basic emotions, and proposed that the experience of emotion is a *continuous process* (an issue that will be discussed in Section 2.2).

From her perspective as a social scientist and discourse analyst, Wetherell (2012: 3) points out that "[c]onventional psychological research on emotions is too narrow and restrictive to support all the things social research could do in this area", and she therefore proposes to work with the concept of *affective practice*, as the most promising way forward to "put together integrated readings of the somatic, discursive, situated, historical, social, psychological and cultural bases of affectivity" (2012: 4). She explains that by *affect* she means "embodied meaning making" (2012: 4), which she says can be understood as basically human emotion.

It becomes obvious, after the above considerations, that there is no consensus among scholars from different fields – or even within the same field of knowledge

– as to the terms used and how to define them. In our research and in this book, as its title makes evident, we have chosen the term *emotion*, and within emotion we include, indistinctly, feelings, moods and all kinds of affective experience. In order to characterize it, we have drawn mainly – but not only – from linguistic approaches to the phenomenon, taking into consideration some aspects of psychological and social approaches as well. Our focus has been on the discursive manifestations of emotion, and as such, our main inspiration and influence for the definition of the term, as we shall see in Section 2.3, has come from functional linguistics and pragmatics. But before reaching a definition, we think it appropriate and necessary to present some brief considerations concerning the view of emotion as a state and its counterview as a process.

2.2 Emotion as state or as process?

Ott (2017: 1) points out that affect has been conceptualized in two main ways: (1) from a perspective with roots in psychology and neuroscience, which tends to view affect as an elemental state (e.g. Tomkins' 1982 theory of primary affects or Damasio's 2003 theory of basic emotions); and (2) from a perspective typically associated with developments in philosophy and the humanities, which treats affect as an intensive force (e.g. Massumi's 2002 theory of autonomous affect or Thrift's 2008 non-representational theory). He also acknowledges the more recent surge of a hybrid tradition that attempts to bridge or mediate between the two above-mentioned accounts (e.g. Grossberg's 1992 notion of affective investments, or Böhme's 2014 theory of atmospheres).

Indeed, there is a sharp contrast between categorical theories of emotions which advocate for the existence of a set of basic, universal human emotions which are produced by an innate hardwired neuromotor program (e.g. Tomkins 1982, Izard 1980, Damasio 2003, or Ekman 1972, 2003) and the theories that conceive of emotion as a process (e.g. Ortony & Turner 1990, or Scherer 2009), which postulate that emotions are composed of simpler but still meaningful elements that correspond to appraisals and their correlates, and view emotional experience as a rapidly or sometimes gradually changing process, according as additions or revisions of the appraisals are made. Ortony & Turner (1990: 322) point out that "it is more profitable to analyze emotional expressions and responses in terms of dissociable components and subcomponents rather than in terms of basic emotions." So, for instance, rather than a single emotion of joy, there can be many varieties of "quasi-joy" and many nuances of the joy experience. Davidson, Scherer & Goldsmith (2003) also analyze affective phenomena as highly complex assemblies of smaller parts that might be found across a wide range of diverse emotional responses. In a similar line of thought, Wetherell (2012) views the concept of *affective practice* (see

Section 2.1) as a process and not a state, explaining that these practices have their own particular rhythms and a mobile character.

Our own view in this respect, as is obvious in the title of this chapter, is that emotion in discourse is better described and defined as a process than a state, as we will expound, together with our general approach to the subject, in the next section.

2.3 Our approach to emotion in discourse

It transpires from all of the above considerations that we view emotion as a *function* that speakers fulfill in discourse. As indicated in Alba-Juez (2018), the emotive function, like the evaluative function, is a function of a number of variables that interact with one another.[12] It constitutes a dynamical system of language,[13] and as such, we see it as a process and not as a state. As a process, emotion involves different stages and facets that in discourse are better described as systems or 'bundles' than as single, basic emotions. The systems include all the features and variables that contribute to the expression of the emotion at both the production and reception ends, including the appraisal of the situation, the expectations related to the emotions felt by the speaker and perceived or caused in the hearer or audience, the common-ground knowledge of the interlocutors, the gestures or emotive bodily behavior (e.g. crying, gasping, blushing, etc.), the polarity or valence of the emotion, etc. It should also be noticed that these variables may change according as the discursive situation evolves, and thus, emotion systems display the prototypical 'cycle state' of pragmatic dynamical systems involving the interaction between brains (cognition), bodies (bodily and verbal behavior) and the environment (context).

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12. The emotive functional relationship is represented in the equation *Em = F(PH, LL, Deg, ContPos, P, Mo)*, whose constituting variables are Phase of the emotion (*Ph*), Linguistic level at which the emotion is expressed (*LL*), Degree of indirectness of the emotive meaning (*Deg*), Position along the emotion continuum (*ContPos*, having to do with the polarity or valence of the emotion), Parameter of the emotion (*P*) and Mode of the emotion (*Mo*). The same variables are analyzed for the evaluative function in Alba-Juez (2016, 2017).

13. Some scholars (e.g. Gibbs 2010) see pragmatic phenomena as emergent products of self-organizing (dynamical) systems which show an interaction of brains, bodies and the environment. Within the linguistic schools, Functionalism tends to study language as a dynamic phenomenon, as structures that are always in the process of changing as they are employed by their speakers. This school, in analogy with Dynamical Systems Theory (DST – see, for instance, Van Gelder 1998), does not focus on 'stable states' but on the trajectories ('cycle states' in DST jargon) that different linguistic processes (e.g. grammaticalization, pragmatization) tend to follow, and on what elements these trajectories depend (e.g. grammaticalization is partly dependent on typology). See also Alba-Juez & Thompson (2014).

In congruence with both linguistic and psychological appraisal theories, we believe that emotions always have an evaluative component, but evaluations do not necessarily have to have a 'purely' emotional component. Or perhaps, from a more conservative approach, it would be better to say that when we talk about appraisal, we are focusing on those utterances or that discourse whose main function is an evaluative one, but when we talk about emotion, we focus on discourse whose main function is an expressive one. Obviously, both functions may be fulfilled at the same time by the same utterance, but there will be utterances whose main function is clearly evaluative, while there will be others whose main function will undoubtedly be expressive. We know for sure that evaluation and emotion are tightly attached to each other, but our observations of their behavior regarding the variables affecting them (e.g. the linguistic level at which the evaluation and the emotion are expressed, polarity, etc.) has given us insight into the fact that they may manifest themselves in different ways: It is when comparing the values of these variables[14] that we can appreciate the similarities and differences between the two phenomena for the situations in which they occur. By way of example, consider (3), in a situation where Lorna has been cheated on by her boyfriend Tom:

(3) Lorna (of Tom): He is a despicable man!

We may say here that Lorna's utterance expresses both evaluation and emotion, i.e. AFFECT in Martin & White's (2005) Appraisal model, which is totally acceptable within the framework of that theory, but if we go deeper and try to unravel the evaluation-emotion tangle (which in our view is only logical, for we are dealing with two related, but still different functions here), we will see that the evaluation (*despicable*) is found at the lexical level and so is overt or inscribed, but the emotive function is most effectively realized by phonological means (through intonation and a high pitch) and through pragmatics (specifically *e-implicature*), indicating to the hearer(s) that Lorna does not *love* or *like* Tom, and furthermore that she is probably *angry* at him for having cheated on her. Thus, in this case, the evaluation is inscribed, but the emotion as such is invoked, and it is from the evaluation that we derive and infer the emotion. However, in other cases, it could be just the opposite (i.e. a different kind of evaluation, other than the emotion, could be inferred from the word denoting the emotion), and even the polarity could differ between one phenomenon and the other. Consider (4), where Marlene is being sarcastic about a shop assistant who has been rude to her:

(4) Marlene: I love people with good manners!

14. And also, within the framework of the Appraisal model, when noticing the overlapping of AFFECT with the other systems of ATTITUDE and Appraisal in general (Thompson 2015).

Here the emotion is inscribed (*I love*), but the evaluative judgement is invoked (she judges the shop assistant as a bad-mannered person). At the same time, the emotion is positive (because she really *loves* people with good manners), but the invoked evaluation of the shop assistant is definitely negative, for what she means is that this person has no good manners at all. These are subtle differences that, together with other considerations having to do with pragmatic meaning (expounded in Section 1.1), allow us to understand emotion processes in discourse from a broader perspective than the cognitive or the systemic-functional one.

2.3.1 *Our definition*

Considering all of the above, as well as the aims and findings of our research, we view emotion as a (dynamical) system of language which interacts with the system of evaluation but whose main function is the expression of the speaker's feelings, mood or affective experience. It is a multimodal discourse process, which permeates all linguistic levels but also manifests itself in non-verbal ways, presenting different stages and forms (influenced by variables such as pragmatic expectations or common-ground knowledge) according as the discursive situation and interaction changes and evolves.

It is with this characterization in mind that we have approached the enterprise of gathering and presenting the findings of the experts who have contributed to *Emotion in Discourse*, many of whom are members of the EMO-FunDETT research group. These will be introduced and summarized in the next section.

3. The sections and chapters in this book

The book divides into four Sections. The first is concerned with how the expression of emotion is woven into linguistic structures, especially those of syntax and the lexicon, and forms an integral part of the use of language in interaction and in thought. Section 2 turns to the impact of emotions in various real-life situations, embracing phatic communication on the Internet, the maintenance of humor and conviviality in conversation, and the expression of discontent and anger at injustices. Section 3 explores opportunities for interdisciplinary work with psychologists, examining how emotional intelligence interacts with pragmatic competence, how linguistic ability correlates with the capacity to recognize emotions, and how insights from psychology engender opportunities for refining and reforming categories of emotion proposed by linguists. The final section explores how emotion shows up in different discourse types: journalists' treatment of a distressing issue and scientists' use of graphical summaries of their arguments.

Section 1 commences with 'The multifunctionality of swear/taboo words in television series', by Monika Bednarek (University of Sydney and Freiburg Institute for Advanced Studies). Adopting the broad perspective of SFL, the chapter identifies a range of swearwords and taboo expressions and then examines their use in contemporary US television series as reflected in a specialized corpus of contemporary American TV dialogue. Bednarek devotes the first part of the chapter to theorizing the role of swear/taboo words for SFL discourse semantics, and shows that the presence of 'bad language' is neither gratuitous nor merely aimed at characterization but fulfills various functions within the televisual narrative, often several at the same time, notably that of controlling the viewers' emotions.

The following chapter, 'The syntax of an emotional expletive in English', by J. Lachlan Mackenzie (VU Amsterdam), argues from the viewpoint of Functional Discourse Grammar (FDG) that the forms of language in which we express our emotions are parasitic upon those that already exist for a more dispassionate expression of our ideas, focusing on the grammatical properties of a single taboo word, namely *fuck* and its derivatives, especially in the 'expletive' use in which they serve the interpersonal function of expressing emotional emphasis. The expletive items are identified as being grammatical rather than lexical and as being optional markers of pragmatic functions within FDG theory, seamlessly integrated into the grammar of English.

Chapter 4, 'Interjections and emotions: The case of *gosh*', by Angela Downing and Elena Martínez Caro (Complutense University of Madrid), also spotlights one emotionally laden form, *gosh*, which in contrast to the expletive considered in the preceding chapter, occurs as a secondary interjection and thus as a complete and self-contained utterance. The authors explore two corpora, of UK and US English respectively, to track down the emotive, cognitive and discourse-structuring uses of *gosh* as an inoffensive and still very lively interjection in both major varieties of the language. They also consider its historical origins as a euphemism, identifying elements of conventionalization, institutionalization and (inter)subjectivization.

The section continues with a chapter by Ruth Breeze and Manuel Casado-Velarde (University of Navarra), 'Expressing emotions without emotional lexis: A crosslinguistic approach to the phraseology of the emotions in Spanish', in which – with English as a backdrop – the authors focus on how emotions are expressed by lexical items and phrases that are themselves not inherently emotion words. They concentrate on three areas that are invoked in Spanish with non-emotional vocabulary: the presence and absence of emotions, control over and failure to control powerful emotions, and finally the expression of uncomfortable but vague emotions. The authors identify various specific differences between Spanish and English and tease out the practical implications for teaching, writing and lexicography.

The final chapter of this first section, entitled ‘The value of left and right’, is by Ad Foolen (Radboud University) and focuses on the emotive value of ‘laterality’ across different languages. What emerges from the argument is that the words ‘left’ and ‘right’ carry valence, namely negative and positive associations respectively, which in turn follow from a complex interaction between neural architecture and social responses to lateralization, as manifested for example in entrenched beliefs and feelings about handedness. These associations penetrate deeply into cultural life and are prominent factors in the history of languages. The chapter, which adopts a fundamentally cognitive-linguistic approach, ends by calling for further research into the emotional and axiological value of the left-right distinction.

Section 2 kicks off with ‘A cognitive pragmatics of the phatic Internet’ by Francisco Yus (University of Alicante). By the ‘phatic Internet’ he means the increasing use of social media to maintain interpersonal ties and bonds rather than convey substantive information. From the viewpoint of Relevance Theory, the most relevant effects of such communication are the feelings and emotions generated by the phatic interaction, for which Yus proposes the terminological innovation ‘phatic effects’. These may lack intentionality and propositionality, but the fact that they are so prevalent makes cyberpragmatics, the study of Internet communication, particularly insightful with regard to the role of feelings and emotions in human interaction.

The next chapter, ‘Humor and mirth: Emotions, embodied cognition, and sustained humor’ by Salvatore Attardo (Texas A&M University-Commerce), focuses on ‘sustained humor’, i.e. humorous exchanges that last more than three turns. From the angle of Embodied Cognition, the author focuses on bodily signals of a humorous intention as well as the feedback loop engendered by mirror neurons. He shows that by mimicking the speaker’s facial clues, for example a smile, the hearer comes to experience the same emotion, mirth, as the speaker and can thus develop a desire to produce more humor. The result is what Attardo calls a “virtuous circle”, which may continue spiraling for extended periods of time, yielding sustained humor. This hypothesis is ready for neurolinguistic testing.

The section is rounded off with ‘*My anger was justified surely?* Epistemic markers across British English and German Emotion Events’ by Nina-Maria Fronhofer (University of Augsburg), which focuses on one cluster of emotions (anger, irritation, discontent). The research reported here develops the Emotion Event Model and focuses on the deployment of ‘epistemic markers’ in written narratives experimentally elicited from English and German university students. The aim was to discover which experimental subjects made more or less use of overt indications of certainty about the emotions they felt. Significant differences are found between the nationalities and the genders represented in the pool of students. The findings underline the importance of epistemic markers for modeling the explicitness or implicitness of emotional discourse.

Section 3, with its focus on interdisciplinary relations with psychology, starts off with 'Emotion and language "at work": The relationship between Trait Emotional Intelligence and communicative competence as manifested at the workplace', a chapter resulting from cross-faculty cooperation between linguist Laura Alba-Juez and psychologist Juan-Carlos Pérez-González (both UNED, Madrid). The chapter aims to determine whether people who show communicative dexterity in dealing with emotionally challenging situations are also those who show the highest levels of Trait Emotional Intelligence (Trait EI). The research involved a questionnaire submitted to the staff of five engineering companies, designed to elicit responses to emotionally challenging situations at the workplace. The results show a quadratic (inverted-U) relationship between the two variables, demonstrating a non-linear type relation between the linguistic notion of communicative skill and the psychological notion of Trait EI, an outcome which is promising for future interdisciplinary collaboration.

The following chapter, 'The effects of linguistic proficiency, Trait Emotional Intelligence and in-group advantage on emotion recognition by British and American English L1 users' by the University of London researchers Jean-Marc Dewaele (Birkbeck), Pernelle Lorette (Birkbeck) and Konstantinos V. Petrides (UCL), also uses techniques from psychology to identify properties of emotional behavior. Here it is emotion recognition ability that is under the spotlight. To see whether the linguistic, cultural and psychological profiles of individuals affect their ability to recognize emotions, experimental subjects from UK and US backgrounds watched six video clips performed by a British actress. It is shown that participants with high linguistic proficiency and high Trait EI were better at recognizing emotions, that participants with lower levels of linguistic proficiency relied more heavily on their Trait EI, and that cultural background (UK vs. US) had no detectable effect.

The last chapter of Section 3, 'Rethinking Martin & White's AFFECT taxonomy: A psychologically-inspired approach to the linguistic expression of emotion' by Miguel-Ángel Benítez-Castro (University of Zaragoza) and Encarnación Hidalgo-Tenorio (University of Granada), calls for linguists, and specifically those working with Appraisal Theory, to pay more heed to insights from cognitive psychology, particularly in the area of emotions (or affect). The authors identify various opportunities for a sharper definition of categories that could arise from embracing the notion 'appraisal' as used by psychologists and neurologists in their description of emotional responses and from recognizing the role of goals and goal-directedness in the affective life of the human organism. They show in some detail how the proposed refinements yield a more precise account of corpus data.

Section 4 is concerned with emotions in society. Chapter 13, 'Victims, heroes and villains in newsbites: A Critical Discourse Analysis of the Spanish eviction crisis in *El País*' by Isabel Alonso Belmonte (Universidad Autónoma de Madrid) deals with how one newspaper reported on an aspect of the austerity visited upon Spain in recent years, the forced eviction of house-owners unable to keep up with their mortgage repayments. Critically blending insights from Appraisal Theory, SFL and Critical Discourse Analysis, Alonso shows how the leading newspaper triggers emotional responses by representing the various social actors as victims, heroes or dehumanized financial and political villains and details how *El País* journalists make conscious strategic use of the emotional meaning encoded in verbal processes to generate feelings of empathy and to send a socio-political message. The chapter identifies the journalists' lens of subjective interpretation and observes similarities with Italian journalists, who have been found in previous research to make frequent reference to the emotive impact of events.

The final chapter of the book, '*Promoemotional* science? Emotion and intersemiosis in graphical abstracts', by Carmen Sancho Guinda (Universidad Politécnica de Madrid), draws the reader's attention to a new phenomenon in scholarly discourse, the graphical abstract. She argues that this novel genre encourages scientists to use the visual mode to express their emotional commitment to their research, bolstering her claim by analyzing the emotional language (both visual and verbal) of samples from high-impact journals. Her findings point to a situation of hybridization and 'intersemiosis' in which the scientist comes to adopt a more fluid discursive position as journalist, advertiser, and entertainer. At the same time, she identifies elements of distraction, stylization and trivialization, as well as a blurring of the distinction between the public and the private. All in all, however, Sancho Guinda's conclusion is that graphical abstracts represent a step towards the democratization of science.

To conclude, we would like to point out that each contribution highlights important facets of emotion as used in actual discourse, in various discourse systems of different sociocultural environments. Taken together, the chapters in this volume offer a bountiful overview of this important aspect of discourse, which we hope will generate the necessary emotions and motivation in our readers to pursue further exploration and refinement of the findings herein presented and discussed.

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SECTION I

Emotion, syntax and the lexicon

Taboo words, interjections, axiology, phraseology

CHAPTER 2

The multifunctionality of swear/taboo words in television series

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This chapter focuses on swear/taboo words, which can be used for the expression of emotion. It combines a theoretical with an applied lens, in first discussing their place in Systemic Functional Linguistics, before examining their use in contemporary US television series. To do so, the chapter makes use of a new corpus of dialogue transcribed from 66 contemporary TV series: the *Sydney Corpus of Television Dialogue* (SydTV). SydTV is a small, specialized corpus which has been designed to be representative of the language variety of fictional US American TV dialogue. The analysis of SydTV focuses on the frequency, distribution and functions of swear/taboo words, showing that they are a prime example of the multifunctionality of much television dialogue. As I will illustrate with examples, they can be used for characterization, for humor, as a plot device, as a catch-phrase, to create realism, or to control viewer evaluation/emotion.

Keywords: swear words, taboo words, expletives, appraisal, emotion, affect, TV series, media linguistics

1. Introduction

This chapter focuses on the use of swear/taboo words (such as *fucking, shit, goddamn*), which are commonly linked to the expression of emotion (e.g. Jay 2000; Potts 2007; Jay & Janschewitz 2008; Dewaele 2017) and which have increasingly attracted the attention of scholars since the 'emotional' or 'affective turn' (Alba-Juez & Mackenzie this volume). The chapter has two goals: (1) to discuss their place in Systemic Functional Linguistic (SFL) theories about discourse semantics, and (2) to examine their frequency, distribution and functions in contemporary fictional US television series. The chapter thus combines a theoretical with an applied perspective.

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From a theoretical point of view, swear/taboo words have been treated inconsistently in the SFL literature, and this chapter takes a first step towards a more adequate theorization. From an applied perspective, there is little research on swear/taboo words in contemporary US television series. While there are some studies that mention swear/taboo words (most often in passing), they are either based on older programs (e.g. Quaglio 2009; Mittmann 2006; Azzaro 2005), on programs that are not from the US (e.g. Walshe 2011), or on limited data (e.g. Bednarek 2010, 2012; Queen 2015).

At the same time, contemporary US TV series are consumed worldwide, including by many viewers who do not speak English as a first language. When consumed in the original version, television dialogue can be a key way in which learners encounter spoken English language, and may constitute an influential model (Mittmann 2006: 575; Bleichenbacher 2008: 2). In the context of swear/taboo words this is even more significant since such words are unlikely to be taught in the classroom or to occur in textbooks, while learners tend to be fascinated by them but have limited knowledge of their use (Dewaele 2004: 205). In fact, such speakers "differ significantly in their understanding of the meaning, perception of offensiveness and self-reported frequencies of use of most emotion-laden words from L1 users of English" (Dewaele 2016: 122). Further, the use of swear/taboo words in TV series generates significant discussion, especially in the US, where public decency groups such as the Parents Television Council contribute to censoring American television culture (McCabe & Akass 2007: 64–65). There are hence multiple reasons for the study of swear/taboo words in US TV series.

Section 2 of this chapter discusses the treatment of swear/taboo words in linguistics, with special focus on SFL – this includes issues around terminology and conceptualization as well as their functions. Section 3 then introduces the new corpus used in the analysis (the *Sydney Corpus of Television Dialogue*, or *SydTV*) in addition to relevant background information, while Section 4 presents the results from the corpus analysis and also illustrates the functions of swear/taboo words in TV series.

2. Swear/taboo words

2.1 Terminology and conceptualization

There is great variety in the terms that are used to refer to swear/taboo words, including labels such as *profanity, bad language, expletives, swear words, curse/cuss words, taboo words*, and more (see also Mackenzie this volume). Beers Fägersten writes about "the wide range of alternate labels that exist, and of the kind of words or language these labels denote" (Beers Fägersten 2012: 3), and also points out that these terms are often used interchangeably. Goddard (2015: 192) agrees with this assessment and further notes that:

> Much work on swearing, taboo language, and the like, appears predicated on these or similar assumptions [that the meaning of *swear word* is clear/transparent], to judge by the fact that there is seldom any sustained effort to define the terms or to differentiate between them.

This inconsistency of terminology also appears to be the case in SFL research on interpersonal meaning, as I will briefly illustrate with reference to Martin & White (2005), Halliday & Matthiessen (2004, 2014), and Eggins & Slade (1997). It is important to note here that SFL assumes that "language is a stratified semiotic system involving three cycles of coding at different levels of abstraction" (Martin & White 2005: 8): (i) phonology and graphology, (ii) grammar and lexis, or lexicogrammar, (iii) discourse semantics. This means that discourse semantics is "realized" through grammar and lexis, which are "realized" through phonology and graphology.

In relation to SFL terminology concerning swear/taboo words, Martin & White (2005: 35) appear to be using the label *swearing* at the level of discourse semantics and *taboo lexis* at the level of lexicogrammar, but this is not made explicit. Elsewhere, they use the term *expletive*, and it remains somewhat unclear which level/stratum the latter term refers to.

On the level of lexicogrammar rather than discourse semantics Halliday & Matthiessen (2004: 134; 2014: 159–160) distinguish *expletives* from *swear words* on the basis that expletives enact speaker attitude or state-of-mind when we consider the clause as exchange (e.g. *God/oh God* + clause; clause + *Jesus*!) whereas "swear words" are individual lexical items with no apparent grammatical function. In their words:

> We should distinguish from Expletives the individual lexical items ('swear words') that may be sprinkled anywhere throughout the discourse and have no grammatical function in the clause (as with *bloody* in *it's a bloody taxation bloody policy, God*). In fact they have very little function of any kind, except to serve as the ongoing punctuation of speech when the speaker has nothing meaningful to say.
> (Halliday & Matthiessen 2004: 134)

In fact, not all swear words are typically or usually sprinkled just 'anywhere' and there are particular grammatical rules, constraints, and norms that have been shown to apply to such words (e.g. Hoeksema & Napoli 2008 and Perek 2016 on constructions with *the hell*; Mackenzie this volume on *fuck*; McMillan 1980). It is also highly unlikely that humans would have developed and maintained language features that fulfil "very little function of any kind" – at the very least instances such as those quoted above would function as markers of style or informality. In fact, Halliday & Matthiessen's (2004, 2014) claims are in line with some of the *myths* about swear/taboo words described by Jay (2000: 253), namely that their usage "is not really language", "is not important for […] language", and "is due to impoverished lexicon and laziness."

Third, Eggins & Slade (1997: 151–152) employ the terms *swear words, expletives*, and *swearing*, but the distinction between swear words and expletives remains somewhat unclear. It is possible to infer from their writing that expletives are autonomous (similar to Halliday & Matthiessen 2004), while swear words (adjectives, verbs, nouns) are inserted within the clause. However, Eggins & Slade (1997) also use the term *swearing* to refer to swear words in autonomous uses (e.g. *bloody hell; Jesus*).

This research is not mentioned here to denigrate SFL – as noted, the terminology issue is wide-ranging and occurs across linguistic subdisciplines. Further, this chapter does not solve the issue of terminology – the problem is that no label seems entirely without faults. For instance, *profanity* is too narrow, as it invokes words with religious origin, while *swearing/cursing/expletives* may only bring interjections like *shit!* to mind, and *bad* or *taboo language* are too broad, since these terms may lead one to think about everything that is socially evaluated as "bad grammar" (Andersson & Trudgill 1990) or about all words for societal taboos such as menstruation or death (Allan & Burridge 2006) or about all words that are socially prohibited in some way (e.g. slurs, Anderson & Lepore 2013). There is no easy solution to this issue. In this chapter, I will employ the label *swear/taboo words* and will only use other labels when referring to other scholars' research.

In addition to the terminological inconsistency, there is also no consistency or agreement around how researchers define the terms that they use. One issue concerns whether all insulting or offensive words are included (e.g. *pig, cow, slut, idiot*), as appears to be the case in McEnery's (2006) category of *bad language* (with swear words as a subcategory). Abusive expressions like *hate you* have been both included and excluded from definitions of "taboo utterances" and "swearing" (Jay & Jay 2013: 462, 471).

If too broad a conceptualization is employed, then many words are discussed whose status as "swear/taboo word" is debatable, for example *dog, moron, suck, dork, wimp, wuss, scaredycat, cow, swine, idiot, skank, pig, homo, stupid, shut up* (from Jay 2000; Jay & Jay 2013; Thelwall 2008; Lutzky & Kehoe 2016). For instance, Jay & Jay (2013: 462) include clinical terms such as *penis*, offensive expressions such as *fuck*, and insults such as *douchebag*.

But if we conceptualize swear/taboo words too narrowly, many words are excluded and the definition risks becoming a list of words – as when the terms *swearing/swear words* are defined as "the use of one or more of a set of words specifically limited to *ass, bastard, bitch, cunt, damn, dick, fuck, hell, shit*" (Beers Fägersten 2012: 18). We also need to be clear if we are talking about a set of particular words or a particular linguistic behavior (e.g. swearing as the non-literal, emotive use of taboo words in Andersson & Trudgill 1990; Jay & Janschewitz 2008; Lutzky & Keho 2016). Thus, Potts (2007: 178) talks about "clearly expressive items like swear words", seemingly implying that swear words are always used to express speaker emotion or that we should only call words "swear words" when they do so.

For corpus linguistics – the area in which much of my work is based – what works best (is least time-consuming, most feasible with large data-sets, etc.) is to start with a set of forms that can be searched for, rather than identifying particular instances of linguistic behavior bottom-up. It is difficult to search an unannotated corpus automatically for linguistic behavior but fairly straightforward to search for word forms and then examine how these are used (e.g. Lutzky & Kehoe 2016). This is the approach that I will take in this chapter, which investigates the frequency, distribution and use of a set of words that can be labeled *swear/taboo words*. Such use includes non-literal emotive uses, but also literal and other uses. I arrive at the particular set of words to be included by using specific criteria, as further explained in Bednarek (under review): A word is included if the word or its use is considered taboo, *and* the word has literal and non-literal meaning, *and* the word can be used to express emotion or attitude. A word is not included if it conveys an offensive attitude towards a target as a member of a particular group, is offensive to all members who share this identity, and identifies a referent (Blakemore 2015). This latter criterion excludes identity-based slurs/abusives such as *paki, wog, kraut, fag*, etc which target addressees or referents on the basis of demographic information (Anderson & Lepore 2013; Blakemore 2015). The descriptive content of such offensive words allows the identification of the referent. In not including these as *swear/taboo words* I follow Blakemore (2015), who makes the argument that they should be analyzed differently from expressive words such as *damn*, *fucker* or *bastard*, which do not identify a referent and do not convey an attitude directed towards members of a particular social group (Blakemore 2015: 24, 29).

A criterion-based approach differentiates my approach from those of other corpus linguists who work with lists derived from prior research (e.g. Lutzky & Kehoe 2016). Once a word is identified as conforming to these criteria, the word would be included with all its derivations and inflections – for example *fuck, fucks, fucking, butt-fuck, fuck-up, fucktard, fuckable, fucked-up, ass-fucked, fucker, motherfucker*, etc. A corpus search can then investigate which particular word forms occur, their frequency and distribution, and their use in discourse. Following this approach, we might say that Examples (1), (2) and (3) from SydTV contain the same swear/taboo word used very differently (with literal meaning in (1); to express speaker emotion (and disagreement) in (2); as an alternative to the pronoun *I* in (3)):

(1) How's *that ass* feeling? [literal reference to the addressee's buttocks]

(2) Ah! Lab geek, *my ass*. [expressing emotion and disagreement]

(3) When *my ass* was nineteen years old, I changed the face of professional baseball. [metonymically referring to the speaker himself, i.e. *when I was*…]

This contrasts with alternative approaches where Examples (1) and (3) might be excluded from analysis or not described as containing a swear/taboo word. This approach is by no means perfect and may invite disagreement, but it is transparent and therefore replicable. It is difficult but necessary to establish definitions of swear/taboo words, since a lack of definitional consistency is a clear impediment to comparative research (Jay & Jay 2013: 473). It is for this reason that swear/taboo words are defined in this chapter as meeting three specific criteria, as explained above.

2.2 Functions

As mentioned, one of the aims of this chapter is to take a first step towards theorizing the place of swear/taboo words in relevant SFL research on interpersonal meaning, especially in relation to research that focuses on the discourse semantic system of Appraisal (see also Alonso Belmonte this volume; Benítez-Castro & Hidalgo-Tenorio this volume). This research is concerned with "how writers/speakers approve and disapprove, enthuse and abhor, applaud and criticise, and with how they position their readers/listeners to do likewise" (Martin & White 2005: 1). Outside SFL, relevant resources are theorized in terms of affect, commitment, evaluation, stance, subjectivity, modality, evidentiality, intensification, hedging, and vague language (Martin & White 2005: 2; Bednarek 2006: 19–39). Briefly, sub-systems of Appraisal include ATTITUDE, ENGAGEMENT and GRADUATION (*amplification* in earlier publications):

> **Attitude** is concerned with our feelings, including emotional reactions, judgments of behaviour and evaluation of things. **Engagement** deals with sourcing attitudes and the play of voices around opinions in discourse. **Graduation** attends to grading phenomena whereby feelings are amplified and categories blurred.
> (Martin & White 2005: 35, original bold)

When analyzing ATTITUDE a distinction is made between AFFECT, APPRECIATION and JUDGMENT. The difference between AFFECT on the one hand, and APPRECIATION and JUDGMENT on the other is that AFFECT registers positive or negative emotions towards phenomena, behavior, texts or processes (Martin & White 2005: 35, 42, 43), while APPRECIATION and JUDGMENT are concerned with positive or negative assessments of natural/semiotic phenomena (APPRECIATION:

appealing to esthetics) or behavior (JUDGMENT: appealing to ethics). APPRECIATION and JUDGMENT are partly differentiated by what is evaluated – the Appraised (Martin & White 2005: 71). The difference, then, is between "emoting, judging or appreciating" (Martin & White 2005: 72). Ultimately, the three systems "all encode feeling" (Martin 2000: 147), and JUDGMENT and APPRECIATION can therefore be considered as 'institutionalised' AFFECT (Martin 2000: 147). For further discussion of some of these issues see Bednarek (2009a, b).

With respect to "emoting", Martin & White (2005: 47) propose that AFFECT can be realized as "surge of emotion" through behavioral processes (e.g. *weep, smile*) or "as a kind of emotive state or ongoing mental process" through mental or relational processes (e.g. *like, feel happy*). Bednarek (2008: 146ff) adds further resources such as fixed figurative expressions (e.g. *he had a broken heart*). All types of ATTITUDE can be *inscribed* directly through deploying attitudinal lexis or *invoked* more indirectly through the use of resources such as metaphor, non-core vocabulary, counter-expectancy, or ideational meanings (Martin & White 2005, 61–68; Hood & Martin 2007). Behavioral, mental and relational processes that directly describe an emotional reaction would consequently be treated as "inscribed" AFFECT, while figurative expressions could be treated as "invoked" AFFECT.

As mentioned earlier, swear/taboo words are commonly linked to the expression of emotion. How, then, does the 'classic' reference on Appraisal (Martin & White 2005) deal with such words? For Martin & White (2005), their use seems to constitute Involvement rather than Appraisal. As they say: "Involvement complements appraisal by focusing on *non-gradable* resources for negotiating tenor relations, especially solidarity" (Martin & White 2005: 35, my italics). This includes various resources, among them "expletives" (Martin & White 2005: 33). Elsewhere they repeat that "swearing [is] beyond the scope of our study, since it involves non-gradable lexis" (Martin & White 2005: 68). At the same time, the authors acknowledge that "[s]wearing is clearly used however to construe strong feelings" (Martin & White 2005: 68) and propose to treat "expletives […] as outbursts of evaluation which are underspecified as far as type of **attitude** is concerned" (Martin & White 2005: 69, original bold). In line with this point of view they treat instances of swear/taboo words as "explosions of **attitude**" (Martin & White 2005: 75, original bold) – more specifically as inscribed Attitude based on the target of evaluation (the Appraised):

> 'Your lead,' said Partridge. '*Christ*!' He read aloud in a high-pitched singsong.
> [analyzed by the authors as inscribed Appreciation; Appraised = Q's copy]

> 'Governor Murchie was handed a bouquet by first grader Kimberley Plud,' he wrote and Edna, the crusty rewrite woman, stood up and bellowed at Quoyle. 'You lobotomized moron. *How the hell* can you hand a governor?'
> [analyzed by the authors as inscribed Appreciation; Appraised = Q's passive]

Both *Christ* and *How the hell* are here analyzed as inscribed APPRECIATION rather than AFFECT. In relation to Eggins & Slade (1997) and Halliday & Matthiessen (2004) one of these instances is autonomous (*Christ*), while the other is integrated (*How the hell*).

We can briefly compare this treatment with that by Eggins & Slade (1997). They state that "[s]wear words which are inserted within clauses will already have been classified under the Appraisal network (usually as amplification: color). Under the Involvement system, we note both autonomous and integrated swearing expressions" (Eggins & Slade 1997: 151). Their examples of integrated/inserted words are *she was bloody silly; a fucking big problem*, while examples of autonomous expressions are *Jesus, you're lucky*; clause + *Christ; You dirty bastard!* and *Bloody hell!* Thus, integrated "swear words" are treated as either Appraisal (usually amplification, i.e. GRADUATION) or Involvement, while "autonomous swearing expressions" are only treated as Involvement. However, it remains unclear how "swear words" are defined, since the expression *how the hell* is not treated as such but rather as a "slang exclamative." (The same expression is given as an example of swearing in Martin & White 2005, although – as seen above – they classify it as inscribed APPRECIATION rather than amplification/GRADUATION or Involvement.)

In addition, Eggins & Slade (1997: 151) offer an argument for gradability, or "the level of explicitness of the item: *Holy smoke* is much milder than *Holy shit* which is still milder than *Fucking hell*. It is difficult to be categorical, but a *scale* is useful in keeping track of major variations in explicitness" [my italics].[1] This is in line with arguments outside SFL that "swear words" involve gradability (e.g. Potts 2007: 178) and is borne out by many studies where speakers are asked to rate swear words on scales of offensiveness (see review in Beers Fägersten 2012: 8–9, 95–96). Jay (2000: 137) argues that the "intensity or offensiveness of a particular curse word […] conveys the speaker's level of emotion. Extremely powerful language (e.g., *fuck you*) expresses extremely powerful emotions." This phenomenon therefore seems at least somewhat similar to what is called "infused" intensification by Martin & White (2005: 143), where scaling is one aspect of the meaning of an expression (e.g. *dislike* < *hate* < *detest*). Hence, their argument to exclude "swearing" from ATTITUDE because it involves non-gradable lexis is at least debatable.

In sum, three options have been mentioned at the level of discourse semantics: the Appraisal sub-systems of GRADUATION (amplification) and ATTITUDE, and the separate system of Involvement. To consider further how to analyze swear/taboo words it is useful to take into account what has been said about their functions outside SFL. For instance, Stapleton (2010) describes four interpersonal

1. In terms of the criteria delineated above, *holy smoke* is not a taboo/swear word but a euphemism.

functions of 'swearing': expressing emotion; constructing/displaying identity; social bonding and solidarity; humor and verbal emphasis. More generally, five functions are commonly mentioned in the literature:

- Expression of emotion (e.g. anger, surprise, excitement) or pain (sometimes called "expletive" function): *Oh shit I'm getting lost*
- Abusive/insulting (derogatory, functions to insult): *the people on night fills are arseholes*
- Social distance/solidarity (group membership): … *I'll never forget them little shits dressed me up as a fucking angel* [laughs]
- Emphasis/intensification: *she was bloody silly; a fucking big problem; beat the hell out of each other*
- Stylistic/idiomatic/humorous/idiosyncratic: …*So the little Irish bloody pilot gets up n he says 'I'm five foot two n I'm sitting up the bloody front'*
  (authentic examples from Allan & Burridge 2009; Eggins & Slade 1997; Perek 2016)

Drawing on these possible functions, Table 1 represents a first step towards theorizing the place of swear/taboo words in SFL, focusing on the level of discourse semantics.

Table 1. Swear/taboo words on the discourse semantic level

Functions	Discourse semantics
Expression of emotion (undirected/directed, including abusive/insulting)	Appraisal: AFFECT (various emotions)
Emphasis/intensification	GRADUATION
Social distance/solidarity	Involvement
Stylistic/idiomatic, etc	?

As indicated by the inconsistency in the literature, swear/taboo words may have a place in different discourse semantic systems, depending on their usage in texts, which is highly multifunctional and context-dependent (Stapleton 2010). Many usages seem to function to express emotion, either directed or undirected, and can therefore be classified as AFFECT.[2] Arguably, such uses are not just unspeci-

2. As explained above, the difference between AFFECT and APPRECIATION/JUDGMENT is that AFFECT is concerned with registering positive and negative emotions, i.e. is concerned with non-institutionalized, emotional reactions. Instances that register emotions are analyzed as AFFECT whatever they react to – behavior, texts, processes, phenomena, etc. (Martin & White 2005: 43). In other words, as long as a particular usage of a swear/taboo word expresses emotion, it can be analyzed as AFFECT regardless of the Appraised/Trigger.

fied outbursts of evaluation, but rather outbursts of *emotion*, with the respective emotion (e.g. surprise, anger, joy) inferrable from the co-text and context: Jay & Janschewitz (2008: 269) state that 'swearing' can be associated with any emotion, while Stapleton (2010: 294) argues that the particular inner state (negative or otherwise) that is expressed by a swear/taboo word varies according to context. Abusive/insulting usages can also be included as AFFECT, as this seems in line with the treatment of *rubbish, abuse, revile* in Martin & White (2005: 49) as AFFECT (surge of behavior, directed: antipathy).

In addition, many usages seem to be instances of emphasis/intensification and we may classify these as GRADUATION, in line with Eggins & Slade (1997). Usage of swear/taboo words may also construct social distance/solidarity so can be classified as Involvement: Much research has shown that the use of swear/taboo words "can be a way of bonding and expressing solidarity with the in-group" (Stapleton 2010: 296). For instance, the swear/taboo word form *ass* has many different usages. Especially when used with literal meaning ('buttocks') or as a "pronominal form" (Bednarek 2015b: 446), it does not necessarily express the speaker's emotional reaction (e.g. anger) but rather functions primarily to construe social distance or solidarity (including group membership), which more indirectly relates to speaker attitudes towards the addressee or peer group.

I further suggest that what has been called stylistic function could be connected to marking discourse as casual or informal language, but there may also be reasons for looking at some of these stylistic instances through the lens of Individuation (to do with the meaning potential or repertoire of language users; see Martin 2010). This is a matter for future research – hence the question mark in Table 1.

Another question is whether particular instances of swear/taboo words that register emotions should be treated as inscribed or invoked AFFECT. Indeed, a new term may be necessary, since they clearly differ from verbal processes and figurative expressions. My tentative suggestion is to treat them as a subcategory of invoked rather than inscribed ATTITUDE, perhaps theorizing them as "signaling" or "displaying" AFFECT. The motivation for not including such instances as inscribed AFFECT is that there is a widely-recognized distinction outside SFL between what I have labeled *emotion talk* and *emotional talk* (Bednarek 2008: 11), where emotion talk is roughly equivalent to inscribed AFFECT, while emotional talk is a cover term for expressions seen to act as conventionalized indices of speaker emotion. Simply put, the distinction is between words and expressions that refer to emotions and those that express emotions. Alongside other linguistic resources such as affective derivation and emotive interjections, taboo/swear words are widely considered as part of the latter. Thus, they are discussed with respect to expressive meaning, since they express rather than describe emotional states (e.g. Potts 2007; Blakemore 2015; Wharton 2016).

This first section has discussed the role of swear/taboo words from a theoretical point of view. The chapter now moves on to the empirical analysis of the Sydney Corpus of Television Dialogue, switching to an applied perspective.

3. Analyzing swear/taboo words in US TV series

3.1 Introducing the Sydney Corpus of Television Dialogue

The Sydney Corpus of Television Dialogue (SydTV) is a specialized corpus containing about 275,000 words, which has been carefully designed to be representative of fictional US TV dialogue. It contains the complete dialogue from one episode from the first season of sixty-six different TV series first broadcast between 2000 and 2012. By *dialogue* I mean the actual dialogue uttered by actors on screen as they are performing characters. TV dialogue includes speech by one character (voice-over, monologues, asides, etc.) or between two or more characters, but does not include screen directions. About half of the corpus comes from comedy genres and the other half from drama genres. In addition, the corpus contains a mix of broadcast/network television (42 episodes), and basic or premium cable television (24 episodes). Because of the problems associated with using online scripts, fan transcripts or subtitles (Bednarek 2015a), dialogue was predominantly transcribed from scratch or existing transcripts were carefully checked and corrected. More detail on the corpus design and transcription conventions is available in Bednarek (2018) and at www.Syd-TV.com.

3.2 US rules, regulations, attitudes

Any analysis of swear/taboo words in TV series needs to be aware of language-external factors that impact on their use. This includes the federal regulation of television, which is reviewed in Queen (2015: 210–212). To briefly summarize here, US network television is governed by the Federal Communications Commission (FCC), which has rules relating to swear/taboo words. These restrict the broadcasting of profane and indecent speech to the evening and night (10 pm – 6 am) and forbid the broadcasting of obscene speech. Profane, indecent and obscene speech are defined in particular ways for the purposes of federal law (see Queen 2015: 211), but all definitions include an element of 'offensiveness' with respect to community standards. For example, indecency includes depictions or references to sexual or excretory activities that would be regarded as offensive, while profane speech is "grossly offensive" language. Whether a particular word use is regarded as permitted is sometimes only determined in rulings in response to specific complaints – an example is provided in Bednarek (2015b: 440). Notably, federal law applies to network television but not to subscription-based television such as cable or streaming services. Voluntary ratings also exist: For example, a rating of 'TV-MA' indicates that a TV series may contain "crude indecent language."

These standards are taken relatively seriously in the US: In the first six months of 2006 more than 300,000 complaints were received covering obscene, indecent, or profane programming, although these are not necessarily all complaints about language (https://transition.fcc.gov/eb/oip/ComplStatChart.pdf, accessed 7 July 2016). This aligns with cultural attitudes about swear/taboo words in the USA. It is important to be aware that attitudes towards swear/taboo words vary across different Anglo English speech communities (Goddard 2015: 210), in addition to varying across languages and cultures more generally. For example, on the whole, the USA tolerates the use of swear/taboo words in the public domain less than other countries such as Australia, and may also be more sensitive to "religious" swear/taboo words (Goddard 2015: 211). As Jay & Janschewitz (2008: 274) put it, "[n]ot everyone is as anxious about swearing as middle-class American speakers." Ultimately, relevant attitudes of audience members would need to be investigated using audience research in different national contexts (e.g. Ofcom 2005, 2010).

4. Analysis

4.1 Key swear/taboo words

Despite the above-mentioned regulations and attitudes, swear/taboo words do occur in US TV series, and some forms occur more frequently than in other spoken corpora of American English. Mittmann (2006) notes that *god* (including *oh my god, oh god* and single word uses) and *hell* (mostly realized as *what/who/how the hell)* occur more frequently in *Friends*, *Dawson's Creek* and *Golden Girls* than in conversational data from the *Longman Spoken American Corpus* and the *British National Corpus*, while Quaglio (2009) finds that *damn, bastard, bitch(y), son of a bitch, ass*, and *crap(py)* are more frequent in *Friends* than in a subset of the *Longman Grammar Corpus*. The words and clusters *hell, what the hell, the hell is, oh my god* are overused in a corpus with dialogue from seven TV series compared to a corpus of spoken American English (Bednarek 2012), while *oh my God* is overrepresented in *Gilmore Girls* (Bednarek 2010).

In turn, other swear/taboo words (*shit, fuck* and variations) are absent or less frequent in the series investigated in these studies. As pointed out by the researchers, this shows an influence of external factors (restrictions on network TV). In this respect, SydTV is a more diverse source of data, as it includes both network and cable TV series – which is more representative of the contemporary television landscape.

In order to investigate the differences between TV dialogue and unscripted American English conversation, I undertook a keyness analysis comparing SydTV with the *Longman Spoken American Corpus (LSAC)*, a part of the *Longman Spoken and Written English Corpus* (Biber, Johansson, Leech, Conrad & Finegan, 1999). This corpus contains about 5 million words of American English conversation across a variety of settings and including different kinds of interactions by speakers from different states in the US in the 1990s (Quaglio 2009; Al-Surmi 2012, Jack Du Bois p. c.). A keyness analysis shows which words are relatively more frequent ("key") in one corpus than in another (Scott & Tribble 2006: 58ff). Examination of the key words in SydTV that occur across at least 7 episodes shows that 14 of these key items are swear/taboo words (Table 2, high frequencies and distributions in bold; using Wordsmith (Scott 2017); token definition: hyphens do not separate words, no characters within words; p-value threshold: 0.000001.).

Table 2. Key swear/taboo words in SydTV (distribution ≥ 7)

Key item (word form)	Raw frequency	Distribution (Nº of episodes)
god	**291**	**63**
hell	**142**	**48**
ass	81	**27**
crap	36	**23**
bitch	49	**21**
damnit	22	18
fucking	**139**	16
fuck	**126**	15
bullshit	24	15
asshole	22	11
bastard	11	10
goddamn	21	8
goddamnit	10	8
motherfucker	24	7

Since several of these forms could possibly be "key" as a result of spelling variation between SydTV and LSAC (e.g. *damnit* vs. *damn it*) I double-checked the results by comparing instances of different variants and using an online log likelihood calculator (http://ucrel.lancs.ac.uk/llwizard.html, accessed May 13th, 2017). Results show that these forms are genuinely overrepresented in SydTV compared to the

LSAC. In addition, *damn* is also overused in SydTV (*f* = 57, distribution = 33), once spelling variation is taken into account.

The forms *god* and *hell* are the most distributed across episodes, with *ass, crap, damn* and *bitch* also occurring across at least 30% of the corpus. While the forms *fucking* and *fuck* have similar raw frequencies to *hell*, they only occur in 15/16 of 66 episodes. *God* and *hell* seem to be the most important forms across the corpus, as they have both a high frequency and a high distribution. This lends new empirical support to assumptions that such forms may take over the functions of other swear/taboo words when these are not permitted (Mittmann 2006: 577; Bednarek 2010: 86) and that overuse of certain words can be explained by compensation for restrictions on others (Quaglio 2008: 205–206). If we assume that distribution tells us something about tabooness, these findings further indicate that the tabooness of particular forms such as *bitch* is decreasing in the US (compare Queen 2015: 207 on *damn*, *shit* and *ass*).

Not surprisingly, there is a clear influence of broadcast regulation which impacts on the distribution of swear/taboo words, since certain words will not occur in episodes from network TV. However, such language-external factors do not entirely condition linguistic usage. They do accurately predict that the word forms *fucking*, *fuck* and *shit* are absent from episodes originating in broadcast television series (unless we examine their uncensored version, e.g. DVD or digital). On the other hand, these factors do not explain the large variation in the frequency of swear/taboo word forms, e.g. the fact that the normalized frequencies for particular forms vary among premium cable episodes. It is clear that frequency and usage also depend on other factors such as the target audience of the respective television series as well as the narrative world and characters depicted in it: For anyone who is familiar with these series it is clear that the basic cable series *Breaking Bad* (AMC) differs radically from the basic cable series *Suits* (USA Network), and that the two premium cable (HBO) series *In Treatment* and *Veep* are also very different from each other. The extent of variation in the frequencies of swear/taboo word forms in SydTV can be experienced at www.Syd-TV.com through boxplots and histograms as well as a dynamic and interactive visualization. The site also includes detailed information on relevant uses, patterns and phraseologies – for instance, *oh my god, god, my god*, and *oh god* represent the most frequent uses of the word form *god*, while 'WH-word + *the hell*' is the most frequent structure for the word form *hell*.

In sum, this section has illustrated that many swear/taboo word forms are overused in SydTV compared to a corpus of unscripted conversation. Such conversational data may not reflect actual usage accurately (Mackenzie this volume), since speakers may suppress the use of swear/taboo words because they know they are being recorded (McEnery et al. 2000: 50). Regardless of this caveat, why are these forms so frequent in US TV series? One answer is that since swear/taboo words often express emotion (signaling or displaying AFFECT), and since emotionality is a key defining feature of television language (Bednarek 2012, 2018), such a high frequency is to be expected. However, swear/taboo words are also a prime example of the multifunctionality of much television dialogue, as I will illustrate in the reminder of this chapter.

4.2 The multifunctionality of swear/taboo words

In Section 2.2 I proposed that – depending on their function in discourse – swear/taboo words can be analyzed as AFFECT, GRADUATION or Involvement. While I will partially draw on this classification here, such analysis only tells part of the story. TV dialogue is not the same as ordinary conversation and should not be treated as such. Rather, it needs to be approached as an instance of scripted media language, i.e. as emanating from a TV narrative where language is used with specific aims and functions – for example, to construct a narrative, to establish characters, to entertain viewers (Richardson 2010; Queen 2015; Bednarek 2018). We therefore need to consider how swear/taboo words function in fictional mass media narratives designed to entertain their audiences (see also Queen 2015: 205–218). In order to do so I draw on models for the functions of dialogue in film (Kozloff 2000) and TV series (Bednarek 2017, 2018), and use examples from SydTV and beyond. For this chapter, all examples have been re-transcribed by a research assistant using the conventions explained in the appendix.

4.2.1 *Creating realism*

As noted above, swear/taboo words typically characterize a spoken exchange as casual and informal. On a general level, then, the use of swear/taboo words contributes to the creation of realism. For Kozloff (2000: 47), realism means "[adhering] to a complex code of what a culture at a given time agrees to accept as plausible, everyday, authentic." Bednarek (2018) includes examples where dialogue successfully imitates 'real' spoken and written language. The use of swear/taboo words creates realism by depicting characters "reacting to events in realistic and 'spontaneous' (i.e. designed to appear spontaneous) ways" (Price 2015: 58). As screenwriter Steven DeKnight puts it:

> And to be able [on premium cable] to have a conversation where two people can talk the way two people would talk without artificial constraints was just amazingly liberating. It's as simple a thing as it is to have somebody be able to say "fuck," which I hear in my daily life 20, 30 times a day. Also, I'm from New Jersey, so I tend to use it a lot, and that kind of natural rhythm to dialogue in speech is invaluable. (DeKnight, cited in Bennett 2014: KL 1927–1930)

Realism is challenged when particular characters do *not* use swear/taboo words in a naturalistic way, for example when police officers or criminals use euphemistic expressions such as *butt* instead of *ass*, or *freaking* instead of *fucking*, which is something screenwriters explicitly criticize (see Priggé 2005: 93; Lawson 2007: 214; Douglas 2011: 23). Thus, *The Sopranos*' showrunner David Chase explains that "it makes you feel dirty that you're doing that [i.e. not using swear/taboo words], that you're not being true to the English language, not being true to humanity. It's a human, human life, you know, as it's really lived." (cited in Lawson 2007: 214). Interestingly, euphemisms for mild or borderline swear/taboo words such as *damn* (e.g. *darn/darned*), *hell* (e.g. *heck*) or *god* (e.g. *gosh*, see Downing & Martínez Caro this volume), do not seem to replace these swear/taboo words but rather fulfil other functions in TV narratives (Bednarek under review).

4.2.2 *Constructing setting and happenings*

Kozloff posits a function called "anchorage of the diegesis and characters", defined as the use of dialogue to create and identify aspects of the diegetic world, that is, to orient viewers as regards character movement in space and time and to name characters (Kozloff 2000: 34–37). Bednarek (2018) includes anchorage of time and space under "setting and happenings", while anchorage of the characters is included under "characters."

It is clear that the use of swear/taboo words can contribute to the construction of setting, functioning for example to locate the narrative in time. Thus, in the sci-fi series *Firefly* and *Battlestar Galactica* (not included in SydTV) the invented swear/taboo words *gorram, rutting, humped* (*Firefly*) and *frak* (*Battlestar Galactica*) not only allow the screenwriters to avoid violating federal law, they also contribute to showing that the action takes place in the future. Conversely, showrunner David Milch's use of particular swear/taboo words such as *cocksucker* and *fucking* in *Deadwood*, which takes place in the 1870s, has been controversial. Screenwriters for fantasy TV series such as *Legend of the Seeker* may face a similar problem and may avoid modern swear/taboo words, as fantasy texts often use archaic forms to create alternative worlds (Mandala 2010: 71ff).

In addition to setting, swear/taboo words can function as a plot device (Queen 2015: 194–196) or "as the source of ongoing narrative progress" (Queen 2015: 218). In other words, they can contribute to plot development, creating causal chains between events (Kozloff 2000: 38). The events or causal chains may not necessarily be central to the narrative: In an episode from *Orange is the New Black* for instance, prisoner Sophia Burset's son Michael uses the intensifier *fucking* during a visit to prison after riding in a car with fellow prisoner Gloria Mendoza's son Benny. His use of *fucking hilarious* (GRADUATION) during the visit becomes the source of interpersonal conflict between him and Sophia, but it also creates a causal chain to a later event – an interpersonally charged exchange between Sophia and Gloria that is also a demonstration of power:

(4) *Orange is the New Black*, Season 3, Episode 7, 'Tongue-tied'
1. [In the prison kitchen]
2. Gloria: [to kitchen hands] How am I supposed to be a mother to my son, when my prison kids keep FUCKING it up?!
3. [Sophia walks in]
4. Sophia: You could start with your language.
5. [Gloria turns around]
6. Gloria: Excuse me, wha'?
7. Sophia: Maybe try not to curse so much? Or at least tell your son not to. At least not around my Michael.
8. Gloria: What are you talkin' abou'?
9. Sophia: <slowly and calmly> My son has never cursed before. And one ride with your ki:d, <louder> and suddenly, it's "Fuck this, and fuck that."
10. Gloria: He's fifteen, so wha'? He says "fuck".
11. Sophia: We don't talk like that in *our house*.
12. Gloria: You think, [h] my son, is your son's problem?
13. Sophia: [crosses arms] Tell Benny, to cool it with the *dirty jokes*, and language. That is, if he wants to keep his *ri:de*.

This interaction is causally connected to the earlier exchange about Michael's use of *fucking*, but it is also a good illustration of TV characters' *metalinguistic* comments about swear/taboo words. In Bednarek (under review) I argue that these comments enregister or reify swear/taboo words as a particular category of language, and reflect and construct particular language ideologies – for instance, that using swear/taboo words is harmful to children. That is, in combination with such metalinguistic comments, swear/taboo words also function to convey "ideological representations" (Bednarek 2018). My hypothesis is that such comments occur in these TV series because of cultural anxieties about swearing in the US, as explained in Section 3.2 above.

4.2.3 *Characterization*

One important function of dialogue is to reveal character and to construct relationships between characters (Kozloff 2000: 43–46). Just as in unscripted speech, the use of swear/taboo words in fictional dialogue can display and construct aspects of a speaker's identity. The use of "swear words tells us who we are and where we fit in a culture; in short, our identities are marked by our use of swear words" (Jay & Janschewitz 2008: 275). Accordingly, studies have shown that swear/taboo words in TV series function to construct character traits and character relationships (e.g. Bednarek 2015b; Price 2015; Queen 2015). Thus, the use of particular words establishes social variables such as gender, nationality or ethnicity (often stereotypically – see Price 2015: 57–58). For instance, "pronominal" usages of the word *ass* may index regional dialect or African-American Vernacular English (Bednarek 2015b: 446). Such fictional representations are likely to draw on viewers' (stereotypical) associations and judgments about swear/taboo words, e.g. links to working class or masculine identity (Stapleton 2003; 2010).

To give a new example from SydTV, there are only five occurrences of the British swear/taboo word *bloody* in this corpus (excluding literal, blood-related uses), and both are used for GRADUATION by non-American characters (British character O'Hara in *Nurse Jackie* and Indian character Divya in *Royal Pains*), as seen in Figure 1. What is important here, however, is not their use as GRADUATION, but that these words act as iconic cues, indexing the Otherness of these female characters to the viewers. This is a common strategy in the narrative mass media which enables the audience to easily and quickly assess and categorize characters (Queen 2015: 165, 200). TV dialogue can here draw on the fact that particular swear/taboo words, expressions or usages differ between varieties of English (e.g. Thelwall 2008; Goddard 2015; Dewaele 2015, 2017).

ogies. <EVAN:> I'm just thinkin' outside the box. <DIVYA:> You're a	bloody	neanderthal, honestly, you're
e the box. <DIVYA:> You're a bloody neanderthal, honestly, you're a	bloody	neanderthal. <EVAN:> Why?
im soup right now. <O'HARA:> Oh for God's sake. I hope he's got a	bloody	DNR. He's an absolute knob
knob if he doesn't. I mean, trying to bring them back to life is such a	bloody	mess. Why would his wife wa
e. <O'HARA:> If you need anything, and I mean anything, you better	bloody	tell me or I will kill you. <JACl

Figure 1. Concordance lines for *bloody*

In addition to constructing social traits such as national identity (what Queen 2015: 176 calls *type indexicality*), the use of swear/taboo words can also establish personality traits (what Queen 2015: 176 calls *trait indexicality*), as discussed in Bednarek (2015b) in relation to the 'wicked' female protagonists of *Weeds*, *Nurse Jackie* and *Saving Grace*.

Aspects of character involve both temporary and stable traits, and include emotional reactions, desires, and other inner states (Bednarek 2011). Culpeper (2001: 191) includes the signaling of emotions or emotional states through swear/taboo words in his model of characterization. Accordingly, when the use of swear/taboo words displays or signals character AFFECT, this also functions to reveal the character to the audience. In (5), for example, teenager Adam's use of (*Oh) Jesus* clearly conveys his negative emotional reaction to his father's absence from home:

(5) (SydTV, *The Big C*)
[in the living room]
1. Adam: [..] Where's dad?
2. Cathy: [..] He's, he's staying at aunt Lisa's.
3. Adam: [Looks suspicious] Why?
4. Cathy: [Breathes in and smiles] Sometimes, adults just need a little breathing space.
5. Adam: Oh Jesus, what did you do?
6. Cathy: What does that mean? <louder> Don't say Jesus!
7. Adam: Jesus! Are you gonna get a divorce?

If we assume that the display of character emotion has the potential to elicit viewers' emotional reactions (e.g. Oatley 2002), such dialogue simultaneously functions to control viewer evaluation and emotion, i.e. to guide viewers' responses (Kozloff 2000: 49–51).

Interestingly, swear/taboo words often act as character catchphrases. For example, the character Sawyer is associated with the use of *son of a bitch* (Bednarek 2010: 197). Other examples of such associations include *absofuckinglutely* (Mr Big in *Sex and the City*), *bitch* (Jesse in *Breaking Bad*), *shiiiiiit* (Clay Davies in *The Wire*), and *you son of a bitch* (Lily in *How I met your Mother*). Not only do such instances convey information about the respective characters and help construct them as unique through idiolectal features, they also function to create consistency across episodes and seasons (Bednarek 2018).

For reason of scope I will not illustrate here how swear/taboo words can construct relationships between characters, but briefly, when used to display or signal AFFECT towards another character (for example, abusive/insulting usages), they construct relational aspects such as hostility. An example from film discourse is provided in Queen (2015: 200–204). At the same time, when characters use swear/taboo words in friendly contexts, joint usage may construct tenor relations (solidarity: group affiliation, intimacy). To do this, TV dialogue can draw on the fact that such words can be used to negotiate and construct group identity, as discussed above. In SFL terms, the use of swear/taboo words for characterization can thus be tied to the construction of identity (*Individuation*: individual or group identity) and affiliation (*tenor*).

4.2.4 *Exploitation of the resources of language: humor*

The final function of swear/taboo words in TV series to be illustrated here is "exploitation of the resources of language", which includes the sub-category of humor (Kozloff 2000: 53). One way in which swear/taboo words can be used for humorous purposes in TV series or films is through incongruity, for example between the identity of speakers and their use of swear/taboo words (Walshe 2011: 139) or in cases of registerial mismatch (Queen 2015: 233). Example (6) comes from the comedy crime drama *Lilyhammer* (not included in SydTV).

(6) *Lilyhammer*, Season 2, Episode 6; video available at https://www.youtube.com/watch?v=xmmYmLlPzGU, accessed 21 July 2017)

1. [Frank in his car, talking to his infant son on the backseat]
2. Frank: Don't look at me like that […] what am I supposed to do? You don't exactly make it easy, you know. […] I know, I shouldn't leave you with my stupid fuckin' employees every day, but I got no choice. Fucks are always fuckin' up and I gotta spend my fuckin' time, cleanin' up their fuckin' mess. Capisce?
3. Infant: *Fuck*.
4. Frank: What? Did you say somethin'?
5. Infant: *Fuck*.
6. (screeching brakes)
7. [Frank stops the car and turns around to look at his son]
8. Frank: Can you do that again?
9. Infant: *Fuck*.
10. Frank: <Happy> He did it. He spoke! I knew it! I knew you were normal! GodDAMN!
11. Infant: *Goddamn*.
12. Frank: <Happy> Two syllables?! You're a fuckin' genius, that's what you are! @@@@@ I knew it! I knew it!

The humor arises from two breaches of viewer expectation: the status of the speaker who produces the swear/taboo words (the infant) and the unexpected reaction of the father (pride rather than disapproval), which is unexpected given the prevailing standard language ideology and the common myth that "[c]hildren can and should be prevented from cursing" (Jay 2000: 253).

The same series also features a scene where it is the inappropriate use of swear/taboo words by L2 speakers that creates humor (season 2, episode 8, video available at https://www.youtube.com/watch?v=x2GD72fAY7Y, accessed 21 July 2017). The Norwegian characters on a visit to New York 'practice' and partially fail how to talk like New York Mafiosos by throwing an aggressive question back at the questioner with copious amounts of the *wh-the-fuck* structure (e.g. Q: *Who the fuck are you lookin' at*? A: *The fuck are YOU lookin' at*?).

Like other lexis, swear/taboo words can also be used in innovative word play, for example in play with sound similarity and ambiguity:

(7) (SydTV, *Dollhouse*, season 1, episode 6)

1. [Sitting on a couch eating]

2. Paul: Weren't you, um, seeing someone?
3. Mellie: *Hm*?
4. Paul: Rick.
5. Mellie: Dick.
6. Paul: *Really*? *I thought it was Rick.*
7. Mellie: Oh, his name is Rick.
8. Paul: *Ooh.*
9. Mellie: Mm-hm. He said he didn't see me as "a long-term investment". [...] Said he wanted to uh, "dump the stock before it went public". [hh] He talks like that. [...] He works at a donut shop.
10. Paul: What a Rick.
11. Mellie: @ Yeah.

In (7) the play rests on sound similarity (*Rick/dick*) and the ambiguity of *dick*, i.e. the possibility of its being used as name or swear/taboo word. Linguistic play at these levels is one of the ways in which humor is created in telecinematic discourse (Brock 2011). Another example of linguistic innovation is the use of *F-Bitch-I* for *FBI*, which occurs in the same episode (directed at a male addressee).

5. Concluding remarks

Swear/taboo words in US TV series are regulated, censored and disapproved of in certain circles. Yet, their use is often not 'gratuitous' but rather fulfils multiple functions in service of the televisual narrative. They can function to create realism, humor, consistency; to convey ideologies and control viewer emotion; and to contribute to establishing settings, happenings and characters. This partially explains their high frequency in TV series. In illustrating these functions in this chapter, I have focused on one function per extract – in reality, however, multiple functions are fulfilled simultaneously. To give but one example, the use of a particular swear/taboo word may reveal a character's emotional reaction, as well as index type or trait characteristics, and control viewer emotion. Previous research has tended to focus on swear/taboo words in relation to characterization. While this is indeed an important function, it does not tell us the whole story (see also Price 2015).

In analyzing these functions I partially drew upon my new theorization of swear/taboo words in SFL discourse semantics. AFFECT is associated with revealing character emotion and character relationships (if directed), while Involvement also construes relationships between characters. Other aspects of character can be tied to Individuation in that particular swear/taboo words are associated with individual characters (when used as catchphrases or when indexing trait characteristics) or with particular social groups (when indexing type characteristics).

In future research, corpora should prove useful to allow researchers to identify if specific patterns of usage correspond to specific functions. For example, the function of taboo/swear words in the syntactic frames "too … bad" and "what the …" tends to be intensification (Queen 2015: 219). Mackenzie (this volume) describes the different uses and corresponding functions of *fuck* in detail. Lutzky & Kehoe (2016) examine the collocational environments of swearwords in a large corpus in order to differentiate their different functions and uses. This sort of approach starts with particular forms and then moves on to analyzing their functions, and includes form-to-function or function-to-form mapping (Lutzky & Kehoe 2016: 170). In sum, more linguistic research on swear/taboo words is necessary, considering that their use fulfils important social functions, and that they are highly multifunctional and context-dependent.

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Appendix

Transcription conventions (adapted from Queen 2015: xi–xii):

Voice quality and speed	<xxxx> (e.g. calmer, happy, slowly)
loudness	ALL CAPS
softness	*italics*
truncated sound	' (example: fuckin')
reported speech	" "
short pause	,
medium pause	[…]
longer pause	[N] where *N* = seconds
lengthened segment:	at lengthened segment (example: ri:de)
laughter	@
exhalation	[h], [hh]
[ ]	[visual action, location, etc]

CHAPTER 3

The syntax of an emotional expletive in English

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Various linguists have identified linguistic phenomena that express emotions rather than purely ideational or discursive meanings. From the viewpoint of Functional Discourse Grammar (FDG) adopted here, emotion is visible above all as an overlay on structures that communicate interpersonal and representational meanings. This is particularly apparent for 'expletives', words which are in themselves meaningless but 'fill out' the clause with an expression of emotion. This chapter focuses on the expletive use of *fuck*, *fucking*, *fucking well* and *the fuck* and their precisely delineable complementary syntactic distributions. The positioning of these expletives is identified for all types of syntactic phrase and nine kinds of pronoun, including the phenomenon of tmesis in, for example, *im-fucking-possible*. The items are identified as grammatical rather than lexical and as functioning as optional pragmatic markers, specifically as realizing an operator of emotional emphasis (EmoEmph) on Focused or Contrasted Subacts at FDG's Interpersonal Level. This analysis is validated by examining the grammaticality or discourse-acceptability of all possible exceptions, and the repercussions are explored for the Morphosyntactic Level, where the syntactic distribution of the items is actually effected.

Keywords: emotion, focus, expletives, Functional Discourse Grammar

1. Introduction

It is now generally recognized that emotions in the broadest sense, both more temporary manifestations such as moods and more permanent characteristics such as affect and attitude, underlie and motivate many aspects of the use of language (Van Lancker & Pachana 1998).[1] This insight has spawned a growing body of research

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into the relationship between emotion and language. Jay & Janschewitz (2008) distinguish three strands in this work: the neurological strand, concerned with identifying and localizing emotional processing in the brain and relating it to language processing; the psychological strand, addressing such matters as children's acquisition of emotional language or differences between the genders in how emotions are expressed; and the sociocultural strand, which examines the contextual factors that permit and constrain the linguistic expression of emotions, for example the nature of the speaker-addressee relationship or the desire to create and confirm communities. To these three we can now add a fourth, more linguistics-oriented strand: Authors such as Ad Foolen, Asifa Majid and Monika Bednarek have inventoried the many phenomena of language that have been studied as reflecting its emotional underpinnings. Foolen (2012: 350) stresses linguists' growing interest in the "expression of emotion [as] a natural function of language", while Majid (2012: 441) finds that "emotion is […] relevant to every dimension of language – from phonology to lexicon, grammar and discourse" and that "emotional expression is finely tuned to language-specific structures". Bednarek (2008: 6–10) identifies no fewer than eleven approaches to emotion in linguistics, namely the cognitive, cross-linguistic, linguistic-anthropological, diachronic, functional, syntactic, conversation-analytical, stylistic/literary, psycholinguistic, pragmatic/text-linguistic and systemic-functional approaches.

One very direct way in which emotions surface in language is in the use of swearwords (also known as 'cuss words', 'taboo language', 'bad language', etc.). These have been the object of various book-length treatments, which in varying degrees combine scholarly propriety with a certain shock or titillation value (Andersson & Trudgill 1990; Wajnryb 2005; Allan & Burridge 2006; Hughes 2006; Ljung 2011; Adams 2016; Bergen 2016; see also Chapter 7 of Pinker 2007). In addition, academic journals and collections have featured the outcomes of ever more research projects on the use of swearwords, approached from various perspectives: pragmatics (Jay & Janschewitz 2008; Norrick 2009), Relevance Theory (Blakemore 2011), formal semantics (Potts 2007), language description and linguistic theory (Postma 2001 on Dutch; Jing-Schmidt forthcoming on Chinese), comparative linguistics (Hoeksema & Napoli 2008), (comparative) sociolinguistics (Murphy 2009; Ronan 2014), media linguistics (Bednarek this volume) and second language acquisition (Dewaele 2004). Beers Fägersten & Stapleton (2017) gives up-to-date coverage of current research on swearing in various languages of Europe and beyond.

This chapter seeks to contribute to the study of swearing from the viewpoint of grammar, calling on the theory of Functional Discourse Grammar (FDG; Hengeveld & Mackenzie 2008; Keizer 2015) to elucidate the use of the taboo word *fuck* and its various derivations and inflections, with especial reference to its expletive use, where 'expletive' is used in its technical sense of a 'grammatical element having no denotational content'.[2] The specific claim will be made that *fucking* and *the fuck*, in expletive use, have undergone grammaticalization and function as emotionally emphatic focus markers. More generally, the position will be taken that the forms of language through which we express our emotions are parasitic upon those that already exist for a more dispassionate expression of our ideas (cf. Sapir 1921: 38).[3] From the viewpoint of grammar and FDG in particular, emotion is visible above all as an overlay on structures that have evolved for the communication of interpersonal and representational meanings.

After a brief introduction to FDG in Section 2, Section 3 will deal with how to classify swearwords. Section 4 will explain the methodology used, leading to an FDG-inspired analysis of the data in Section 5 (on non-expletive uses of *fuck*) and Section 6 (on expletive uses). Section 7 will present an analysis of the syntactic distribution of expletive *fuck*, with Section 8 offering an explanation of that distribution from an FDG perspective. Section 9 concludes the chapter.

2. Functional Discourse Grammar

FDG (Hengeveld & Mackenzie 2008) is a theory of the internal organization of the linguistic expressions that encode Discourse Acts, hence the word 'Discourse' in its name. It takes as its starting point the observation that verbal interaction divides into Discourse Acts, each of which makes its own contribution to ongoing communication. These group into larger units, known as Moves. Such a grouping is represented as in (1):

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2. This technical sense corresponds to the etymological meaning of the word, 'serving to fill out'. *Expletive* has come to be a frequent synonym for swearword in general, its use having been boosted by the occurrence of "expletive deleted" in the edited transcripts of the Watergate tapes in the mid-seventies; however, in this chapter it will be employed in the sense that is current in linguistics.

3. Sapir (1921: 38): "On the whole, it must be admitted that ideation reigns supreme in language […] This, after all, is perfectly intelligible. The world of image and concept, the endless and ever-shifting picture of objective reality, is the unavoidable subject-matter of human communication […] Desire, purpose, emotion are the personal color of the objective world; they are applied privately by the individual soul […] All this does not mean that volition and emotion are not expressed. They are, strictly speaking, never absent from normal speech, but their expression is not of a truly linguistic nature. The nuances of emphasis, tone, and phrasing, the varying speed and continuity of utterance, the accompanying bodily movements, all these express something of the inner life of impulse and feeling, but […] they cannot be considered as forming part of the essential cultural conception of language."

(1) $(M_1: [(A_1), (A_2), \ldots (A_n)] (M_1))$

The notation given in (1) displays three characteristic and ubiquitous properties of the FDG formalism that is to be applied in the analysis of *fuck* and *the fuck* below. The first of these is *layering*, the nesting of one layer of analysis within a higher one. The Discourse Act layer, represented by in (1) by n instances of (A), is nested within the Move layer (here represented as (M_1)). The second is *restriction*, the relation represented by the colon (:) in (1), which is to be read as 'such that'. Here the variable M_1 is 'restricted' to the set of Discourse Acts $(A_1), (A_2), \ldots (A_n)$, and so (1) is to be read as '$(M_1 \ldots)$ [the occurrence opening on the left], such that M_1 [the occurrence on the right] has the property of being the set $(A_1), (A_2), \ldots (A_n)$'. The third property exemplified in (1) is *equipollence*, the relation between elements of equal status at the same layer, represented by a pair of square brackets […].

Discourse Acts, analogously, are restricted by elements from lower layers, as seen in (2):

(2) $(A_1: [(F_1) (P_1)_S (P_2)_A (C_1)] (A_1))$

The four lower layers, arranged in an equipollent relation, are an Illocution (F_1), a Speaker $(P_1)_S$, an Addressee $(P_2)_A$ and a Communicated Content (C_1). The formalism indicates that the Speaker (P_1) performs an Illocution (F_1), addressed to (P_2) with the desire to impart a certain content (C_1). This Communicated Content, in turn, contains within it one or more Subacts in an equipollent relation, as shown in (3):

(3) $(C_1: [(T_1) \ldots (T_n) (R_1) \ldots (R_n)] (C_1))$

These Subacts may be either Ascriptive, shown as $(T_{1\ldots n})$, or Referential, shown as $(R_{1\ldots n})$. The number of Subacts in any one Communicated Content may vary, but there is a minimum of one – otherwise no content is communicated.

(1) to (3) illustrate one of four levels of analysis within FDG, the Interpersonal Level, which is designed to capture all the grammatical properties of a linguistic expression that are attributable to its functioning in interpersonal communication. The three other levels of FDG are the Representational Level, which captures all the grammatical properties of an expression attributable to its semantics, including but not limited to Tense, Aspect, Modality, Polarity and Evidentiality, and the self-explanatory Morphosyntactic and Phonological Levels. The Interpersonal and Representational Levels together deal with *formulation*, which is concerned with how the language being analyzed organizes the communicative intentions into Discourse Acts, while the other levels deal with *encoding*, i.e. how each Discourse Act, as it emerges from Formulation, is expressed morphosyntactically and phonologically. All four levels display the same kind of hierarchical construction illustrated in (1) to (3) for the Interpersonal Level.

Subacts constitute the lowest layer of the Interpersonal Level. Like all layers of the two formulation levels, Subacts can be further specified by operators and functions. Both operators and functions are elements of formulation that trigger grammatical rather than lexical expression in encoding. Operators serve to restrict the applicability of the unit to which they apply: for example the operator '+id' restricts a Referential Subact to referring to an entity that is identifiable to the addressee; this operation is generally expressed in English by the definite article *the*, inserted at the Morphosyntactic Level. By convention, operators precede the symbol labeling the unit, known in FDG as the 'variable':

(4) $(+\mathrm{id}\ R_1)$

Functions differ from operators in being relational. The chief functions associated with Subacts, called 'pragmatic functions' in FDG, are Topic, Focus and Contrast: Topic and Focus are relational in indicating the topic or focus of the Communicated Content; Contrast is relational in indicating that the Subact in question is contrasted with some other unit. A function is indicated as a subscript immediately to the right of the unit to which it applies.

To conclude this brief introduction to FDG, let us exemplify the model by considering (5a) and its Interpersonal Level analysis in (5b):

(5) a. The Pope wept.
b. $(M_I\text{: }(A_I\text{: }[(F_I\text{: DECL }(F_I))\ (P_I)_S\ (P_J)_A\ (C_I\text{: }[(T_I)_{Foc}\ (+\mathrm{id}\ R_I\text{: Pope }(R_I))]$ $(C_I))]\ (A_i))\ (M_I))$

(5a) is here analyzed as a Move (M_I) containing one Discourse Act (A_I); this Discourse Act contains a Declarative Illocution (F_I: DECL (F_I)) as well as a Communicated Content (C_I) which consists of two Subacts, one Referential (R_I, corresponding to *the Pope*) and one Ascriptive (T_I, corresponding to *wept*). Note that (R_I) carries the operator '+id', which is encoded at the Morphosyntactic Level as *the*, while (T_I) has the pragmatic function Focus, which is encoded at the Phonological Level – together with the declarative illocution – as falling intonation on the nuclear syllable /wept/. (R_I) is not marked with the pragmatic function Topic, even if it is the topic of the Communicated Content, since English does not systematically mark topic status morphosyntactically or phonologically. Clearly, (5b) does not exhaust the grammatical analysis of (5a): the insertion of *weep*, its occurrence in the past tense, and the singularity of *the Pope* are all handled at the Representational Level, while the word order is dealt with at the Morphosyntactic Level and the irregular past of *weep* at the Phonological Level. However, (5b) does include (and organizes hierarchically) all the characteristics of (5a) that are relevant to its functioning in interpersonal communication. As will become apparent in Section 8, the Interpersonal Level will be essential for the analysis of the expletive use of *fuck* and its derivatives.

3. Classification of the use of swearwords

As mentioned above, there is a growing body of work devoted to the linguistic analysis of swearwords and their use. Hughes (2006), an encyclopedia which focuses on the social history of swearing, observes that words such as *fuck* display great grammatical flexibility, and in the entry entitled 'Flexibility' he proposes eight categories, claiming that *fuck* occurs in seven of them, (6ii) not being found, in his view:

(6)	i.	Personal	*You fuck!*
	ii.	Personal by reference	**The fuck …*
	iii.	Destinational	*fuck off*
	iv.	Cursing	*Fuck you!*
	v.	General expletive of anger, annoyance, frustration	*Fuck!*
	vi.	Explicit expletive of anger, annoyance, frustration	*Fuck it!*
	vii.	Capacity for adjectival extension	*fucking*
	viii.	Verbal usage	*to fuck about*

While it is clear that Hughes here covers many of the phenomena to be examined below, his classification cannot be accepted as the foundation for my analysis, since they mix criteria that a rigorous model such as FDG must keep strictly separate. 'Destinational' is a semantic notion, while 'cursing' is illocutionary in nature; the supposed 'capacity for adjectival extension' is a morphological property, and 'verbal usage' is a matter of the lexicon; and so on. It is also not correct, cf. (6ii), that *fuck* cannot be used as the head of a referentially used noun phrase.

A more promising categorization is found in McEnery & Xiao (2004), a revealing study of the distribution of *fuck* in the British National Corpus, covering both spoken and written registers. They distinguish nine categories:

(7)	i.	General expletive	*(Oh) fuck!*
	ii.	Personal insult referring to defined entity	*You fuck!* or *that fuck*
	iii.	Cursing expletive	*Fuck you!* or *… me!* or *… him!* or *… it!*
	iv.	Destinational usage	*Fuck off!* or *He fucked off.*
	v.	Literal usage denoting taboo referent	*He fucked her*.
	vi.	Emphatic intensifier	*fucking marvelous* or *in the fucking car*
	vii.	'Pronominal' form	*like fuck* or *fat as fuck*
	viii.	Idiomatic 'set phrase'	*fuck all* or *give a fuck* or *thank fuck*
	ix.	Metalinguistic or unclassifiable	the use of the word 'fuck', or *you never fucking*

This classification represents an improvement on (6) in covering more possible uses, including the literal use of *fuck* in (7v). It also does well, in (7vi), to identify a class of 'emphatic intensifiers' (shown to be the most frequent use in the corpus, McEnery & Xiao 2004: 258). However, (7) is again based on a mix of semantic (e.g. 'destinational') and interactional (e.g. 'cursing') criteria, and certain classes, such as (7vii) and (7viii), include phenomena that a more careful analysis would tease apart.

A better classification yet is provided by Pinker (2007), who identifies five functions of *fuck* as follows:

(8)	i.	Descriptive	*Let's fuck!*
	ii.	Idiomatic	*It's fucked up!*
	iii.	Abusive	*Fuck you, you motherfucker!*
	iv.	Emphatic	*This is fucking amazing.*
	v.	Cathartic	*Fuck!!*

This taxonomy is stronger in focusing on the communicative function the speaker seeks to fulfil: describing, abusing, emphasizing, releasing emotion. However, the 'idiomatic' class, also found in (7viii), appears to involve 'special cases' and lacks a functional explanation.

My own classification, which is the basis for the analysis to be presented below, is functional in the strict sense of being founded on the distinctions made in the grammatical framework of FDG:

(9)	i.	Literal Representational use	*I fucked her.*
	ii.	Single Discourse Act use	*Fuck!*
	iii.	Metaphorical Representational use	*They fucked me over.*
	iv.	Lexical Substitution use	*good as fuck*
	v.	Expletive use	*the fucking towel*

(9i) and (9iii) pertain to the Representational Level and concern the use of *fuck* as a noun or verb fully analogous in semantics to other nouns or verbs. (9iv) also pertains to the Representational Level and has to do with the selection of the lexical item *fuck* where a non-taboo lexeme might have been chosen. Both (9ii) and (9v), it will be argued, are dealt with at the Interpersonal Level. (9i–iv) will be discussed in Section 5, and Section 6 will treat expletive use, which is at the focus of my analysis.

4. Methodology

Finding data for a study such as this is tricky, since the taboo status of *fuck* and its derivatives means that such standard sources as corpora and dictionaries may not reflect usage as reliably as otherwise. In keeping with several other writers in this field (Allan & Burridge 2006; Hoeksema & Napoli 2008; Goddard 2015, etc.), I have therefore had recourse to self-consultation as a native speaker. However, I have also made grateful use of the items uncovered by the major corpus work done to date (McEnery & Xiao 2004) as well as a variety of other sources, notably Sheidlower (2009), assembled by a lexicographer at the *Oxford English Dictionary*, as well as the online *Green's Dictionary of Slang* (https://greensdictofslang.com/), the lively blog *Strong Language* https://stronglang.wordpress.com/ and, applying the necessary caution, relevant entries in the online user-compiled *Urban Dictionary* http://www.urbandictionary.com/.

5. Non-expletive uses of *fuck*

This section reviews the first four of the uses of *fuck* distinguished in (9) above. The four subsections deal with the literal representational use (5.1), the single Discourse Act use (5.2), the metaphorical representational use (5.3) and the substitution use (5.4) respectively.

5.1 Literal representational use

The literal use of *fuck* is associated with (normally) human sexual intercourse. *Fuck* is here a lexeme of the category verb or noun that is inserted into the Representational Level of FDG. The verb may be used either in transitive frames, as in (10), or in intransitive frames, as in (11):

(10) She fucked her lover.

(11) a. S/he fucks like an animal.
b. We fucked for hours.

There are also uses of the 'middle' or 'mediopassive' voice frame (cf. Hundt 2007), as in (12):

(12) S/he fucks well. ('is good to fuck')

As for the noun *fuck*, it can denote either an Individual, as in (13a), often with an adjective modifying the Lexical Property, or a State-of-Affairs, as in (14a); the essentials of the FDG Representational Level analyses are shown in (13b) and (14b) respectively, where (x_i) = Individual, (f_i) = Lexical Property and (e_i) = State-of-Affairs.

(13) a. S/he is a good fuck.
b. $(1x_i: (f_i: fuck_N (f_i): good_A (f_i)) (x_j))$

(14) a. Let's have a fuck.
b. $(1e_i: (f_i: fuck_N (f_i)) (e_j))$

The lexeme *fuck* can also appear in compounds, either as the first element (exemplified in (15)), or as the second element (exemplified in (16)); some of these data are from Sheidlower (2009):

(15) fuckmobile, fuckfest, fuckbag, fuckbuddy, fuckhole, fuckpole, fuckpad (all nouns)

(16) assfuck, buttfuck, eyefuck, facefuck, fingerfuck (either nouns or verbs)

In addition, *fuck* can enter into blends by analogy with other blends, such as those in (17):

(17) a. fuckaholic < fuck + alcoholic (cf. *bookaholic*, *chocaholic*, etc.)
b. fuckathon < fuck + marathon (cf. *drinkathon*, *shopathon*, etc.)
c. fuck-a-rama < fuck + a-rama (cf. *dance-a-rama*, abstracted from *panorama*)
d. Fuckerware party, by analogy with *Tupperware party*
e. fuckstrated < by analogy with *frustrated*

The lexeme *fuck* can also function as the root for a range of derivations, as in (18):

(18) fuckable, fuckability, fuckish, fucksome, fuckster, fuckstress, fuckee, fucker (and compounds), fuckery

These derivations can in turn function as input to further derivations, cf. *unfuckable* and a range of synthetic compounds in *–fucker*, notably *motherfucker*. Finally the verb *fuck* can be inserted into a number of 'semi-fixed expressions', in FDG analyzed by means of partially instantiated frames (cf. Keizer 2016), as exemplified in (19):

(19) a. fuck someone's brains out, cf. {bash, beat, blow, …} someone's brains out
b. fuck one's ass off, cf. {bore, dance, talk, work, …} one's ass off
c. fuck someone into a cocked hat, cf. {knock, …} someone/something into a cocked hat

The grammatical flexibility described in this subsection, in terms of valency, voice, semantic categories, noun-verb conversion and compounding and derivational potential, aligns with the tendency for English lexemes to be associated with a wide range of frames for insertion in the Representational Level of FDG.

5.2 Single discourse act use

Fuck, either uttered by itself (20) or supported by reduplication or rhyming material (21), can occur as the sole expression of a Discourse Act. In contrast to the uses discussed in the preceding subsection, the Representational Level of FDG is not involved here (Contreras-García & García Velasco 2016). Such cases divide into two types. Firstly there is an invariable 'expressive use', fully comparable to *Ouch!* as treated by Hengeveld & Mackenzie (2008: 63), the use which Pinker (2007: 327) identifies as 'cathartic'; see also Downing & Martínez Caro (this volume) for a treatment of *gosh* as a euphemistic interjection. When using an utterance like (20) or (21), the Speaker is releasing emotion by means of language without intending to communicate anything to an addressee. For this reason, all such expressives are analyzed by Hengeveld & Mackenzie (2008: 63) as minimal Discourse Acts with an Illocution and a Speaker, but no Addressee or Communicated Content (contrast (2) above, which shows the complete Discourse Act structure):

(20) Fuck! $(A_I: [(F_I: /\text{f}\Lambda\text{k}/\ (F_I))\ (P_I)_S]\ (A_I))$

(21) a. Fuck a duck!
b. Fuckity fuck fuck fuck!

Another single Discourse Act use is as an imprecation (cf. Hengeveld & Mackenzie 2008: 71–72), referred to by Pinker (2007: 327) as 'abusive'. Imprecations are other-directed expressions of anger or frustration and thus differ from expressives in having an Addressee who is the object of the abuse; however, they still lack a Communicated Content, in the sense explained in Section 2 above:

(22) Fuck you! $(A_I: [(F_I: /\text{f}\Lambda\text{k}/\ (F_I))\ (P_I)_S\ (P_J)_A]\ (A_I))$

The imprecation may also extend to a party other than the addressee (cf. (23a)), even to the speaker her/himself, as in (23b):

(23) a. Fuck him! Fuck it all! Fuck 'em all!
b. Fuck me (backwards, sideways, …)!

It is important to bear in mind that, as was first demonstrated by Quang Phúc Đông (1971), the Imprecative use is not an imperative but (at least historically) the present subjunctive of a lexical verb (cf. (*God*) *bless you*, (*God*) *damn him*), expressing a wish of the speaker's. In FDG, the form can be treated as invariable.

5.3 Metaphorical representational use

The metaphorical uses of *fuck* are so-called since they have arisen through metaphorical extensions in the lexicon that feed the Representational Level. Here the verb *fuck* designates various negatively regarded activities such as cheating, exploiting, spoiling, attacking, lazing, wasting, disappearing, and the like.[4] In one prominent use, the different meanings are distinguished by means of particles or prepositions. *Fuck* thus occurs in phrasal verbs (associated with either intransitive frames, as in (24a–b), or transitive frames as in (24c–e)) or as a prepositional verb (24f). They thus occur in the same frames as emotionally less charged verbs, but they always add a layer of emotional involvement (as Goddard 2015: 197–198 points out, the speaker has a "metalexical awareness" of the potential offensiveness of doing this, correlating with greater intensity):

(24)	a.	fuck about/around	cf. *mess about/around*
	b.	fuck off	cf. *go off/move off*
	c.	fuck away (money)	cf. *throw away* (money)
	d.	fuck someone over	cf. *do someone over* (in the sense of 'beat up')
	e.	fuck something up	cf. *mess something up*
	f.	fuck with someone	cf. *mess with someone* (in the sense of 'cause problems for')

At least some of these phrasal verbs can be converted to nouns, e.g. *a right fuck-up*, *fuck-off money* ('a subsidy paid to immigrants to leave the country').

The verb *fuck* can also be used without a particle or preposition in the sense of 'spoil, ruin'; this shows up in the participial adjective *fucked* 'spoiled, ruined':

(25) a. The repair shop totally fucked my car.
b. My holiday is fucked.

There is also a metaphorical use of the countable noun *fuck* to mean 'despicable person', often combining with a negatively oriented adjective:

(26) a. You are a fuck.
b. dumb fuck, clueless fucks, …

4. For reflections on the negativity and indeed the misogyny associated with English swearwords, see Wajnryb (2005: 139–140).

As a reviewer points out, the use of *fuck* in (26) may also be seen as a case of lexical substitution, a use to which we turn in Subsection 5.4.

5.4 Lexical substitution use

A fourth set of uses of *fuck*, which apply within the lexicon, involves substituting *fuck* for a less emotionally charged non-taboo word or morpheme. Here no metaphorical transfer is involved: instead the interpretation of *fuck* is dependent upon the hearer's ability to recognize by analogy which expression the speaker is alluding to. The motivation for substitution is to add an emotional overlay. Here are some examples, with in each case a likely associated non-taboo expression:

(27)	a.	fuckless wonder	*brainless wonder*
	b.	fuckhead	*blockhead*
	c.	fuckload	*truckload*
	d.	fucktard	*retard* (/ˈriːˌtaːd/)
	e.	fuckwit	*dimwit*, *nitwit*
	f.	good as fuck	*good as gold*

It is worth noting that *as fuck* can be used to intensify any predicative adjective (cf. Urban Dictionary s. v. *as fuck* and the Strong Language blog on the growing use of the abbreviation *AF*), e.g. *stupid as fuck*, *beautiful as fuck*, without any non-taboo comparative expression being intended. Further evidence that simple substitution is involved here is that *fuck* in the above expressions can be replaced by another taboo word, e.g. *shit*: *shitless wonder, shithead, shitload, shittard, shitwit*, and *good as shit* are all attested in the Urban Dictionary.

A special case of substitution use involves using *fuck* (or other taboo words) in the place of a religious word (differing from the deformation of a religious word for euphemistic purposes, cf. Downing & Martínez Caro this volume). This practice was first observed by Pinker (2007: 358), who writes (his emphasis) that "Many bafflingly ungrammatical [*sic*, JLM] profanities must have originated in more intelligible *religious* curses during the transition from religious to sexual and scatological swearing in English-speaking countries". Here are his examples, again with the associated religious model expressions (note that (28a) is classified in Section 6 below as expletive and (28e) points to the likely origin of the imprecative Single Discourse Act use as discussed in Subsection 5.2 above):

(28)	a.	Who the fuck are you?	*Who* (*in*) *the hell are you*?
	b.	I don't give a fuck.	*I don't give a damn*.
	c.	Holy fuck!	*Holy Mary!*
	d.	For fuck's sake	*For God's sake*
	e.	Fuck you!	*Damn you!*

Here are further instances that I have found:

(29)	a.	Get the fuck out of here!	*Get the hell out of here!*
	b.	It hurts like fuck.	*It hurts like hell.*
	c.	That's a fuck of a job.	*That's a hell of a (helluva) job.*
	d.	Thank fuck!	*Thank God!*
	e.	Fuck, that's delicious.	*God, that's delicious.*

Fuck can also substitute for various negatives, with (30c) presumably having its origin in substitution of a religious term:

(30)	a.	Fuck else to do.	*Nothing else to do.*
	b.	I found (sweet) fuck all.	*I found nothing.*
	c.	Fuck if I know.	(= 'I don't know') *(God send me to) hell if I know.*

It also appears in Reactive Moves with a negative polarity (for the FDG notion of Move, see Section 2 above):

(31)	a.	The fuck I will.	*(There's) no way I will.*
	b.	Like fuck you are.	*(There's) no way you are.*
	c.	Have they fuck!	(= 'They haven't')

(31c) could be uttered in reaction, say, to *The people have taken back control.*

In addition, *fuck* can function as the substitute for the second element of a double negative; alternatively, this use may be analyzed as a negative polarity item:

(32)	They didn't do fuck.	*They didn't do nothing/They didn't do anything.*

Finally, *fuck* can appear in a semi-fixed expression of the type analyzed in FDG as involving a partially instantiated frame (Keizer 2016), namely Verb *the fuck out of* Object in the sense of 'Verb Object intensively' (cf. Haïk 2012; Perek 2016):

(33) a. He annoys the fuck out of me.
b. The play impressed the fuck out of her.
c. This tea had better soothe the fuck out of me.

From an FDG perspective, what happens in all lexical substitution uses is that *fuck* is inserted into a frame that, in less emotional usage, is associated with another lexical item.

6. Expletive use

The term 'expletive' is used here in its narrow sense of always being omissible without loss of grammatical completeness. (This clearly distinguishes the expletive use from the four other types, where *fuck* cannot be omitted without destroying grammaticality.) The expletive use serves to add emotional commitment to an utterance and can be replaced either by euphemistic alternatives (such as *freaking*, *fugging*, *fricking*, *frigging*, *futzing*, *fecking* or *effing*) or by other taboo forms. It occurs in three forms, the basic one being (34a), with the variants (34b) and (34c):

(34) a. *fucking* or *fucking well*
b. *the fuck*
c. *fuck* (before *yes* or *no*)

The form *fucking* necessarily precedes the syntactic unit (N, Adj, Adv, V) to which it 'applies'; the precise sense of 'applies' will be clarified in Section 8 below.

(35) a. Wash the fucking *dishes* (N)!
b. He's a fucking stupid (Adj) *idiot*.
c. She did that fucking *fast* (Adv).
d. He told me to fucking *wash* (V) the dishes.

The form *fucking well* occurs before lexical verbs, after any auxiliaries (cf. Bopp 1971):

(36) You will fucking well do what you're told.

Well is here also expletive or, better, part of a two-word expletive; *well* can also occur as a lexical adverb to which *fucking* is applied, as in (37b):

(37) a. You fucking well know what I mean.
b. You know fucking well what I mean.

The form *the fuck* is found anteposed to prepositions and particles. Pullum (2009) observes that in "colloquial English the NP *the fuck* (and it does indeed have the form of an NP) can function as a pre-head modifier in a PP, including the light one-word PPs (like *up*) that are known as particles." Consider the following examples:

(38) a. Shut the fuck up!
b. Why don't you get the fuck out of here!

(38a) is an alternative to *Fucking shut up!* or *Fucking well shut up!*, where *fucking* (*well*) precedes the verb. The two forms may even be combined: *Fucking shut the fuck up!*, as observed by Pullum (2009).

The form *the fuck* also occurs postposed to a *wh*-form in an interrogative and this compensates for the impossibility of applying *fucking* to a *wh*-word. As Bergen (2016: 134–135) correctly notes, the *wh*-form has to be clause-initial and *which* is excluded from this construction:

(39)	a.	What the fuck is that?	Cf. **Fucking what is that*?
	b.	He didn't know what the fuck she was saying.	Cf. **He didn't know fucking what she was saying*.
	c.	Who the fuck is he dating?	Cf. **He is dating who the fuck*?
	d.	*Which the fuck do you want?	Cf. **Fucking which do you want*?

As we will see below (Section 7.3), certain adverbs cannot have *fucking* applied to them. One of these is *actually*; if it occurs in a *wh*-question, however, it can appear as an adjective inside the Np *the fuck*:

(40)	What the actual fuck are you doing?	Cf. *What are you actually doing*?

The fuck is so strongly associated with *wh*-forms that the latter can on occasion be omitted:

(41)	a.	The fuck's going on here?	Cf. *What the fuck's going on here*?
	b.	Fuck is that?	Cf. *What the fuck is that*?

Finally, as is observed by Hoeksema & Napoli (2008: 631), *the fuck* has come to be the expletive found with the new use of *so* (Gonzálvez-García 2014) modifying predicatively used Vps and Nps:

(42)	a.	You so the fuck got that wrong.	Cf. *You so got that wrong.*
	b.	She so the fuck doesn't understand.	Cf. *She so doesn't understand.*
	c.	He's so the fuck a liar.	Cf. *He's so a liar*.

The third and final form listed in (34) is simply *fuck*, used before the affirmative and negative forms *yes* and *no*:

(43)	a.	Fuck yes!	Cf. **Fucking yes!*
	b.	Fuck no!	Cf. **Fucking no!*

It seems likely that this use derives from a coalescence of two one-word Discourse Acts *Fuck*, *yes*/*no* into a single Discourse Act with *fuck* now being used here like *fucking* and *the fuck* to add emotional emphasis.

7. Syntactic distribution of expletives

The expletives analyzed in the preceding section are not randomly distributed across the syntax of English clauses. The well-known expression "peppered with swearwords" is therefore very misleading: their positioning is strongly determined by rules. There are distinct rules for different types of phrases and words. The following subsections will deal with the position of the expletive *fucking*/*the fuck* in the Noun Phrase (Np), the Adjective Phrase (Adjp), the Adverb Phrase (Advp), the Prepositional Phrase (Pp), the Verb Phrase (Vp) and with respect to nine types of Pronoun (Pro) respectively, with Subsection 7.4 being devoted to tmesis, specifically the insertion of *fucking* inside a word (as in *unbe-fucking-lievable*).

7.1 Expletives in the noun phrase

In the Np, *fucking* must precede the head noun (as was observed in Section 6) and occupies the position held by attributive adjectives (*a fucking mess*). More precisely, it appears in the last position for descriptive adjectives (e.g. *scary* in (44a)) but before any classifiers (whether adjectival, e.g. *medical*, or nominal, e.g. *tooth* in (44b) and (44c)) or numerals that form part of a complex head, as in (44d):

(44) a. a scary fucking film
b. a fucking medical doctor — Cf. *a *medical fucking doctor*
c. fucking tooth decay — Cf. **tooth fucking decay*
d. the fucking seven hills of Rome — Cf. **the seven fucking hills of Rome*

It may be objected that *a fucking scary film* is possible, but then *fucking* is applied to the descriptive adjective *scary*.

In this use *fucking* is by virtue of its form reminiscent of a participial adjective like *interesting* or *disgusting*, but it is not a lexical adjective. Firstly, it is not modifiable:

(45) a. *an entirely fucking mess — Cf. *an entirely convincing argument*
b. *too fucking a mess — Cf. *too disgusting a mess*

Secondly, *fucking* cannot be coordinated with an adjective:

(46) *a fucking and terrible mess — Cf. *an interesting and worthwhile movie*

Thirdly, it is not gradable:

(47) *a more fucking mess than I've seen in a long time — Cf. *a more interesting movie than I've seen in a long time*

Since numerals precede descriptors and *fucking* occupies the (last) position available for descriptors, it is predicted not to precede freely added numerals and *a fortiori* not to precede determiners, and this is correct:

(48) a. *fucking three foxes — Cf. *three fucking foxes*
b. *fucking the accident — Cf. *the fucking accident*

7.2 Expletives in the adjective phrase

Within the Adjp *fucking* must precede the head adjective and occupies the last position held by degree adverbs:

(49) a fucking scary movie

The Adjp may be attributive or predicative:

(50) a. a fucking scary movie (attributive)
b. The movie was fucking scary. (predicative)
c. I found the movie fucking scary. (predicative)

The head of the Adjp may be basic, comparative or superlative:

(51) a. a fucking scary movie (basic)
b. a fucking scarier movie than I expected (comparative)
c. the fucking scariest movie I've ever seen (superlative)

In the Adjective Phrase, *fucking* is reminiscent of a degree adverb like *rather*, *very*, *pretty*, or *quite* but it is not a lexical adverb. Firstly, it is not limited to gradable adjectives:

(52) a. fucking dead — Cf. **very dead*
b. fucking excellent — Cf. **very excellent*

Secondly, it is not incompatible with degree adverbs, and in keeping with the rule stated above follows any degree adverbs that are present:

(53) a. really fucking amazing
b. too fucking right
c. so fucking good
d. very fucking annoying

Observe also that in constructions involving a coordination of adjectives, *fucking* appears after that first adjective and the coordinator *and*; this also applies in coordinations of comparative adjectives meaning 'increasingly Adj':

(54) a. nice and fucking strong
b. good and fucking sorry
c. rarer and fucking rarer

7.3 Expletives in the adverb phrase

In line with its behavior in Adjective Phrases, *fucking* precedes the adverb head and occupies the last position held by degree adverbs in the Adverb Phrase:

(55) He drove fucking fast.

Fucking cannot be used with all adverbs, only those that convey representational meaning. In FDG terms, it is found where the adverb is situated at one of the layers of the Representational Level (Lexical Property, Episode, Propositional Content), but not if it is situated at the Interpersonal Level (IL; Communicated Content, Illocution, Move):

(56) a. The taxi arrived fucking quickly. (adverb applies to the Lexical Property 'quick')
b. I saw him only fucking yesterday. (adverb applies to the Episode)
c. I fucking obviously didn't see you. (adverb applies to the Propositional Content)
d. *Fucking allegedly, he wears a wig. (adverb applies to the IL Communicated Content)
e. *Fucking honestly, I'm not sure. (adverb applies to the IL Illocution)
f. *Fucking finally, any questions? (adverb applies to the IL Move)

As in the Adjective Phrase, *fucking* follows any degree adverbs that are present:

(57) a. really fucking well
b. too fucking early
c. so fucking amazingly
d. right fucking now

7.4 Tmesis

An alternative to the placement of *fucking* immediately before an adjective or adverb is tmesis, the insertion of a word between the component parts of another word (Yu 2007: 33).[5] This involves playful positioning of *fucking* before the

5. Tmesis appears preferable to the frequently used expression "expletive infixation" (cf. McCarthy 1982), since *fucking* and the other forms that are inserted are clearly words, not infixes.

stressed syllable, for example in compounds with stress on the first syllable of the second element:

(58) a. lovey-fucking-ˈdovey (as an alternative to *fucking lovey-ˈdovey*)
b. clean-fucking-ˈshaven (as an alternative to *fucking clean-ˈshaven*)

However, tmesis can also divide a word into units that do not have morpheme status, as long as the first syllable of the element after *fucking* is stressed:

(59) a. unbe-fucking-ˈlievably (as an alternative to *fucking unbelievably*)
b. *ˈawe-fucking-some (cf. *fucking awesome*)

7.5 Expletives and prepositional phrases

Prepositional Phrase will be understood here in the broad sense recognized by Huddleston & Pullum (2002) as also covering spatial and temporal adverbs like *here* and *there, now* and *then*. Whereas prepositions are generally seen as the heads of their phrases, they cannot be preceded by *fucking*. Notice that prepositions can be premodified, for example by the adverb *right*, so there is no blanket ban on words preceding prepositions. Instead, *fucking* is applied to the head of the Np in the complement of the preposition, but only if there is one, as in (60b) and (63b), but not in (61b), (62) or (64):

Place

(60) a. *Put it fucking under the bed. (cf. *Put it right under the bed.*)
b. Put it under the fucking bed.

(61) a. *Get fucking away from here. (cf. *Get right away from here.*)
b. *Get away from fucking here.

(62) *Put it fucking there. (cf. *Put it right there.*)

Time

(63) a. *I submitted it fucking on the deadline. (cf. *I submitted it right on the deadline.*)
b. I submitted it on the fucking deadline.

(64) *Do it fucking afterwards.

However, this is where *the fuck* arises as a grammatical alternative, especially before Pps of Place; note that *the fuck* occurs after any pre-modifier such as *right*:

(65) a. Put it (right) the fuck under the bed. (cf. (60))
b. Get the fuck away from here. (cf. (61))
c. Put it (right) the fuck there. (cf. (62))

7.6 Expletives in the verb phrase

Fucking can also appear inside a Verb Phrase before lexical verbs, often in the form *fucking well*:

(66) a. Fucking (well) leave!
b. Fucking (well) shut up! (cf. also *Shut the fuck up!*)

It appears after all auxiliaries, including *to* (also an auxiliary verb according to Kim & Sells 2008):

(67) a. *He fucking has disappeared.
b. He has fucking disappeared.

(68) a. *He fucking may have been working.
b. *He may fucking have been working.
c. *He may have fucking been working.
d. He may have been fucking working.

(69) a. *He loves fucking to work.
b. He loves to fucking work.

Similarly, *fucking* cannot appear before copulas, which have the grammar of auxiliaries in English; the expletive is attracted to the following Adjp or Np:

(70) a. *He fucking is lazy. (cf. *He is fucking lazy*.)
b. *She fucking is a liar. (cf. *She is a fucking liar*.)

However, if there is contrastive stress on the copula, then *fucking* can precede it:

(71) a. He fucking IS lazy.
b. She fucking IS a liar.

7.7 Expletives and pronouns

This subsection is concerned with the co-occurrence of *fucking* and nine types of pronoun. Firstly, relative pronouns cannot be preceded by *fucking* (nor can they, despite being *wh*-words, be followed by *the fuck*):

(72) a. *The guy fucking who said that was crazy.
b. *The guy who the fuck said that was crazy.

Secondly, demonstrative pronouns can also not be preceded by *fucking*:

(73) a. * Fucking that's true.
b. * I want fucking this.

Thirdly, personal pronouns, whether in the subjective or objective case, cannot be preceded by *fucking*:

(74) a. * Fucking I/you/he/she … left after midnight.
b. * They are looking for fucking me/you/him/her/…

However, this may be possible if the personal pronoun carries contrastive stress:

(75) I want fucking HIM, not fucking YOU.

Fourthly, possessive pronouns cannot be preceded by *fucking*:

(76) * That suitcase is fucking his.

Again, this may be possible if the possessive pronoun carries contrastive stress:

(77) That's fucking MINE, not fucking YOURS.

Fifthly, reciprocal pronouns cannot be preceded by *fucking*, although tmesis (splitting the two-word reciprocal pronoun *each other*) appears to make this more acceptable:

(78) a. * Can't they be nice to fucking each other?
b. ? Can't they be nice to each fucking other?

Sixthly, reflexive pronouns cannot be preceded by *fucking*, but again tmesis appears to make this more acceptable, as in (79c):

(79) a. * He saw fucking himself in the mirror.
b. * Get fucking yourself out of here!
c. ? Get your-fucking-self out of here!

In those dialects of English in which possessive determiner + *ass* functions as a pronoun (Beavers & Koontz-Garboden 2006; Bednarek this volume), the following 'tmesis' form is possible:

(80) Get your fucking ass out of here!

Seventhly, indefinite pronouns (and adverbs), especially those involving the morpheme *any*, freely accept the expletive *fucking*:

(81) a. They'll take fucking anyone for that job.
b. He's not going fucking anywhere.

Eighthly, negative pronouns (and adverbs) can also be preceded by *fucking*:

(82) a. He said fucking nothing all night.
b. He's (not) going fucking nowhere.

Finally, interrogative pronouns, as mentioned in Section 6, cannot be preceded by *fucking* but under the conditions discussed above can be followed by *the fuck*:

(83) a. *Fucking what are you talking about?
b. What the fuck are you talking about?
c. Who the fuck do you think you are?

8. Toward an explanation

Section 3 distinguished, and Sections 5 to 7 described in detail, five different uses of *fuck*. In the first four of these, *fuck* is a lexical item, but in the fifth, the expletive use, this is not the case. In its literal use (Section 5.1), *fuck* is a full lexical verb or lexical noun, with the same syntactic freedom as any other lexical verb or noun. In its single Discourse Act use (Section 5.2), *Fuck!* either belongs to the lexical class of interjections along with *Ouch, Oh*, etc. or in *Fuck you!* (etc.) is, at least historically, the present subjunctive form of a lexical verb. In metaphorical use (Section 5.3), *fuck* and *fuck up/off*/etc. have the full syntactic potential of lexical simple and phrasal verbs respectively. In the lexical substitution use (Section 5.4), what happens is that *fuck* takes on the morphosyntactic characteristics of the word it replaces, e.g. a singular countable noun in *I don't give a tinker's fuck*, from *I don't give a tinker's damn*, or a plural countable noun in *I don't give two fucks*, perhaps from *I don't give two hoots*. However, in the expletive use (Section 6), only the invariable form *fucking* can be used; its partner *the fuck* is also, with such exceptions as *the actual fuck* (cf. Example (40)), largely invariable. Expletive *fucking* occupies positions that also can be held by adjectives and adverbs but as we have seen lacks the defining properties of those lexeme classes. *The fuck* similarly occupies positions that a noun phrase could occupy but *fuck* here does not otherwise behave as a lexical noun. By virtue of being expletive, *fucking* and *the fuck* lack denotation and thus cannot be assigned to the lexicon.

If the expletives are not lexical, then they must be grammatical. In FDG terms, this means that they belong to the grammaticon and are inserted into the Morphosyntactic Level. In diachronic terms, the expletives must be seen as the result of grammaticalization evidenced semantically in the total bleaching out of the literal meaning, syntactically in the loss of positional flexibility and morphologically in the fixation of their form. They are grammatical in being fully integrated into the morphosyntax but have the specific property of always being omissible: there are probably speakers who never use them.[6]

The syntactic behavior displayed by *fucking* is that of an optional marker. Optional markers have been identified in various languages. In Ewe the focus marker *yé* may be omitted without causing the hearer not to identify the preceding Np as the focus of the discourse act:

(84) Ewe (Badan & Buell 2012)
Máŋgò-nyè-wó (yé) Kòfí ɖù.
mango-1SG-PL FOC Kofi eat
'Kofi ate my mangoes.'

In various ergative languages of Australia, New Guinea, and the Himalayas, the ergative case marker can be omitted without causing ungrammaticality, as in:

(85) Literary Central (Lhasa) Tibetan (McGregor 2010, from Tournadre 1995: 264)
khōng(-ki') khāla' s-kiyo:re'
he-ERG food make-IPFV.GNOM
'He prepares the meals.'

McGregor reports that the insertion of the optional ergative marker serves to contrast the agent with other possible agents: 'HE prepares the meals.' In Tanggu, a Papua New Guinea language, the postpositional absolutive case marker is optional, occurring only where the state-of-affairs is unexpected:

(86) Tanggu (Lotterman & Mackenzie 2005: 492)
banai raŋiraŋ-um nai a ramiata.
white.spirits scale.skin.RED-REA 1PL ABS eat-IRR
'The white spirits will scale our skins and will eat us.'

Lotterman & Mackenzie (2005) report that the absolutive case marker *a* that follows the Np *nai* is omissible here, but the informant explicitly explained that he had included it because it was not expected that spirits would arrive and the community were suddenly afraid that war had been declared on them. In English, *fucking* has exactly this property of being an optional marker.

It is clear that although expletive *fucking* lacks denotational content, like other optional markers it is not meaningless. In Blakemore's (2011) terms, expletives show "descriptive ineffability" but convey "procedural meaning", which is defined

6. Haiman (1998: 147) cites Brophy & Partridge (1931: 16–17) as stating that in the British Army *fucking* and *fucking* well were "thrown into every sentence. It became so common that an effective way for the soldier to express emotion was to omit this word." My own father, who served in the British Army, told me this too.

as corresponding systematically to states of the language user – in the case of such expletives an emotional state. FDG holds that meaningful elements are analyzed at either the Interpersonal Level, in terms of their communicative function, or at the Representational Level, in terms of their ideational content. The great majority of meaning-bearing units have an analysis at both Levels. However, expletive *fucking* makes no contribution to the ideational content of the utterance, and so must be absent from the Representational Level. The conclusion, then, is that the insertion of the optional grammatical marker *fucking* at the Morphosyntactic Level is triggered by something at the Interpersonal Level.

The function of expletive *fucking* is to indicate the speaker's emotionally charged emphasis on the unit to which it applies. The force of the expletive is inherently neither positive nor negative, and is concerned with what is communicated. The relevant layer of the Interpersonal Level is the Communicated Content (C_1), which contains one (or usually more) Subacts. Subacts are either Subacts of Reference (R_1), equivalent to 'referring expressions', or Subacts of Ascription (T_1), equivalent to 'predicative expressions'. A very simple Communicated Content analysis is shown in (87), for the sentence *He wept*:

(87) $(C_I: [(T_I)_{Foc}\ (+id\ +s\ R_I)]\ (C_1))$

Here the Communicated Content contains one Subact of Reference (R_I) that is identifiable (+id) and specific (+s) and one Subact of Ascription (T_I), to be specified at the Representational Level as (f_i: weep$_V$ (f_i)).

As is seen in (87), a Subact, whether referential or ascriptive, may carry a pragmatic function, i.e. Top(ic), Foc(us) or Contr(ast), provided it is somehow marked morphosyntactically or phonologically for that function. Here (T_I), 'wept', is marked as Focus, since it represents the new information in (C_I) and this is reflected by nuclear stress in pronunciation. A Communicated Content can also be marked for Focus as a whole, in so-called 'all-new' or 'thetic' discourse acts.

Returning now to *fucking* (and *the fuck*), given that they are triggered at the Interpersonal Level and have the function of adding emotional emphasis, I propose that they correspond to an operator EmoEmph (Emotional Emphasis) applied to a Subact. In addition, this optional marker is, I will hypothesize, applied only to Subacts with the pragmatic function Focus and/or Contrast. This specifically excludes Subacts marked as Topic, but not those that are marked with both Topic and Focus and/or Contrast.

Every Communicated Content contains at least one Subact that carries the pragmatic function Focus or, as mentioned, can itself be marked for Focus. As for the pragmatic function Contrast, it can combine with either Topic or Focus Subacts (Hengeveld & Mackenzie 2008: 87–102). Consider the following data:

(88)	a. The film was scary.	i. The film was fucking scary.	$(C_I: [(\text{EmoEmph } T_I)_{Foc} (R_I)_{Top}] (C_I))$
	b. What do you want?	i. What the fuck do you want?	$(C_I: [(T_I) (\text{EmoEmph +id–s } R_I)_{Foc} (R_J)] (C_I))$
		ii. What do you fucking want?	$(C_I: [(\text{EmoEmph } T_I)_{Foc} (\text{+id–s } R_I)_{Foc} (R_J)] (C_I))$
	c. Give me the towel!	i. Give me the fucking towel!	$(C_I: [(T_I) (\text{EmoEmph +id+s } R_I)_{Foc} (R_J)] (C_I))$
		ii. Fucking give me the towel!	$(\text{EmoEmph } C_I: [(T_I) (\text{+id+s } R_I) (R_J)] (C_I))_{Foc}$
		iii. Fucking give me the fucking towel!	$(\text{EmoEmph } C_I: [(T_I) (\text{EmoEmph +id+s}R_I)_{Foc} (R_J)] (C_I))_{Foc}$
	d. The FREE tickets had already gone.	i. The fucking FREE tickets had already gone.	$(C_I: [(T_I)_{Foc} (\text{EmoEmph } R_I)_{TopContr}] (C_I))$
		ii. The fucking FREE tickets had already fucking gone.	$(C_I: [(\text{EmoEmph } T_I)_{Foc} (\text{EmoEmph } R_I)_{TopContr}] (C_I))$

In (88a), as an answer to an inquiry about 'the film', the Focus falls on *scary* alone, and that is where *fucking* duly appears. In (88bi), Focus is on the *wh*-form (as it always is in interrogatives): *the fuck* accordingly appears after the *wh*-form; alternatively, where *want* is also Focus, as in (88bii), *fucking* can add emotional emphasis to that Focus. In (88c), where the addressee has the towel in his/her power and is possibly being slow about handing it over, the Focus will be on *the towel*, and that is where *fucking* appears in (88ci). Alternatively, the addressee may not be attending specifically to the towel and the speaker may wish to present the entire order as new, in which case the entire Communicated Content is in Focus and *fucking* precedes the entire remainder of the utterance in (88cii); the speaker may even add emphasis by additionally marking *towel*, as the most prominent element of the focalized utterance, with *fucking*, as in (88ciii). Finally, (88di) shows an example of Contrast being applied to a Topic (*the free tickets*); *fucking* can accordingly be applied to this unit, whose contrastive status is marked phonologically. The Focus element *gone* can also attract *fucking*, see (88dii).

This claim that *fucking*/*the fuck* is associated with Focus and/or Contrast and not with Topic can be tested by considering the predictions it generates for the syntactic distribution of *fucking* and *the fuck*. Firstly, we can predict that the two expletives will be absent from Topics. This prediction is borne out by the findings in Section 7.7 above relating to pronouns. Firstly, we saw there that expletive *fucking* is incompatible with relative, demonstrative and non-contrastively used personal pronouns: this is comprehensible on the basis that relative pronouns are Topics within their relative clause, while demonstrative and personal pronouns are either Topic or do not bear a pragmatic function. Similarly, we found that expletive *fucking* is only compatible with personal, reflexive and reciprocal pronouns if these are in Contrast. Additionally, expletive *fucking* is compatible with indefinite, negative and interrogative pronouns, which are necessarily in Focus.

A second prediction is that expletive *fucking* should be absent from the Topic part of categorical utterances (i.e. those with Topic-Comment structure), as in (89), but present at any position in thetic (i.e. all-Focus) utterances, as in (90), and this appears to be correct:[7]

(89) a. * Linda showed me her new Rolex. The fucking watch had cost her six thousand dollars!
b. ✓ Linda showed me her new Rolex. The watch had cost her six thousand fucking dollars!

(90) My fucking watch has fucking stopped!

Thirdly, it is predicted that units that carry given information but are not Topic should accept the EmoEmph operator, and this also appears to be correct:

(91) a. He wants to build a wall but has no idea how to pay for the fucking thing.
b. You want what on the fucking ceiling? (Wajnryb 2005: 39)

A fourth prediction is that elements of the Interpersonal Level that are higher (i.e. have a broader scope) than Subacts or Communicated Contents should not able to accept the EmoEmph operator. The data in 7.3 concerning the application of *fucking* to adverbs bears this out: the adverbs in (56a–c) are situated at the Representational Level and correspond to Focused ascriptive Subacts at the Interpersonal Level, (EmoEmph $T_1)_{Foc}$; the adverbs in (56e–f), are situated at the Interpersonal Level, with nothing corresponding to them at the Representational Level, and are too high in the hierarchy to accept the EmoEmph operator, hence the ungrammaticality of these examples; the adverb *allegedly* in (56d), also ungrammatical, is admittedly at the Communicated Content layer, but has the status of a modifier and thus does not offer a possible site for the EmoEmph operator:

(92) (C_I: [(T_I) (+id+s R_I) (-id+s R_J)] (C_I): alleged (C_I))

7. Evelien Keizer (p. c.) points out that in dialogue the Topic of a response can carry *fucking*. Such cases appear to involve the confounding factor of 'reuse' of a preceding Focus (cf. Mackenzie 2016: 70), as in:

(i) A. Will a cheque from the Halifax do?
B. The fucking Halifax is closed tomorrow and Monday!

The syntactic distribution of expletive *fucking* is thus not random but is limited by aspects of interactional grammar that can be captured in FDG. Specifically, the expletive at the Morphosyntactic Level realizes the EmoEmph operator that can apply to those Subacts at the Interpersonal Level that are marked for the pragmatic function Focus and/or Contrast, excluding those that are marked as Topic of the Communicated Content in which they occur.

9. Conclusion

The architecture of FDG is designed to reflect three stages of linguistic processing. Firstly, in the Conceptual Component of the overall model of verbal interaction, we have the pre-linguistic operation of conceptualization, which, as mentioned in the Introduction, is imbued with emotion. This emotion becomes particularly apparent in the type of utterance examined in this chapter. Secondly, the underlying conceptualization is molded to the requirements of the language being spoken in the second operation, which occurs in the Grammatical Component, that of formulation. In FDG this initially involves the construction of a Discourse Act at the Interpersonal Level of the Grammatical Component which contains *inter alia* an Illocution. Where the Discourse Act contains only an Illocution and a Speaker (with no Addressee or Communicated Content), we have the Single Discourse Act use described in Section 5.2:

(93)	a.	Fuck!	$(A_I: [(F_I: /f\text{ʌ}k/_{Intj}\ (F_I))\ (P_I)_S]\ (A_I))$
	b.	Fuck you!	$(A_I: [(F_I: /f\text{ʌ}k/_{Intj}\ (F_I))\ (P_I)_S\ (P_J)_A]\ (A_I))$

In the expletive uses described in Section 6, what appears at the Interpersonal Level is the operator EmoEmph, applied – as argued in Section 8 – to either the entire Communicated Content, as in (94a) or a Focus and/or Contrast Subact, as in (94b) and (94c):

(94)	a.	Fucking give me it.	$(A_I: [(F_I: DECL\ (F_I))\ (P_I)_S\ (P_J)_A\ (EmoEmph\ C_I: [(T_I)\ (R_I)\ (R_J)\ (R_K)]\ (C_I))_{Foc}]\ (A_I))$
	b.	He is fucking crazy.	$(A_I: [(F_I: DECL\ (F_I))\ (P_I)_S\ (P_J)_A\ (C_I: [(EmoEmph\ T_I)_{Foc}\ (R_I)]\ (C_I))]\ (A_I))$
	c.	What the fuck is that?	$(A_I: [(F_I: INTERR\ (F_I))\ (P_I)_S\ (P_J)_A\ (C_I: [(EmoEmph\ {+id}{-s}\ R_I)_{Foc}\ (R_J)]\ (C_I))]\ (A_I))$

Where formulation includes a Communicated Content (as in (94), but not (93)), the Representational Level is also activated. It is here that the literal and metaphorical representational uses of *fuck* are analyzed as well as the lexical substitution use:

(95) a. They fucked.
(p$_i$: (Past ep$_i$: (e$_i$: (f$_i$: [f$_j$: /fʌk/$_V$ (f$_j$)) (mx$_i$)$_A$] (f$_i$)) e$_i$)) (ep$_i$)) (p$_i$))
b. The repair shop fucked up the car.
(p$_i$: (Past ep$_i$: (e$_i$: (f$_i$: [(f$_j$: /fʌk/$_V$ /ʌp/$_{Ad}$ (f$_j$)) (1x$_i$: (f$_k$: /rɪˈpɛəˈʃɒp/ (f$_k$)) (x$_i$))$_A$ (1x$_j$: (f$_l$: /kɑː/ (f$_l$)) (x$_j$))$_U$] (f$_i$)) e$_i$)) (ep$_i$)) (p$_i$))
c. He annoys the fuck out of her.
i. (f$_1$: [f$_2$: ♦$_V$ /ðəˈfʌkaʊtəv/ (f$_2$)) (x$_1$)$_A$ (x$_2$)$_U$] (f$_i$))
ii. (p$_i$: (Pres ep$_i$: (e$_i$: (f$_i$: [f$_j$: /əˈnɔɪ/$_V$ /ðəˈfʌkaʊtəv/ (f$_j$)) (1x$_i$)$_A$ (1x$_j$)$_U$] (f$_i$)) e$_i$)) (ep$_i$)) (p$_i$))

In (95a), the verb (V) /fʌk/$_V$ is grammatically indistinguishable from any other intransitive verb. In (95b), the Verb-Adposition combination /fʌk/$_V$ /ʌp/$_{Ad}$ substitutes for the non-taboo /mes/$_V$ /ʌp/$_{Ad}$ 'mess up' and adopts its grammatical characteristics. In (94c), appeal is made to the partially instantiated frame (95ci) – where ♦$_V$ indicates the position for any lexical verb – and this is the basis for (95cii), the full Representational Level analysis of (95c).

The third and final operation is that of encoding, which involves the Morphosyntactic and Phonological Levels. The single Discourse Act use (as in (93)) bypasses the Morphosyntactic Level and goes straight to the Phonological Level for application of the appropriate prosody. The other four uses do involve the Morphosyntactic Level, but for the three exemplified in (95) no special measures are required at this level. However, with respect to the expletive uses shown in (94), it is at the Morphological Level that the EmoEmph operator is turned into phonological form and receives its syntactic placement. The exact phonological form (as /ˈfʌkɪŋ/, /ˈfrɪgɪŋ/, /ˈfriːkɪŋ/, etc.) is determined here by the speaker's personal preferences and other contextual constraints. The selection between the Adjective Word or Adverb Word *fucking* and the Noun Phrase *the fuck* is made here on the basis of the grammatical considerations examined in Section 7. Note that FDG draws a sharp distinction between lexemes, which are classified as Nouns, Verbs, Interjections, etc. in the lexicon, and words, which arise at the Morphosyntactic Level. Only in its expletive, grammatical use does *fuck* lack lexeme status; however, as a realization of the operator EmoEmph it has to adopt a Word class in order to be fitted into the syntactic flow. This includes the possibility of tmesis, the phonologically conditioned insertion of one Word inside another. Let us consider the Morphosyntactic Level analyses of Examples (95b) and (95c) above as (96a) and (96b) respectively:[8]

8. *Cl* = Clause; *Np* = Noun phrase; *Nw* = Noun word; *3sm* = third-person singular masculine; *Vp* = Verb phrase; *Vw* = Verb word; *Adjp* = Adjective phrase; *Adjw* = Adjective word; *Advp* = Adverb phrase; *Advw* = Adverb word; *Artw* = Article word.

(96) a. He is fucking crazy. (Cl_I: [(Np_i: (Nw_i: 3sm (Nw_i)) (Np_i)) (Vp_i: (Vw_i: BE.pres.3s (Vw_i)) (Vp_i)) ($Adjp_i$: [($Advw_i$: /ˈfʌkɪŋ/ ($Advw_i$)) ($Adjw_i$: /ˈkreɪzɪ/ ($Adjw_i$))] ($Adjp_i$)] (Cl_i))

b. What the fuck is that? (Cl_i: [(Np_i: [(Nw_i: /wɒt/ (Nw_i)) (Np_j: [($Artw_i$: /ðə/ ($Artw_i$)) (Nw_j: /fʌk/ (Nw_j)) (Np_j))] (Np_i)) (Vp_i: (Vw_i: BE.pres.3s (Vw_i)) (Vp_i)) (Np_k: [(Nw_k: /ðæt/ (Nw_k)) (Np_k))] (Cl_i))

The analysis presented in this article has sought to show that although emotions play a vital role in human cognition and high emotional arousal and commitment can manifest themselves in the use of 'strong language', the grammatical properties of swearwords (and specifically of *fuck* and its derivatives) do not require any grammatical innovations. No evidence has been found here of any distinct 'grammar of emotions'. On the contrary, the application of a grammatical model, Functional Discourse Grammar, has made it possible to classify the many uses of those words, to articulate the constraints upon their occurrence and to integrate them seamlessly into existing structures.

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CHAPTER 4

Interjections and emotions

The case of *gosh*

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Interjections in general can be considered linguistic expressions of emotions and attitudes, constituting complete and self-contained utterances. Though all languages are believed to have 'emotive interjections', the literature on interjections and emotions has proved to be sparse, while studies on specific interjections are particularly uncommon. This study investigates the interjection *gosh*, which we propose to analyze as an expletive secondary interjection, originally used in the area of religion as a euphemistic replacement of 'God'. With the religious connection practically severed, *gosh* can be revealed as non-stigmatized and, in general, positively-valued. It is clearly a mild expletive, with a wide range of emotive, cognitive and discourse-structure uses. By exploring components of the BNC and COCA corpora, this chapter contributes to the study of *gosh* in terms of further formal and functional features (position and syntactic peripheral behavior, discourse role in conversation, dialogic character) together with possible differences between British and American English. Looking at the behavior of *gosh* in our data, we claim that it is an interjection that functions as a pragmatic marker in present-day English.

Keywords: interjection, euphemistic, pragmatic marker, emotion

1. Introduction

Interjections belong to a fairly broad class of items which have been variously defined in dictionaries and grammars.[1] Definitions in these sources regard interjections as linguistic expressions of emotions and feelings, exclamatory words

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or special reproductions of sound uttered under the stress of emotions – emotions which are variously characterized as short, strong, sudden or involuntary – and constituting complete and self-contained utterances (see the *Macmillan*, *Cambridge International* and *Longman Dictionaries*, for instance, and Huddleston & Pullum 2002: 1390 and Carter & McCarthy 2006: 113, 539).

Overall, the literature on interjections and emotion can be characterized as sparse and scattered. Even when all languages have 'emotive interjections' (i.e., interjections expressing cognitively based feelings; cf. Wierzbicka 1999: 276), researchers on emotion have invested only "a tiny research effort into interjections", as compared to other related areas of research such as facial expressions and words for emotion categories (Goddard 2014: 53–54). Among the reasons that may explain this neglect we find: (a) the consideration of interjections as a marginal phenomenon, not worthy of study within theoretical linguistics, (b) the difficulty in the definition and classification of the phenomenon, and (c) their close association with the expressive, non-descriptive, component of language. From a semiotic point of view, interjections have an expressive function, "rather than the representational or symbolic function characteristic of ordinary words and sentences": interjections show rather than say (Goddard 2014: 54).

The present chapter is a first attempt to explore the use of the interjection *gosh*, which, among the secondary interjections with a religious origin, is commonly heard in present-day English, both British and American, and which, within the studies of interjections, has not been widely discussed. In fact, we do not know of any specific study of *gosh* (alone) in the literature. We hope to contribute to the study of this interjection in terms of its form and meaning in conversation, stressing possible differences between British and American English.

Gosh has been characterized in some dictionaries as an informal interjection which is nowadays old-fashioned (cf. e.g. the *Macmillan Dictionary*, the *Oxford Advanced Learner's Dictionary* and the *Cambridge Dictionary of English*). By looking at the data samples we have analyzed, from spoken natural texts from the late 20th century and the beginning of the 21st century, we claim that, far from being outdated or old-fashioned, *gosh* is still very much alive, not as a euphemistic item of religious vocabulary (along with *golly*, *gee* or *heck*), but as an expression of emotive and cognitive meanings and even as a linguistic marker of discourse structure, sharing features with pragmatic markers and showing aspects of grammaticalization. It is important to point out that interjections are not seen in this study as belonging to a clear-cut category; rather, some of them routinely function as pragmatic markers (see, for instance, Norrick 2009) and are thus included in the taxonomies of these elements.[2]

In a sociolinguistic corpus analysis of euphemisms based on the BNC, Lynneng (2015) finds *gosh* to be the most highly used euphemism of the total list of twelve euphemistic swearwords that she studies.[3] Further interesting conclusions in her study in relation to the use of *gosh* in terms of gender, social class and age are that *gosh* is used more by women than by men (in a 65% to 35% contrast, approximately), both female and male speakers belonging to the upper class and upper-middle class use *gosh* more often, and speakers in the age-range of 45–60+, both male and female, are the most frequent users of *gosh*.

Comparing the frequency of use of *gosh* with that of other interjections, whose up-to-date status seems to be less argued about, e.g. *wow*, *oops* and *yuck*, and whose definitions in the same dictionaries (cf. e.g. the *Macmillan Dictionary*) are not given the label 'old-fashioned' but are only characterized as 'informal interjections' or 'informal exclamations', we find that the consideration of *gosh* as old-fashioned is not at all justified. On the contrary, the frequencies of use of these three interjections in British and American English (henceforth, BrE and AmE, respectively) are in fact lower, and in the case of *yuck* much lower, than those of *gosh*, with the only exception of *wow* in American English.[4] The reason *gosh* seems to be regarded as an expression whose use is in decline,[5] we argue, is its connection with the religious domain. It is the religious connection of *gosh* that is in decline, not its general and pragmatic use as an emotive and cognitive marker.

2. We adopt the label 'pragmatic marker' in this study, following Norrick (2009: 870), among others, "to include elements which regularly fill the initial slot in conversational turns, with various pragmatic/discourse functions, making an independent contribution and/or relating the following sequence to the dynamic context" (cf. also Foolen 2012: 218). Related concepts and labels are those of 'discourse markers' (cf. e.g. Schiffrin 2001; Jucker & Ziv 1998), 'discourse particles' (Fischer 2006; Aijmer 2002) and 'pragmatic particles' (Cook 1999; Holmes 1990); see also the rather inclusive class of Fraser's (1996) 'pragmatic markers' and 'discourse markers' (Fraser 1999).

3. The list includes the following items: *gee, heavens, gosh, flaming, blasted, blooming, crikey, blimey, oh my goodness, sugar, heck*, and *darn*.

4. The searches were carried out in the spoken components of the BNC and COCA corpora (10 million words and 109 million words, respectively) and the results were the following: *wow*: 241 hits in BNC and 9,478 in COCA; *oops*: 136 in BNC and 321 in COCA; *yuck*: 22 in BNC and 80 hits in COCA. These results can be compared with those obtained for *gosh* in the same data samples, as explained in Section 3: 256 in BNC and 3,732 in COCA.

5. See for instance the recent article in *The Guardian* on "The words we no longer use" (March 2017: https://www.theguardian.com/science/shortcuts/2017/mar/15/golly-cassette-and-croquet-the-words-we-no-longer-use). We thank Lachlan Mackenzie for bringing this article to our attention and, in general, for contributing to this discussion.

These arguments become reinforced when we contemplate the historic evolution of *gosh* with the aid of the Google N-Gram Viewer Program,[6] which carries out searches of expressions in a large number of books available on Google. See Figure 1.

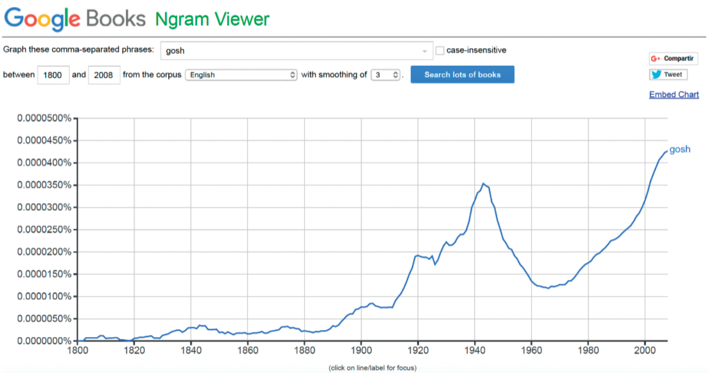

Figure 1. Frequency of *gosh* in English, 1800–2008

In the figure we see a first peak in the use of *gosh*, coinciding with the year 1943, which is then followed by a steep decline ending in the 1960s. At that time, the use of *gosh* seems to have reached a plateau (lasting, according to the figure, from 1962 to 1970, approximately), to then undergo a moderate but constant increase which ends in the year 2008, when the program last records the frequency of use of this item. What we consider clear, in any case, is that the line illustrating the use of *gosh* from the year 1970, approximately, is an ascending, rather than descending one, and it would therefore be logical to hypothesize that the tendency past the year 2008 would be also ascending. Notice that the peak reached at 2008 surpasses the previous one noted for the year 1943. It would not be at all disparate to see the decline suffered by *gosh* from 1943 to 1962 coinciding with the lesser use of the interjection as a euphemistic expression connected to a religious meaning and the increase from 1970 to 2008 corresponding to the adoption of *gosh* with a pragmatic meaning, now practically severed from any kind of religious implication.[7] This is an area which merits further attention, but which falls outside the scope of the present study.

However, we have devoted some effort to exploring the present-day English examples offered by the N-Gram Viewer program for this search (including *gosh!*,

6. This is available online at http://books.google.com/ngrams.

7. Goddard (2014: 60) considers that, for some speakers, *gee!* and *gosh!* may retain associations with Jesus and God, respectively. An indicator of this for the latter is the existence of *My gosh!* (cf. *My God!*).

oh my gosh!, etc.) in order to check which uses of *gosh* were instances of the interjection. It should be noted that the genres represented in the books taken as the basis for the N-Gram Viewer search include collected short stories and other literary fictional works, autobiographies and essays, where *gosh* is often found in the dialogues contained in these books or even in their titles (cf. e.g. *Oh my gosh!: The incredible lightness of being Burgis!*). Taking the period of 2003–2008 into account (having disregarded the previous one of 1944–2002 as being less relevant for our purposes), we can conclude that a majority of these examples (72.4%) uses *gosh* as an interjection and/or pragmatic marker (e.g. "'Oh my **gosh**, oh my **gosh**, oh my **gosh**!' He kept repeating this to himself while he walked right past me." Kimberly Alyn's *Soar with your Savior*, 2003). In two further uses, representing 20.7% of these examples, the word *gosh* occurred, not as an interjection, but as a family name (as in "Salah Abdallah **Gosh** left Britain on Thursday, the Sunday Times of London reported." *Press Digest*, Vol. 13: 1–26, 2006) or as an acronym (GOSH, standing for Great Ormond Street Hospital for children). Finally, in 6.9% the use of *gosh* as an interjection or another type of word was dubious or no illustration of *gosh* could be found.

The outline of this study is as follows. Section 2 reviews the literature on interjections, stressing various aspects which will be relevant for the subsequent data analysis and discussion. Section 3 deals with the data and methodology. Section 4 presents the findings of the analysis, with the discussion of, on the one hand, some formal features of the combinations found for *gosh* and its position in British and American English and, on the other, the semantic meanings and discourse/pragmatic functions of *gosh*, with the discussion of emotive, cognitive and discourse-structure uses of the interjection. The final subsection makes claims on *gosh* as a pragmatic marker. In Section 5, we summarize the main findings of the chapter and point to further areas of study.

2. Background

Whether or not interjections are part of language and whether they communicate feelings or information has been addressed from two main viewpoints. Ameka (1992), Wierzbicka (1992) and Wilkins (1992) consider that interjections encode rich conceptual structures which are part of the semantics of natural language. Goffman (1981), by contrast, regards interjections as falling outside the linguistic domain. Accordingly, they are not grammatical or even linguistic items. Instead, they are described as "response cries", that is, non-word vocalizations that are to be interpreted as bearing on a passing event, an event within a limited course in time (1981: 90). He argues that interjections are ritualized acts, more similar to gestures than to linguistic expressions: "These cries are conventionalized utterances which are specialized for an informative role, but in the linguistic and propositional sense they are not statements" (Goffman 1981: 108). Goffman defines an interjection as a "condensed, truncated form of a discretely articulated, non-lexicalized expression" (1981: 100) "and not a fully-fledged word" (1981: 99). Both sides agree that (a) interjections are capable of constituting utterances that stand on their own in a unique, non-elliptical manner; (b) they express a speaker's mental or emotional state or attitude (Wharton 2002).

Cuenca (2000) considers interjections somewhat peripheral to language, being phonologically and morphologically anomalous. This does not imply they are not words: it is simply that they do not constitute a prototypical word class.

Quirk et al. (1985) suggest it can be argued that interjections form a relatively open class because they can rather freely be created by onomatopoeia. For instance, comic-strip cartoons often contain such nonce interjections as *yuck*, *g-r-r-r* and *blaat*. Authors of children's books have for decades made use of names such as Eeyore, Woozles and Heffalump, and introduced interjections containing unlikely consonantal sequences such as *fwondo*, *jaargh* or *ptooxo*. All humorously reflect a similar structured freedom to make use of expressive vocalizing in ordinary conversation.

2.1 Primary and secondary interjections

It is possible to distinguish two types of interjection (cf. Ameka 1992 and Ameka & Wilkins 2006):

1. primary, such as *oops, ouch, wow*, which cannot be used in any other sense but as interjections;
2. secondary interjections such as *shit, damn, hell*, etc., words which have an independent semantic value but are often used as interjections.

Goddard (2014) adds a third type:

3. 'noise-like interjections'.

With primary interjections Goddard suggests we should distinguish between "phonologically aberrant 'noise-like' primary interjections" (*Ugh, Psst!, Mm*) and "phonologically normal 'word-like' primary interjections" (*Wow!, Yuck!*), the latter having the potential to serve as base forms for normal words: *to wow (someone), yucky* (adj.), *wow of a time*, *yuck factor*.

Gosh is a euphemistic secondary interjection like *shoot*, *darn*, *heck*.

2.2 The semantics of interjections

With regard to how far interjections communicate, Wierzbicka finds them to be, prototypically at least, *monological*: in most cases they express the speaker's current emotion (Wierzbicka 2006: 290). Pragmatic markers, on the other hand, can be said to be, on the whole, *dialogical*: they link, in some way, the speaker and the hearer, the "I" and the "you". We find, however, that a group of interjections (secondary interjections, and those that can be seen as pragmatic markers, e.g. *wow*, *hey*, *my goodness*) can also be considered typically and inherently dialogical, such as when they are uttered as a reaction to something the hearer has said or done. Nevertheless, it is true that mainly primary interjections (e.g. *ouch*, *oops*) are not necessarily directed to another person or persons. They may be murmured under one's breath or shouted aloud in all kinds of situation.

As Goddard (2014: 54) notes, from a semantic point of view, interjections are standardly categorized as:

a. volitive: interjections that express directive messages (such as English *Shh!*),
b. emotive: those that mainly express feelings in the emotional sense, such as disgust, fear and annoyance,
c. cognitive: those that "deliver more cognition-oriented messages, typically related to information state, that is, to what one knows, comes to know, etc.", as with *Wow!, Gee!* and *Yikes!*

2.3 From *God* to *gosh*

Gosh was originally an expletive functioning as an interjection. It was a euphemistic variant of the word attributed to the Deity: *God*.

According to Ljung (2009), 'expletive' has a number of meanings. In the context of swearing it denotes taboo words and expressions used in grammaticalized constructions, signaling the attitudes and emotions of the speaker, as we shall see. Most of the expletives used have literal meanings associated with one of three major taboo areas, namely religion, sexuality and excretion, the first being fundamentally different from the other two.

The mention of God, Jesus, Christ or the Holy Ghost was not in itself offensive and these are in fact used in church services. What was offensive was when people started to use the name of the Deity to give added weight to their own utterances. Such swearing *by* a higher power was sacrilegious and was denounced as "taking God's name in vain"; those that indulged in it were punished, often severely, according to Ljung (2009).

Traugott (1972) and Hopper & Traugott (1993) have pointed out the importance of the desire to imitate others, which is basic to the dominance of prestige in language change. The desire to imitate peers in a prestige group leads to change; the desire to imitate peers in the same group leads to minimization of change. Obliteration of boundaries and the compacting and reduction of redundancy are balanced by the introduction of new and innovating ways of saying approximately the same thing. These new and innovating ways of saying things are brought about by speakers seeking to enhance expressivity. This is typically done by the "deroutinizing" of constructions, in other words in finding new ways to say old things.

Prestige groups would not wish to be punished for 'taking God's name in vain'; hence the rise of the euphemism *gosh*, which retained the initial part of the name, while the latter part was softened to 'sh' /ʃ/ (/gɒʃ/) and was conveniently different and subjective enough to become the new fashion.

In this way *gosh* came to be conventionalized as part of the accepted vocabulary of the community and eventually institutionalized. Institutionalization refers to the spread of a usage to a community and its establishment as the norm. At first it would be an innovation or 'nonce-word' serving an immediate communicative need, or solving a problem of a speaker by economizing, filling in a conceptual or lexical gap. According to Brinton & Traugott (2005: 45), institutionalization is sometimes regarded as a precursor of lexicalization, sometimes identified with it.

2.4 Interjections as pragmatic markers

Norrick (2009) claims that in everyday talk interjections routinely function as pragmatic markers, initiating utterances and relating them to the foregoing interaction. Much of the interactional significance of primary interjections (such as *oh* and *mhm*) derives from their characteristic position as turn-initiators, while much of their meaning in any particular case depends on their intonation contour. Maschler (1998), who includes some interjections in her widely-considered class of discourse markers, sees this system of elements as having a fundamental role in negotiating the boundaries of conversational actions and segmenting spoken interaction.

Secondary interjections in particular, such as *boy* and *hell*, display a range of functions, not only as parallel pragmatic markers but also as discourse markers signaling contrast, elaboration and transition. Moreover, a few secondary interjections in initial turn position function as intensifiers as in *hell yeah*, or *shit no*, rather than pragmatic markers.

New interjections and their functions always seem to be accepted by participants. There seems to be an unlimited number of new interjections, according to Norrick. The class is *sui generis*, with recurrent pragmatic functions. For instance, teenage schoolchildren in Birmingham are reported to use 'Oh my days!' and 'Oh my word!' (first author's data).

2.5 Grammaticalization

Cuenca (2000) claims that the phrases identified as secondary interjections are the result of grammaticalization. Their defining features are:

a. an increase of the pragmatic meaning over the lexical meaning,
b. instability and variation in phonetic form,
c. morphological fixation,
d. peripheral syntactic behavior.

In short, secondary interjections result from a process of syntactic reanalysis from a literal meaning to a more abstract, pragmatic one as proposed by Traugott (1989, 1995). In fact, reanalysis and pragmaticization of meaning are the main features of grammaticalization.

Meaning changes and the cognitive strategies that motivate them are central in the early stages of grammaticalization and are crucially linked to expressivity. Furthermore, the meaning changes are initially pragmatic and associative, arising in the context of the flow of speech. At later stages, as grammaticalization continues and forms become routinized, meaning loss or 'bleaching' typically occurs, but even so, older meanings may still continue to constrain newer, 'emptier' ones (cf. Downing 2001 and Downing 2009 with regard to *surely*).

The lexical meaning becomes bleached as pragmatic meaning increases. The original objective 'literal' meaning changes to a subjective one. Subjectification is a pragmatic-semantic process whereby meanings become increasingly based in speakers' subjective beliefs about, or attitudes towards, what they are discussing. Traugott (1989, 1995) illustrates how certain expressions that initially articulate concrete, lexical and objective meanings have come – through repeated use in local syntactic contexts – to serve abstract, pragmatic, interpersonal, speaker-based functions. The evolution from *God* to *gosh* may have taken place in this way.

3. Data and method

Our database derives from two corpora: the *British National Corpus* (BNC) and the *Corpus of Contemporary American English* (COCA). For the exploitation of the BNC, we used the BNC*web* (CQP) tool from the University of Lancaster; for the COCA, we used the interface developed by Davies (2008), also the creator of the corpus, at Brigham Young University. Given that interjections are a phenomenon of spoken discourse, we centered our searches on the spoken components of these two corpora. The spoken part of the BNC, which is composed of 10 million words (representing 10% of the whole BNC), comprises a wide range of genres, half of them orthographic transcriptions of unscripted informal conversations and "spoken language collected in different contexts, ranging from formal business or government meetings to radio shows and phone-ins" (from the BNC website).[8] The spoken component of the COCA, composed of more than 109 million words, consists of transcripts of unscripted conversation from over 150 different television and radio programs. The BNC was collected in four years in the late 20th century (1991–1994), whereas the texts from COCA represent the language from the late 20th century and the beginning of the 21st century (1990–2015).

A first search of these two corpora yielded the following results: 256 examples of *gosh* in the BNC and 3,732 occurrences in the COCA. Taking into account the disparity in the volume of words in each of the two samples, and turning these figures into more manageable numbers, we get the following frequencies per each corpus: 24.59 instances of *gosh* per million words in the BNC and 34.24 instances per million words in the COCA.

For the more detailed and fine-grained analysis, of both a quantitative and a qualitative nature, all the occurrences from the BNC were considered. However, once a detailed consideration of them was carried out, the 256 examples in the BNC yielded 246, with the rejection of 10 cases.[9] To obtain an equivalent number of instances in the COCA, we restricted the whole list of examples to the first 246 obtained from the list of 500 hits provided by the interface, generating a random selection of examples. In both BNC and COCA, once we obtained the original list through the query, we expanded the context of each example, to be able to discover meanings and patterns of form of the use of *gosh* in a wider context.

Looking at the syntactic behavior of *gosh* in the data, we first explored two aspects: the sets of combinations appearing with *gosh* and forming a unit with it, and the behavior of *gosh* as a peripheral element and occupying a certain position with respect to the relevant utterance. In relation to the first aspect, it is important to mention that *gosh* appears in our results in two different forms: as a single-word interjection, on the one hand, and forming part of a multi-word expression, on the other, which – like the prototypical interjection *gosh* – can be a free utterance unit

8. http://www.natcorp.ox.ac.uk/corpus/index.xml.

9. The disregarded examples are a metalinguistic reference to *gosh* in text KBE (*What do you say oh gosh, oh gore, oh? / Got*?) and a series of examples, all part from the same conversation, where the interjection is also used metalinguistically in a fixed list of homophonous words: *Gosh, posh, cosh, cough, have you seen this headline? gosh, posh, cosh, cough* (KD0).

(as in *oh my gosh*). Following Ameka (1992), we will call the latter 'interjectional phrases'.

Other features that we searched for had to do with the occurrence of *gosh* with certain elements and constructions, e.g. *gosh* with pronouns and *gosh* with certain clause types and constructions. In the second part of the analysis, we looked at the data in terms of the meanings and discourse functions of *gosh*. Our hypothesis was that the type of meaning and function associated with *gosh* would be, at least partly, related to the position and combinations of *gosh* with these elements and syntactic patterns.

4. *Gosh* in British and American spoken discourse

4.1 *Gosh*: Phrases and position

In this section we present the results from the data analysis on *gosh* with regard to the two aspects of the syntactic behavior of the interjection mentioned above.

As for the use of the single-word interjection or one which forms part of an interjectional phrase, the prototypical interjection *gosh* is the most frequent item in BrEng (64.23%), followed by the phrase *oh gosh* (28.01%), with a lower, but still substantial, frequency. In AmE the most used combination is the phrase *oh my gosh* (54.07%), but *gosh* and *oh gosh*[10] are also used with remarkable frequencies (21.54% and 16.26%, respectively). See Table 1 on this. The differences between British and American English in the figures corresponding to these three most frequent phrases with *gosh* have been tested by means of the chi-square test, proving to be statistically significant (in *gosh* and *oh my gosh* $p < 0.001$ and in *oh gosh* $p = 0.002$).

Gosh behaves as a peripheral element with respect to the relevant utterance, with no exception. This means that it finds itself outside the clause or utterance proper, typically in utterance-initial position, as we shall see below. This is the so-called 'left periphery' position, defined linearly by Degand (2014: 154) as "the most leftward positional slot of the utterance, outside the dependency structure of the verb". In this position, *gosh* appears in some examples in combination with other peripheral elements, such as other interjections and pragmatic markers, forming clusters with these elements.

10. Notice that the combination *oh gosh* includes instances of *oh, gosh* and *oh my gosh* includes instances of *oh, my gosh; oh my, gosh* and one occurrence of *oh, my, gosh*.

Table 1. Phrases with *gosh* and frequency in BNC and COCA

	British English		American English	
gosh	158	64.23%	53	21.54%
oh my gosh	7	2.85%	133	54.07%
oh gosh	69	28.01%	40	16.26%
my gosh	3	1.22%	18	7.32%
by gosh	2	0.81%	2	0.81%
ooh gosh	5	2.03%	0	0.00%
mm gosh	1	0.41%	0	0.00%
ah gosh	1	0.41%	0	0.00%
TOTAL	246	100.00%	246	100.00%

(1) She's a terrific, intellectual person who has union background, who just happens to be more conservative than John Sweeney. But who isn't? *I mean, **my gosh***, John Sweeney has made the union movement, with 40 percent of them Republicans, into an arm of the Democratic Party and he's using really hundreds of millions of dollars in these election processes to elect only Democrats and I think, what do you expect from him? (COCA 20010106)[11]

In (1), the similar syntactic behavior of both *I mean* and *my gosh* (as elements attached to the left periphery of the sentence they precede) and their associated pragmatic functions suggest that both can be treated as pragmatic markers (see the discussion in Section 4.3). In Section 4.2 we will discuss other aspects of the context of *gosh* obtained from the data.

Looking more closely at the syntactic behavior of *gosh* as a peripheral element, we explored the following features of the *gosh* phrase in terms of position:

a. whether or not it occurs as a complete, independent utterance (i.e. it is free-standing); if it does, if it constitutes a *turn* in itself;
b. if it does not, its position (initial, medial or final) with respect to the corresponding utterance.

Examples as a free-standing element (complete utterance) and in the three positions mentioned are given in (2) and (3), respectively:

11. In the examples, we mark the phrase containing *gosh* in bold type. When the discussion also involves the utterance where *gosh* can be found and this needs to be highlighted within the relevant context, it is marked in italics.

(2) A: Hundred and sixty-eight pounds thirty nine pence.
B: **Oh gosh**!
C: Is that their new catalogue or is that the one, the summer one?
B: This is spring summer. (BNC D97 1513) (free-standing)

(3) a. I'm not the only parent that lost a son in war. **Gosh**, during World War II there were lots of them that were lost. (COCA 19931011) (initial)
b. They just, **gosh**, seemed like they belonged there. (COCA 091128) (medial)
c. There it is, **gosh**. Look, I was looking for my pen and it was there all along. (BNC KNV 405) (final)

Some observations with respect to the position of the interjection or interjectional phrase where *gosh* occurs are in order. When looking at the position of a peripheral element as here *gosh*, one could ask: 'position with respect to what?'. Being a peripheral element, *gosh* is formally outside the clause proper and its initial, medial or final positions are understood as positions with respect to the utterance. By 'utterance initial', for instance (cf. (3a)), we mean left periphery (in the sense of Degand 2014 mentioned before). In final and, indeed, medial position, *gosh* and the *gosh* phrases are also peripheral. Where final (cf. (3c)), it occupies the so-called right periphery (cf. Beeching & Detges 2014); if medial (cf. (3b)), it is always parenthetical and thus never integrated in the argument structure. Arguably, the only case of integrated *gosh* found in the data is in the example: *The first report said near it but I can't imagine what that would be, probably inside the torpedo room, could be a torpedo flask itself or* ***gosh*** *knows what* (COCA: 20000816). But notice that here *gosh* forms part of the expression *god [gosh] knows what*, which in itself is a formulaic expression and used in this example with a pragmatic (non-propositional), rather than, lexical (propositional) meaning.

Concentrating for the moment on each of the most-frequently occurring combinations in each variety – i.e. *gosh* in BrE and *oh my gosh* in AmE – the results obtained for the features mentioned can be summarized as follows. In BrE the most frequent occurrence of *gosh* is as an utterance-initial, non-free-standing element; this represents about half of the total number of occurrences (49.32%). Also frequent, but to a lesser extent, is *gosh* as a free-standing element, i.e. used as a complete utterance, which occurs in 38.36% of the examples; in half of these, in addition to being free-standing, *gosh* constitutes a turn in itself. In AmE, *oh my gosh* occurs most predominantly as a free-standing element (61.83%), and more often than not as a single element in a turn. Examples of *gosh* (BrE) and *oh my gosh* (AmE) as a free-standing element (4) and as a complete turn are as follows:

(4) Shut that door! **Gosh**! It's ever so cold in this house! (BNC KC6 1916)

(5) G: What joy is there in life?
K: **Oh, my gosh**.
G: Except for friendships. I've got some dear friends visiting from Holland, Michigan. (COCA 110824)

If it is not used as a complete utterance, *oh my gosh* occurs equally often in initial or medial position (18.32%). The similar frequency of initial and medial *oh my gosh* may be surprising; notice, however, that medial position includes cases where the sequence occurs in the context of direct speech or thought (see observations below on the position of *gosh* in this context).

Special attention must be drawn to cases of *gosh* which are turn-initial and expressed as a reaction to the hearer's turn, both as a complete utterance or as part of one, and which constitute more than half of all the examples, in both corpora (BrE and AmE).

The examination of the data has revealed some further interesting tendencies related to the surrounding elements occurring with *gosh*. Initial *gosh* in its different patterns often precedes personal pronouns (especially in BrE), notably *I* (as in ***gosh** I wish I had her hair or her skin or her body shape*, BNC FL8 27) and also frequent but to a lesser extent *it* (***Gosh** it's so cold out there!* BNC KC9 7067), although all other instances of these pronouns also occur in our data. Demonstratives *this* and *that* are also found (as in ***Gosh** that was quick*, BNC KC3 3080). As we shall see below, one context where these are found is in evaluative constructions.

Another interesting co-occurrence that has been found for initial *gosh* is when it precedes non-declarative clause types: interrogatives (both rhetorical and non-rhetorical questions, and also declaratives with question tags, with the force of an interrogative, this last type only in BrE, as in ***gosh** that is cheap isn't it*?, BNC KD6 2616), exclamatives (or other patterns having the force of an exclamation: ***Gosh,** you were the Attorney General!*, COCA 199221228) and imperatives, as in ***Oh my gosh**. Look at that*. (COCA 20070716) (or *gosh* preceding vocatives with the force of an imperative).

A final structure arising from the data involves a group of examples where *gosh* and its phrases precede the mark of positive (usually) or negative polarity: *Ooh yes!* <pause> *Oh **gosh**, absolutely, yeah!* (BNC KDM 15247).

Medial *gosh* occurs in two main contexts, which are both of a discourse type (cf. Section 4.2.4) and used to help organize the conversation or repair it. A further type of medial *gosh* involves its use in the context of direct speech or thought, as in *and then everybody's gone to the classroom and you think oh **gosh** the bell* (BNC KBW 12998) (cf. also Section 4.2.4). Notice that here the medial position is with respect to the whole utterance where *gosh* occurs. Taking the sequence representing the direct speech or thought into consideration, the position of *gosh* is initial in that sequence. These uses represent 5.48% of the examples of *gosh* in BrE (BNC) and 18.32% of examples of *oh my gosh* in AmE (COCA).

Final *gosh* is very infrequent with only a few cases (5 in BNC and 2 in COCA), one of them being (6):

(6) Dad: Oh yes you have.
Ooh two aces I think.
Jane: Nan used to gargle <-|->[12] didn't she?
Dad: <-|-> *Aces and nines,* ***gosh!***
Mum: Yeah.
Jane: With some horrible thing like <-|-> bicarb– bicarbonate of soda.
(BNC KBS 402)

4.2 *Gosh*: Semantic meanings and discourse/pragmatic functions

With the religious connection practically severed, *gosh* emerges as an interjection exhibiting an array of different semantic meanings and discourse/pragmatic functions. Semantically, *gosh* expresses feelings in an emotional sense at the same time as it delivers an information-state type of message by informing the hearer of what the speaker knows, or rather, does not know. These two types of meaning, of an emotive and cognitive nature (see 2.2 above), frequently overlap in the examples because interjections with cognitive meanings arguably also convey an element of feeling (cf. Goddard 2014: 54). This makes it unadvisable to categorize the uses of *gosh* as belonging to one or the other types, and thus in 4.2.1 we discuss both interrelated meanings under the same section.

Another set of uses of *gosh* is as a marker of discourse structure (specifically, the organization of the conversation); this is the concern of Section 4.2.2. Again, these discursive uses of *gosh* do not constitute a clear-cut category, completely independent from the other two. In general, the uses of *gosh* just mentioned (i.e. the emotive, cognitive and discourse-structure uses) will be considered as being predominant, but often overlapping with the other meanings.

Unless otherwise stated, the position of *gosh* in the examples found expressing these meanings is initial (left periphery of the sentence) or else it is a free-standing unit (i.e. a complete utterance).

4.2.1 Gosh *as an expression of emotion and cognition*

An important meaning expressed by *gosh* as an emotive interjection is that of '*emotional involvement*': the speaker uses it to express his/her concern and

12. Notice that the symbol <-|-> stands for overlap in the BNCweb.

emotional attachment to what is being said, usually in a positive sense. A relevant example is (7):

(7) –How would you feel if you were him?
–Who wouldn't? But he is coming around, and I know that he loves her, I know that he does, and I know that he will be around more now.
–What do you think you would have done if you hadn't seen the program, if you were just making the decision by yourself?
–**Oh, gosh**. I – I don't know what I would have done. (COCA 19980323)

In line with what was said above, we see the phrase *Oh, gosh* in (7) as indicating uncertainty and also possibly as a device to gain time to think, given the rather challenging question preceding it. A related meaning is that of emotional impact, as in (8) where the *gosh* phrase refers to the speaker's own experience, in remembering a negative experience (on the side effects of a medicine – *Tagamet*):

(8) –See your Tagamet that's one of the side effects it, you get very occasionally with it. It gives you <-|-> tightness <-|->
– <-|-> Ah.
–soreness in your breast.
–**Oh gosh** it's been murder. <pause>
–Er <pause> I th- I think er y- I think you should give yourself a- at least a week without it to get the <unclear> a chance to get away.
–Without what? <-|-> Tagamet <-|->
–<-|-> Without <-|-> your Tagamet
–Aye. (BNC H4F 77)

In the framework of this general meaning of emotional involvement, or emotional impact, an array of other, more specific, emotions are found for *gosh* in the data, at times combined together. Emotions such as admiration (cf. 9), delight, anxiety, apprehension (10), sympathy and emotional involvement (11) and frustration (12), among others, are present in the corpus sample. Other meanings are also relevant to these examples, such as surprise, as in (9) and (11) (see below), and intensification (clearly in 12, but also present in almost all instances of *gosh*; see below).

(9) B: In terms of lawns it's the biggest club in the world. (…)
D: They've got twelve thirteen lawns there.
C: **Gosh**! (BNC KBK 6153)

(10) **Oh gosh** I didn't know where any of you were. (BNC KP3 1127)

(11) N: (…) Then her husband left her.
C: **Oh gosh**!
N: They were divorced. (BNC KBK 7131)

(12) **Gosh**, why can't we get anything done? (COCA 120709)

The interjection *gosh* and its interjectional phrases can be a reflection of the speaker's state of knowledge, i.e. what one knows or comes to know, etc. (Goddard 2014: 54); as such it adopts an information-structuring function and also an epistemic one, in that it indicates the speaker's attitude concerning the likelihood of the event described. This is in line with Norrick (2009), who sees interjections essentially as expressions of some change in the speaker's cognitive state (cf. e.g. 2009: 879), and with Maschler & Schiffrin's (2015: 196–197) category of cognitive discourse markers (including interjections), typically related to what one knows. The general meaning of the interjection here is surprise, as in: *And he was watching the game and said* ***gosh****, who is that female refereeing the basketball game*. (COCA 19970424).[13] The statement to which *gosh* is referring is thus characterized as newsworthy, unexpected or surprising, combined in the example with an expression of disbelief at the idea of a woman refereeing a basketball game. The reader will note that surprise was seen to be relevant to some of the examples presented above. Other cognitive meanings found in the data and reflecting the speaker's state of knowledge are those of (sudden) realization (see also below), or else gradually coming to awareness, realization and processing of new information. We see *gosh* in (13), for instance, as an expression of surprise and sudden realization, and also indicating the processing of new information:

(13) C: How long does a game take, as a general rule David?
D: Ah, maybe it's about three hours.
C: **Gosh**, <laugh>, oh, it's a kind of golf then isn't it?
D: Er, yes, very much so, I think that, to some extent, depending on the standard of the players. (BNC KBK 4947)

Among the uses of *gosh* expressing the cognitive meaning of realization or that of processing new information we find a good number of the examples of the interjection in sentence-medial position, as in (14), combining a meaning of realization with surprise and intensification:

13. In line with Ortony et al.'s view (1990), we consider that surprise is not an emotion as such but a "cognitive state having to do with unexpectedness" (1990: 32; see also Norrick 2009: 868 on interjections expressing information states rather than emotions). Since surprise (in isolation), they argue, lacks the "essential ingredient" of a valenced reaction toward something, then it is not an emotion. This view, however, contrasts with that of other (but not all) theorists of emotions who do include surprise in their lists of basic emotions (cf. for example the selection given in Ortony et al. 1990: 27).

(14) –You have a steady boyfriend, you had for the last 10 years…
–13.
–13 years, so, **gosh**, since you were 20, since you were a pup, (…)
(COCA 110926)

The exploration of the data has clarified that one of the most important functions of *gosh* is the expression of intensification or strengthening of what follows, which is present in a high number of examples in both data samples, possibly in combination with the emotive and cognitive meanings already discussed. In this context *gosh* has the force of an exclamation, with an emphatic effect, although there may be a difference in the degree of emphasis conveyed, *oh my gosh* sounding more 'dramatic' in some instances than *gosh* or *oh gosh*. As an example, see the following from AmE:

(15) K: (…) If you don't remember, I want you to take a look at "American Idol" back in the day.
P: **Oh, my gosh**, I haven't seen this in so long. (COCA 120323)

We have found this meaning of intensification in different contexts. One of them is when *gosh* appears preceding evaluatives, constructions with an evaluative meaning, among which we especially find copular constructions. In general (i.e. not only with copular constructions), the occurrence of *gosh* with an evaluative meaning is pervasive in the data. A selection of these examples – 30 in BrE and 25 in AmE – is given as follows:

(16) **Gosh**, this beef is tender. (BNC KC4 149)

(17) **Gosh** that car looks a bit rusty doesn't it? (BNC KE2 9687)

(18) –We've done – I don't know, we did – oh, Lucy and Ethel. That was tragic.
***Oh, my gosh**, that's my favorite episode.* (COCA 111028)

The strengthening effect of *gosh* on the speaker's following statement can be noticed by a comparison with the statement with no preceding interjection, i.e. *This beef is tender*. The effect conveyed with the interjection is similar to that found with exclamatives (as in *How tender this beef is!*). But since exclamatives are not a common pattern in everyday conversation, by using *gosh* the speaker may express the exclamative meaning while retaining at the same time the declarative clause type. As mentioned in Section 4.1, we have noted an interesting correlation between this use of *gosh* with an evaluative meaning and the occurrence of personal pronouns, mainly *I* and *it*.

In Section 4.1 we also mentioned that a significant number of examples of initial *gosh* had been found introducing non-declarative clause types. The most important of these in number are interrogatives, which also illustrate the emphatic effect of *gosh*: rhetorical questions (cf. (19)), declaratives with question tags with the force of a question (20) and 'literal' questions (21).

(19) In the past, science has generally gone forward and then suddenly one day somebody says, ***Oh, my gosh****, do you see what we might be about to step into*? (COCA, 20041022)

(20) –April, May, June, July, August, September they'll be four in five months
–Mm mm
–by then.
–***Gosh*** *it soon passes, doesn't it*?
–When you think it doesn't seem five minutes ago (BNC KB8 8848)

(21) –***Gosh*** *how much have you got Paul*?
–Lots. (BNC KD0 369)

We also have emphatic exclamations, declaratives with an exclamatory effect, where *gosh* has been found in 14 examples in the two samples: ***Gosh*** *he looks ugly! Bleasdale*. (BNC KCV 31), ***Gosh****, he's got a bloody right to!* (BNC KE6 7327). Both interrogatives and exclamations often include evaluatives, so again the emotive and cognitive meanings combine. Finally, imperatives preceded by *gosh* have been also found; cf. (22):

(22) Well, see, you've said two different things that will be a real influence. Of course she's going to be an influence and ***my gosh****, just think how long you've been in Washington*. Have we known any First Ladies who haven't been a real influence? (COCA 19921117)

A third context where *gosh* acquires an emphatic meaning is where initial *gosh* strengthens the, typically positive, polarity. The positive affirmation reinforces the hearer's or speaker's previous statement. Examples include the following: *Ooh yes!* <-|-> *<pause>* ***Oh gosh****, absolutely, yeah!* (BNC KDM 15247); *Oh yes cos there was quite a few er kids in in that little street of ours you know in* <gap desc = "name" reason = "anonymization" > *Street.* ***Gosh*** *yes. Quite a few kids in there*. (BNC HML 525).

Emotive and cognitive uses of *gosh* often respond to an immediate stimulus of a linguistic nature – normally what the hearer has said or even what the speaker him/herself has said. Cognitive uses of *gosh* may imply a reaction to something the speaker is *thinking about*, rather than a mere reaction to a stimulus. In a few examples from our data samples, finally, *gosh* reacts to the immediate environment, that is, the extralinguistic context. We have attested 11 occurrences of this use in BrE, all of them with initial *gosh*, but none in AmE. In ***Gosh*** *this pickled ginger's* <-|-> *delicious!* (BNC KPU 164), for instance, the speaker expresses (pleasant) surprise or realization as well as positive feelings towards what s/he is eating.

4.2.2 *Discursive and pragmatic uses of* gosh

Goddard (2014: 54–55) proposes a classification of interjections in terms of *contexts of use*. Whereas most interjections have immediate (stimulus-bound) uses, others may also have didactic uses (as when talking to children) and, more important for our purposes, discursive or ironic-sarcastic uses. We have found various uses of *gosh* which we can group in the category of discursive uses, the most important of which have to do with the organization of the conversation. *Gosh* has been very frequently found initiating a turn in conversation, preceding a reply (in question-answer pairs) or another reaction to the previous turn (e.g. a statement or expression of surprise). In this context, *gosh* represents a dialogic reaction of the speaker to something the hearer has said, adopting an interactive role in the turn-taking of the conversation. In this productive use (57% in BrE and 54.5% in AmE), *gosh* may be found in the left periphery of the utterance or may be free-standing.

In Martínez Caro & Borreguero (2016) we explored the function of pragmatic markers as indicators of reported direct speech or thought in English and Spanish, including markers such as English *well* and Spanish *pues*. *Gosh*, when functioning in medial or even final position, also frequently adopts this role, followed by reporting verbs and verbs of thought such as *say*, *think*, *be like*, *go* and others. See (23–24):

(23) Look at history. Medicare Part D. I was on Capitol Hill at the time. Dana, you may have been in the White House. Everyone was very nervous about it. *I remember members of Congress were saying* ***oh, my, gosh****, we have to explain it to the district*. Now ask any senior, they love it. (COCA 120815)

(24) Right after the crash, she'd been unable to cry. Now on rare occasions, she was overcome, but she hid her tears from the children. *Do you think sometimes,* ***Gosh****, maybe, I'm too strong*. Maybe I should let the kids see me cry? (COCA 19970718)

This context of *gosh* often involves the use of personal pronouns or demonstratives and evaluatives. In the following example, the expression of thought is embedded in the speaker's narration without a verb of *thinking*, and the use of *gosh I…* marks the beginning of the reported direct thought where the speaker is expressing a personal wish:

(25) I think it's a case of the grass being greener on the other side, you know, you never seem to be happy with what you have yourself you always see it in somebody else, ***gosh*** *I wish I had her hair or her skin or her body shape*, you just never seem to be satisfied with what you've got and yet other people see you as looking very attractive (BNC FL8 27)

A limited number of instances of medial *gosh* have been found in the data with a discourse function in two different contexts. In the first, the interjection is used to mark an interruption and the speaker's wish to reformulate his/her utterance as a restart (4 examples, 2 in each corpus), as in (26):

(26) now interestingly we recently had a a thing about this from **gosh**. I can't remember where it was now but it it was certainly you know probably one of the er new er very new universities you know the <-|-> ex-polys (BNC FMD 108)

The second context is where *gosh* functions as a filler with the general meaning of 'time to think and search for the right word' (8 examples, 7 of them in BNC); cf. (27) and (28):

(27) So it's the fact that in many cases the children were nude were just that's how the children were. The age range – oh, I didn't take pictures of them once they reached the sort of age of, **gosh**, well, puberty, certainly. But considerably before then, I quit – I quit taking pictures of them. (COCA 150512)

(28) They just, **gosh**, seemed like they belonged here. (COCA 091128)

Finally, in a few examples from our data, *gosh* is used to mark the end of a discourse topic. This only occurs in two examples in the AmE sample and in one from the BrE sample.

(29) Noel: No.
Enid: So one doesn't know er exactly what it's like <-|-> to do it.
Ian: <-|-> No. <-|-> No.
Enid: Mm. **Gosh**. And tell us about the children, how old are they?
Ian: Harry is erm he'll be two in June
Enid: Mhm.
Ian: then Thomas will be four in August. (BNC KC0 4402)

Notice that in (29) *gosh* finishes a topic and the utterance that follows introduces a new discourse topic ("the [= the hearer's] children"). It would be interesting to further explore the role of *gosh* at certain moments in interaction within other spoken discourse types, such as narratives (cf. Maschler 1998).

4.3 *Gosh* as a pragmatic marker

Looking at the behavior of *gosh* in our data, we claim that it is an interjection that functions as a pragmatic marker in present-day English. In fact, as we said above, in everyday talk some interjections routinely function as pragmatic markers and they are sometimes included in the taxonomies of pragmatic markers by some authors: see, for instance, Norrick (2009) and Redeker (2006). *Gosh*, used as a single-word interjection or as part of an interjectional phrase, shares the following features with other pragmatic markers. First, it has undergone a process of phonological variation, considering *God* as its original form, resulting in a phonologically different but acceptable variant of the word, as described in Section 2.3 (cf. Cuenca 2000). Second, syntactically it shows clear peripheral behavior, mostly occupying the left periphery of the sentence or standing on its own as a free-standing unit. In non-free-standing uses, *gosh* may also occupy the medial or final sentence positions, though these are certainly more infrequent; if medial, its parenthetical status is evidenced by its separation from the rest of the clause by commas and its not being integrated into the syntactic structure of the sentence. Third, whereas interjections are 'monological' (cf. Wierzbicka 2006 and Section 2.2), *gosh* has proved to mainly function 'dialogically', as pragmatic markers do, linking, in some way, the speaker and the hearer, the "I" and the "you". Another relevant feature showing that *gosh* does not function as a mere interjection is that, whereas interjections normally function as an immediate reaction to an external stimulus, *gosh* as a pragmatic marker often implies a reaction to something the speaker is thinking about. Fourth, like other pragmatic markers, *gosh* is multifunctional, expressing different functions. Even in a single example, *gosh* frequently indicates more than one meaning: e.g. emphasis and surprise, reformulation and realization, among others. Furthermore, the semantic meanings and discourse/pragmatic functions that we have found for *gosh* in the data are also indicative that it is not merely an interjection, but a 'fully-fledged' pragmatic marker. Among the functions that *gosh* most clearly shares with other pragmatic markers we find it as the first element in a new turn in conversation, sometimes as a free-standing unit, reacting to the previous statement and having an interactive meaning, in the context of direct speech and thought, initiating the second element in adjacency pairs, and as a filler or indicating a restart or reformulation of the message (in medial position). As we claim above, an important function of pragmatic markers, which has attracted little attention in the literature, is to act as boundary marks in direct reported speech and thought. Fifth, in our data *gosh* may appear in combination with other pragmatic markers or interjections such as *I mean* or *well*, sometimes forming 'clusters' of pragmatic markers and multiple themes (cf. e.g. Hasselgård 2004).

5. Conclusions

This study allows us to accept the hypothesis that the interjection *gosh* is definitely in use in the period stretching from the late twentieth century to the beginning of the twenty-first century in both BrE and AmE for the sample analyzed. As a mild euphemistic expletive, it replaces '*god*' in conversation, but with virtually no religious association or implication as regards meaning, thus causing no offense to an audience that might prefer to avoid the use of religious expletives. Whereas *God* (e.g. *Oh God!* or *God!*) as an interjection is still heard in films and, arguably, in the speech of older people as well as, it must be said, of people in their twenties, *gosh*, in comparison, sounds positively modern.

Gosh is a secondary interjection which can stand alone or form part of an interjectional phrase. Phraseologically speaking, *oh my gosh* is very clearly predominant in AmE, while both *gosh* (especially) and *oh gosh* are most frequent in BrE. As regards position, *oh my gosh* is free-standing in AmE; likewise, *gosh* is initial (occupying the left periphery) or free-standing in BrE.

Gosh has a wide range of emotive, cognitive and discourse-structure uses, often combined together. In terms of emotions, at first sight, *gosh* is typically positive: it does not express anger or disgust, for example. On the contrary, it often expresses admiration for something made or created (***Gosh** this is delicious!*) or achieved (…*and I thought* ***Oh gosh**, this trolley seems to be coming up here no problem. It is a miracle*.) Negative occurrences can occur, however, as in the following remembrance: *I lived in the farmhouse, he was a tyrant,* **gosh** *he was a tyrant*.

Intonation contour, together with the context, may affect the meaning of *gosh* in terms of its positive or negative implication. Due to the limited scope of the present chapter, however, the intonation of *gosh* has not been investigated in this study. According to the emotion involved, the implication can be positive (*Mary is getting married! –* ***Gosh!***); otherwise, the intensification, together with the nature of the event, can produce phrases rather than single words, with a negative implication, for instance, *Harry has died of AIDS*. (– ***Oh Gosh***! *What a dreadful thing to have happened!*).

Gosh has undergone conventionalization and eventually institutionalization, as its usage spread to communities and became established as the norm. Lexicalization rather than grammaticalization proves dominant in the development from the original interjection *God*, by which the changes of form and meaning are crucially linked to expressivity. Furthermore, the changes are initially pragmatic and associative, arising in the context of the flow of speech. Form is gradually bleached by extensive use and morphological changes ensue which bring about changes in meaning, as seems to be the case with *gosh*. "When enough speakers restructure in similar ways, radical changes in the language occur and then we have what some linguists call 'mutations' in the language" (Traugott 1972: 11).

In so doing, the expletive loosens its ties, both with its original meaning and with the propositional content of the clause, pointing more strongly to the speaker's own beliefs, state, and attitudes towards the objective world. This is subjectivity, or if attention is paid to one's hearer, inter-subjectivity, "which alone makes linguistic communication possible" (Benveniste 1971).

Finally, there are certain issues worth looking at which this study has suggested but which are beyond the limited scope of the present chapter. Among these are the analysis of the intonation of *gosh* in relation to its meanings, a detailed historical account of *gosh* in terms of the processes of grammaticalization and conventionalization and, finally, an exploration of the possible correlations between the use of *gosh* and genre in the spoken component of each corpus (e.g. is *gosh* more frequent in spontaneous conversation than in task-oriented meetings or radio/TV broadcasts?).

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CHAPTER 5

Expressing emotions without emotional lexis

A crosslinguistic approach to the phraseology of the emotions in Spanish and English

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Cross-linguistic studies of phraseology enable us to draw increasingly accurate maps of the specific ways different languages express emotions. This chapter focuses on the phraseology used to express emotions in Spanish, taking English as its point of comparison. We situate the topic within the broad perspective of the presence, absence and control of the emotions, centering exclusively on expressions consisting of non-emotional lexis. First, we investigate phrases indicating presence and absence of emotions in Spanish and English. Second, we examine emotional control and lack of control, finding different patterns in the use of the underlying container metaphor. Finally, we explore linguistic affordances for expressing uncomfortable but vague emotions. We conclude with some comparisons between Spanish and English phraseology.

Keywords: phraseology, emotions, emotional control, conceptual metaphor, vagueness

1. Introduction

The central role of language in the study of the emotions is now widely recognized (Harkins & Wierzbicka 2001; Fontaine, Scherer & Soriano 2013; Soriano, Fontaine & Scherer 2015).[1] The complexity of the emotions themselves, and the wide variety of processes involved in them, is materialized in their conceptualization and linguistic expression. In this respect, *crosslinguistic studies* offer enormous potential, because they enable us to build increasingly precise descriptions of the particular

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features of each language in the area of expressing feelings (Corpas Pastor 2000; Kövecses 2000; Fontaine, Scherer & Soriano 2013).

One promising area in this regard is that of phraseology (Cowie 1998; Olza & Manero Richard 2013). Studies of the emotions should not simply focus on their names (*anger, anguish, joy, shame*): it is essential to include multiword expressions, which contain a vast store of information about how the emotions are conceptualized and experienced (Mellado Blanco 1997; 2011; Athanasiadou & Tabakowska 1998; Granger & Meunier 2008; Torrent-Lenzen 2008; Manero Richard 2011).[2]

In this, we should note that most linguistic expressions for talking about feelings "are figurative, that is, metaphoric or metonymic in nature" (Soriano 2013: 410–424; Kövecses 2015: 82).[3] Multiword expressions, such as *Me hervía la sangre/My blood was boiling*, are a particularly rich source of metaphor (Kövecses 2000; Ponterotto 2014: 266), drawing on underlying conceptual metaphors to give expression to phenomena that are essentially intangible (Lakoff & Johnson 1980). However, although the foregoing example clearly reflects the underlying schema EMOTION IS HEAT, in which the target domain of anger is mapped to the source domain of temperature (Lakoff & Johnson 1980), a cursory glance at the phraseology of the emotions in a given language suffices to reveal a vast network of source-target mappings which often seem to contradict each other. For this reason, the concept of the "metaphor scenario", developed by Musolff (2006), is useful in that it enables researchers to group together seemingly different or contradictory source-target mappings by relating them to common underlying conceptual structures. These "scenarios" are understood as sets of conventional assumptions that enable people to talk about complex phenomena in terms of lived experience (i.e. relations between countries are like family relations) (Musolff 2006), and are often used in framing events in public discourse (Kheovichai 2015). By extension, however, the notion of "scenario" also holds promise for classifying the loose network of mappings that underlie idiomatic expressions, and is flexible enough to be applicable where one-to-one mappings yield contradictory results.

One last important question arising in the context of emotion and metaphor concerns the issue of universal versus culture-specific schemata. Firstly, the fact that many metaphors used for conveying feelings are grounded in bodily experience has led some researchers to search for universals, or "primary metaphors", common across all cultures (Grady 2007). Yet evidence shows that there are many differences

2. The studies by the GRID Project (Swiss Center for the Affective Sciences) focus on terms, but not phrases/idioms (Fontaine, Scherer & Soriano 2013).

3. As Kövecses states (2000: 20), "metaphor not only pervades the language people use about the emotions, but […] it is essential to the understanding of most aspects of the conceptualization of emotion and emotional experience".

in the way embodiment itself is culturally conceptualized (Ibarretxe-Antuñano 2013; Fontaine, Scherer & Soriano 2013; Athanasiadou 2014). Contrastive studies have so far pointed to many ways in which the somatization of emotions has been conceptualized at different times in different cultures (Sharifian et al. 2008), suggesting that conceptualizations can be placed along an "embodiment/culture continuum" (Mischler 2009: 270). In concrete cases, they have shown how culture acts as a filter on embodied experience (Ibarretxe-Antuñano 2013). Secondly, even if we turn away from the central theme of embodiment, there is also an ample body of metaphor conventionally used for conveying emotion that has no direct basis in physiology, and which reflects embedded cultural models (Sopory & Dillard 2002; Semino 2008; Arrese & Vara-Miguel 2016) and schemata that may be shared as a result of a common cultural heritage (Piirainen 2012). Crosslinguistic studies offer a practical way to shed further light on the specific contribution of culture to the emergence and persistence of metaphors in phraseology.

Despite the evident importance of crosslinguistic research on phraseology, it undeniably poses various methodological challenges. First, it is difficult to identify phraseological units reliably in a corpus, since they generally have empty slots for the agents involved, and present many possible variations and modifications. To this, we should add the problem that phraseological units are not always frequent in statistical terms, which means that to study phraseology we need extremely large corpora (Corpas Pastor 2013).[4] For these reasons, we decided to adopt a philological approach, consulting standard reference works for Spanish and English that represent a consolidated body of knowledge about the language, in order to establish a detailed inventory of expressions that have stood the test of time and can be regarded as part of the shared linguistic and cultural heritage (see, for example, Szerszunowicz 2009). Our focus for this chapter is therefore on those expressions that have been lexicalized in the language and appear in standard phraseological dictionaries. We therefore leave out expressions that belong to idiolects or non-standard forms, whose diatopic, diastratic, diaphasic and diachronic use and meaning are often difficult to determine.

Collecting expressions relating to the emotions is no easy procedure, as the number of phraseological units about feelings in any language is very high. In Spanish, we consulted the *Diccionario fraseológico documentado del español actual* (hereafter *DFDEA*),[5] which contains around 16,000 expressions, several hundred

4. According to Tschichold (2008: 363) the appropriate corpus would need to have hundreds (or even thousands) of millions of words.

5. This *DFDEA* documents language data from 1955 to 2004. In the present study, as far as Spanish is concerned, we only use data (phraseological units and their meanings) from the *DFDEA*, except where we explicitly indicate otherwise. Other dictionaries exist, such as Rodríguez-Vida (2004) or Martínez López & Jørgensen (2009), both of which are pan-Hispanic

of which have a meaning that relates to the emotions. The initial reference work we used in English, *The Oxford Dictionary of Idioms* (Siefring 1999), contains over 5000 idioms, at least 500 of which are used to talk about emotional states or reactions, and other English-language dictionaries of idioms (Urdang 1980; Gulland & Hinds-Howell 1986) appear to contain similar proportions.[6] In order to narrow down our search, rather than focusing on one particular emotion, we centered on a preliminary issue, namely the expressions that indicate the absence or presence of emotions, their impact, and their control. Within this, we looked exclusively at those units that make no explicit reference to feelings as such, and which rely entirely on metaphor to convey meaning, since these seem to present particular interest.

This chapter presents a *crosslinguistic* and *comparative* study, starting from the Spanish phrases recorded in the *DFDEA* concerning the absence, presence, impact and control of the emotions in general, and then comparing them with equivalent idioms found in English reference works. We identify the underlying metaphors, understood broadly in terms of scenarios, and locate areas of commonality and difference.

2. A preliminary issue: Absence and presence of feeling

Our starting point is the way the ABSENCE OF EMOTIONS (or the simulation of this state) is represented in Spanish phraseology. The *DFDEA* classifies these in three categories, namely adjectival phrases (1), similes (2) and verb phrases (3):

(1) [person] *sin entrañas* ('without innards', meaning 'with no feelings')[7]
[person] *de corcho* ('of cork', meaning 'insensitive')
[person] *de piedra* ('of stone', meaning 'insensitive, particularly to sexual stimuli', or 'astonished')
[person] *dura de corazón* ('hard of heart', meaning 'insensitive, resistant to emotional influence')

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in scope. The former contains phrases from a very wide variety of contexts in time and space, but these are not clear in the lexicographical presentation; it does not provide definitions or real testimonies of how they are used. The latter does not specify the diatopic area of use of the units, and the examples were invented by the authors.

6. None of these dictionaries has the scholarly status of the *DFDEA*, and so although they were used to identify areas of phraseological interest, we had to complement our search by using the *Oxford English Dictionary*. The definitions and examples provided in this chapter are from the *Oxford English Dictionary* (*OED*) and the *Supplement* (*OEDS*).

7. In what follows, we provide a literal translation, followed by the authors' translation of the definition provided by *DFDEA*.

(2) [person] *dura como una piedra* ('hard as a stone', meaning 'insensitive')

(3) *no tener* [someone] *entrañas* ('to have no innards', i.e. 'to have no feelings')

On the other hand, to indicate that a person is SENSITIVE TO EMOTIONS, present-day Spanish offers the adjectival phrase [person] *de corazón* ('of heart'), expressing the notion that a person 'has feelings and lets him/herself be swayed by them' (*DFDEA*), or the verb phrase *tener (también)* [someone] *su corazón* ('to have his/her heart') (or more usually, *su corazoncito* ('his/her little heart')) equivalent to 'being sensitive or having feelings'. The metaphors underlying these expressions can be condensed in the following conceptual schemata: THE EMOTIONS ARE A LIVING THING; THEY ARE INSIDE the person; THEY ARE IN THE HEART; THEY ARE THE HEART; and like all living things, THEY ARE SOMETHING THAT CAN DIE.

Seen from the point of view of English, these expressions are interesting in several respects. In Spanish, as in English, the presence or absence of emotions is often reflected in phrases relating to the *heart* (in both Germanic and Romance languages, the heart is conceptualized as the primary seat of the emotions, cf. Ogarkova 2013: 55), and in comparisons with physical objects that are hard or soft (*to have a heart of stone*, *to have a soft heart*). However, Spanish identifies the *entrañas* ('innards') as the seat or locus of emotions such as affection or love, an image completely lacking in the phraseology of the affections in contemporary English, which perhaps harks back to earlier conceptualizations.[8] *Guts*, the closest equivalent in English to this use of 'innards', is not associated with tender emotions: the usual meaning is 'courage, bravery', although it is also found in expressions like *to have a gut feeling*, meaning 'to sense something intuitively', or the compound *gut-wrenching*, meaning 'feeling very upset or worried'.

On the other hand, although in Spanish it is obvious that the emotions are conceptualized metaphorically as something inside the body, it seems that Spanish offers hardly any conventional expressions representing the outside of the person as a barrier which protects him/her from emotions, a metaphor which gives rise to expressions in English such as *to have a thick skin*, *to be tough as old boots*, or the idiom *like water off a duck's back* (which means that a person does not react to a criticism or offensive remark) (see Athanasiadou 2014 on the outward expression of emotion in Anglosaxon and Mediterranean cultures). The closest equivalent in Spanish is the colloquial use of the verb *resbalar* ('to slip, slide', used to talk about

8. There is evidence that the viscerae were regarded as the seat of the emotions in the ancient world (Sharifian et al. 2008) and are still conceptualized as involved in strong emotion in some cultures (Athanasiadou 2014). In English, "bowels" are the seat of deep emotion in early Bible translations such as the King James version, reflecting the Hebrew original, but more recent translations prefer "heart" (see Ravasi 2016 for an analysis of the seat of the emotions in the Old and New Testament).

what someone hears, or about what happens, meaning 'to leave someone indifferent, not to affect', as in the example *su intransigencia me resbala* ('his intransigence has no effect on me') (*DLE* 2014).

In this area, it is also interesting to observe that the Spanish expression *de corcho* ('of cork') activates a different metaphor: that of something that is lifeless, dead, rather than something tough.[9] This metaphor reflects a cultural reality (the cork tree) grounded in the Spanish landscape. It is perhaps also important to point out here that English often reflects the same underlying metaphor using compound adjectives (*hard-hearted*, *soft-hearted, thick-skinned*, etc.), a structure that is unusual in Spanish[10] but frequent in English, which provides an alternative to the kind of phraseological unit we are discussing here.

3. The presence of strong emotion: The inability to speak

Another conceptual area in which crosslinguistic comparisons are productive is that of the inability to speak as a result of some strong emotion. It is a universal topos that strong emotions can inhibit speech. "There is some truth in the saying that the inability to speak is the most characteristic sign of emotion […]. Silence, being unable to speak, is a result of emotional turmoil" (González Ruiz 2015: 285–286). This is an unintentional silence, quite different from other possible types of silence.

This emotional turmoil which hinders or prevents speech is reflected in some idiomatic expressions in both languages. The *DFDEA* contains the following, which constitute a specific lexical field in contemporary standard Spanish (colloquial register):

(4) a. *dejar con la boca abierta* ('to leave with his/her mouth open', meaning 'to amaze')
b. *dejar sin habla/sin palabras* ('to leave speechless/without words', meaning 'to provoke a strong emotion of surprise, shock or wonder')

(5) a. *quedarse con la boca abierta* ('to be left with one's mouth open')
b. *quedarse sin habla/palabras* ('to be left without speech/words')

9. Although it is also true that cork appears in expressions related to floating, such as *flotar*, or *sobrenadar, como el corcho en el agua*, 'to float like cork in the water', meaning 'to survive or flourish in the ups and downs of fortune' (*DLE* 2014).

10. Some compounds of this type with emotional meaning exist, such as *boquiabierto* 'open-mouthed', meaning 'shocked, astonished', *caradura* 'hard face', meaning 'shameless, insolent', etc., but these cannot be considered phraseological phenomena.

(6) *ponérsele/hacérsele* [someone] *un nudo en la garganta* ('to put/make to someone a knot in the throat', meaning 'to provoke a strong emotion such as shock, grief or shame').

These expressions share with the psychological verbs (i.e. stative verbs expressing a psychological state, see Bachrach, Roy & Stockall 2014), the defining grammatical property that their thematic network contains an EXPERIENCER, which can occupy different positions in the argument structure (Marín 2015: 11). English offers some equivalent expressions which convey surprise or amazement (although in English these are often also used to express indignation). In almost direct equivalence to (4), (5) and (6) above, English offers:

(7) *to leave (someone) speechless/gaping/with one's mouth open/agape*

(8) *to be at a loss for words/left speechless/struck dumb*

(9) *to bring a lump to one's throat*

It is noteworthy that the EXPERIENCER, in both English and Spanish, can take on different functions in these locutions, as object (4 and 7), subject (5 and 8), or indirect object (6 and 9). In a related sense, interjections might be situated on the border between speech and emotion-related silence. Spanish offers a particular lexicalization of this in the delocutive expression *estar* or *tener en un ay* which means 'to be (or have someone) in a state of anguish or sudden shock' (*DFDEA*). There is also the analogous *dejar en un ay* ('to leave in an *Ay*', meaning 'to leave in a state of anguish or shock'), as well as the similar *estar* or *tener en un grito* ('to be or have in a cry').[11] These expressions would seem to have no direct equivalent in English.

Finally, Spanish offers expressions that indicate the impact of strong emotions without suggesting that the experiencer has lost the power of speech. The effect of surprise or amazement has been codified in the following verbal expressions:

(10) *dejar / quedarse bizco* ('cross-eyed', meaning 'to make someone or be amazed or astonished')

(11) *dejar / quedarse con los ojos a cuadros* ('with chequered eyes', meaning 'to leave someone or be in a state of great astonishment')[12]

11. In these idioms, *ay* (plural *ayes*) is a masculine noun, meaning 'sigh, groan' (*DLE* 2014) (Casado-Velarde 2014: 90).

12. The phrase *ojos como platos* ('eyes like plates') often used with the verb *abrir* ('to open') means 'eyes very wide open, especially because of surprise or lack of sleep' (*DFDEA*).

(12) *dejar / quedarse de piedra* ('of stone', meaning 'to leave someone or be disconcerted or in a state of perplexity')

(13) *dejar / quedarse de una pieza* ('of a piece', meaning 'to leave someone or be completely surprised')

(14) *dejar / quedar(se) sin respiración* ('to leave without respiration', meaning 'to leave someone or be in a state of paralysis as a result of amazement or psychological impact').

The last of these has a formal near equivalent in English, but one which is often used with a positive semantic prosody:

(15) *to take someone's breath away* (*OED*: 'to astonish or inspire with awed respect or delight')

On the other hand, the closest that English offers to the phrases above is the colloquial expression *to be struck all of a heap* (*OED*: 'be extremely disconcerted'), and similar, which is in some sense parallel to the expressions like *quedarse de una pieza*, reflecting a similar underlying metaphor.

To sum up, Spanish phraseology provides examples in which the force of the emotion is incapacitating, some of which have exact or close equivalents in English. Since the prevailing scheme in Western cultures characterizes emotion as a FORCE (THE FORCE OF EMOTION, as opposed to rational thought, for example), particular effects are to be expected. It is hardly surprising that they are materialized in similar ways in different languages.[13] As Kövecses states (2000: 75),[14]

> in general, emotions are viewed as mentally incapacitating phenomena. The specific 'mental incapacities' involve in addition to the ones above: INABILITY TO SPEAK and INABILITY TO THINK. We can take these to be special cases of the very general metonymy, according to which MENTAL INCAPACITIES STAND FOR EMOTION.

The main difference between the two languages in this respect lies in the abundance of expressions in Spanish representing the strong impact of an emotion (surprise, disconcertment) in terms of physical incapacity, many of which have no equivalent in English phraseology.

13. The metaphor of force is also found in some non-western cultures (Kövecses 2000: 139–163).

14. This author provides no examples or testimonies concerning emotions which render people unable to speak.

4. Expressing emotional impact without emotional lexis

Numerous studies, some of which are comparative in their scope, focus on specifically emotional or psychological lexis, particularly verbs (Acedo-Matellán & Mateu 2015; Di Tullio 2015; Fábregas 2015; Marín 2015) and nouns (Wierzbicka 1999; Harkins & Wierzbicka 2001; Kern & Grutschus 2014; Alonso Ramos 2017). A few publications also center on phraseology in this context (Mellado Blanco 1997, 2011; Ishida 2008). In this, one widespread phenomenon is the way feelings are expressed through lexemes referring to the body, since the emotions by definition entail 'a certain somatic disturbance' (*DLE* 2014). One particularly productive area is that of verbs referring to physical phenomena which have, through processes of metaphor or metonymy, acquired a markedly emotional meaning in particular forms or constructions (Ruwet 1972):

(16) *está* dolido *por tus palabras* ('he was hurt by your words', using *dolido* as opposed to *dolorido*, which is generally used to mean physical pain)

(17) *me* dolió/chocó/reventó *que dijeras eso* ('it hurt/shocked/burst me that you said that', meaning 'it hurt me')

(18) *le* atrae/deslumbra *que la trates como a una reina* ('she is attracted/dazzled by the way you treat her like a queen') (examples from Di Tullio 2015: 206–207).

In English, we might compare:

(19) *what you said really hurt him*.

(20) *she was dazzled by the beauty and breadth of the exhibition*.

The psychological (emotional) reading of verbs indicating bodily phenomena is frequent in those which indicate a change of state, in verbs indicating contact, movement or emission, such as *alterar* ('to upset'), *alucinar* ('to be amazed, rave'), *amargar* ('to embitter'), *calentar* ('to heat'), *chocar* ('to shock, shake up'), *deslumbrar* ('to dazzle'), *doler* ('to hurt'), *herir* ('to injure, wound'), *lastimar* ('to harm, injure'), *machacar* ('to crush, pound'), *reventar* ('to burst'), *torturar* ('to torture'), etc. (Ruwet 1972; Di Tullio 2015). In English, too, verbs of movement (*move*), contact (*touch, hit, hurt, wound*) and above all, physical sensation (*heat, boil, freeze, chill*) are used to express strong emotions.

The fact that emotions have a certain somatic component is manifested phraseologically in a plethora of bodily metaphors carrying emotional meanings. For reasons of space, we shall not devote further attention here to these: for one Spanish lexeme alone, *cara* ('face'), *DFDEA* gives us the following expressions (21):

(21) a. *caérsele* a alguien *la cara de vergüenza* ('to fall to someone the face out of shame', meaning 'to feel very embarrassed or ashamed')
b. *poner la cara colorada* ('to make (someone) red-faced', meaning 'to embarrass someone publicly')
c. *tener* (*mucha*) *cara* ('to have (a lot of) face', meaning 'to be (very) cheeky'); often in humorous variants such as *tener más cara que espalda* ('to have more face than back'), *tener más cara que un elefante con paperas* (or *flemones*) ('to have more face than an elephant with mumps' (or 'gumboils'))
d. *cara de circunstancias* ('face of circumstances', meaning 'a serious face, appropriate to a particular situation')
e. *cara de funeral* ('a funeral face', meaning 'a sad or very serious face')
f. *cara de palo* ('pole face', meaning 'an inexpressive face')
g. *cara de pan sin sal* ('a face of bread without salt', meaning 'an inexpressive or humorless face')
h. *cara de pascua*(*s*) ('a feast-day face', meaning 'a face which expresses joy or satisfaction')
i. *cara de perro* ('a dog face', meaning 'a face of hostility or reproval')
j. *cara de pocos amigos* ('a face of few friends', meaning 'a grim face')
k. *cara de póker* ('a poker face', meaning 'an intentionally expressionless face')
l. *cara de viernes* ('a Friday face', meaning 'a sad or bad-tempered face')
m. *cara de vinagre* ('a vinegar face', meaning 'a grim or angry face')
n. *cara dura* (also *cara de cemento, cara de hormigón* (*armado*)) ('a hard face' (or 'cement face' or '(reinforced) concrete face'), meaning 'a cheeky or daring face')

A few idioms associating *cara* with 'expression' have exact or close equivalents in English (22):

(22) a. *a straight face* ('blank or serious facial expression, particularly when trying not to laugh')
b. *a sour face* ('a bad-tempered or unfriendly expression')
c. *a poker face* ('an impassive expression that hides one's true feelings')

However, in comparison with English, the Spanish use of *cara* to mean 'boldness, disrespect' is notable (English would lexicalize this as *cheek*, for example, *to have a lot of cheek, what a cheek*).

The somatic connection (in the sense of a spontaneous physical reaction) is harder to find in the case of some Spanish idioms which have an emotional meaning, but no specific psychological or somatic lexis. In some, the scenario that is invoked is that of A PERSON IS AN ENGINE/A MACHINE, which is malfunctioning in reaction to some unpleasant experience, evidently reflecting the EMOTION IS A FORCE metaphor mentioned above (Kövecses 2000):

(23) *estar* or *poner a cien, a mil* ('to be or put at a hundred, at a thousand', meaning 'in a state of great excitement or irritation') (*DFDEA*)

(24) *pasarse de revoluciones* [alguien] ('to have too many revolutions', meaning 'to overreach oneself and lose control of one's actions or words, beyond what is discreet or reasonable' (*DFDEA*)

(25) *partir por el eje* [a alguien o algo] ('to break someone by the axis', meaning 'to cause someone a serious loss') (*DFDEA*).

By contrast, although English also offers a broad range of phraseology based on mechanized vehicles, they seem to convey a different materialization of force – the momentum of a vehicle out of control, or a machine that overheats – and in the latter case, also engage the CONTAINER metaphor, which will be discussed in more detail below:

(26) *to go off the rails* ('begin behaving in an uncontrolled or improper way') (A PERSON IS A RAILWAY ENGINE)

(27) *to go into a flat spin* ('go into a frenzy of agitation') (A PERSON IS AN AEROPLANE)

(28) *to blow a fuse/a gasket* ('lose one's temper') (A PERSON IS AN ELECTRICAL DEVICE/A MACHINE)

(29) *to let off steam* ('express your feelings of anger without harming anyone') (A PERSON IS A STEAM ENGINE)

To interpret some other Spanish expressions concerning emotional impact, the concept of the "scenario" (Musolff 2006) is "particularly useful in describing many creative uses of metaphor" (Semino 2008: 10, 218, 220) that are not entirely accounted for by the type of mapping used above. We can draw on this to understand expressions such as *romper los esquemas* [a alguien] ('to break someone's schemes', meaning 'to disconcert or disorientate [someone]') (*DFDEA*): the scenario invoked here would be that of the destruction of a physical structure, but referring to the principles or mental structures that people rely on to organize their lives.

The conceptual scheme SOMETHING/SOMEONE GOES OUT FROM WHERE IT/HE/SHE SHOULD BE (A CONTAINER, OR SOME OTHER PLACE) underlies many expressions about emotion in Spanish. We should notice, however, that these fall into two overlapping categories: some invoke the scheme that EMOTION IS A FORCE in the sense of compelling internal force or pressure (see Ogarkova & Soriano 2014), while others refer to something being out of position, and therefore inappropriate or inoperative, possibly as a result of a prior force exerted on it. Regarding the first, some phraseological units conceptualize the emotions as SOMETHING/SOMEONE WHO GOES UP, whether this involves force or pressure INSIDE A CONTAINER (*subirse* [alguien] *por las paredes*, literally 'to go up the walls'), *subírsele* [a alguien] *la sangre a la cabeza*, literally 'the blood goes up to someone's head'; or force in the sense of something that is trying to get out: *echar* [alguien] *espumarajos por la boca*, literally 'to throw foam from the mouth', *estar* [alguien] *que echa las muelas*, literally 'to be that one throws out the teeth'. The action of going up does not always take place inside a container – for example, in the case *subirse* [alguien] *a la parra* ('to go up the grapevine', meaning 'to become furious') but the basic idea of pressure from an internal force remains.

There are fairly close equivalents to these expressions in English, such as *to go/run/climb up the wall* ('to become very angry') (*OEDS)*. There are also other expressions which are not exactly the same, but which depend on a similar underlying scenario, such as *to hit the roof* ('to become very angry'); *to go through the roof* ('to become very angry'); *to be hopping mad* ('to be extremely angry'), or *to go overboard* ('react in an immoderate way'*)*.

One final example of this displacement scenario that is peculiar to Spanish has its source in the idea of a river that overflows: the expression *sacar de madre* [a alguien] and *salir(se) de madre* [alguien] ('to take [someone] out of/go out of the river bed', meaning 'to provoke or upset someone, or become upset').[15] In this expression, which has no English equivalent, the force is evident, but the type of containment is different, and the movement is not upwards.

Concerning the second kind of displacement, in Spanish we also find metaphors of dis-containment that seem not to imply internal force, or at least, to represent the inappropriate position from the point of view of an onlooker: [estar alguien] *fuera de sus casillas* ('to be outside one's squares', meaning 'to lose one's temper or composure'), the reference being to one's position on a chess board, with the variant forms *sacar* [a alguien] *de sus casillas, salirse de sus casillas*; [estar alguien] *fuera de quicio* ('to be out of hinge'), with variants such as *sacar de quicio* [a alguien], *salirse de quicio* [alguien]; and with similar meanings, expressions such as *sacar los pies del plato* (or *del tiesto*, or *de las alforjas*) ('to take your feet out of the plate (or pot, or provisions)'); *echar los pies por alto* ('to throw your feet up'). The relationship between the action (*source*) and the person (*target*) is rather abstract in these cases, suggesting that these positional examples are better considered as 'blends' in which "prominent counterparts from the input spaces project to a single element in the blended space" (Grady, Oakley & Coulson 1999).

15. *Madre* is here the channel through which a river or stream usually flows' (*DLE* 2014).

In English, this positional container scheme is less productive, found in just a few manifestations. English offers an equivalent to *desquiciado* ('unhinged'): *to be unhinged* (*OED* 'mentally unbalanced, deranged'), and the expression: *to be off one's rocker*, generally associated with madness or with a sudden attack of strong feeling, both of which seem to convey the effects of prior force.

An interesting positional conceptual scheme underlies the phrase *estar volado* ('to be in the air', meaning 'to be worried or embarrassed'), if we understand that SELF-CONTROL IS BEING ON THE GROUND (Kövecses 2015: 61). Regarding the underlying metaphor, we could say that, in addition to the possibilities of the CONTAINER in itself, this also makes reference to the scheme LACK OF EMOTIONAL CONTROL IS A DIVIDED SELF (Kövecses 2000: 43), also found in English in the phrase *to be beside oneself*, *OED*, 'to be out of one's senses, to be out of one's mind'.

Some expressions in both languages clearly reflect the scheme EMOTION IS A CAPTIVE ANIMAL (Kövecses 2000: 37; Soriano 2013: 413), the suggestion being that a person who experiences a powerful emotion turns into an animal. Spanish offers the following examples: *como una fiera* ('like a wild beast') (or *hecho una fiera/corrupia*) ('made into a wild beast/typhon), *hecho/como un basilisco* ('like a basilisk'). (The conceptual scheme EMOTIONS ARE CAPTIVE/WILD ANIMALS is also clearly represented in the idioms *tragar(se) sapos y culebras* ('to swallow toads and snakes'), etc. (see Section 6).) Similar examples in English are the recent idiom *to go ape* (*OED*: 'to become very angry or excited') and *to go hog-wild* (*OED*: 'to act in an unrestrained manner'). Some expressions involve other animals, such as *to be at the end of one's tether* (*OED*: 'to have no patience or energy left to cope with something') and *to get someone's goat* (*OED*: 'to irritate') which evoke a similar underlying scheme, comparing the emotion to an undomesticated or unpredictable animal that it is difficult to control (cf. PASSIONS ARE BEASTS INSIDE US, Kövecses 1988; ANGER IS ANIMAL BEHAVIOR, Nayak & Gibbs 1990).

Other idioms also conceptualize feelings as LOSS OF CONTROL, although here the reference is not to the animal world, but to the control over one's composure, body or objects: *perder* [alguien] *los papeles* ('to lose one's papers'), *perder la compostura* ('to lose one's composure'), *tirarse de los pelos* ('to tear one's hair'), *perder los estribos* ('to lose the stirrups').[16] Similar expressions in English, such as *to lose your rag*, *to lose it*, or *to lose the plot*, may reflect a parallel scheme.

Another common conceptual scheme is the TEMPERATURE MODEL: EMOTION IS FIRE/TEMPERATURE/HEAT (Kövecses 2000: 80–82; Soriano 2013: 413). Leaving aside the somatic metonymic expression *encendérsele* (or *calentársele*, or *arderle*,

16. According to Iribarren (1993 [1955]: 177), this expression "alludes to the rider whose feet slip out of his stirrups when he is riding", see MacArthur (2005) for a full discussion of this and other horse-and-rider metaphors.

or *hervirle*, *quemársele*) *la sangre* [a alguien] ('to set fire to someone's blood', equivalent to the English 'to make someone's blood boil'), we could cite idioms such as *echar chiribitas* [alguien] ('to throw sparks'), *echar chispas* [alguien] ('to throw sparks'), *echar lumbre* [alguien] ('to throw fire'), *echar rayos* ('to throw lightning'), *echar humo* [alguien] (or *estar que echa humo*) ('to throw smoke'), [estar] *al rojo vivo* ('to be at live red'), *poner(se) negro* [alguien] ('to go black'). We have seen that emotional impulses are metaphorically, and perhaps physiologically, related to an increase in temperature, and the converse also holds – emotional control is associated with a decline in temperature: in Spanish, the expression *en frío* ('in cold') means 'without being moved by passion or emotion'; and the verbal expression *quedarse* [alguien] *frío* ('to remain cold') means 'to remain indifferent or insensitive' (*DFDEA*). In English, by contrast, coldness has a range of emotional associations: there is the positive example *to keep one's cool*, but also the more negative *cool as a cucumber* and *a cold fish*. As in Spanish, heat indicates a surplus of emotion: *to get heated, to make someone's blood boil, to be fuming, to be steaming with rage*.

To conclude, as Table 1 illustrates, the range of metaphors employed in Spanish and English phraseology to express the impact of emotion without using explicitly emotional terminology is fundamentally similar. However, as our analysis has shown, Spanish is particularly productive in expressions using the CONTAINER metaphor, not only those which convey pressure inside, or escaping from, a container, but also those which lexicalize the effect of prior force.

5. Expressing vague emotions without emotional lexis

In this section we take a deeper look at a phenomenon that has largely been ignored elsewhere: the "emotivization" of phraseological expressions (in Spanish, and their possible equivalents in English) which lack any explicit reference to the emotions, or to the body, and which are used to express an indefinite or vague emotional meaning.

Di Tullio (2015: 199ff) analyzed the psychological (or emotional) interpretation of phrases without psychological predicates, making reference to various expressions in Spanish which contain no specifically emotional lexis. One such expression is the nominalized *no sé qué* ('I don't know what') used as the direct object of the verb *dar* ('give'). This can be used in very different structures:

Table 1. Overview of containment scenarios in Spanish and English emotion phraseology

Person is container and emotion is a force contained or liable to escape (liquid, gas, heat, etc.) causing destruction:			
Action of force	Focus on container	*ponerse negro*	*to be blue/black in the face*
	Focus on what is escaping	*echar las muelas, echar espumarajos por la boca, echar humo*	*to foam at the mouth, to be steaming with rage*
Effects of displacement by force	Effect on external attributes	*perder los papeles*	*to lose one's rag*
	Effect on position	*estar fuera de sus casillas*	*to be beside oneself*
	Effect on functionality	*estar fuera de quicio*	*to be off one's rocker*
Person with emotion is (driven by) a force that drives him/her too hard			
Direction of force	Inside	*estar a cien/mil*	*to blow a fuse*
	Up	*subirse por las paredes*	*to go up the wall*
	Off/out	*salirse de madre*	*to go off the rails*

(30) *Elena me dio no sé qué* ['algo'], *pero lo he perdido*. ('Elena gave me I don't know what [something] but I have lost it'.)

(31) *Me dio no sé qué* [*miedo, vergüenza, pena, apuro, corte* …] *decírselo*. ('It gave me I don't know what [fear, shame, sorrow, discomfort, embarrassment …] to say that to her'.)

In (30) the expression *no sé qué* designates a concrete object, equivalent to *something*, whereas in (31) it does not designate an object, but rather "has become the predicate of the sentence, equivalent to a psychological noun: *Me dio miedo/vergüenza/pena/resquemor decírselo*" ('It gave me fear/shame/sorrow/bitterness to say that to her') (Di Tullio 2015: 200).[17] What interests us here is the emotional use of the locution in (31), in which the verb *dar* ('give') does not have the argument structure of a verb of giving (transferring), but rather has become a grammatical element with a causative meaning (equivalent to 'arouse, provoke'). It forms a complex predicate in which the dative is interpreted as the EXPERIENCER of the emotion, and it is a negative emotion with a diffuse semantic profile, whose use might be motivated by the wish to employ a euphemism. As is often the case with psychological verbs, this expression "does not admit agentive subjects, but prefers

17. This emotional meaning is not reported in *DFDEA* or *DLE*.

to take phrases as its subject, some of which have to be reconstructed from the context" (Di Tullio 2015: 201).

The expression *no sé qué*, which in other contexts could be translated into English as 'something or other', 'a certain something', 'I know not what', presents grave difficulties to the translator here. One option would be to paraphrase the expression by using a verb or noun which explicitly indicates the presence of an emotion (*feel* or *feeling*). In this case, *me dio no sé qué decírselo* could be translated as: 'It made me feel funny/strange/weird/uneasy to tell her that' or 'It gave me a funny feeling to tell her that', constructed on the basis of phrases such as *it made me feel angry/embarrassed/uncomfortable*. However, in English it would be more natural to specify the emotion in question by using adjectives that are clearly psychological ('angry') or at least often associated with the psychological sphere ('uncomfortable'), as in the examples above.

Another expression without explicit psychological content but which is understood to be about emotion is that in which the noun *cosa* ('thing') is used as the object of *dar* ('give'): *dar cosa* ('to give thing'), with the meaning of 'to make someone feel apprehensive', 'to make someone doubt or feel ashamed' (*DFDEA*): *Me da cosa preguntarle por su trabajo* ('I feel a bit uncomfortable asking her about her job').

In English, *dar cosa* could be translated in the same way as *dar no sé qué*, explained above, or, if the meaning contains an element of fear or revulsion, using the colloquial expression 'to give someone the creeps', which has somatic associations. It seems, however, that Spanish offers interesting ways for expressing vague emotions, or perhaps for the euphemistic expression of strong emotions whose exact nature can only be understood within the specific context. These expressions probably originated as developments of the productive schema of constructions with a de-lexicalized supporting verb such as *dar vergüenza, pena, miedo, grima, asco* ('to give shame, sorrow, fear, annoyance, disgust') etc. (Di Tullio 2015: 205). The scheme *dar* + noun expressing emotion is the analytical variant of many Spanish denominal causatives, such as *dar ánimo*(*s*) ('to give courage', English 'to encourage'): *animar < ánimo; dar vergüenza* ('to give shame', English 'to embarrass'): *avergonzar < vergüenza; dar* (*un*) *susto* ('to give (a) shock'): *asustar < susto*. In English, expressions using the delexicalized verb *to give* are mainly either somatic (*it gives me goosebumps*) or explicitly psychological (*it gives me pleasure/joy/pain/anxiety/a shock*), and only some of these can be transformed using causative verbs (*it pains me/it shocks me*). Within this general scheme with *to give* it is possible to locate expressions such as *it gives me the heebie-jeebies*, or *it gives me the creeps/willies*, both of which are of unknown origin and whose meaning is hard to define. These perhaps indicate a development similar to that in Spanish: *to give*, like *dar*, is associated with nouns expressing emotion, and gives rise to new expressions by analogy.

There are also some other expressions with a psychological meaning but which contain no emotional lexis, and which are not, at least directly, somatic in their sphere of reference, which use *dar* as their supporting verb:

(32) a. *dar mala espina* [algo] ('to give bad thorn', meaning 'to make one suspicious') (*DFDEA*);
b. *dar yuyu* [a alguien] (young people's slang) 'to make someone feel uncomfortable or worried' (*DFDEA*);

(33) *dar/entrar la tarantela* ('to give/get the tarantelle', meaning to give/get a sudden, irrational desire or stimulus to act') (*DFDEA*).[18]

Finally, the animal metaphor noted above appears again here in the context of vague emotions. *DFDEA* records the nominal expression *la mosca detrás de/tras/en la oreja*, with the meaning 'apprehension or distrust', in constructions like *estar con la mosca* (or *tener la mosca*, or *ponérsele* [a alguien] *la mosca*) *detrás de/tras/en la oreja* ('to be wary or suspicious', literally, 'to be with/have/put to someone the fly behind/in the ear'). This expression would seem to be at the origin of the verb *mosquear*(*se*) which means 'to feel or have a presentiment of something that one cannot identify precisely, because it is unclear, but which is annoying or unsettling'. In this case, we can observe that colloquial English offers a partial parallel in *to bug* but one which has a more obvious meaning (*OED*: 'to annoy or bother'): *he's really starting to bug me, a persistent reporter was bugging them*. However, it is clear that Spanish phraseology is particularly productive in using non-emotional lexis for the expression of vague feelings, a phenomenon which finds little direct equivalence in English.

6. Conceptualizing emotional control

The counterpart of the expressions concerning the impact of strong emotion above is to be found in phrases which refer to the exercise of control over the emotions. Some such idioms in Spanish activate an underlying somatic-containment model, relying on the notion that emotion is a LIQUID (*bilis* ('bile'), *hiel* ('gall'), *saliva* ('saliva'), *quina*[19] ('quinine')) UNDER PRESSURE IN A CONTAINER (i.e. the body) (cf. EMOTION IS A FLUID IN A CONTAINER, in Lakoff & Johnson 1980; Kövecses 2000: 77),

18. In *DLE* 2014 *tarantela* 'A Neapolitan dance with very lively movements, with six by eight time, which was believed to cure people bitten by a tarantula'. This Italianism is a 'fossil word' conserved in Spanish only in this expression.

19. 'Liquid made of quinine and other substances taken as a medicine, tonic or aperitif' (*DLE* 2014).

which is trying to escape, but which must be KEPT INSIDE THE CONTAINER (swallowed): *tragar bilis, tragar hiel, tragar saliva*. The containment/pressure metaphor to convey the subjective experience of controlling strong emotion (often, but not always, anger) is discussed at length in Ogarkova & Soriano (2014). Although English also offers some expressions referring to liquids under pressure, such as *to bottle up your emotions* (*OED* 'to repress or conceal feelings over time')[20] such containment/pressure metaphors appear to be generally less salient in English than in Spanish (Ogarkova & Soriano 2014; Soriano 2015). In contrast, English has a wide range of expressions which refer to containment in terms of the person's exterior, that is, maintaining one's composure or keeping the container intact: *to keep your lid on, to keep your hair on, to keep your shirt on, to grit one's teeth, to keep your head*. Some of these also have an opposite formed with the same lexis (*to flip your lid, to lose your head*) which indicates that the force of the emotion has caused a breakdown in the system: the contents have burst out, or the container has broken (cf. *to crack up*). Interestingly, a large number of the English expressions focus on the state of the container as the element which controls (keeps in) the emotion (see Athanasiadou 2014), while more Spanish expressions narrate the subjective experience of containing a substance under pressure, of swallowing something disagreeable that comes from inside the body as a result of a physical disorder or an imbalance of the humors (bile, gall) (cf. Piirainen 2012: 340). A special mention should be made of the expression *tragar quina*, that is, taking an unpleasant medicine (quinine). Like the English expression *to bite the bullet*, this makes reference to medical procedures in the past, and the meaning conveys a sense of submitting oneself to the inevitable, however disagreeable, and is therefore not principally a containment metaphor.

In the context of loss of control, we also find the scheme EMOTION is a REPELLENT ANIMAL (*sapo, culebra*) (cf. EMOTION IS A LIVING ORGANISM, Kövecses 2000: 36), which has to be kept INSIDE (*tragar*): *tragar(se) sapos y culebras, tragar(se)un sapo* ('to swallow toads and snakes', 'to swallow a toad'). Other expressions such as *tascar el freno* also entail a comparison between containing EMOTION and controlling AN ANIMAL: for example, the verb *tascar* denotes the action of the horse when the rider tries to control it using the bit[21] placed in its mouth, which is used to describe a person exerting self-control but with evident irritation. The English expression *champing at the bit* involves the same source, but in contrast to

20. Related examples in English include *to grit your teeth*, which communicates the sensation of a person who manages to repress the impulse to scream, but these engage the container model only as containment of the voice.

21. 'A piece of metal put in a horse's mouth to allow the person riding it to control its movements'.

the Spanish phrase, often expresses eagerness (cf. EMOTION IS A CAPTIVE ANIMAL, Kövecses 2000: 37, and MacArthur's 2005 detailed explanation of the abundant horse-and-rider metaphors still current in both English and Spanish).

One final scheme is based on the idea that EMOTION IS AN ENTITY IN MOTION (*a vehicle* or *animal*), which can be controlled by slowing down: *parar el carro, amansar el trote* [alguien] (cf. CONTROL OVER AN EMOTIONAL ACT IS CONTROL OVER MOTION (Kövecses 2000: 56, 59). The expressions *rein (someone) in*, *curb*, *hold your horses* or *steady on* (an imperative associated with slowing down horses), used when someone is acting impetuously, transmit a similar idea (see Deignan 2003 and MacArthur 2005): in the first three cases, the subject of *rein*, *curb* or *hold* is the rider/coachman; while in the fourth, it is the animal itself that has to *steady on*. Interestingly, both languages appear to make use of a horse-rider-coachman schema for this, showing the persistence of older cultural models in phraseology.

Table 2. Overview of scenarios concerning control of emotions in Spanish and English phraseology

Emotional control: available scenarios			
Containment scenarios	Focus on controlling what might escape, bodily humors	*tragar sapos, tragar bilis, tragar hiel*	*bottle up one's emotions*
	Focus on the container being controlled		*keep one's lid on, to keep one's hair on,* etc.
Animal scenarios	Focus on controlling an animal	*amansar el trote*	*to hold your horses*
Medical procedure scenarios	Focus on experience of submission	*tragar quina*	*to bite the bullet*

As Table 2 shows, the containment scenarios used to express emotional control are less wide-ranging in both languages than those employed in talking about the experience of strong emotion, shown in Table 1 above. Moreover, while English seems to offer more idioms that foreground the intact/broken container, Spanish provides a greater abundance of expressions that reflect the subjective difficulty of keeping down one's feelings, pointing to a different underlying cultural understanding concerning the control and expression of emotions.

7. Conclusions

The study of phraseology affords valuable insights into conceptualizations of emotions. In the present chapter we set out from multiword expressions with emotional meaning as codified and defined in the *Diccionario fraseológico documentado del español actual* (2004), a standard work of reference for the Spanish language, to draw comparisons regarding the degree of equivalence to English. Our analysis centered on expressions for:

- the absence and presence of emotion;
- the incapacitating effect of powerful emotions;
- experiencing and controlling strong emotion;
- expressing vague emotions.

Our comparison has uncovered abundant common ground reflecting shared cultural models and understandings of embodiment. More detailed studies of specific metaphors would be interesting to establish to what extent any of these shared schemata might reflect universal embodied experience, or to what degree they are simply part of our common cultural heritage:

- the absence of emotions centers on expressions about the heart, and on comparisons with objects that are physically hard (absence of emotion) or soft (its presence).
- both languages have expressions reflecting the schemata EMOTION IS A CAPTIVE ANIMAL and CONTROLLING EMOTION IS CONTROLLING AN ANIMAL; their survival is indicative of an entrenched metaphor schema that has survived the transition from a rural to an urban environment in both cultures.
- along similar lines, both languages reflect some use of mechanical metaphors, often associated with obsolete technology (horse-drawn carts, steam engines).
- both languages reflect the conceptual schema of TEMPERATURE: EMOTION IS FIRE/HEAT, where stronger emotion is associated with a rise in temperature (we could note that the opposite (coldness) is always negative in Spanish, but not in English, where coolness can have positive connotations).

Secondly, we also identified differences between the two languages, perhaps exemplifying the way similar experiences "pass through the culture sieve" (Ibarretxe-Antuñano 2013: 328) to produce different conventional schemes, as in the following cases:

- Spanish differs in conceptualizing the *entrañas* ('innards') as one locus of positive emotions (love, affection, etc.), an idea current in the ancient world (and in other cultures) but absent from the related phraseology in present-day English (*gut* is associated with intuition or negative feelings): primarily, this contrast points to the persistence of archaic cultural patterns in the language (Mischler 2009);

– Spanish phraseology abounds in expressions in which emotion is understood as incapacitating, some of which have fairly close equivalents in English. Curiously, however, the somatic representations differ: while English characteristically emphasizes maintaining outward appearances, Spanish reflects the (subjective) difficulty of suppressing negative feelings. Thus a similar underlying metaphor seems to receive a different materialization, perhaps as a result of a cultural filter concerning the different value placed on emotional expression in Anglosaxon and Mediterranean cultures. Although this might seem counterintuitive, the metaphors for emotional control seem closer to the culture end of the embodiment/culture continuum (Mischler 2009).
– concerning expressions without emotional lexis but which follow the conceptual schema SOMETHING/SOMEONE GOES OUT OF THE PLACE WHERE IT SHOULD BE (CONTAINER), expressions conveying the subjective experience of pressure and those indicating the inappropriateness of being out of place abound in Spanish but are rarer in English as far as emotional meanings are concerned. As in the previous case, this contrast points to the importance of the cultural filter in our experience of emotions (Ibarretxe-Antuñano 2013).

Finally, the Spanish use of emotional phraseology that not only lacks any emotional lexis, but which even contains no somatic lexis, or no vocabulary at all, is particularly striking: one such example is the use of the ultimate vague word (or super-archilexeme) *cosa*. The expressions *dar no sé qué*, and *dar cosa*, implying the presence of a negative emotion with a diffuse semantic profile are extremely difficult to translate into English. English prefers to specify the emotion in question by using nouns that are clearly psychological in meaning, instead of the vague expressions used in Spanish.

We believe that taking a wider perspective to conceptualization and expression yields important findings which should enhance our understanding of the complex phenomenon of the emotions, with many practical applications. Such analysis interests linguists, teachers, rhetoricians, psychologists and other professionals, because the emotions "are at once subjective (in that they are properties of the individual that are hard to transfer and that can only partly be defined) and objective (in the sense that they have been given conventional names and are subject to established typologies)" (Bosque 2010). Linguists need to devote particular attention to the way each language – and culture – captures emotional meanings through metaphor.

The need for an onomasiological dictionary of the emotions in different languages has often been mooted. To compile one would be no easy task, for the reasons explained in this chapter, and because few partial studies are available. If someone wishes to know what the Spanish expression *subirse a la parra* ('to go up the grapevine') means, he or she can consult the *Diccionario académico* (*DLE* 2014) or the *DFDEA*, both of which are semasiological, and he or she will find under *parra* the meaning: 'to become enraged'. But if a student of Spanish as a Foreign Language wants to know what expression to use in colloquial Spanish to express rage, these dictionaries will be of no use. On the other hand, the *Diccionario de uso del español*, by Moliner (1996), say, will provide the initial help needed: under *encolerizar*, in the section CATALOGUE, this dictionary offers many possible phrases which, though very heterogeneous, will help the student find a colloquial expression that has the same meaning, as well as related collocations.[22] However, this dictionary was not designed for students of Spanish as a foreign language.

The idea of an onomasiological dictionary of the emotions, as Bosque has suggested (2016, online) for idioms in general (designed for learners of Spanish as a foreign language), is a project which is worth tackling, provided there is a good research team and sufficient time to do the task justice. If, as Borges said, reviving an old idea, words are memories of experiences, but at the same time symbols which posit the existence of a shared memory, then dictionaries should aspire to recording this memory as precisely as possible.

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CHAPTER 6

The value of left and right

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This chapter focuses on the emotive value ('axiology') of words for left and right in different languages. As a general picture, an asymmetry emerges, with a positive value for right and a negative one for left. The chapter further explores whether this asymmetry is reflected in other domains like in cognitive behavior, culture, and the brain. Special attention is paid to the question whether the left-right dimension should be considered as an image schema in cognitive-linguistic theorizing and whether the axiological dimension should be considered as an integral part of this and other image schemas. In general, the chapter argues that research on the axiological value of words for left and right contributes to insights in the role of laterality in general, including the lateralization of language, handedness and emotion.

Keywords: axiology, emotion, handedness, image schema, laterality, left, right

What resemblance more perfect than that between our two hands! And yet what a striking inequality there is! (Robert Hertz 1973: 3 [1909])

1. Introduction

Emotional meaning in discourse is to a large extent based on the linguistic means that speakers and writers use in their conversations and texts. Alba-Juez & Mackenzie (2016: 236–242) and Foolen (2016: 479–484) show that such linguistic means can be found on all linguistic levels, from phonology, via morphology and syntax, to semantics and pragmatics, including rhetorical techniques like repetition and use of figurative language. In the present chapter, we focus on emotional values at the lexical level, referred to with different terms in the literature, among them 'connotation', 'valence', axiological value, and expressive or evaluative meaning. Words differ in valence, i.e. in the strength of the evaluative part of their semantic structure (cf. Foolen 2015). Some words are rather neutral, like *street* and *house*, or scientific terms like *phoneme* and *illocution*, while others are strongly

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emotionally charged, like emotional interjections, swear words, and slurs. With regard to words like *good, bad, pretty, ugly*, Alba-Juez & Mackenzie (2016: 235) state that they "include positive or negative evaluative content ingrained within their semantic features". Then there are words for which the degree of their emotional loading is not so clear at first sight. Words for 'left' and 'right' belong to this category. It is the intention of the present chapter to explore the valence of these words, in different languages, as used in different domains.

Words for left and right are often vague regarding their reference to the left and right hands, the left and right sides of the body, and the left and right regions around the body (cf. Foolen 2017). We do not restrict our study to any one of these uses; from the context, it will be clear whether a specific reference to hand, body or region is meant.

Section 3 is the central part of this chapter. We will focus there on lexical items in different languages and explore the question whether we can make general claims about the positive or negative connotations of such words. But we start with the role of left and right in cognition and cognitive behavior (Section 2), assuming, in line with Cognitive Linguistics, that cognition provides an important basis for word meanings. Sections 4 and 5 put the linguistic observations of Section 3 in a wider context: In Section 4 we ask whether cultural phenomena having to do with left and right show evaluative orientations similar to those we find in words for left and right in language. In Section 5, we will explore the question whether we can find deeper explanations for evaluative differences between left and right. In particular, we will look at laterality phenomena like handedness and emotional processing in the brain. Section 6 concludes this study.

As the reader may have noticed, the order 'left and right' instead of 'right and left' is used in this text. Both orders can be found in language use, but the choice for the first order is meant as a tribute to left-handers who in history and many cultures have suffered from 'dexterocentrism' (see Section 4.3).

2. Left and right in cognition

2.1 Left-right and unconscious behavioral preferences

Spatial orientation plays an important role in our everyday experience and behavior. The sky is up and the earth is down, the computer screen is before me and the back of the chair is behind me. How about the left and right side of the body? On someone's desk, some objects have a fixed place, like the computer mouse, but other objects (a wallet, a pile of papers) can be put arbitrarily on either side, wherever space is free. Does it, then, make a difference which side a specific object is located on?

Casasanto (2009) initiated a research paradigm in which right and left handers performed tasks like choosing candidates for a job from two lists which were put on the right and left side of a page respectively, or putting animals in a left or right box placed before them (being told that animal A was a good one, and animal B a bad one). The general outcome was that in the first experiment right-handers chose significantly more candidates from the right-hand list and placed good animals in the second experiment in the right-hand box, whereas left-handers did the reverse.

Casasanto & Jasmin (2010) looked at speeches by American politicians during the 2004 and 2008 elections. There were two right-handers involved: Kerry and Bush, and two lefthanders: Obama and McCain. They found that right-handed candidates made a greater proportion of right-hand gestures when expressing positive ideas and left-hand gestures when expressing negative thoughts. But the opposite was found for the left-handers, who favored their left hand for positive ideas and their right hand for negative ones.

In Arabic culture, the explicit associations of right and left with good and bad are stronger than in European culture, because of the hygiene dimension, which is part of the left-right complex that people are highly conscious of: The right hand is for eating and drinking, the left hand for cleaning activities (cf. the references in De la Fuente et al. 2011: 2616). This inspired a group of psychologists from the Grounded Cognition Lab in Granada to replicate Casasanto's experiment with subjects from Spain and Morocco, cf. De la Fuente et al. (2011, 2015). If explicit cultural knowledge has an impact on cognitive behavior, one would expect the Moroccan right-handers to have a stronger preference for using the right hand for positively evaluated activities than the Spaniards, who were used as comparison group and who behaved like other members of European cultures. (Unfortunately, the researchers could not find Moroccan left-handers to participate in the experiment.) On the basis of the results for the right-handers, De la Fuente et al. concluded that the explicit cultural differences between Moroccans and Spaniards did not have an impact on the strength of their bodily-cognitive preferences, cf. De la Fuente et al. (2011: 2620):

> Whereas the strength of explicit space-valence associations varied across cultures, the strength of the implicit space-valence associations did not. Conventions in language and culture that link right with good and left with bad do not seem to have any effect on people's implicit space-valence mappings.

On the basis of these experimental findings, we can conclude that an implicit left-right asymmetry is part of how human beings unconsciously experience their body and the way they interact with the world. The question then is to what extent this asymmetry resonates in more conscious and abstract levels of human experience and cognition, in particular in image schemas, language, and culture. This question will be explored in more detail in the following Subsections (2.2 and 2.3 on image schemas) and Sections 3 (on language) and 4 (on culture).

2.2 Is left-right an image schema?

On a purely visual basis, the front-back and up-down asymmetries are much more striking than the left-right dimension, which rather looks like a symmetrical relation, as stated in the first line of the quote from Robert Hertz at the beginning of this chapter. This difference between the clearly asymmetric dimensions and the left-right dimension is reflected in cognitive linguistic theorizing about so-called image schemas.

Lakoff (1987: 267) defined image schemas as "relatively simple structures that constantly recur in our everyday bodily experience: CONTAINERS, PATHS, LINKS, FORCES, BALANCE, and various orientations and relations: UP-DOWN, FRONT-BACK, PART-WHOLE, CENTER-PERIPHERY, etc." Similar definitions can be found in Johnson (1987). The relevance of such structures for cognition and language had, however, already been pointed out by Fillmore (1975: 123):

> … we know, without knowing how we know, the prototypic ways in which our bodies enable us to relate to our environment; this is knowledge we might speak of as part of our body image. Our language provides us with orienting and classifying linguistic frames – such as UP/DOWN, FRONT/BACK and LEFT/RIGHT – which we could not understand, or could not easily understand, if we lacked bodies or if we lacked a body image.

Note that LEFT-RIGHT figures on Fillmore's list, but not Lakoff's. Checking similar lists in other literature, it is remarkable that it is standard practice to list UP-DOWN and FRONT-BACK, for example, whereas LEFT-RIGHT has a less secure status on the list. Clausner & Croft (1999: 15) list image schemas under different headings like space, force, container, etc. The image schemas listed under space are "UP-DOWN, FRONT-BACK, *LEFT-RIGHT*, NEAR-FAR, CENTER-PERIPHERY, CONTACT", with left-right printed in italics in the original, to indicate that the authors added this schema to the lists provided in Lakoff (1987) and Johnson (1987).

Is there a reason for the difference between the certain place of FRONT-BACK and UP-DOWN on the list of image schemas and the less certain status of LEFT-RIGHT? According to Cienki (1999: 300): "[T]he left-right spatial axis is very weakly polarized in terms of the human body and our daily conscious functioning: it plays a much less significant role than do the up-down and front-back axes."

It is a fact that children have difficulty discovering what is left and what is right, whereas up-down and front-back show up early in their language, cf. again Cienki (1999: 301), referring to studies that showed that "children properly used the terms for 'on' and 'under' at age two, and for 'back' and 'front' at age four. In comparison … most children could reliably differentiate between left and right parts of their own bodies by age six, but … performance on other objects continued to improve even up to age ten."

We thus see a certain tension between the findings in the Casasanto paradigm reported in Section 2.1, where the asymmetry on the left-right axis is a reliable outcome of the experiments (although different for right and left handers), and the difficulties children have in making a conscious difference between left and right and applying the proper terms to the two sides. The undecided way the axis is treated in the image schema literature reflects this tension.

2.3 Image schemas and axiology

As research along the lines of Casasanto's experiments has shown, the asymmetry between left and right is not primarily experienced as an asymmetry of objective difference; evaluation is involved. One of the poles is felt to be the positive one, and the other as its negative counterpart. In this sense, the asymmetry is more abstract than the concrete, visible asymmetry in the front-back and up-down dimension. In addition, we have seen that individual differences, based on handedness play a role in the distribution of evaluations over the two poles. For left and right handers, this evaluation differs and for left handers, it does not align with the conventional cultural distribution of values, which is based on the large majority of 90% right-handed individuals. If image schemas have a status that bridges individual and cultural experience, we may ask to what extent the evaluative differences observed on the cognitive/behavioral level transfer to the more abstract level of image schemas.

Looking at the classical definitions of image schemas, we observe that they were defined in purely schematic ways, leaving out values and emotions. However, in the 1990s, Krzeszowski (1993, 1997) argued that an axiological parameter should be added, cf. Krzeszowski (1993: 310): "The basic claim put forward in this chapter is that all preconceptual image schemata proposed by Johnson and Lakoff must incorporate an additional parameter which we would like to call PLUS-MINUS."

Krzeszowski calls this additional parameter 'axiological' (from Greek *axiā* 'value, worth'). He discusses the different image schemas, including left-right, from this axiological perspective, cf. Krzeszowski (1993: 323):

> Most people are right-handed, which means that they use their right hand to work, fight, write and perform countless other activities. The right hand is usually the more dexterous and stronger one. The predominance of the right hand in performing these activities constitutes the primary experience connected with the orientation RIGHT. This primary experience motivates the fundamentally positive axiology associated with the orientation RIGHT.

To what extent has the proposal to incorporate axiology in image schemas been accepted in the leading literature on image schemas? Let us take a closer look at Johnson (2005). To begin with, it is interesting to observe that Johnson, in contrast to his 1987 book, does pay attention to left-right experience here: "[G]iven the relative bilateral symmetry of our bodies, we have an intimate acquaintance with right-left symmetry" (2005: 20). Later in the paper, he indicates being aware that "something is missing" in the schematic way image schemas are conceived, see the following extensive quote (2005: 27):

> However, there is a "down side" to our standard way of describing image schemas. The character of image-schematic analysis that has always worried me since its inception is its exclusive focus on recurring *structures* or *patterns* of organism-environment sensory-motor interactions. In short, if you attend only to *structure*, you necessarily ignore the nonstructural, more qualitative aspects of meaning and thought. You are left with a skeletal structure without the flesh and blood of embodied understanding. You lose, or at least you overlook, the very thing that gives image schemas their life, motivating force, and relevance to human meaning, namely, their embeddedness within affect-laden and value-laden experience. There may be no way around this problem, but we can at least recognize what is left out of our theory, without which image schemas could not play their crucial role in conceptualization and reasoning.

Do these reflections lead to a decision on the side of the author to incorporate the axiological dimension in the make-up of image schemas? On p. 30, Johnson acknowledges that he does not "know how to account for the role of feeling in, and the qualitative dimension of, image-schematic understanding." Checking Johnson (2007), we have to conclude that in the end he apparently decided to leave out the whole issue of axiology. Johnson (2007: 144) summarizes his conception of image schemas, stating that they are both 'bodily' and 'mental', but not a word is said about emotion. He does list ROUGH-SMOOTH as an image schema, and SCALARITY, experienced in the intensity of qualities, including emotions, but he does not list LEFT-RIGHT, nor does he acknowledge the axiological parameter as an inherent property of (part of the) image schemas.

Is there an empirical criterion that can decide the question whether the axiological dimension should be considered part of image schemas? Krzeszowski's

(1997: 161) 'Axiological Invariance Principle' states that "a given configuration of PLUS-MINUS in the preconceptual image schemata from which a particular concept arises is preserved in the arising concept, whether directly meaningful or metaphorically extended". Hampe (2005) tested this principle for the use of the particles *up*, *down*, and *off*, as used in the context of particle verbs like *finish up/off*, *close up/down*. The particles represent the image schemas of VERTICALITY (*up-down*) and CONTACT (*off*). Her corpus study shows that the use of these particles does not necessarily involve the expected values (positive for *up*, negative for *off* and *down*), cf. a sentence like *Old age is a time for reflection and slowing down*, which, according to Hampe (2005: 108), is a positively charged sentence, including the *slowing down* part. Hampe does not deny the relevance of axiological meaning in discourse but on the basis of its variability in discourse, she concludes that this dimension should not be considered as a general property of image schemas.

But maybe LEFT-RIGHT is different? We have already seen that the image-schematic status of this spatial dimension is not firmly established in the literature. Maybe this special status has to do exactly with the fact that axiology plays such a strong role in this schema. Like Hampe, we will take a closer look at the lexical items that provide the linguistic manifestations of the image schemas, in this case the words for left and right. We will focus on their semantic properties as part of the lexical systems of the respective languages. This semantic analysis provides the basis for studying their use in discourse in future research.

3. Left and right in languages

3.1 Words for left and right

Some words in languages are basic, in the sense that they are not derived from other words which existed before with a different meaning. For example, in the etymological dictionary of Dutch (EWN), the meanings of the words for 'up' (*op*) and 'down' (*onder, neer*) are not derived from more basic meanings. In contrast, the entries for the words for 'left' and 'right' in etymological dictionaries of Dutch and other languages provide information about where these words come from. Dutch *links* 'left' is related to a medieval verb stem (*linken*, meaning 'to bend, changing something from straight to curved'), whereas *rechts* is an adverbial derivation of *recht*, originally meaning 'straight'. It is the same stem we find in English *right* and German *recht*, as used in *Er hat recht* 'he is right', where the word is applied in the domain of truth.

The words for left and right in Dutch are, thus, derived from stems that are not primarily related to the sides of the body. They have to do with the shape of a line, maybe as observed in the form of a path, wall, or field. It is not immediately clear to what extent these original meanings, going back to Proto-Indo-European, are already axiologically charged from the beginning. Is 'straight' good and 'curved' bad?

Van Leeuwen-Turnovcová (1989) gives an affirmative answer to the question but notes at the same time that the axiological alignment she observes is not necessarily a cognitive universal. In her view, there is a cultural dimension involved. In Pre-Indo-European matrilineal, goddess-oriented cultures, the curved form had a high status, which also showed in art and the form of houses. In Indo-European patriarchal culture, the straight form received a higher status, being related to a type of technical orientation in which vertical straight structures took dominance, as shown in higher buildings and hierarchical organizational forms in society. We may conclude, then, that the Proto-Indo-European roots for left and right have a certain valence, with the caveat that this valence is to be considered as related to culture. On a similar note, Cienki (1998: 143) warns us that "[i]t remains to be examined whether in languages from non-industrialized cultures the non-straight is valued as more natural and positive, and the straight is seen as restricting and therefore negative".

Against this relativistic cultural background, it is interesting to look at other languages and cultures and ask whether the words for left and right have a derived status there too and whether there is an axiological-emotional dimension involved. Schiefenhövel (2013) analyzed the words for left and right in 50 Indo-European and non-Indo-European languages and found confirmation for both the derived status of words for left and right and for an axiological dimension in the original words. Some examples he lists for 'source meanings' of words for right and left are the following:

straight	curved
strong	weak
male	female
clean	dirty
high	low
older	junior
leader	follower
light	dark

Most of these transfers are metaphorical in character: An asymmetric relation in an easily accessible domain (linear form, gender, space, age, social relations, weight) is transferred to the hand domain. The strong-weak and clean-dirty oppositions could very well be aspects of the hands themselves, which would make this transfer to the whole hand metonymic.

Here are a few language-specific illustrations. In Bakongo (a Bantu language in Angola), the right hand is *kooko kwalubakala* = the hand of men, that is the strong hand, while the left hand is *kooko kwalukento* = the hand of women. More generally, in her inventory of terms used in Bantu languages for the left and right hands, Werner (1973: 427) shows that in these languages the right hand is typically called "the male hand", and the left hand "the female", although less often. Instead, some Bantu words for left have to do with 'forgotten, dried up' or 'crooked horned'. This variation might have to do with euphemistic replacement of the word for left, cf. Section 3.2 below.

The exact source a specific language is exploiting for recruiting words for left and right probably has to do with the dimensions which are salient in that specific culture. There is, however, one source, which is rather widespread across cultures and which is not already axiologically charged in its source meaning, namely the South-North opposition. In Semitic cultures, the standard direction of worship is the East, and this provides the basis for words for left and right (Kees Versteegh, p.c.). Seen from this position, the right side of the body turns to the south, and indeed, in Biblical Hebrew and Classical Arabic *yamiin* means 'south' and 'right' (cf. the name for the southern country Yemen). Arabic *shamaal* means 'north' and 'left'.

We find a similar pattern based on eastward orientation in Gaelic (Lachlan Mackenzie p.c.). The word for East is *ear*, which historically goes back to a root meaning 'before, in front' and the word for West is *iar*, going back to a root for 'behind', cf. modern Gaelic *air* 'after'. Based on this orientation, it is understandable that *deas* means 'right' and 'south'. And Fryklund (1907) mentions Sanskrit *dakhsina* meaning 'right' and 'south'.

A third example comes from South America, cf. Núñez & Cornejo (2012: 965), who show that "following fundamental principles of Aymara cosmology, people, objects, and land – as a whole – are conceived as having an implicit canonical orientation facing east, a primary landmark determined by the sunrise".

The fact that the words for left and right are typically derived instead of being 'original' might have to do with the observation we made earlier, namely that the left-right dimension is less visible, less salient, than other bodily dimensions. The implicit feeling of a difference between left and right is, however, part of our experiential world, in particular experienced on the basis of hand use. Thus, in the course of time, people and languages will feel the need to develop terms to refer to the two sides of the body. If the words used for this reference do not already have an evaluative loading by themselves, they probably develop it after metaphorical transfer to the bodily domain.

3.2 Taboo and euphemisms for left

Several authors, for example McManus (2002: 70–71) and Schiefenhövel (2013), have pointed out that during the history of several languages the word for left has often been replaced by another word, whereas the word for the right side has stayed stable over time. Here are some examples.

Scandinavian languages replaced the word for left with a word which derives from the Old High German word *winistar* 'friend': Swedish *vänster*, Norwegian *venstre*, Danish *venstre*, Icelandic *vinstri*. Old English *winestra* also contains this root but it was replaced in its turn by *lyft* 'left', which originally means 'lame, weak'. If this replacement was meant to get rid of the negative connotations of the existing word, then the choice of the new word was not a very lucky one, to say the least. In Old Greek, *laios* 'left' was replaced by *aristeros* 'the better one', a clear euphemistic gain. Spanish has one word for right, *derecho/a*, but several for left: Pre-Roman *zurdo/a*, Roman *siniestro/a*, and *izquierdo/a*, taken from Basque. The existence of multiple terms is typically an indication that there was an effort in the past to get rid of forms with negative associations. Instead of replacing one another, the three words developed specialized uses in Spanish. *Zurdo/a* is used in relation to left-handed people, *siniestro/a* in relation to personal traits ('wicked'), whereas *izquierdo/a* is the default word for 'left'.

Lachlan Mackenzie (p.c.) provides data from Gaelic that can be interpreted in similar terms of replacement. *Tuath* means 'north' but was historically also used for 'left'. The modern word for left is *clì*, which has a negative connotation of 'unhandy, unpractical'. Notice that *ceàrr* (the feminine form of which is *cheàrr*) 'wrong' is also used for left. *Gabh an rathad gu do làimh cheàrr* means 'Take the road on your wrong hand' i.e. on your left! Again we observe the existence of multiple forms for 'left'.

Schiefenhövel (2013: 145) reports that in Eipo, New Guinea, the word for the right side is *sidik tam*, *sidik* meaning 'good, correct, proper'. The word for the left side is *kwanim tam*, from the verb *kwanib-*, which means 'to roll', an activity that the women do when rolling fibers, which they do with their left hand on their thighs, feeding new fibers in with their right hand. These fibers are used for making string bags. I have no historical data on a replacement process in Eipo, but it could very well be that the practical activity in which the left hand was involved was taken as a source domain for a word for 'left', replacing an older negative word.

Replacement of words in languages typically occurs when taboo and euphemism are at play, and this is most certainly also the driving force behind the exchange of words for left. This would, then, be additional proof for the claim that the left side and corresponding words are associated with negative feelings.

3.3 Figurative extensions

The human hands are a rich source for metaphoric and metonymic extensions, cf. Bertucelli Papi (2013), Foolen (2017). Most figurative expressions don't distinguish between the left and right hand; sometimes their symmetry is even stressed, cf. Bertucelli Papi (2013: 25): "Their symmetry and their operating conjointly surfaces in proverbs that have parallels in the two languages [English and Italian, AF]: *the right hand doesn't know what the left is doing*/*la mano destra non sa cosa fa la mano sinistra*; *one hand washes the other and both wash the face*/*una mano lava l'altra ed entrambe lavano il viso*." But there are some figurative uses in which the asymmetry between left and right comes to the surface, cf. McManus (2002: 299), who lists expressions in English in which *left* is used figuratively: *left-handed wife* 'mistress', *left-handed dream* 'bad dream', *left-handed opinion* 'a weak opinion', etc. We can expand this list with examples from other languages, for example German *Ehe zur linken Hand* 'marriage to the left hand', and Dutch *iemand/iets links laten liggen* 'to let someone/something lie on the left' is to neglect, ignore someone or something. In Spanish, *levantarse con el pie izquierdo* 'to get up (from bed in the morning) on your left foot' means the whole day after that was a disaster and everything went wrong.

In Korean, *oyn* is the word for 'left', *oyn son* is 'left hand'. Derivations of this word have negative meanings having to do with remoteness, a meaning development I have not seen for other languages. *Oy-* (derivational suffix) means 'only, single, not paired, sole, isolated', *oylop-* (verb) 'be lonely, be lonesome', *oyci-* (verb) 'be remote, be isolated, be out-of-way', *oyttan* (adjective from adnominal) 'remotely located, secluded' (Seongha Rhee, p.c.).

Words for 'right' also show a certain type of productivity, in that they are easily transferred to other semantic domains like 'truth' and law, as Cienki (1999) illustrates for Russian. Cienki (1998) shows that the image schema STRAIGHT is productive in Russian and English, with applications in the domains of time, events, discourse, thought, control, social norms, morality, truth, and law. In these domains, the words for 'straight' and 'right' typically refer to the normal, default situation, and this situation, is, apparently, considered as the positive state. All these metaphoric, idiomatic expressions and derivations obey Krzeszowski's Axiological Invariance Principle (cf. Section 2.3 above), in that the axiological value is preserved in the meaning extensions.

4. Left and right in art and culture

Hall (2008) provides an impressive collection of examples from Western art, showing the symbolic meaning of left and right. For example, in many pictures from Paradise, Eve accepts the apple from the devil with her left hand. But such symbolism can also be found outside Western art, cf. Palka (2002: 419) on Maya iconography: "Maya rulers are depicted right-faced, showing the right hand and arm, often holding objects in their right hands. Subordinates face to their left and in certain instances, defeated enemies are shown as being left-handed."

The left-right dimension plays a role in many other domains of culture. In traditional Bunun culture (Taiwan), there were two stoves in the house. The one on the right was for cooking food for humans, while the other one on the left was for cooking food for pigs (Amy Lee, p.c.). Many more examples can be found in the collection of papers brought together in Needham (ed.) (1973). The volume starts with the classical article by Robert Hertz from 1909 (original in French) about the role of left and right in religious contexts. In the *Credo*, a text which is a conventional part of the Catholic mass, it is stated that Jesus sits at the right hand of God (*sedet ad dexteram Patris*). In Buddhism, wisdom can be reached via two paths. The Right-Hand Path, or RHP, is seen as a definition for those magical groups that follow specific ethical codes and adopt social convention, while the Left-Hand Path adopts the opposite attitude, espousing the breaking of taboo and the abandoning of set morality.

The other contributions in the Needham volume, often inspired by Hertz, confirm the important role of the left-right distinction for many domains in different cultures. Granet (1973, originally 1933 in French) is interesting in that he shows that the values for left and right in Chinese culture are relative. The values depend on context, cf. Granet (1973: 58): "Never do we find absolute oppositions: a left-hander is not sinister, and neither is a right-hander. A multitude of rules show the left and right as predominating alternatively. The diversity of times and places imposes, at any point, a very delicate choice between left and right."

There are, however, two cultural domains where it is not immediately clear how the left-right distinction is related to the widespread axiological asymmetry, namely politics and traffic. In Section 4.1, we will see that axiology did play a role in the original application of the distinction in politics, whereas the practice in traffic has other, non-axiological, roots, as shown in Section 4.2.

4.1 Politics

Laponce (1981) is a classic study on the origin of the left-right distinction in politics. Referring to this study, Jost (2009: 130) states that

> the Left-Right distinction [in politics] originates […] with the French Revolution that lasted at least a decade beginning in 1789. The political use of the spatial metaphor was generalized from the seating arrangements of the French Assembly at the time of the Revolution. Those who supported the ancient regime (the Church, the Crown, and the aristocracy) sat on the right side of the chamber, while those who opposed the regime and sympathized with the revolutionaries sat on the left.

We may conclude that the extension of the left-right schema to its application in the political domain preserved the existing axiological asymmetry by associating right with the good "existing order" and left with the less good "change". Of course, for present-day left-wing people the association will be the other way around. In the domain of politics, there is thus more variation regarding the axiological values associated with words for left and right than in other, less controversial domains.

4.2 Traffic

In modern times, traffic in most countries moves on the right side of the road, but in the past, there was more variation: right, left, or free. There are historical antecedents leading to driving on the left or right. The preference for the left in the Middle Ages and early modern times was based on horse-riding. You mounted the hourse from the left, preferably from the side of the street. Moving forward on the same left side of the street had the extra advantage that your right hand was on the side where you might need to use a weapon, in case an opponent approached you from the other direction. In the 18th century, wagons with luggage, drawn by several horses, became more frequent on the street. The teamster would sit on a left side horse, so that he could easily reach the horses with his whip, which was held in the right hand. The disadvantage was that you had no clear sight of the traffic coming from the other side, which led to a switch of the traffic to the right side of the road. Napoleon spread this 'rightism' across Europe and it became an official rule. But the UK and some other countries kept the old practice of keeping left, see https://en.wikipedia.org/wiki/Left-_and_right-hand_traffic.

It thus seems that the application of left and right in the context of traffic has a purely practical basis, with no particular role for the axiological dimension of the schema. This 'neutrality' also shows up when we give directions: *Go straight, then take a turn to the left, and next street to the right*. It is hard to prove objectively, but intuitively, someone who asks for directions will not feel different about an advised right or a left turn.

4.3 Discrimination of left-handers and reversal of values

We close this section on left-right in cultural domains with a subsection devoted to the question how cultures deal with the fact that a minority (worldwide typically about 10% of the population) is left-handed. The causes, correlations and effects of left-handedness are still under debate, but despite the lack of definitive results, there is strong interest among the general public, which has led to a regular stream of popularizing books, see for example Kushner (2017), to mention only a recent one (for a critical review see Casasanto 2017).

Left-handers live in societies that are oriented to the right. This *dexterocentrism* or *dexteronormativity*, as Westmoreland (2017) calls it, varies over time and societies. The modern development of utensils adapted to left-handers (scissors, computer mouse, etc.) can be seen as a reduction of neglect and certainly contributes to the feeling of being treated as a normal group.

In a similar vein, languages differ in the number of special swear words for left-handers. English has a rather rich repertoire, with words originating from different domains: *lefty*, *cack-handed, left-plug* and *southpaw*, to name only a few. *Southpaw* comes from baseball, in particular the position of the pitcher in relation to the home plate, which is typically placed in the west side of the field. In that situation, the arm of a left-handed pitcher is on the south side. *Southpaw* is also used in boxing for boxers who lead (jab) with their right hand and strike with their left. McManus (2002: 303) reports that the English dialect survey, carried out in the first half of the 20th century, found eighty-seven different terms referring to left-handers, whereas no such variation was found for reference to right-handers. A similar pattern was found in the Linguistic Survey of Scotland, conducted at the same time.

Minorities sometimes gain special positive status in a society and this can happen to left-handers too. A specific left-handed individual who had distinguished himself in a positive way in the past can make the difference. For example, Lloque Yupanqui, the third Sapa Inca, was left-handed. His name, when translated from Quechua, means 'the glorified left-hander'. Among Incas, left-handers were called (…) *lloq'e* (Quechua: *lluq'i*) which has a positive value. Peoples of the Andes consider left-handers to possess special spiritual abilities, including magic and healing (see https://en.wikipedia.org/wiki/Lloque_Yupanqui).

In Russian, *levsha* (lefty, lefthander) became a common noun for a skilled craftsman, after the title character from *Сказ о тульском косом Левше и о стальной блохе* 'The tale of cross-eyed lefty from Tula and the steel flea', written in 1881 by Nikolai Leskov. Such incidental reversal of values can only occur against a background of a default distribution of values: good for right and bad for left.

5. Explanations for evaluative differences between left and right

5.1 Handedness

The nature-given right-handedness of the majority of humans in all societies seems to be the obvious basis and explanation for the asymmetries we have observed in cognition, language, and culture. The property of handedness is a human trait with deep roots, cf. Uomini (2015: 129) and Fitch & Braccini (2013: 76):

> Thus, these comparative data compellingly suggest that the evolution of strong species-level right-handedness was an important event in human evolution, occurring after our evolutionary split from chimpanzees. The chimpanzee data suggest that a seed for this right-bias may have predated this split, but they do not explain the subsequent strengthening of right-handedness.

Handedness thus seems a species-specific trait, cf. also Schiefenhövel (2013: 147): "[C]himpanzees have preferred hands with which they carry out tasks, thus are lateralized individually, but not as a species as ourselves". Similarly, Boesch et al. (2016) observed consistency of hand use for fishing algae within individual chimpanzees but not for the whole group. As Corballis (1991: 194) concludes: "Right-handedness thus serves as a marker for humanity; it is both universally and uniquely human."

This species-specific property of right-handedness (excluding for a moment the minority of left-handers) is a plausible candidate for providing a bodily basis for the axiological asymmetry observed with regard to left and right in language and culture. But maybe there is a second factor involved, which has to do with emotional processing in the brain.

5.2 Emotional processing in the brain

Cognitive neuroscientists have not come to a uniform conclusion about the question whether emotional processing is lateralized in the brain, cf. Lichtenstein-Vidne et al. (2017: 699), who distinguish three hypotheses, for each of which experimental support has been found:

- Valence hypothesis I: Processing of positive emotions involves the left hemisphere, whereas negative emotions are thought to engage the right hemisphere,
- Valence hypothesis II: The right hemisphere is specialized for positive emotions and the left hemisphere is specialized for negative emotions,
- Right hemisphere hypothesis: The right hemisphere is specialized for processing emotions regardless of their valence.

An example of research supporting this last hypothesis is Godfrey & Grimshaw (2016), who investigated the processing of emotional prosody, using the method of dichotic listening. They concluded (as stated in the title of their paper) that "emotional language is all right". However, using the method of pupil size measurement, Lichtenstein-Vidne et al. (2017) found support for valence hypothesis I. This finding is in line with what Corballis (1991: 266) already concluded: "[T]he two sides of the brain control complementary emotions, with the right side tending to evoke negative emotions and the left side positive ones."

Although it is too early for final conclusions on this issue, the general picture shows strong involvement of the right hemisphere in processing emotions. At the same time, a role for the left hemisphere is regularly found when it comes to positive emotions. The left hemisphere is also the one that processes information from the right side of the body. The positive associations with the right side of the body related to handedness thus fit the general processing of positive emotions in the left hemisphere. In a similar way, the processing of negative emotions in the right hemisphere 'fits' the negative associations with the left side of the body based on handedness. In other words, besides handedness in itself, the lateral distribution of emotion processing might be a factor that strengthens the axiological asymmetry between left and right.

5.3 An upgrade for the right hemisphere

It is widely accepted that lateralization has played an important role in human evolution, cf. Uomini (2015: 135): "[L]aterality – and hence modern behavior, possibly also language – has been a key feature of human evolution since at least H. Heidelbergensis, possibly extending further back to the Australopithecines". In the (linguistic) literature, there is a tendency to stress the importance of the left hemisphere in humans, pointing to the left lateralization of language. However, in recent years it has become more and more clear that the right hemisphere plays a role in processing certain aspects of language, like discourse integration of content, processing of figurative language, wider associative connections between words, and, last but not least, the processing of emotional aspects of language. "Clearly, the right hemisphere is fundamentally involved in efficient and effective human communication: When it comes to processing language, two hemispheres are better than one" (Lindell 2006: 144). And Godfrey & Grimshaw (2016: 580) conclude that: "Future research should consider the impact of the […] contribution of the right hemisphere to linguistic processing by bringing together the literature on hemispheric asymmetry for emotion and the literature on the right hemisphere's role in language more broadly." The neurocognitive upgrade of the right hemisphere finds its parallel in the increased attention in linguistics for the aspects mentioned, including emotion and discourse.

6. Conclusions and outlook

In this chapter, we have shown that the words for left and right are not neutral. Their negative and positive associations are deeply rooted in linguistic diachrony and bodily dimensions (handedness and lateralization of emotion). The associations are also reflected in different domains of culture and social life. Cultures differ in the importance of the distinction and in the way deviation from the norm (left-handedness) is dealt with.

We have looked at the words for left and right as part of the language system. The next step would be to look at the use of the words for left and right in different discourse types. We have already indicated that, for example in discourse about traffic the evaluations probably don't play a role and that in political discourse the evaluative meaning varies with the political orientation of the language user. But the positive and negative evaluations related to left and right might very well be reflected in specific collocations and semantic prosody in other discourse types.

We have seen that the strength of the emotional connotations of words for left and right vary across cultures. This connotation will be stronger in cultures where the distinction between left and right plays a role in many cultural domains. Is this variation across cultures reflected in discourse? Does the degree of specific collocations and semantic prosody for words for left and right correlate with the strictness of the distinction between left and right? Certainly an interesting topic for cross-cultural research on emotions in discourse.

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SECTION II

Pragmatics and emotion

Cyberemotion, the emotion of humor, pragmatic (epistemic) markers of emotion

CHAPTER 7

A cognitive pragmatics of the phatic Internet

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Phatic interpretations are typically defined as those arising from an intention to create and maintain ties and social bonds, rather than an intention to transfer substantive information. As such, they are not typical instances of communication in which the eventual relevance centers upon the value of explicitly communicated content. Nowadays we are witnessing the so-called *phatic Internet*, in which the propositional content transferred to other users is increasingly irrelevant but the effects that this content generates (in terms of emotions and feelings of connection, sociability, group membership, friends' acknowledgment and mutual awareness, etc.) are utterly relevant. This chapter will argue that it is mainly the feelings and emotions that are generated from phatic interactions (as well as phatic implicatures) that demand an extension of the scope of analysis and new terminology. Specifically, the term *phatic effects* will be proposed and applied to Internet-mediated communication. These effects are devoid of the qualities of intentionality and propositionality but are nevertheless essential to understanding why many users spend hours exchanging (apparently) irrelevant content with one another through the Net.

Keywords: emotions in phatic communication, phatic effects, Internet-mediated communication, relevance theory, contextual constraints, non-propositional effects

1. Phatic communication

According to Malinowski (1943), phatic communication refers to a kind of speech in which social ties created by a mere exchange of words are more important than the informativeness of these words.[1] Among its most typical manifestations, there are formulaic expressions of greeting, questions about the interlocutors' health,

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well-being, or comments about apparently irrelevant facts or topics that may seem obvious or trivial, such as the weather. As such, they are more centered upon sharing feelings and emotions (e.g. social bonding) than upon the transmission of substantive content. Examples include those listed in (1a-f):

(1) a. How are you?
 b. How ya doin'?
 c. Have a nice day!
 d. This train is really crowded.
 e. Do you come here often?
 f. Some weather we're having.

Phatic utterances have traditionally been regarded as important for sociability but irrelevant for the transfer of relevant content. They are "primarily aimed at establishing and maintaining social bonds between individuals over and above the exchange of information and hence do not necessarily express any particular thought nor aim to exchange facts" (Vetere et al. 2009: 178). Most definitions, one way or another, emphasize the contrast between the lack of interesting information and the "social" relevance obtained from the phatic act of communication (see, for instance, Žegarac 1998: 328). The term "phatic" originated in Malinowski (1943), who discovered that the subjects he analyzed often used language for mere social intercourse, and the meaning of their words was not important but facilitated connection among people.

Under the "umbrella function" of bonding and fostering sociability, several authors have proposed specific functions of phatic communication. Among others, the following may be listed: (a) to provide indexical information for social categorization; to negotiate relationships and reinforce social structure (the validation and recognition function(s); Radovanovic & Ragneda 2012: 13); (b) to establish and maintain a positive atmosphere in interpersonal relations, especially during the opening and closing stages of interactions (Senft 1996): and (c) to fill the silence, to allow for the initiation of conversation (Fowler et al. 2013: 200).

As communication devoid of informative intention, phaticness has posed a challenge for pragmatics and, specifically, Relevance Theory (Sperber & Wilson 1995; see below), and has even been assessed in negative terms due to this deficiency in informativeness (Coupland & Coupland 1992: 209–210). However, beyond its apparent simplicity, phatic communication "reveals a complex cultural, normative, cognitive and linguistic structure behind it, which speaks to its importance from communicational and sociological perspectives" (González Manzo 2014: 19). Indeed, its explanation demands an extension of analysis from the specific context of interaction into a broader social or cultural environment. In this sense, several authors have underlined the importance of society and culture in the kind of phatic communication that is allowed, expected, discursively constructed and finally interpreted. For example, phaticness is typically related to politeness (Meltzer & Musolf 2000: 98), which exhibits a clear social connotation. According to Padilla Cruz (2004), speakers may use phatic communication to assess the extent to which there is a mutuality of the politeness system in which the interaction is taking place, with a reliance that the hearer will use his/her cultural knowledge about the usage of phatic utterances and their effects in some communicative situations. This knowledge is, in Padilla Cruz's view, part of the huge store of so-called "cultural metarepresentations" that determine the way in which those utterances achieve eventual relevance. In a more recent study, Padilla Cruz (2007: 706) proposes the term *social effects* for those arising from phatic interactions and specifically regarding sociological variables, and leading to a more complete and accurate knowledge of the social reality in which people interact. Hence, even if the processing of phatic utterances does not significantly modify people's knowledge of the world, they can still induce hearers to draw conclusions about the social reality in which they interact, which makes those utterances worth processing (Padilla Cruz 2009).

2. The phatic internet

Phatic communication is an extremely important concept for scholars seeking to understand and describe the extent and depth of the interactions by today's Internet users through online interfaces, typically devoid of informativeness but nevertheless relevant in the generation of a number of personal and social effects. As Miller (2008: 398) correctly claims in his seminal paper on *phatic culture*, we see a shift from dialogue and communication where the point of the network was to facilitate an exchange of substantive content, to a situation where "the maintenance of a network itself has become the primary focus. Here communication has been subordinated to the role of the simple maintenance of ever expanding networks and the notion of a connected presence." What will be called *phatic effects* below, including feelings of connectedness, bonding, sociability, group membership, etc. certainly make up for the lack of interest that the thousands of virtual messages exchanged on a daily basis objectively possess.

The phatic Internet is also pervasive nowadays because the technologies for virtual interactions were either initially designed for casual interactions or have subsequently acquired a phatic quality in their design, that is, have become *phatic technologies*, defined in Wang et al. (2011: 46) as follows: "A technology is phatic if its primary purpose or use is to establish, develop and maintain human relationships. The users of the technology have personal interactive goals." The phatic connotation entails that the essence of these technologies is relationship building, rather than information transfer. As such, relationships and reinforcement of connection demand a constant supply and exchange of messages, typically through mobile phone interfaces (*apps*). In Licoppe's (2004: 147) words,

> rather than constructing a shared experience by telling each other about small and big events during the day and the week, interlocutors exchange small expressive messages signaling a perception, a feeling, or an emotion, or requiring from the other person the same type of expressive message. […] calls tend to be as frequent as possible because the more that this presence maintained over a distance through mobile phones is continuous, the more reassuring it is in terms of the link.

Interfaces such as *Facebook*, *Twitter* or *WhatsApp* not only allow for non-stop interactions that make up for the interlocutors' lack of physical co-presence (even if some crucial emotion-related aspects of physical co-presence are missing; see for example Attardo (this volume) on mimicking in conversation), but have also implemented phatic affordances in their design (as is true of the *Messenger* option on *Facebook*). Apart from the actual spaces devoted to typed interactions, we find interface elements which trigger a phatic feeling of connectedness and presence, for example the "paralinguistic digital affordances" (Carr et al. 2016) on *Facebook* such as acknowledgements ("like") and calls for attention ("poke"), together with automated linguistic reminders of initiated interactions (personal emails). These phatic elements serve the purpose of keeping users connected and aware of each other's presence (Wang et al. 2012: 85). Placencia & Lower (2013: 639) propose the term *phatic affirmation* for these sources of connected presence such as *Facebook*'s "likes," since these responses make it possible to maintain contact and support the relationship. As Varis & Blommaert (2015: 35) correctly state, it is extremely important for users to be part of a group that "likes" and "shares" items posted by others. It does not really matter so much that groups of users are not held together by high levels of awareness or deeply shared values, as in traditional communities, but by loose bonds of weak ties and superficial interests; the phatic connotation still applies and, as will be argued below, compensates for the lack of relevance of exchanged content or for the barrage of messages that users have to process.

In order to get a more thorough picture of what influences the relevance of Internet-mediated acts of communication, the addition of two elements has been proposed in previous research, in order to complement the general relevance-theoretic (and cyberpragmatic) model of interpretation: *contextual constraint* and *non-intended non-propositional effect* (see Yus 2011b, 2014a, 2015a, 2015b, 2016a, 2016b, 2016c, 2016d, 2017). The former is restricted to aspects that underlie or "frame" communication and interaction (i.e. they exist prior to the communicative activity) and *constrain* its eventual (un)successful outcome. These are important, since they have an impact on communication, specifically on (a) how much discourse is produced; (b) what kind of discourse is produced; (c) what kind of reaction is expected (sender user's expectations); (d) what kind of discourse is possible (interface affordances); and (e) what kind of discourse is expected (audience validation).

By contrast, the term *non-intended non-propositional effect* refers to feelings, emotions, impressions, etc. which are not overtly intended, but are generated ("leaked") from the act of communication and add positively or negatively to the eventual relevance of the interpretation of the online discourse. Again, these are important, since they have an impact on (a) the positive or negative outcome of users' acts of communication; (b) the preference for a specific site, medium or channel; (c) why certain interactions are (un)profitable despite the lack of (or the existence of) interesting information; (d) one's awareness of personal and social roles (through interactions); and (e) what kind of "residue" results from everyday acts of communication (and how it makes users feel).

As will be shown below, the prototypical cognitive pragmatics (i.e. relevance-theoretic) analysis of phatic communication is insufficient to account for what is really at stake when we talk about "the phatic Internet" and why this kind of communication has become so pervasive on the Net, keeping users glued to the screens. The addition of these two terms and the proposal of new possibilities for phatic interpretive outcomes will aid in explaining why users spend so much time exchanging apparently irrelevant messages and the impact of this kind of phatic interaction, at personal and social levels.

3. Reinterpreting phaticness on the internet

The cognitive pragmatics (e.g. relevance-theoretic) analysis of phatic communication typically conceptualizes this peculiar kind of interaction as (a) involving an intentional act; (b) centered upon the inference of information of a propositional kind; (c) exhibiting degrees (utterances may be phatic to a greater or lesser extent); (d) focusing on the speaker and his/her willingness to interact or socialize; and (e) transferring information which is objectively irrelevant or devoid of interest, but relevant in the effects it exerts on relationship, bonding or socialization, and these effects are shaped as weak implicatures.

Although this is undeniably the case on some occasions, in this chapter it will be claimed that phaticness may exhibit other possibilities, and that these added possibilities are particularly useful to understanding the extent and depth of phatic communication on the Internet. In the next Sections, it will be specifically suggested that phaticness (a) may be generated in addition to what was specifically meant with an intentional act of communication; (b) may possess a non-propositional quality, in the shape of feelings, emotions, desires that are attached to the initially irrelevant (propositional) content communicated; (c) may also be obtained from non-phatic utterances; (d) may be addressee-centered beyond the addresser's intentions; and (e) may be generated out of fully relevant content.

3.1 Phatic communication is intentional (but it may be unintentional)

Relevance Theory (Sperber & Wilson 1995) aims to describe the mental processes and inferential strategies that humans perform when making sense of what people intentionally communicate to one another. The identification of intentionality triggers the inferential activity of an evolved psychological ability that invariably selects the most relevant interpretation by making comparative judgments among competing interpretations and opting for the one that provides the highest interest (*positive cognitive effects* in relevance-theoretic terminology) in exchange for the least mental effort devoted to obtaining it. In general, hearers are expected to opt for the most relevant interpretation that fits these conditions of *effects vs. effort*.

However, searching for relevance is pervasive in human cognition and applies beyond the specific interpretation of intentionally produced verbal inputs. As the so-called *cognitive principle of relevance* states, "human cognition is geared to the maximization of relevance" and therefore we apply this innate predisposition to multiple inputs to cognition, including unintentionally generated ones, and even those not related to human communication or merely exuded from the environment. Actually, in this chapter it will be argued that although Relevance Theory (and pragmatics in general) has mainly focused on how intentional propositional content is inferred in a context, the main relevance of phatic posts on the Net may actually lie in unintentionally generated effects, which is the case in some varieties of phatic interpretive outcomes. Consider the mobile phone message quoted in (2a) (Yus 2011a: 126):

(2) a. Hey! The idea of a party in the dunes sounds great. You and I have to get everyone to go to the offie to get some booze and we can meet at the usual place on Saturday to pick up Tom's car.

b. Hey! The idea of a party [*organizing it? go to it? what party? what kind of party? whose idea was it*?] in the dunes [*which dunes*?] sounds great! You and I have to get everyone [*whom*?] to go to the offie [*which off-licence*?] to get some booze [*which kind of drink? which brand*?] and we can meet [*who? all the mates*?] at the usual place [*which place*?] on Saturday [*which Saturday*?] to pick up Tom's car [*which Tom*?].

The main contribution of Relevance Theory has been to show how an apparently simple message such as (2a) demands a lot of inference in order to turn it into a fully relevant proposition (an interpretation), as indicated in the questions in the square brackets in (2b) that the addressee has to answer when interpreting (2a). My point is that even if the intention of the speaker is merely to coordinate the party and to lay out the steps to be taken, the addressee may not only turn (2a) into a relevant interpretation, but also infer a number of feelings and emotions related to the relationship with the speaker (feelings of connectivity, of being acknowledged, of group membership, etc.), which typically qualify as phatic but were probably not intended by the sender of the message. My point in this chapter is that unintended effects often constitute the main relevance of apparently trivial content that is so often exchanged on the Net (more on this below).

3.2 Phatic communication is propositional (but it may be non-propositional)

The prototypical form of communication according to Relevance Theory is propositional, that is, mentally represented and truth-evaluable. Hence, what is inferred from an utterance is either a proposition of an explicit kind (*explicature*) or of an implicated kind (*implicature*) or both. As Sperber & Wilson (1995: 57) explain, there is a very good reason to assume that what is communicated is propositional: it is relatively easy to say what propositions are, and how inference might operate over propositions. There is a lot of debate on how inference operates over non-propositional objects: say, emotions (see Schwarz-Friesel 2015). "Propositional contents and attitudes thus seem to provide the only relatively solid ground on which to base a partly or wholly inferential approach to communication."

Explicatures differ from the information coded (interpretations being more or less explicit). This departure from coded meaning is even more evident in the case of implicatures, which may also be arranged on a continuum between *strong* and *weak*. Consider this example (adapted from Carston 2009):

(3) Tom: How was the party? Did it go well?
Ann: There wasn't enough drink and everyone left early.

(4) a. There wasn't enough alcoholic drink to satisfy the people at the party and so everyone who came to the party left it early, roughly before 2 o'clock.
b. The party did not go well at all.
c. Parties in which alcohol is scarce and people leave early are not good.
d. Ann thinks alcohol is essential in parties.
e. Ann only enjoys herself at parties when she is surrounded by many people.

When Tom interprets Ann's utterance in (3), he decodes her words and enriches them at the explicit level: the concept *drink* is adjusted into *alcoholic drink*; the scope of *everyone* is narrowed to "everyone at the party," and *early* has to be interpreted as the time in Tom and Ann's culture in which leaving a party at a certain time is considered early. The resulting proposition could roughly be the explicature in (4a). Of course, as an answer, she also strongly implicates (4b) (an implicated conclusion), in the sense that it is clear that she backs up this implicature. This is obtained by pairing the explicature in (4a) with encyclopedic information about what it takes for parties to be successful (the implicated premise in (4c)). However, Tom may also derive further implicatures, this time weaker (Ann probably did not intend to communicate them, but these are anyhow triggered by her utterance), such as (4d) or even weaker ones such as (4e), this time derived on his sole responsibility.

Relevance Theory pictures phatic communication, as communicated as propositions: "phatic communication is still a case of linguistic communication, because the linguistic properties of the utterance do play a role in the interpretation" (Žegarac 1998: 338). Specifically, it is communicated in the shape of weak implicatures, since its relevance does not lie in the information conveyed by the utterance (its explicature) but in the fact that the speaker has engaged in an act of communication: "An interpretation is phatic to the extent that it contains implicated conclusions which do not depend on the explicit content of the utterance" (Žegarac & Clark 1999: 331).

Although it is undeniable that the hearer may entertain and mentally represent the phatic intentions of the speaker as a weak implicature, my intuition is that on many occasions this is not the case. Instead, what often happens is that the hearer infers the speaker's desire for connection, feeling of sociability, willingness to engage in a conversation, etc., in the shape of non-propositional elements attached to the propositional verbal content uttered (which is also inferred, even if not relevant in its own sake). In other words, phatic information usually gets *attached* to the verbal content inferred (when intended) or *leaks* from this content (when unintended but also eventually relevant; see Section 3.4 below). Consider a typically phatic dialogue such as (5b) in situation (5a):

(5) a. [John is at a party and sees Mary sitting in a corner. They do not know each other].

b. John: [Approaching Mary] Nice party, isn't it?
Mary: [Smiling] Yes, very nice…
John: [Pointing at a nearby chair] Mind if I sit down?
Mary: No, no, go ahead.

c. Mary thinks and mentally represents John's intention to engage in a conversation in the shape of a weak implicature (e.g. "This guy wants to chat with me").
d. Mary infers John's desire for communication and feelings towards socialization. These are attached to the utterance, which is also inferred but its content does not turn out to be relevant.

As was pointed out above, Mary may indeed derive and mentally represent the weak implicature in (5c), but very often what occurs is rather (5d), in which the utterance is processed for relevance and certain non-propositional desires and feelings get attached to the content inferred. Coupland (2003: 2) points in the same direction when he states that "it is widely acknowledged that all talk carries social and affective meaning, along with its representational or task-focused aspects." And Padilla Cruz (2005: 214) writes about phatic utterances contributing to the bringing about of a feeling of solidarity and ties of union between interlocutors, a typically non-propositional effect derived from the inference of propositional content.

3.3 Phatic utterances may be more or less phatic (and they may also produce joint phatic and non-phatic interpretations)

It is commonly acknowledged that utterances may exhibit degrees of phaticness depending on how much attention the hearer pays to the explicit propositional content of the utterance. Highly conventionalized phatic phrases will be immediately qualified as irrelevant regarding their content, but possibly relevant in their phatic connotations. Hence, in theory (6b) should be less phatic than (6a) and (6c) less than (6b):

(6) a. Hi! How are you?
b. Hi! How are you these days?
c. Hi! How are you after the divorce?

A more interesting issue in my opinion is the fact that the phaticness of conventionally phatic utterances is context-dependent, and there is no guarantee that a phatic interpretation of these conventional utterances will invariably be more relevant than a non-phatic one across contexts. Consider the typically phatic utterances in (7b) and (8b):

(7) a. [Thomas told John this morning that it was ok to go to the beach since the weather was going to be fine; but when they get there, it starts pouring down].
b. John to Thomas: "Nice weather!"

(8) a. [Ann and Rose share the information that the latter is recovering from a serious illness].
b. Ann to Rose: "Hi! How are you?"

These utterances, so often used for phatic purposes, acquire non-phatic meanings when said in the specific contexts (6a) and (7a). In the first case, the utterance acquires an ironical connotation, rather than a phatic one, whereas in the second case, due to the mutuality of information, the question may be interpreted as a genuine request for information, rather than as a phatic utterance.

Furthermore, this proposal in which the inference of phaticness as feelings and emotions ends up attached to the content being transferred to the addressee, allows for the derivation of non-phatic implicatures (beyond the picture of phaticness only as a weak implicature), while the addressee is inferring the phatic desire of sociability and feelings towards connectivity. Consider the tweet by Peter in (9) read by his friend Ann (Yus 2016d):

(9) Making a yummy sandwich and looking forward to tonight's film on TV ☺ ☺

(10) a. A post such as (9a) indicates that the user is contented with himself.
b. Peter has recovered from the recent painful breakup with his girlfriend.

As has been suggested above, it is unlikely that Ann will mentally represent Peter's phatic intention as a weak implicature. Rather, my proposal is that this phatic intention is inferred as non-propositional feelings and desires for sociability attached to the content being processed. This "non-propositional attachment" (desire of connection, of sustaining a chat with peers, of being acknowledged by others, etc.) lingers on and does not interfere with the derivation of other weak implicatures, this time non-phatic (see Kulkarni 2012: 21). For example, Ann may access a background contextual assumption such as (10a) and use it in the derivation of the non-phatic weak implicature in (10b), which is probably not meant by Peter but triggered anyhow by his tweet and derived on Ann's sole responsibility. Therefore, a phatic utterance may produce relevance both in the non-propositional phatic feelings associated with its emission and in allowing for the derivation of propositional non-phatic implicatures.

3.4 Phatic communication is speaker-centered (but it may be hearer-centered)

The prototypical picture of phatic communication is speaker-centered. It is the speaker that intends to engage in an interaction or aims at sociability and resorts to a phatic utterance for that purpose. This is typically the case of posts on the Internet, where the "sender user" holds a phatic intention and resorts to a prototypical phatic utterance that triggers reactions from peers, their acknowledgement, their willingness for interaction and overall "audience validation." However, crucially nowadays, the "addressee user" may infer phatic feelings and emotions beyond the sender user's intention, beyond the propositional quality of interpretation, and even beyond the addressee user's conscious awareness in their inference. A suitable term for this kind of "leaked" residue would be *phatic effects*.

In my opinion, these non-intended non-propositional phatic effects are extremely important and also responsible for today's obsession with looking at the mobile screen while ignoring the person who is opposite us in a context of physical co-presence (*phubbing*). Indeed, many people complain that their friends compulsively look at their phones instead of paying attention to them or to their face-to-face conversation. A famous cartoon depicted this situation: a woman and a man, the latter is ignoring her while looking at his mobile phone, to which she says "Do you mind if I strap your phone to my forehead so I can pretend you're looking at me when I talk?" This impolite habit may be explained in pragmatic terms by resorting to the aforementioned terms *contextual constraint* and *non-intended non-propositional effect*. The basic explanation for this behavior would be that a single person, in a physical scenario, exchanging unplanned oral utterances with an interlocutor is not as satisfying as the array of positive constraints and benefits (positive non-propositional effects) that the person obtains through the mobile phone. These positive constraints and benefits are briefly described below.

On the one hand, positive contextual constraints influence the user's communicative activity especially when sending messages, since the affordances of the mobile phone allow for:

a. Immediacy of communication, constant connection with a lot of ties (unlike a single face-to-face interlocutor).
b. Lack of imposition on the addressee's reply. Users are relieved when sending typed messages or audio files, since they are devoid of intrusiveness, whereas face-to-face interactions are filled with impositions in order to avoid the embarrassing silence. In this case, as Licoppe & Smoreda (2005) correctly point out, new phatic technologies allow for non-intrusive sending of data and no imposition on an immediate reply.
c. Non-compulsory commitment to the conversation, no need to sustain long interactions. The user is free to stop and leave the current typed conversation on the mobile phone without causing negative effects on the interlocutors, whereas oral conversations demand full commitment so as to develop the dialogue into a relevant outcome.

d. Possibility to plan and design messages. Unlike face-to-face conversations, in which utterances are spontaneous and hence not easy to plan and design, typed texts on a mobile phone screen allow for creative and colorful planning and messages may be revised before touching the "send" icon.
e. Possibility for shy users to keep control of how much information is provided, especially the non-verbal, "exuded" one. In face-to-face scenarios, shy users feel "exposed" to the interlocutor and without control of what information is eventually conveyed. By contrast, typed conversations provide a secure environment within which personal cues are filtered out and only the text communicates the desired information.
f. More playful text-image combinations. Especially for youngsters, the possibility to play with text deformation and text-emoji combinations is highly valued (Yus 2005).

These positive constraints (a-f) lie at the heart of today's reluctance to phone people and the resort to typed messages or recorded audio files instead. Take *WhatsApp*, for example (Yus 2016c). The interface currently offers the possibility of free phone calls and video calls but users shy away from this interface option. A recent Spanish meme that went viral stated the following: "First SMS, then came WhatsApp, now you record an audio file, and your friend records a reply. If they continue like this, they will end up inventing the telephone" (my translation). The underlying criticism in this meme is that users should use the highly contextualized option of oral communication (phone call) instead of having to type or record messages which are more de-contextualized and therefore more prone to unintended interpretations. Beyond the initial puzzlement at why users do not prefer calls, an explanation may be found in the positive contextual constraints that have just been listed.

On the other hand, positive non-propositional effects influence the user's estimation of relevance especially when receiving messages. Most of these effects possess a phatic attribute, leak from the act of communication and the user is often not aware of their generation, but these are nevertheless essential to understanding why users remain "glued" to their mobile phone screens. Among others, the following non-propositional effects may be listed:

a. Feeling of generation of social presence. One of the phatic offsets of virtual interactions is the generation of social presence, that is, the feeling of being with another person in a mediated environment (Biocca et al. 2003), the degree to which people are perceived as "real" in virtual scenarios, the degree of feeling, perception, and reaction of being connected to other users through the Net (Lowenthal 2010: 130), the awareness of the others accompanied by an engagement in computer-mediated social spaces. As Lomborg (2012: 423) comments regarding blog interactions, these exhibit "social presence and by this means confirms the existence of a social relationship between the commentator and the author… The continuous social presence thus functions as a phatic marker enabling participants to create and maintain rather close relationships."

Nowadays, mobile instant messaging applications (*WhatsApp*, *WeChat*, *Line*…) are the main sources of social presence, since these *apps* facilitate real-time dialogues that provide users with a feeling of presence in absence, thus enabling them to feel that all the users are sharing the same space (Park et al. 2014). These *apps* do generate abundant emotional expressions in terms of social presence, and they can be accessed anywhere and anytime. Certainly, mobile phone *apps* (for social networking and instant messaging) enable users to perceive high levels of psychological proximity. They provide instant feedback due to ubiquitous connectivity, conveying a variety of social clues including texts, images and voice simultaneously, providing discursive capabilities that express personal feelings and emotions (e.g., *emoji*, see Yus 2014c), and support varied non-standard forms of language (Choi 2016: 327, Yus 2005).

However, many analysts of social presence are wrong to claim that the design of the interface should be as close as possible to face-to-face communication in order to maintain a high level of social presence. For instance, Park & Sundar (2015: 122) propose that "the frequency of users' interactions with an interface seems to depend on the level of social presence they perceive, thus making it a core design principle for social computing technologies and online communities." Instead, as has been suggested above, the fact that an interface offers more options for interactions which are closer to face-to-face communication in terms of cues and contextualization does not guarantee user satisfaction and higher social presence. In fact, many users avoid interfaces that allow for highly contextualized interactions and prefer text-based exchanges since the latter involve more positive contextual constraints. In general, these effects compensate for the fact that the interfaces exhibit a cues-filtered quality, that it, they cannot convey all the range of contextual information that face-to-face interactions do.

b. Feeling of enhanced sociability and social capital. Users may feel that they are in a context of sociability and that so-called "social capital" is exerted from their interactions. The latter may be defined as "investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental or expressive actions" (Lin 1999: 39). As has been pointed out in Sarjanoja et al. (2013: 120), active contribution to social networking sites such as *Facebook* leads to a perceived increase in social capital, whereas passive consumption of content may lead to a decrease of social capital and increased loneliness. The massive posting of apparently trivial content on these sites may act as capital builder that keeps the feeling of being active, thus having a positive effect on social capital.

c. Feeling of reciprocity and intimacy. The fact that phatic technologies allow for non-stop connection and instant gratification may generate an increased feeling of intimacy with the user's peers and acquaintances. Posting trivial content acts upon others' obligation for reciprocity, and receiving messages makes the user feel connected and acknowledged by others.

d. Feeling of enhanced areas of mutuality between interlocutors. According to Relevance Theory, the point of communication is not simply to transfer information to other people, but to achieve a *mutual manifestness* of information between interlocutors. The creation and management of mutuality is, therefore, a major aim of human communication, and phatic utterances may perform the role of foregrounding areas of mutuality which lead to a sense of connection, belonging or group membership, among others. Padilla Cruz (2007: 705) also comments on how the effects generated through phatic interactions may increase or enhance the knowledge of the interlocutor, personality, character, behavior, habits, etc. Furthermore, the hearer can store the assumptions resulting from those effects in encyclopedic memory as part of the frames or schemata about the interlocutor, so that he/she can access them afterwards. Besides, mutuality extends to the effect of mere awareness of the other interactants, in the sense that a lot of information is built up through phatic exchanges that constitute a sort of "social foundation" on which further interactions may be accomplished (Schandorf 2016: 194).

e. Feeling of connectedness, acknowledgment, mutual awareness. These are probably the most important effects generated through phatic technologies. As Radovanovic & Ragneda (2012: 11–12) acknowledge, what really counts in human interaction is to stay in touch and let others know that the user is also present despite the lack of physical co-presence (see also Hopkins 2014; Graham 2012). An effective means to achieve that awareness of connectivity is to write chained phatic messages, expressing their thoughts freely and making witty comments with the ultimate purpose of keeping contact and reinforcing relationships. Brief messages such as Twitter posts are meant to be sent and processed instantly but the feeling of connection remains across this chained posting behavior; "they are updates creating the notion and feeling of intimacy by being constantly connected online, in real time with others, globally" and their purpose "at the first glance may appear to lack meaningful information, but in its substance those gestures and communication expressions foster sociability and maintain social connections." Vetere et al. (2009: 180) also underline the importance of the apparently trivial exchanges of phatic utterances, of chatting idly, of wasting time with others as a valuable expression of mutual acknowledgement and caring. Their analysis revealed that the substance of communication was not always important: "It was the reassurance that they were connected, that a channel of communication was available to them, and that this somehow strengthened and nurtured the relationship. These phatic exchanges were genuinely valued."

In this sense, Nardi et al. (2000) propose the term *outeraction* for instant messaging exchanges in which users socially extend to others, thereby enabling information exchange and extended mutuality. These *outeractions* may occur through what is labeled "awareness moments" which produce an offset of feelings of connection with others (i.e. of mutual manifestness in relevance-theoretic terms). These authors propose instant messaging as valuable for creating a sense of awareness and connection with others. It forms a social bond without exchanging any substantive information. This is corroborated by today's extensive use of mobile instant messaging applications.

Additionally, Licoppe & Smoreda (2005) propose the term *connected presence* for the effect of non-stop posting of apparently trivial messages which nevertheless generate a feeling of constant connection, availability and reachability in peers. A new pattern of sociability has emerged in which users are constantly easy to reach through phatic media, blurring the dividing line between presence and absence, and relationships become strings of quasi-continuous exchanges (Miller 2008: 394). In Licoppe & Smoreda's (2005: 321) words, "the boundaries between absence and presence get blurred and subtle experiences of togetherness may develop… Phatic communications becomes increasingly important, because simply keeping in touch may be more important than what is said when one actually gets in touch."

f. Feeling of group membership. Finally, an offset of phatic effects may be centered upon feelings of community or group membership and the support from users therein. Besides, the user's communicative strategies may also be shaped by these effects arising from the collectivity. Wang et al. (2012: 88) propose the term *phatic technological habituation* for the cyclic process in which users are connected by their common use of the phatic technology and depend on it to fulfil a specific social purpose. The continuous reliance on this technology may shape special practices in the community. The practices themselves influence the actions of individual users and has the potential of influencing and, eventually, determining individual preferences. The use of the phatic technology therefore becomes a "habit" that shapes members' actions in the community.

Together with this habituation, a feeling of being socially supported by the group or community is an important phatic effect of online interactions. Many messages posted on social networking sites are intended to generate a feedback from peers, but these effects may also be generated as unintended phatic effects simply from the fact that users respond to one's messages. Besides, the technological affordances of social networking interfaces allow for the fostering of global communal interactions, the broadcasting of messages to the whole collectivity and yet the parallel capability to receive feedback only from very specific friends (Carr et al. 2016: 386).

3.5 In phatic communication the explicit content is irrelevant (but it may be relevant)

The prototypical picture of phatic communication that has been outlined so far in this chapter is the one in which the hearer initially processes the linguistic content for relevance and if the utterance fails to yield enough effects, the hearer is likely to consider whether some effects might be derived from the evidence presented by the act of communication itself (Žegarac 1998: 337). These speaker-centered effects may be shaped as weak phatic implicatures of a propositional nature (the default relevance-theoretic proposal) or as non-propositional phatic feelings and emotions attached to the content being inferred (the proposal in this chapter). In addition, the hearer may use the initially trivial content of the phatic utterance to derive a number of hearer-centered non-phatic weak implicatures which are not meant by the speaker but are derived by the hearer's sole responsibility. Finally, the user may also derive unintended non-propositional phatic effects, not meant by the speaker but nevertheless important to maximize the relevance of the act of communication. It has been claimed in this chapter that these phatic effects are crucial if we are to understand today's obsession with engaging in communication through mobile phone interfaces.

However, Internet-mediated communication allows for more possibilities across the propositional/non-propositional and intended/unintended dichotomies. Firstly, phatic messages, whose content is typically devoid of interest, may end up generating a relevant interpretive outcome in their own right. Take tweets, for example. Although they are often trivial and their content lacks interest, their accumulation may actually be very relevant. The non-stop posting of trivial tweets allows for an *ambient awareness* (Thompson 2008) of what the user is currently engaged in, a kind of "presence in the absence" that dilutes the feeling of separation between the user and followers. Furthermore, these tweets generate cumulative background information on the user from the information provided by these apparently trivial posts. This background is important since it constitutes a preliminary context upon which subsequent interactions with the user may be constructed.

Secondly, non-trivial information may acquire phatic connotations or encourage eventual phatic interactions. *Facebook* entries, for example, may trigger subsequent phatic interactions in terms of comments and dialogues. Actually, many posts are published because their inherent interest is likely to produce a number of replies and interactions, and not because the user wants to provide friends with relevant information, as it would initially appear to be, even though the users themselves may be rather reluctant to admit this covert intention. An extreme case in this direction is what in Yus (2014b) has labeled *interactivity triggers*, posts that are mainly meant to trigger reactions from peers. Examples quoted in that study include the ones listed in (11):

(11) a. Ya he sido aceptada como profe en el IES Tirant Lo Blanc!!!!y voy a ir con mi compi Cristina!!!
[I've been accepted as teacher at Tirant Lo Blanc High School!!!! and I'll be there with my mate Cristina!!!].
b. Importante: mi movil ha muerto… Hasta el viernes no tendré, ya veremos si sobrevivo… jajaja
[Important: my mobile has died… I won't have one till Friday, let's see if I can survive… hahaha].
c. Mañana a estas horas estare LoWcOsTeAnDooooo!! Con #bego!!:)
[By this time tomorrow I'll be lowcosting!!! With Bego].
d. Ya tengo mi título de Curso Básico de Peluqueria! Jijiji
[I've got my certificate from the basic course in hairdressing! Hihihi].

In short, new possibilities open up for phatic communication beyond the prototypical scenario of irrelevant explicit content and relevant phatic implicatures. Indeed, sixteen cases arise from a combination of the following parameters: (a) the intention as phatic or non-phatic; (b) the discourse as phatic or non-phatic; (c) the addressee derives a number of propositional phatic implicatures (as probably intended) or not; and (d) the addressee derives a number of unintended non-propositional phatic effects or not. The resulting taxonomy ranges from the most phatic scenario (first case) to the least phatic one (last case). A description of the sixteen cases follows.

Case 1.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve that, he/she produces a typically phatic message. The addressee user notices and is fully aware of the phatic quality of the sender user's message and draws a number of phatic (weak) implicatures of a propositional kind. At the same time, the addressee user feels a number of non-propositional (and not overtly intended) phatic effects leaking from the interpretation of this message; he/she feels acknowledged, valued, part of the non-stop connection with peers such as the sender user, satisfied at being addressed for a conversation. These effects compensate for the lack of relevance that the sender user's content produces.

Case 2.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve that, he/she produces a typically phatic message. The addressee user notices and is fully aware of the phatic quality of the sender user's message and draws a number of phatic (weak) implicatures of a propositional kind. At the same time, the addressee user feels a number of non-propositional (and not overtly intended) effects, but these effects are not of a phatic kind. For example, the addressee user may update his/her feelings towards the sender user, without these acquiring a typically phatic quality (socialization, bonding, connectedness).

Case 3.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve that, he/she produces a typically phatic message. The addressee user draws (or not) a number of non-phatic weak implicatures of a propositional kind. At the same time, the addressee user feels a number of non-propositional (and not overtly intended) phatic effects leaking from the interpretation of this message.

Case 4.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user wants to initiate an interaction, aims at socializing, and to achieve that, he/she produces a typically phatic message. However, the phatic intention is unsuccessful, since the addressee user neither draws phatic weak implicatures of a propositional kind, nor obtains phatic effects beyond the act of communication. A typical case is the phatic message that is interpreted as a genuinely relevant message in itself, and the addressee user misunderstands the sender user's intentions.

Case 5.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve this phatic goal, the user resorts to an objectively interesting message, one whose content creates lots of expectations of relevance, and therefore is bound to "break the ice." The addressee user notices and is fully aware of the phatic intention of the sender user's message and draws a number of phatic (weak) implicatures of a propositional kind. Besides, he/she obtains relevance from the explicit interpretation. At the same time, the addressee user feels a number of non-propositional (and not overtly intended) phatic effects leaking from the interpretation of this message, which add to the overall relevance of the utterance.

Case 6.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve this phatic goal, the user resorts to an objectively interesting message, one whose content creates lots of expectations of relevance, and therefore is bound to "break the ice." The addressee user draws a number of phatic (weak) implicatures of a propositional kind, besides obtaining relevance from the explicit interpretation. By contrast, the addressee user does not obtain any non-propositional (and not overtly intended) phatic effects leaking from the interpretation of this message.

Case 7.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve this phatic goal, the user resorts to an objectively interesting message, one whose content creates lots of expectations of relevance, and therefore is bound to "break the ice." The addressee user draws (or not) a number of (weak) implicatures of a propositional kind but not of a phatic quality, besides obtaining relevance from the explicit interpretation. Additionally, the addressee user obtains a number of non-propositional (and not overtly intended) phatic effects leaking from the interpretation of this message, which add to the overall relevance of the utterance.

Case 8.

Intention:	phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user wants to initiate an interaction, aims at socializing. To achieve this phatic goal, the user resorts to an objectively interesting message, one whose content creates lots of expectations of relevance, and therefore is bound to "break the ice." The addressee user draws (or not) a number of (weak) implicatures of a propositional kind but not of a phatic quality, besides obtaining relevance from the explicit interpretation. The addressee does not obtain phatic effects leaking from the interpretation of this message, which means that the phatic intention is misunderstood. A typical case is the phatic message that is interpreted as a genuinely relevant message in itself.

Case 9.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user produces a typically phatic message but he/she does not hold an overtly phatic intention. For example, using a typically phatic "how are you" as a genuine request for information. The addressee user incorrectly draws a number of (weak) implicatures of a propositional kind and a phatic quality. Besides, beyond the user's intentions, the addressee user obtains a number of phatic non-propositional effects that make the act of communication relevant in itself.

Case 10.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user produces a typically phatic message but he/she does not hold an overtly phatic intention. For example, using a typically phatic "how are you" as a genuine request for information. The addressee user incorrectly draws a number of (weak) implicatures of a propositional kind and a phatic quality. Furthermore, the addressee user does not obtain phatic non-propositional effects out of the processing of this act of communication, or the ones obtained are not of a phatic kind.

Case 11.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user produces a typically phatic message but he/she does not hold an overtly phatic intention. For example, using a typically phatic "how are you" as a genuine request for information. The addressee user may incorrectly draw (or not) a number of (weak) implicatures of a propositional kind but not of a phatic quality. Besides, the addressee user does obtain phatic non-propositional effects out of the processing of this act of communication, which might have added to the overall relevance of the act of communication as a whole.

Case 12.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user produces a typically phatic message but he/she does not hold an overtly phatic intention. For example, using a typically phatic "how are you" as a genuine request for information. The addressee user may incorrectly draw (or not) a number of (weak) implicatures of a propositional kind and a phatic quality. Additionally, the addressee user does not obtain phatic non-propositional effects out of the processing of this act of communication, which might have added to the overall relevance of the act of communication, or the ones obtained are not of a phatic kind.

Case 13.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user produces a message that does not fit the typical phatic quality, and he/she does not hold a phatic intention. The addressee user incorrectly draws a number of (weak) implicatures of a propositional kind and a phatic quality. But the addressee user obtains phatic non-propositional effects out of the processing of this act of communication, which add to the overall relevance of the act of communication.

Case 14.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user produces a message that does not fit the typical phatic quality, and he/she does not hold a phatic intention. The addressee user incorrectly draws a number of (weak) implicatures of a propositional kind and a phatic quality. However, the addressee user does not obtain phatic non-propositional effects out of the processing of this act of communication, which might have added to the overall relevance of the act of communication.

Case 15.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	phatic

The sender user produces a message that does not fit the typical phatic quality, and he/she does not hold a phatic intention. The addressee user draws (or not) a number of (weak) implicatures of a propositional kind but not of a phatic quality. However, the addressee user obtains phatic non-propositional effects out of the processing of this act of communication, which add to the overall relevance of the act of communication.

Case 16.

Intention:	non-phatic
Discourse (on a phatic/non-phatic continuum):	non-phatic
Weak implicatures:	none or non-phatic
Phatic effects (non-propositional feelings or emotions):	none or non-phatic

The sender user produces a message that does not fit the typical phatic quality, and he/she does not hold a phatic intention. The addressee user draws (or not) a number of (weak) implicatures of a propositional kind but not of a phatic quality. Besides, the addressee user obtains no phatic non-propositional effects out of the processing of this act of communication, which might have added to the overall relevance of the act of communication.

4. Concluding remarks

Phatic communication is pervasive on the Internet nowadays. Besides the typical form of phatic communication as intended, propositional and derived as a weak implicature, this chapter proposes new ways and possibilities for Internet-mediated discourse to result in phatic and relevant interpretive outcomes, to the extent that what keeps users addicted to their phones and computers is often not so much the intentional phatic form of communication, but the phatic residue that *leaks* from Internet acts of communication, beyond the sender user's intention and beyond the addressee user's conscious awareness. This "residue" is made up of non-propositional feelings and emotions and these non-propositional effects of a phatic kind very often compensate for the lack of interest that the propositional content objectively conveys. This emphasis of the chapter on non-propositionality underlines the importance of feelings and emotions in everyday human communication, including Internet-mediated communication, which is also stressed throughout the other chapters in this book.

One of the main conclusions from the analysis in this chapter is that this extended repertoire of possibilities opens up new ways for addressing and understanding the complicated phenomenon of phatic communication on the Net and for explaining it in cognitive pragmatics terms.

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CHAPTER 8

Humor and mirth

Emotions, embodied cognition, and sustained humor

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The chapter describes a virtuous circle (feedback loop) whereby sustained humor (i.e., humorous exchanges lasting more than three turns) may occur, despite the tendency of speakers to return to the unmarked, serious mode of communication. Since humor is often accompanied by cues of humorous intention/interpretation on the part of both speaker and hearer and given the tendency to mirror one's interlocutor's gestures, these cues may be reciprocated (e.g., smiling synchrony). However, due to the facial feedback hypothesis of embodied cognition, producing a facial gesture associated with an emotion leads the subject to experience that emotion. Hence, speakers who mimic the facial cues of humorous intention may end up experiencing the same emotion of mirth that the other speaker is experiencing and this in turn may lead them to have the intention of producing more humor, hence triggering a virtuous circle that may continue for extended periods of time.

Keywords: humor, mirth, emotion, embodied cognition, sustained humor, smiling, laughter, mirror neurons, synchronicity

1. Introduction

This chapter presents a discussion of how the facial expression of smiling may contribute to the framing of conversational situations as humorous.[1] Humor in conversations may occur in relatively short exchanges, having a length of one or two turns: for example, someone says something funny and the audience reacts. In some cases, the humorous exchange continues past three turns. I have proposed the term "sustained humor" (to be defined below) to describe these extended

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humorous exchanges. The question that this chapter explores is what causes the speakers within an extended humorous exchange to stay the inevitable return to serious (non-humorous) discourse. The answer that I suggest is that, in part, this may be due to the interaction of two well-attested phenomena: first, the facial feedback hypothesis, whereby facial expression affects the emotional status of the agent, and, second, the activation of mirror neurons in the audience, which leads them to smile if their counterpart is smiling.

In a nutshell, imagine a situation in which two speakers are talking to each other. Speaker A says something funny (a joke) and signals this by increasing their smiling intensity. The audience (speaker B) matches A's smiling intensity and this causes (via facial feedback) B's experience of mirth.[2] Because B experiences mirth he/she is more likely to be attuned to any further joking from A and more likely to produce humor of his/her own. Hence, the likelihood of a sustained humorous exchange is heightened. Because of the cyclical self-supporting nature of the relationship, I suggested calling this a "virtuous circle".

In recent work (Zhang & Attardo 2015; Attardo 2017), I have introduced the concept of sustained humor. I define sustained humor as follows: conversational sections which are keyed (or framed) for humor and last more than 3 turns. Examples of sustained humor include:

- co-constructed humor (in which speakers collaborate to produce humor, cf. joint fantasizing, Kotthoff 2009)
- mode adoption (in which the hearer adopts the same communication mode of the speakers, e.g., responding to irony with irony) (Attardo 2002; Whalen & Pexman 2010)
- humor support (in which the hearer validates the humor produced by the speaker) (Hay 2001)
- extended speaker-dominated turns in which the hearer merely backchannels, provided the orientation of the conversation remains toward the humorous intention.

Humor is marked, i.e., it is not the default mode of communication, and speakers tend to return to serious communication quickly if not immediately. I have labeled this phenomenon the "least disruption principle", noting that speakers who violate the maxims of cooperation in humor tend to minimize the degree of their violation, among other ways, by returning to the serious, non-maxim-violating mode, in the next available turn (Eisterhold et al. 2006). However, if this is the case, how

2. Assume, for the sake of the argument, that B already knew the joke and did not particularly like it, so that we isolate the effect of the facial feedback; in reality, obviously facial feedback and getting the joke will co-occur and reinforce each other.

do we explain the existence of sustained humor, which seems to fly in the face of the principle of least disruption?

In this chapter I will explore several apparently unrelated concepts that are necessary to answer this question. I will first examine the fact that humor is marked and briefly discuss how the markers contribute to keying a situation for humor as well as how the scope of the keying is established, i.e., how do speakers know it's time to go back to seriousness? In the next sections I will first define the concept of virtuous circle and then move to the complex issue of the relationship between humor and emotion, with a focus on the facial feedback hypothesis but also on the social aspects of facial expressions of emotions. In the fifth section I return to the idea of humor being marked, but examine how speakers use markers, consciously or subconsciously. The key issues here are smiling intensity and synchronicity (i.e., the people tend to match each other's smiling intensity). The sixth section brings all the strands of the discussion together by presenting the virtuous circle argument, outlined above.

2. Humor is marked

Humor is marked. This is a technical term, and should be understood as such.[3] This does not devaluate humor, any more than saying that the so-called strong forms of the verb past tense in English is marked with apophony (or *ablaut*: shine/shone) relative to the morphologically unmarked one (walk/walked) devaluates the strong verbs.

The unmarked form of discourse is purposeful, goal-oriented, cooperative communication, or for short "telic" (Apter 1997). The existence of small talk, phatic communion, and other forms of non-goal-oriented communication, among which falls humor, does not belie this fact. Humorous exchanges may fall fully or in part under the "paratelic" mode (Apter 1997), i.e., a mode of communication oriented not to effective and purposeful communication, but to other goals such as establishing connections, passing time, avoiding embarrassment, or seeking pleasure in the moment, either esthetically (e.g., listening to music) or mirthfully. Needless to say, the distinction between telic and paratelic modes lies on a continuum. At the telic end we may place, for example, the operation manual of a resuscitation device for EMT technicians, and at the paratelic end, we may place humorous banter among

3. See Trubezkoy (1939), Jakobson (1932 [1971]). For a view against the "broad" sense of "markedness", see Haspelmath (2006). It should be noted that one of the definitions of markedness is relative frequency. At this time, I make no claims related to frequency of humor vs. serious discourse.

drunken friends around 2:00 am in a bar in South Florida during spring break. Much as levity and non-cooperation would be counterproductive in the process of explaining to an EMT technician how to use a respirator, serious, on-task talk is unlikely to be effective during a late-night drinking spell during spring break.

It should be noted that "humor is marked" has also a second meaning, which is just as valid as the previous one: i.e., that the speakers signal their humorous intention using "markers". For example, Mulkay notes that "If [keying by laughter, smiling, etc.] is not done continually, humorous interaction lapses and participants return to the serious mode" (1988: 46). Likewise, Fine concurs that "jocular remarks are typically accompanied by paraverbal and nonverbal cues which suggest that the remark should not be accepted on face value" (1984: 91).

Obviously, humor could be marked in the first sense (i.e., the non-default mode) without being marked in the second sense (i.e., labeled by markers). However, broadly speaking, both interpretations of the claim are true. The qualification that the presence of markers that "label" or "identify" the humor needs to be continuous is likely too strong. See for example Mulkay's claim that "the humorous mode can be sustained only by means of a continual production of appropriate cues, signals and responses" (Mulkay 1988: 51). What does continuous mean in this context? If it means that every millisecond of every utterance within a humorous turn needs to be flagged by some marker, then the claim is probably too strong. If it means that markers must occur with some frequency higher than a given threshold, then the claim is probably correct. There has been no empirical research on this matter, so I will leave it for further study.

3. Keying and its scope

The idea that humor is marked (as in "labeled by markers") has been referred to in the literature variously as the fact that a situation or exchange may be framed (Goffman 1974: 43–44) or keyed (Hymes 1972: 62) for humor. I will use "keying" as an umbrella term, to avoid the use of "framing" because of the potential of confusion with frames (as in scripts).

Hymes definition of "key" (1967: 24) is worth quoting in full, because it shows that he had in mind exactly the phenomenon we are interested in:

> the tone, manner or spirit in which an act is done. (…) Acts otherwise the same as regards setting, participants, message-form and content, may differ in key, as between *mock*: *serious*; *perfunctory*: *painstaking*; and the like. […] The signaling of key may sometimes be a part of the message-form itself, but may be nonverbal such as a wink, gesture, attire, musical accompaniment.

In what follows I will speak of speaker and/or hearer of humor, but, as noted in Gironzetti et al. (2018) two speakers engaging in a social activity such as humor must necessarily negotiate the process of deciding if they will both key the situation as humorous (Emerson 1969; Davies 1984). Neither the speaker nor the hearer has the capacity to determine autonomously how a situation will be keyed, since uptake (acceptance) of the keying is necessary for the keying to be successful. Attempts to mandate a key are either self-defeating (think of the infamous "that's not funny!" which implicitly acknowledges that it *is* funny – why bother denying it, if it were not?) or bound to fail (imagine a comedian telling his audience, "please think this is funny").[4]

Since all keying is negotiated between the speakers, the traditional emphasis on the different roles of speaker and hearer is here largely muted. Since the exchanges extend over multiple turns in which the participants will alternate being the source of the humor and its audience, and will influence each other through their facial displays, besides their verbal contributions to the exchange, it becomes almost irrelevant who the original source of the humor is. The situation is negotiated by the dyad and thus the locus of the keying is the dyad.

3.1 Scope of keying

In the literature, there is a broad set of references to what kind of unit gets keyed. Interactions, exchanges, conversations, and turns are mentioned as being keyed to humor. However, this lax approach cannot suffice. The occurrence of one humorous remark or a bout of laughter in a 30-minute conversation, for example, cannot be said to key the entire exchange to humor. So the problem we need to address is the scope of the keying.

An obvious place to start is from the turn. As a starting hypothesis, we could assume that turns are the smallest unit that can be keyed for humor. However, within-turn shifts in key are attested, such as the example below, in which a doctor switches mid-turn from a humorous key to a serious one, right after the second short pause:

(1) MD2: No they told me beforehand ahu huh huh (.) we've been discussing you in secret you see ((says playfully)) (.) are you tender on this side at all?
(Rees & Monrouxe 2010: 3392)

4. Unless of course the comedian was pretending to be a very inept comedian. If taken as non-serious "please think this is funny" can be funny, but taken as serious, it is obviously ineffective, i.e., it is unlikely that someone will think something is funny because the speaker asks them to do so.

So, how do speakers know when the keying begins and ends? In this example, the authors of the paper (Rees & Monrouxe) helpfully tell us that the first half of the turn is said "playfully" and the shift is nicely highlighted by a short pause. Unfortunately, there is no such helpful labeling in naturally occurring data. Nonetheless, speakers can identify playfulness and humor, to a certain degree of reliability.

4. Vicious and virtuous circles

A vicious circle is a self-reinforcing feedback loop. A good example comes from the sub-prime mortgage crisis which caused the 2008 recession in the United States. Simplifying greatly, the price of homes started declining, which caused some home-owners to find themselves in an "upside-down" mortgage (i.e., they owed more than the house was now worth). In that situation, there is no incentive to continue paying the mortgage or to try to sell the house (which would leave the owner owing money to the bank without having the house anymore) and so homeowners begin to 'walk away' from the mortgages (i.e., they essentially force the foreclosure on the property, so that the bank now owns the house). The increased supply of vacant homes further depresses the market, thus causing more homeowners to be upside-down, and thus the loop closes. A virtuous circle is merely a feedback loop but with a positive outcome.

In this chapter, I will argue that sustained humor exchanges similarly involve a self-reinforcing feedback loop. However, before moving on to the main thesis of the chapter, we must examine a potential objection. Why couldn't we imagine humorous exchanges to be like objects in Newton's first law of motion, i.e., once set in motion an object will remain in this state until an external force causes it to change (for example, by stopping it)? Once the participants in an interaction have established a humorous mode, why doesn't the situation remain keyed for humor indefinitely, until for example one of the participants re-keys the situation for a serious mode? After all, one may argue, there are lengthy interactions in which the humorous mode is upheld.

This is true, but misleading. As we saw, the standard view in the research community (Mulkay 1988; Fine 1984) is that humor is a marked mode and that speakers revert to the serious mode as soon as the participants stop keying the situation as humorous. In this sense, an apt metaphor is that of a plane which can fly, despite being heavier than the surrounding air, as long as its engine or propeller displaces enough air, but which will inevitably return to the ground the moment the propulsion ceases. In a sense, therefore, the point of this chapter is to explain how sustained humor exchanges are possible, given the tendency of discourse to revert to the serious mode.[5]

5. Humor and emotion

In order to address the main question of this chapter, we need to delve briefly into the complex relationship between humor and emotion. What follows should not be taken as a full discussion of the subject. The field of facial expression of emotions is vast, and a serious discussion of it would go far beyond the limits of this chapter. The references below are merely representative of the various positions. The interested reader will find fuller lists of references in the articles and books quoted.

It does not help that there is significant confusion in the field even at the terminological level. So we will start by defining a few terms. First, the emotion experienced by a speaker is called "mirth" (Martin 2007) or "exhilaration" (Ruch 1993); the term "amusement" is also found, but has not been defined theoretically. Mirth should not be confused with humor; humor is the underlying cause of the emotion. Much as one is sad if one's puppy dies, but the sadness (emotion) is not confused with its cause (the death of the pet). Furthermore, smiling, laughter, smirking, etc. are not emotions, they are physical epiphenomena, which may co-occur with, manifest, or serve as cues to the underlying states (the emotion and/or its cause), but are not coextensive to them. To put it simply: there is humor without smiling and/or laughter and there is laughter and smiling without humor.

In this chapter I will only consider humor tangentially: the central issue of this discussion is how smiling and laughter relate to mirth, in a social situation.

5.1 The manifestation of emotion

Emotions are internal states of mind. Obviously, the emotion of mirth is triggered by a set of psychological and physiological mechanisms (Martin 2007: 8–9). The nature of the physiological, psychological, and cognitive mechanisms whereby mirth is produced (as opposed to, say, surprise, cognitive dissonance, or fear) far

5. One may perversely ask if "joking relationships" as documented in the anthropological literature or among friends do not constitute a counterexample. Joking relationships, in the sense of Radcliffe-Brown (1940: 195), only hold between pairs of individuals with specific relationships (e.g., uncle and nephew) and are akin to ritualized practices. Radcliffe-Brown's definition reads "a relation between two persons in which one is by custom permitted, and in some instances required, to tease or make fun of the other, who in turn is required to take no offence." It is obvious that this has little to do with the practice of joking or bantering between friends.

exceeds the limits of this study, which is concerned only with how certain facial expressions (smiles) may contribute to the framing of a situation as humorous.

We can only observe external manifestations which reflect or are affected by emotions. The nature of these manifestations lies on a continuum ranging from leakage (pure emotional reaction; Ekman) to acting (pure social display). Leakage is a manifestation independent of or even against the will of the subject, whereas in a social display, we gesture to send a message (hence, deliberately).

5.2 Embodied cognition and facial expressions

There are several definitions of embodiment. I am using here a narrow definition of embodiment:

> Cognition is embodied when it is deeply dependent upon features of the physical body of an agent, that is, when aspects of the agent's body beyond the brain play a significant causal or physically constitutive role in cognitive processing.
> (Wilson & Foglia 2017)

The relevance of embodied cognition in the context of facial expressions and emotions is virtually unquestioned and goes back to Darwin (1872), who claimed that emotions and their facial expressions are universal and genetically determined (Ekman 2006). However, the connection between emotion and facial expression is much more direct, according to Tomkins (1962: 205): "The face expresses affect, both to others, and to the self, via feedback, which is more rapid and more complex than any stimulation of which the slower moving visceral organs are capable." The idea that the facial expression influences the emotional status of the subject is called the "facial feedback" hypothesis. The hypothesis comes in four versions (McIntosh 1996):

1. Facial configurations correspond to emotions. Facial patterns covary with emotions.
2. Facial actions are necessary for the presence of emotions.
3. Facial configurations initiate emotions.
4. Facial configurations modulate emotions. Facial expressions affect emotions.

Versions 1 and 2 of the hypothesis are too strong, since people have some degree of control over their facial expressions and this is greater than the degree of control over one's emotions. Version 3 has evidence in its support (McIntosh 1996: 129; Strack et al. 1988; Soussignan 2002).[6] It is central to the virtuous circle hypothesis

6. It should be noted that the Strack et al. 1988 study failed to be replicated in a recent unpublished replication experiment. The replication study is available here: https://osf.io/pkd65/

developed in this chapter. Version 4 is generally accepted as correct. We can thus assume that participants in a conversation that initiate a smiling gesture may begin to feel mirth as a result of the physical gesture.

5.3 Facial expression as social communication

We now turn to the opposite side of the continuum, so to speak, i.e., to the idea that facial expressions are a form of social communication.

Buck (1980, 1994) rejects the idea that facial expressions may cause emotions: "facial expressions serve a 'readout' function as a channel of social communication and that their feedback function [= affecting emotions] is at best of limited importance" (1980: 812). Conversely, Buck sees facial expressions as reflecting internal emotions and social communicative goals (1980: 821).

Fridlund (1994) sees facial expressions as primarily social. When dealing with smiling he notes that smiling takes place primarily when one is interacting with others. For example, bowlers smiled when looking at the other players, not when looking at the pins (1994: 153–154). Fridlund (1991) shows that subjects smile more when they think there is someone else present. He interprets solitary smiling (or other facial expressions) as "implicit sociality" i.e., when we smile by ourselves we imagine a social context (1991: 229).

In conclusion, we come to a middle-of-the-road assessment of the controversy, seeing facial expressions as both embodied cognition and social communicative tools. It is clear that facial expressions are used to communicate for social purposes, but it is also clear that they affect, to some degree, the emotional status of the subjects. In particular, in this context we are interested in the role of smiling and laughter both as indicators of the humorous intention of the speaker/hearer and as causes of mirth. In the following section, we delve further into the issue of the "markers" of humor in general.

6. Humor markers

As we saw above, smiling and laughter are markers of humor. The present section develops the concept of "humor marker" in more detail. The first step that needs to be taken is to differentiate between humor factors and humor cues.

The difference is relatively simple, so I will not elaborate on it too much. We may start from the commonsensical observation that humor may be produced without any cues of its presence. The well-documented existence of the so-called "deadpan delivery" ("Pince-sans-rire" in French, Moncelet 2006: 467, "humor seco" in Spanish) or reception ("po-faced", Drew 1987) attests to the reality of the phenomenon.

However, in order for humor to exist, the text and/or situation will necessarily have a script opposition and probably a logical mechanism (i.e., an incongruity and its resolution). Thus we have a simple rough field test that can be used to determine if something is a humor factor or a cue: factors cannot be removed without removing the humor. For example, suppose that someone who likes chocolate cake, upon being offered a slice of chocolate cake, says: "Take that disgusting thing away!" with a broad smile, we can easily see that, even if he/she had said that with a deadpan delivery (i.e., no smile) it would still be ironical and (mildly) funny, because the incongruity of someone who likes chocolate cake refusing a slice of it, remains, despite the removal of the smile. Conversely, if the cake-lover smilingly says: "Yes, please" no humor is present, since the incongruity has been removed.

We now turn to the much more complex matter of classifying the cues of humorous intentionality. Gironzetti (2017a) reviews the literature and lists the terms: indicators, markers, and indices. Indicators would always co-occur with humor and be intentional. As Gironzetti notes, none have been found so far. We will not concern ourselves with this category for the rest of the chapter.[7] Markers are also intentional but do not always co-occur; an example might be winking while saying something funny. Finally, indices are neither intentional nor co-occurring; an

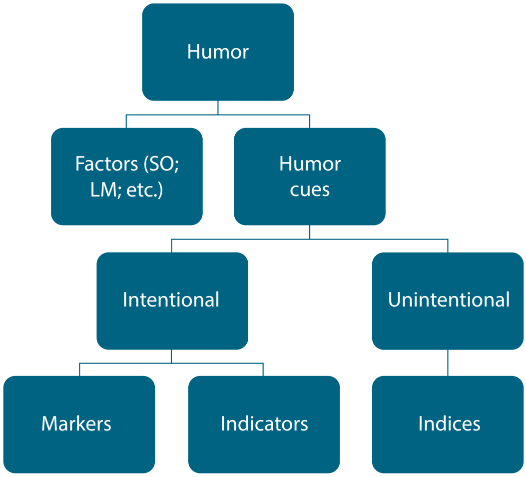

Figure 1. The classification of humorous cues

7. Note that indicators would also be different from the sort of signals that Ohala (1996) notes which co-occur and are unintentional, insofar as they are tied to physical properties of the sign (for example, high F0 and low F0, correlating with size of the animal; Ohala 1996: 2). One may argue that always co-occurring intentional cues are a contradiction in terms, since intentionality negates the necessary nature of co-occurrence. If that is correct, it would explain why we have failed to find any indicator in our data.

example is leakage (Ekman & Friesen 1969): essentially, the speaker cannot contain his/her mirth and reveals his/her feelings unwittingly by smiling or laughing, with no intention to do so. This is illustrated in Figure 1.

6.1 Humor markers and indices

There exists a substantial literature on the markers and indices of humor. Generally, the focus is on intentional markers and not on indices, but the literature does not really differentiate between the two categories. The context in which these works have appeared is the folk-theory of humor performance, reviewed and criticized in Attardo & Pickering (2011). In a nutshell, the folk-theory of humor performance assumes that humor (both punch lines and jab lines, i.e., humor that occurs at the end of a narrative and humor that does not) is marked by a variety of prosodic and paralinguistic devices (smiling and laughter).

Work by Pickering et al. (2009), Attardo & Pickering (2011), Attardo et al. (2011), Attardo et al. (2013a), Attardo et al. (2013b) and Gironzetti et al. (2016) has shown that the folk-theory is incorrect. Not only did the empirical work not find evidence that humor was marked in such a way as to stand out, but it found that on the contrary, humor that occurred at the end of a narrative was produced with lower pitch and volume than the surrounding text. This apparently counter-intuitive finding is explained by the location of punch lines, which by definition occur at the end of a narrative, i.e., a relatively longish turn by a speaker, which ends up being a spoken paragraph. Spoken paragraphs are characterized by paratones and present a typical declination of the pitch and volume, which is reset to a higher pitch and volume at the beginning of the following paratone. This explains why punch lines are produced at a lower pitch and volume than the surrounding discourse. Thus, the final position of the punch line precludes any marking in terms of higher pitch and/or volume, or to put it differently, prosody trumps markedness in this context. When considering conversational humor (jab lines), which does not occur at the end of a paratone, there was no significant difference between the pitch and volume of the humor and the surrounding text. Likewise, no significant differences were found for speech rate.

Another unexpected finding was that, again contrary to the folk theory of humor delivery, humor is not marked by pauses. This is a common belief, at least among writers of books on how to deliver jokes. However, we found no significant correlation between substantial pauses and humor. Substantial pauses are pauses longer than 0.6 seconds. It should be noted that shorter pauses are not perceived by the speakers as meaningful, as pauses of up to 0.4 seconds may occur within syntactic units (a longer pause within a syntactic unit would be perceived as extremely marked; Brown et al. 1980).

Finally, laughter occurred in 8 out of 20 instances of punch lines, or in 40% of cases. This is clearly not a very strong indicator of the presence of humor intention. At best, as we noted (Pickering et al. 2009: 534), it is "an indicator of a preference". It is possible, as suggested by Ruch (personal communication) that laughter may be a signal of a specific type of humor, for example, of particularly appreciated humor or perhaps of taboo humor. However, at the current stage of research we are unable to test this hypothesis.

6.2 Smiling

The astute reader will have noticed that smiling is conspicuously absent from the previous discussion. This is consonant with the literature. The folk theory of humor delivery does not mention smiling as a particularly meaningful way of signaling humorous intention, nor do the discourse or conversation analysis approaches, which have been traditionally based on transcriptions of interactions. Whereas laughter figures quite prominently in the discourse or conversation analysis of humor (see for example Jefferson 1972, 1979, 1985 and Jefferson et al. 1977), smiling is relegated to paralinguistic markers and/or the smiling voice phenomenon.

The muscular gestures required for smiling are well-known. Ruch (1993) describes them as follows:

> The smile of exhilaration is produced by the contraction of two pairs of facial muscles: the zygomatic major and the orbital part of the orbicularis oculi. The action of the former muscle produces the facial appearance perceived as "smiling"; it pulls the lip corner obliquely up and back, and deepens the furrow running from the nostril to the lip corner. The orbicularis oculi muscle lifts the cheeks upward and draws the skin toward the eyes from the temple and cheeks. It narrows the eye opening and may cause "crow's feet" wrinkles to appear at the outer corner of the eye opening (Ruch 1993: 606)

Ekman & Friesen (1978) and Elman, Friesen & Elssworth (1982) famously claimed that there are two kinds of smiles: felt or genuine (Duchenne) and feigned or social (non-Duchenne). The Duchenne smile is associated with amusement (mirth, exhilaration). Martin (2007: 171) reviews the evidence linking different neurological substrates to the two types of smiles. However, there is growing evidence that Duchenne smiles occur when participants are instructed to smile (posed smiles) in response to input eliciting negative emotions and when there is no positive affect (Harris & Alvarado 2005; Schmidt et al. 2006, 2009; Papa & Bonanno 2008; Krumhuber & Manstead 2009).

So, while generally speaking, the presence of a Duchenne display is physiologically tied to felt amusement or positive affect, in fact the boundary between the two types of display may be less clear than previously thought, so that so even a Duchenne display may be intentional. In any event, for the present purposes, it is not particularly relevant whether the smile is felt or feigned, since both result in the same kind of display and thus will elicit the same kind of feedback.[8] Heerey & Kring (2007: 129) find that speakers smile back at their counterparts significantly more often than engaging in other facial expressions. Heerey & Crossley (2013) claim that "in face-to-face interactions, people's accuracy in matching their conversation partners' smiles with smiles of the same type [i.e., Duchenne and non-Duchenne] is above 90% (Heerey & Kring 2007)" (2013: 1446).

6.3 Smiling voice

The smiling voice is an audible difference in the quality of speech due to the distortion of the vocal resonance box due to the muscular action of the zygomaticus muscles (which raise the corners of the mouth in the smiling gesture) and possibly of the masseter muscles (which lower the jaw). Ohala states that "retracting the corners of the mouth […] shortens the vocal tract and thus raises the resonant frequencies" (1996: 1813). See also Ohala (1980). Robson & MackenzieBeck (1999) show a "horizontal aperture for labial spreading" (1999: 221) and higher F2 and F3. Lasarcyk & Trouvain (2008) find that higher F_0 is the most significant acoustic clue. Aubergé & Cathiard (2003) argue that other prosodic parameters are also at play. Tartter (1980), Tartter & Braun (1994), Schröder et al. (1998), Émond (2006, 2014) and Émond & Laforest (2013) showed that smiles are audible and affect comprehension of the text (Quené et al. 2012).

Pickering et al. (2009) found a surprisingly small number of punch lines delivered with smiling voice (5 out of 20, i.e., 25%) and 2 of those occurred with other forms of laughter. Conversely, in conversational data, Attardo et al. (2011: 240–241) show that a significant number of instances of humor occur with smiling of either the speaker or the hearer (21 out of 26, i.e., roughly 80%). We therefore assume that smiling (and laughter, seen as an intensified form of smiling) may be a cue of humor.

However, speakers smile a lot. In Kleinke & Walton's (1982) study, the control group mean frequency of smiling ranged between 8 and 14 smiles per 3 minutes (i.e., roughly between 3 and 5 smiles per minute). Even more impressive is the mean length of the smiles, which ranges from an impressive 45 seconds down to 27 seconds. The subjects in Cashdan (1998) smiled (or laughed) between 9 and

8. It is possible that felt smiles would be more likely to be reciprocated. Heerey & Crossley (2013) show that they are anticipated more frequently than social smiles. We have not investigated this possibility.

13% of the time (observations were done at 15 second intervals, so no duration is implied).

Mehu & Dunbar observed people in natural surroundings. One of their observations is that the larger the group, the more the smiling and laughter (2008: 1766). Mean rates of smiling per minute are 0.87 (men in same age groups) and 0.85 (women in same age groups). In Mehu et al. (2007) the control group (i.e., the group not manipulated experimentally) showed mean smiles per minute of 1.8 (Non-Duchenne), 2.11 (Duchenne), and 2.96 (open mouth smile).

In the previous sections we established that the markers of humor predicted by the folk-theory of humor performance were just not there and that while the markers of traditional discourse/conversation analysis (i.e., laughter) do not go beyond a weak correlation, smiling seems to be a very good marker of humor, but it presents the problem that speakers smile a lot and not all of it corresponds with humor. This leaves open the original question, i.e., how do speakers know that a given turn is intended as humorous, or to put it differently is keyed as humor? In order to try to answer the question, we turned to the intensity of smiling.

6.4 Smiling intensity

The literature on the measurement of smiling intensity is usefully summarized in Gironzetti (2017a/b), and so we can limit ourselves to a very general discussion, before briefly presenting the scale used in the studies. Most contemporary methods for measuring smiling intensity are based on Ekman & Friesen (1978)'s Facial Action Coding System. In FACS, smiling consists of two action units: each action unit can be performed on a 1–5 scale of intensity. The intensity of the smile is determined by adding the two values (Harker & Keltner 2001: 115). For a number of reasons discussed in detail in Gironzetti (2017b), we chose to develop a holistic scale (dubbed the Smiling Intensity Scale) that combined the intensity of each action unit and other indicators (primarily the open/closed mouth).

The Smiling Intensity Scale (SIS; Gironzetti et al. 2016, Gironzetti et al. in preparation) is reproduced below:

- Level 0: Neutral. No smile, no flexing of the zygomaticus (no AU12), may show dimpling (AU14) or squinting of the eyes (caused by AU6 or AU7), but no raised side of the mouth (no AU 12), the mouth may be closed or open (AU25 or AU26).
- Level 1: Closed mouth smile. Shows flexing of the zygomaticus (AU12), may show dimpling (AU14) and may show flexing of the orbicularis oculi (caused by AU6 or AU7).

- Level 2: Open mouth smile. Showing upper teeth (AU25), flexing of the zygomaticus (AU12), may show dimpling (AU14), may show flexing of the orbicularis oculi (caused by AU6 or AU7).
- Level 3: Wide open mouth smile. Shows flexing of the zygomaticus (AU12), flexing of the orbicularis oculi (caused by AU6 or AU7), and may show dimpling (AU14). 3A: showing lower and upper teeth (AU25), or 3B: showing a gap between upper and lower teeth (AU25 and AU26).
- Level 4: Laughing smile. The jaw is dropped (AU26 or AU27), showing lower and upper teeth (AU25), flexing zygomaticus (AU12), flexing of the orbicularis oculi (AU6 or AU7); may show dimpling (AU14).

Using the SIS, Gironzetti (2017 a & b), Gironzetti et al. (2016) and Gironzetti et al. (2018) showed that presence of humor correlates significantly with an increase in smiling intensity, relative to the baseline of the speaker.

6.5 Smiling synchronicity

Smiling synchronicity is defined as a match in the level of intensity of smiling. In a dyad, the speakers may be either both smiling or both non-smiling, or speaker A may smile and speaker B may not (or vice-versa). If both speakers are smiling, they are said to be synchronously smiling. Conversely, if they are both non-smiling they are synchronously non-smiling. If either of the speakers is not smiling and the other is smiling, i.e., their smiling gestures do not match, they are said to be asynchronous.

Gironzetti et al. (2016) and Gironzetti (2017a & b) conclude that the presence of humor tends to co-occur with increased smiling synchronicity and smiling intensity matching among conversational partners. Humor did not affect asynchronous behavior but it affected significantly synchronous behavior: when humor is absent, speakers are more likely to be both non-smiling. When humor is present speakers are more likely to be both smiling, and to do so at the same level of intensity (Gironzetti 2017b).

6.6 Embodied cognition and "contagious" smile/laughter

Hatfield et al. (1992) consider "emotional contagion" to be an automatic, unintentional, and unconscious process defined as:

> the tendency to automatically mimic and synchronize movements, expressions, postures, and vocalizations with those of another person and, consequently, to converge emotionally. (1992: 153–154)

It is clear that the contagious nature of humor (or more precisely, of its gestural manifestations) is a subclass of emotional contagion. Gervais & Wilson (2005: 405–406) review evidence linking the well-known phenomenon of the "contagiousness" of laughter. In a nutshell, they claim that laughter is perceived through a "mirror circuit" (i.e., an area of the brain containing "neurons that generate motor movements identical to those perceived", 2005: 405)) and furthermore that "the most important implication of mirror system research for laughter is that the neural network involved in the production of a given action is also activated during the perception of that action in others." (2005: 406).

In other words, the mirror neurons would provide the neurological substrate necessary to explain why the observation of laughter elicits more laughter. If we connect this back to the previous discussion of embodiment of emotions, if the production of facial expressions associated with mirth and exhilaration can elicit those emotions in the subject, then it makes sense that those who observe another person laughing would replicate their behavior and thereby experience (at least in part) the same emotional state ("emotional contagion" Hatfield et al. 1992, "emotional synchrony" Gervais & Wilson 2005: 406).

7. The mirth/smile feedback loop

We are now finally in a position to wrap up the argument. Consider a situation in which a speaker in a dyad[9] produces an instance of humor, either consciously or unconsciously. He/she will cue his/her audience using markers (intentional) and/or indices (unintentional). These cues include increased smiling intensity or laughter. The cues are processed through mirror neurons by the audience, who is now prompted to imitate the same facial gestures (smiling/laughter). In doing so, the audience experiences, at least in part, some of the emotional state felt by the original speaker. This in turn will put the second speaker in a condition of mirth, which may trigger the intention to produce more humor, thus triggering the virtuous circle of humor. The process is illustrated schematically in Figure 2, which should be read in a clockwise direction.

9. We will only consider dyadic interactions, since our research has focused on these, but the argument should be extensible to groups of arbitrary size, up to a point where individual communication is impaired by the number of participants. Because of this limitation, we will not address in this context the well-known fact that people laugh and smile more in group interactions.

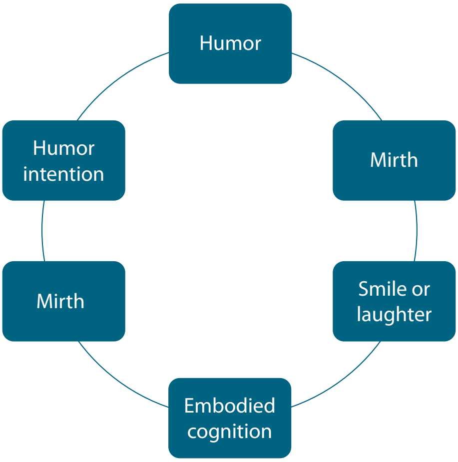

Figure 2. The virtuous circle of humor

This self-sustaining feedback loop can thus explain the existence of sustained humor, despite the natural tendency for discourse to revert to its unmarked (serious) state. Once the virtuous circle has been started, since it is self-sustaining, it will continue essentially until the speakers change the topic of the conversation, run out of jokes, exit the interaction, or otherwise end it.

A first objection that may be raised against this conceptualization is that I am conflating smiling and laughter. There are many accounts that see smiling as an attenuated form of laughter (or vice-versa, laughter as an intense form of smiling). However, other accounts claim that smiling and laughter have different evolutionary paths and neuronal substrates (Van Hoof 1972). However, Bavelas et al. (1987: 323) mention both smiling and laughter among the objects of "motor mimicry." In other words, even if smiling and laughter are unrelated phenomena, they may both still result in a virtuous circle, with the mechanism described above.

A second objection could be brought concerning the intentional or unintentional nature of the smiling and laughter. Again, it has been shown that the neuronal pathways of intentional and unintentional smiling and laughter are different (Martin 2007: 171). However, as Gervais & Wilson (2005: 423) note, the facial feedback hypothesis effectively eliminates the relevance of the distinction.[10]

It should be emphasized that I am not claiming that the above positive feedback loop is triggered in every situation. On the contrary, in many situations, the speakers immediately revert to the serious mode, as predicted by the Least Disruption Principle. So a humor virtuous circle is only triggered if everything

10. It should be noted that Gervais & Wilson (2005) are arguing that Duchenne laughter is the "medium for emotional contagion" (2005: 423) and so it is a testament to their intellectual honesty that they recognize this fact.

goes just right: the audience understands the humor, appreciates it, is amused by it, reacts with a smile or laughter that is observed by the first speaker thus increasing the inclination of the first speaker to produce more humor, etc. Needless to say, much can go wrong, and the feedback loop may break down at any point. We know from Bell (2015) that humor may fail at any level of the communicative process. Besides those opportunities for breakdown, each step of the virtuous circle of humor may also be the "weak link" of the chain that fails: perhaps the hearer, despite having understood, appreciated, and been amused by a joke, reacts with a smirk, rather than a smile, due to fatigue, and thus fails to trigger mirror neurons. Or perhaps, despite both parties having been put in a synchronous shared mirthful experience by the firing of the mirror neurons and accompanying facial expression induced mood changes, one of the participants fails to fulfill their intention of producing humor because they cannot think of anything funny to say. Be that as it may, in some situations, the virtuous circle is triggered and its feedback loop mechanism may explain the existence of sustained humor.

8. Conclusion

I have presented an argument for the idea that sustained humor may be, in part and in the specific set of circumstances described above, the result of a feedback loop, characterized as a virtuous circle, involving the experience of mirth in a participant in an exchange, their production of smiling facial expressions, the triggering of mirror neurons in the audience, the corresponding reaction with mirroring smiles, and the experience of mirth in the audience, who is then predisposed to either producing humor of their own, or in interpreting the current exchange as humorous.

Further research, within the domain of neurolinguistics, will be needed to validate this hypothesis, as obviously the data are not available to introspection, let alone external observation. Incidentally, it is worth noting that I am not claiming that the virtuous circle is the only mechanism that leads to establishing sustained humor situations, or even that it is the most common or the most important one. My claim is simply that this is a previously unreported part of the context that validates the situation for sustained humor.

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CHAPTER 9

My anger was justified surely?

Epistemic markers across British English and German Emotion Events

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In this chapter, I explore the role of epistemic markers as sub-units of analysis in Emotion Events, in particular ANGER events, from a cross-linguistic perspective. The corpus study extends the Emotion Event Model and reports on findings based on 248 written narratives experimentally elicited from British English and German university students. Overall, German writers displayed more ANGER events than the British and males used more epistemic markers than females. In the British Emotion Events, more markers of 'low' certainty were used in contrast to more markers of 'high' certainty in the German ones. The findings underline the importance of epistemic markers for the modeling of emotion discourse.

Keywords: Emotion Event, epistemic markers, intersubjective positioning, contrastive discourse analysis, corpus linguistics

1. Introduction

Emotion is a complex phenomenon and permeates all levels of linguistic analysis (Wilce 2009), and, in other words, "nearly every dimension of every language at least potentially encodes emotion" (Wilce 2009: 3). Numerous linguists have tried to disentangle emotion language and, in particular, in discourse studies, models such as Bednarek's classical conceptualization of affective phenomena into emotion language and emotional language (Bednarek 2008) as well as Martin & White's Appraisal System (2005), more specifically the subsystem of AFFECT, have been applied to authentic data and have also been refined on its basis (e.g. Benítez-Castro & Hidalgo-Tenorio, this volume). Bednarek (2008) classifies approaches to emotion into those that study *emotion* talk (e.g. emotion words), i.e. the descriptive use of linguistic expressions that denote the speaker's and others' emotions,

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those that investigate *emotional* talk (e.g. intensifiers), i.e. the expressive signaling of speaker's emotions, and studies that look at both. The Appraisal System (Martin & White 2005) categorizes evaluative resources into resources of ENGAGEMENT, ATTITUDE and GRADUATION. AFFECT is conceptualized as a subsystem of the ATTITUDE system and can be defined as "registering […] feelings" (Martin & White 2005: 42); GRADUATION is the upscaling or downscaling by "force" and "focus" resources (Martin & White 2005: 137) and ENGAGEMENT "groups together […] all those locutions which provide the means for the authorial voice to position itself with respect to, and hence to 'engage' with, the other voices and alternative positions construed as being in play in the current communicative context" (Martin & White 2005: 94).

In this chapter, I report on findings from a contrastive corpus study on epistemic markers (henceforth EM), which indicate the speaker's confidence or lack of confidence in the truth of the proposition expressed (Coates 1995: 55), across British English and German and view them from the perspective of a revised cognitive linguistic framework, i.e. that of Emotion Events (Lewandowska-Tomaszczyk & Wilson 2010; Fronhofer in preparation). More precisely, the study investigates the forms and functions of EM in the local and more global context of emotion lexemes (Section 3.2) from a qualitative and quantitative perspective (Sections 4.1 to 4.3). The focus of the qualitative analysis lies in particular on ANGER lexemes across British English and German, since this allows for an exemplary analysis of emotion concepts from both a local and a global perspective.

The findings show that emotion discourse is indeed a complex phenomenon that can be well captured by the revised model proposed, which is also informed by the aforementioned models and conceptualizations of emotion(-al) language and is complemented by the theory of intersubjective positioning (White 2003, cf. Section 2.3.2).

The complexity of emotion discourse can be illustrated by the following corpus example (cf. Example 1). Here, a university student vented his anger after having received an unfair mark and uses the noun *anger* patterning with *surely*, a content disjunct (Quirk et al. 1985) and an EM of certainty (Simon-Vandenbergen & Aijmer 2007).[1]

(1) *My* ***anger*** *was justified* ***surely***? (e_m_029_1)

1. Quirk et al. (1985: 620f) distinguish between two types of content disjuncts. The category of type a) comprises adverbs that express the degree of truth of a statement such as *apparently*. Type b) content disjuncts include adverbs that express value judgments such as *surprisingly* (Quirk et al. 1985: 620f).

Thus, emotion discourse does not involve *either* emotion language such as *anger* (Bednarek 2008), which provides access to the emotion concept ANGER (Kövecses 2000; Lakoff 1987), *or* emotional language such as *surely* (Bednarek 2008), which can be considered to be a booster (Downing 2001) of polyfunctional and intersubjective nature here (Downing 2001; Simon-Vandenbergen 2007), since it both signals the writer's opinion and the interrogative elicits a reply (Downing 2001).[2] Emotion discourse often involves both of them, and therefore, the distinction between emotion talk and emotional talk can be regarded as not as clear-cut as suggested. Martin & White's model (2005), more precisely the AFFECT subsystem of the Appraisal Framework, also fails to capture the overlay of resources of AFFECT with ENGAGEMENT illustrated in Example 1. The appraisal-theoretical categorization of the evaluative resources of ATTITUDE, in particular AFFECT, ENGAGEMENT and GRADUATION, has been found incomplete before, taking into account actual discourse and so-called overlays of structures, e.g. *I am* ***very sad*** *about the news*, where GRADUATION and AFFECT overlap (Alba-Juez 2018).

The goal of this chapter is therefore to propose a model of emotion discourse that takes such complexities into account. The contrastive analysis of EM in Emotion Events across British English and German serves as an example.

This chapter proceeds as follows: In the next section, I will first lay out the approach taken to un-/certainty (2.1), and view it from a contrastive perspective (2.2). I will then present the revised cognitive linguistic model of Emotion Events underlying the investigation and discuss the role of EM therein (2.3). In Section 3, the corpus and methodology are presented. The remaining sections summarize the results (Section 4) and view them from a contrastive as well as a discursive perspective, discussing their relevance for and impact on previous models on emotion discourse (Section 5). Section 6 provides some concluding remarks.

2. Downing's systemic-functional study (2001: 256–257) on *surely* finds it also to be a means of "speaker self-validation", a marker of foreseen denial and a marker of mirativity. In the present chapter, I won't discuss mirativity, a category related to and sometimes overlapping with epistemicity and evidentiality. Mirative markers such as *surely* mark the information as being new or surprising and have been studied by e.g. Simon-Vandenbergen & Aijmer (2007). A recent account on mirativity with respect to emotions with a slightly different focus has been published by Krawczak & Glynn (2015).

2. Theoretical background

2.1 Un-/certainty

The communication of un-/certainty is an intrinsic feature of communication. Following Bognelli & Zuczkowski (2008), who adapt from a psychological point of view Watzlawick et al.'s (1967) interactional view rooted in cybernetics to the communication and non-communication of un-/certainty, un-/certainty cannot not be communicated. It is a scalar concept (cf. Figure 1; Simon-Vandenbergen & Aijmer 2007; Halliday & Matthiessen 2004: 147; Huddleston & Pullum 2002)[3] and can be regarded as subsuming the concepts of epistemicity and evidentiality (Bognelli & Zuczkowski 2008).

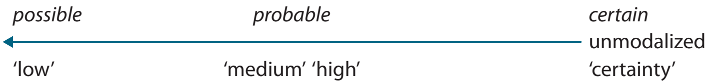

Figure 1. The probability scale

It is crucial to distinguish the latter notions from an analyst's perspective, but they are difficult to tease apart from a participant's view (Fetzer 2014), especially in "evidentiality$_2$ (E_2) languages" (Fetzer 2014: 322) – in contrast to evidentiality$_1$ (E_1) languages, where evidentiality is obligatorily coded by a closed set of morphosyntactic markers (Fetzer 2014; Aikhenvald 2004) – such as British English and German, in which the overt coding of evidentiality is optional, i.e. evidentiality has the status of a functional category and "there is an open set of linguistic devices which may code evidentiality, such as lexical verbs, lexical nouns, modal auxiliaries or modal adverbs, and an open set of non-verbal means, such as particular facial expressions or air quotes" (Fetzer 2014: 322). Without entering into the controversial discussion on the "narrow" view (i.e. assuming an overlap of the categories of evidentiality and epistemicity in the domain of inferences) versus the "broad" view (i.e. including evidentiality in epistemicity) of evidentiality, one can conclude that "evidentiality is generally seen as referring to the source of information, and epistemic modality is seen as referring to the attitude towards information, and [that] the two overlap in the domain of inference, viz. acquiring the information through reasoning" (Fetzer 2014: 325).

This study adopts Bognelli & Zuczkowski's (2008) approach of subsuming evidentiality and epistemicity under the umbrella term un-/certainty and investigates the role of markers of un-/certainty, i.e. EM, following Coates's (1995: 55)

3. The probability scale (Halliday & Matthiessen 2004: 147) has been adapted by inserting a medium level of analysis as suggested in grammars such as Huddleston & Pullum (2002) in order to achieve a more fine-grained picture of utterance modalization by markers of un/certainty.

definition, in the immediate context of emotion lexemes, viz. in Emotion Events (cf. Section 2.3), i.e. where the writers commit themselves to a certain degree to the sincerity of the (emotion/-al) statement, while judging the reliability of the sincerity *and/or* providing the source of information.

I am particularly interested in how EM are *used* in the immediate linguistic context of emotion lexemes, i.e. their (rhetorical) functions (Simon-Vandenbergen & Aijmer 2007) in Emotion Events. Epistemic markers are therefore regarded as either boosting or attenuating emotion/-al utterances, and, in the framework of intersubjective positioning (White 2003), to be either dialogically expansive or contractive resources (cf. Section 2.3.2). However, before discussing the role of EM in Emotion Events, I will view them from a contrastive perspective with regard to (British) English and German.

2.2 A contrastive perspective – EM in (British) English and German

(British) English and German discourse and more precisely pragmatic contrasts in EM with respect to these two languages have been the focus of a few cross-linguistic investigations (e.g. Blum-Kulka 1987; Blum-Kulka & Olshtain 1989; House 2006; Kranich 2016; Taboada et al. 2014), involving genres such as political interviews (Becker 2009) or letters to shareholders (Kranich 2016). However, the few existing studies yield partly conflicting results. Some studies identify a higher frequency of EM, especially modal verbs in English (Kranich 2016), a higher frequency of cognitive verbs as epistemic parentheticals in English challenges (Fetzer 2009), more unmitigated declaratives in German (Becker 2009), and more softeners in negative English reviews (Taboada et al. 2014). Others, by contrast, find fewer hedges in English academic writing (Clyne 1991; Markkanen & Schröder 1989). Moreover, the findings, in particular the differential display of EM across British English and German, have not yet been related to emotion discourse.

Taking the studies cited above, specifically those involving (British) English and German, into consideration, I hypothesize that overall (1) more EM will be displayed in co-occurrence with British English emotion lexemes than with German ones (e.g. Kranich 2016). Moreover, (2) in the British English dataset more 'low' certainty markers should be found co-occurring with emotion lexemes, while there should be more 'high' certainty markers in the German narratives (e.g. Kranich 2016; Becker 2009). Finally, I hypothesize, based on the relatively high frequencies of EM with emotion lexemes in the two languages, that they play an important role in Emotion Events (3), and therefore, they will be taken into account in the framework of the revised Emotion Event model (cf. Section 2.3.2).

All in all, EM in co-occurrence with emotion lexemes, and more specifically ANGER lexemes, are regarded as the *tertium comparationis* (Chesterman 1998;

Lewandowska-Tomaszczyk & Dziwirek 2009), the "common platform of reference" (Krzeszowski 1990: 15) in this contrastive study, which will follow the classical steps of description, juxtaposition and comparison (Krzeszowski 1989).

2.3 Emotion Events

2.3.1 *A cognitive semantic model*

Based on Langacker's canonical event model (Langacker 1991: 282), the structure of an Emotion Event is defined as the "immediate contextual use" (Lewandowska-Tomaszczyk & Wilson 2010: 322) of emotion lexemes and their sub-unit emotion parameters. Emotion lexemes are conceived of as providing access to prototypical emotion concepts and their radial categories and as activating prototypical emotion scenarios (Lewandowska-Tomaszczyk & Wilson 2010: 322–323). The latter involve a display of specific temporal stages of an emotion, e.g. a five-stage scenario for ANGER including, for example, the cause of ANGER or an act of retribution (Lakoff 1987: 397–405). Lexical senses are conceived of as regions in the conceptual space of emotions, and sense modulations might be the result of a particular figure-ground organization, i.e. profiles and focal entities, and a specific construal of a scene (Lewandowska-Tomaszczyk & Wilson 2010). While each emotion covers its own space, it can overlap with other emotion regions. Individual senses are "construed on-line" (Lewandowska-Tomaszczyk & Wilson 2010: 322–323), being constrained by a larger context, which includes spatio-temporal grounding, the speaker, the cause, an experiencer and possible reactions to an emotion. In event model terminology, we can say that an Emotion Event comprises "role archetypes" (Langacker 1991) such as agents, experiencers, causes, appraisal (value judgments) or arousal (Lewandowska-Tomaszczyk & Wilson 2010).

Semantically close senses, i.e. both more and less basic and prototypical senses are studied (Lewandowska-Tomaszczyk & Wilson 2010). For instance, when investigating the "basic level" (Kövecses 2000: 3) concept ANGER, "subordinate level" (Kövecses 2000: 3) concepts such as IRRITATION and ANNOYANCE should be included in the analysis. Dynamic processes occur in these concepts, i.e. prototypical senses employ a core part of the scenario of an Emotion Event and their extended meanings "utilize other properties of their sense Gestalt" (Lewandowska-Tomaszczyk & Wilson 2010: 322–323).

Sub-unit emotion parameters are sub-sense levels of analysis and are comparable to what Croft & Cruse (2004) call facets. They may surface in discourse in form of "modifiers" (e.g. *a surprise party/the unsurprising surprise*) and "metaphoric and metonymic structures" (*taken/caught by surprise*; Lewandowska-Tomaszczyk & Wilson 2010: 333–335, 343).

The meaning of emotion concepts, furthermore, emerges through the analysis of a "network of related senses" (Lewandowska-Tomaszczyk & Wilson 2010: 322), i.e. overlaps, synonyms, antonyms and clusters of other notions. *Astonishment* and *amazement*, for instance, express both unexpectedness and disbelief, but the corpus analysis of synonyms in context reveals that *amazement* additionally expresses appreciation and positive wonder (Lewandowska-Tomaszczyk & Wilson 2010: 336–337). Moreover, it is more intense than *surprise* (Lewandowska-Tomaszczyk & Wilson 2010: 336–337). Finally, chains of senses and conceptual clusters can indicate one complex feeling (e.g. *I was both annoyed and upset […]*) or a blend of individual concepts (e.g. *bittersweet*, i.e. *happy* and *sad* at the same time; Fauconnier & Turner 1998; Lewandowska-Tomaszczyk & Wilson 2010).[4]

In the next section, I extend this cognitive semantic model based on the corpus findings of EM frequently co-occurring with emotion lexemes. I claim that EM are modifiers in Emotion Events and that they can be regarded as sub-units of analysis, comparable to sub-unit emotion parameters.

2.3.2 *Epistemic markers in emotion events – an extended model*

I argue that EM, since they are quite frequent in emotion discourse and in particular in co-occurrence with emotion lexemes, can be considered to be sub-units of analysis of Emotion Events, comparable to what Lewandowska-Tomaszczyk & Wilson (2010) call sub-unit emotion parameters. While the latter provide information on the lexical senses of the respective emotion concepts, EM in co-occurrence with emotion lexemes provide *usage* information. More precisely, they modify the emotion lexemes they are in co-occurrence with in the same way as intensifiers (e.g. *I'm* ***so*** *angry* v.s. *I would be* ***slightly*** *irritated* ***of sorts***; Fronhofer 2015). Epistemic markers are of course not exclusively used in co-occurrence with emotion lexemes, but if they are, speakers/writers can display the same emotion and construe (Lewandowska-Tomaszczyk 2011) it with 'high' (cf. Example (2a)), 'medium' (cf. Example (2b)) or 'low' (cf. Example (2c)) certainty, i.e. different degrees of probability (cf. Huddleston & Pullum 2002 for 'medium' probability):

(2) a. *[…] it was* ***clearly*** *visible that he was* ***angry*** *[…]* (e_f_016_1)
b. *[…] and* ***I think probably*** *a bit* ***jealous*** *[…]* (e_f_33_2)
c. ***Perhaps****, then, the thing that* ***irritates*** *me most […]* (e_m_020_2)
d. ***Ich weiß****, dass er mich* ***nicht leiden*** *kann, aber dieser Blick… und mein Herz rutschte in meine Hose.*
'***I know*** *that he does* ***not like*** *me, but this look in his eyes…and I was shaking in my shoes.*' (g_f_029_2)

4. The examples stem from the the Augsburg Corpus of Written Narratives (AWE), cf. Section 3.1.

In this way, the emotion can be either boosted (as in (2a)) or attenuated (as in (2b) and (2c)) by the EM that are under the scope (Ungerer 1988) of the emotion lexemes.

Moreover, the writers intersubjectively position themselves to the reader (White 2003). This approach to intersubjective positioning is inspired by Bakhtin (1981) and Vološinov (1995), who underline, as summarized by White (2003), that

> all verbal communication, whether written or spoken is 'dialogic' in that to speak or write is always to refer to, or to take up in some way, what has been said/written before, and simultaneously to anticipate the responses of actual, potential or imagined readers/listeners. (White 2003: 261)

According to White, the dialogic resources used can be divided into dialogically "contractive" resources, i.e. those that "suppress or close down the space [for dialogic alternatives]" (White 2003: 259) such as *naturally*, *obviously* or *of course* (White 2003: 269; cf. Examples (2a) and (2d)), and dialogic "expansive" resources such as *perhaps* (White 2003: 273), i.e. those that "entertain or open up" dialogic alternatives (White 2003: 259; cf. Examples (2b) and (2c)). Dialogically expansive resources can further be subdivided into the modes of entertain and attribute (White 2003: 274), and dialogically contractive resources into the modes disclaim and proclaim (White 2003: 272). Especially relevant to this study are the modes entertain (cf. Examples (2b) and (2c)), pronounce (cf. Example (2d)) and concur (cf. Example (2a)), the last two being subcategories of proclaim (White 2003: 272), and counter-expectancy (cf. Example (1); Simon-Vandenbergen & Aijmer 2007: 280). Entertain stands for dialogic stance where "the textual voice is represented as entertaining alternative positions to that currently being referenced" (White 2003: 273); pronounce is concerned with "intensifications, authorial emphases or explicit authorial interventions or interpolations" (White 2003: 269), and the mode concur captures instances where "the textual voice [is] taking up some generally held position and thereby [is] concurring with the reader" (White 2003: 269). Counter-expectancy for the adverb *surely* has been discussed by Downing (2001) and Simon-Vandenbergen & Aijmer (2007).

Thus EM in co-occurrence with emotion lexemes can be taken into account in the revised model of Emotion Events as sub-units of analysis. In the next section, I will present the corpus design (3.1.) and overall methodology (3.2).

3. Corpus and methodology

3.1 The AWE corpus

The contrastive and comparable ***A**ugsburg Corpus of **W**ritten **E**motion Narratives* (***AWE***; Fronhofer 2015; Fronhofer accepted) has been specifically designed with the same sampling frames across British English (BrE) and German (Ger) in order to investigate emotion concepts in context. The synchronous corpus (2012–2013) consists of 248 emotion narratives elicited from British English and German university students.

Table 1. Corpus statistics

AWE	No. of female participants	No of male participants	No. of narratives	No. of words
BrE	34	28	120	53,120
Ger	34	34	136	60,894

The students were asked in an experiment comprising mostly group assignments to write narratives in response to two scenarios: (1) You have just received an unfair mark and (2) Imagine […] you got the highest mark possible. The prompts were presented in alternating order to avoid the order of the topics skewing the results. Moreover, the corpus is counter-balanced in its design, i.e. with respect to language, gender, positive and negative elicitation prompts. An additional questionnaire included, apart from participants' socio-cultural data, self-ratings with respect to the authenticity of the narratives (authentic – mixed – fictional).[5] The next section summarizes how the data was coded and analyzed.

3.2 Coding and analysis

AWE was analyzed and manually coded with the help of Webanno, a software tool provided within the CLARIN-D infrastructure (Yimam et al. 2014; Eckart de Castilho et al. 2016) and R (R Core Team 2017).[6]

The manual coding included emotion lexemes in affirmative and non-affirmative contexts on the basis of Johnson-Laird & Oatley's (1989) list of English

5. Although this study is about how British and German writers use emotion lexemes to report an Emotion Event and not about the actual emotions felt, it might be relevant whether and to which extend the writers display fabricated discourse.

6. The annotation/tagging was performed by the researcher only and was based on contextual criteria.

lexemes that denote emotions.[7] I excluded emotion-related lexemes (e.g. *rant*), emotion-laden lexemes (e.g. *shit*), figurative expressions (e.g. *hot under the collar*) and facial-bodily expressions (e.g. *cry*; Pavlenko 2008; Dziwirek & Lewandowska-Tomaszczyk 2010), since they are highly context-dependent and can potentially be attributed to distinct emotion concepts; one can, for instance, *cry* and be either *happy* or *sad*. In order to avoid any leakages, I additionally used the tree structure of emotions, a categorization of emotions into primary (e.g. ANGER), secondary (e.g. IRRITATION) and tertiary (e.g. JEALOUSY) affective states widely used in social psychology (cf. Appendix, Table 1; Lampropoulou 2014; Parrott 2001).

The corpus was further annotated for EM co-occurring in the immediate linguistic context (5L–5R) of emotion lexemes, tagging EM with respect to their conceptual meaning, i.e. 'high', 'medium' or 'low' certainty, and their discourse functions, i.e. boosting and attenuating, or with their intersubjective meaning, i.e. entertain, concur, pronounce (White 2003), counter-expectancy (Simon-Vandenbergen & Aijmer 2007: 280). Part of speech (henceforth POS) membership was also established. I hereby included the various lexical devices emerging in AWE – nouns, adverbs, verbs, adjectives, modal auxiliaries and prepositional phrases (Huddleston & Pullum 2002: 180, 771) – since the linguistic expression of epistemicity or evidentiality might be realized by different POS across languages. Every item in the immediate linguistic context and under the scope of the emotion lexemes that attributed high, medium or low probability to the emotional utterance and could be paraphrased by "It is/was possible that …" (epistemic modality) in contrast to "It was possible for him/her …" (deontic modality; Huddleston & Pullum 2002) was coded. Moreover, Givón's detailed account of the distinction between "epistemic" and "deontic" (Givón 1993: 244) (propositional) modality (Givón 1993: 169–187) was followed. Furthermore, Huddleston & Pullum (2002: 767–771) were consulted for the classification of epistemic modal adjuncts into four groups of differing modal strength (Huddleston & Pullum 2002: 769); the "certainly group", the "apparently group", the "probably group" and the "possibly group". In analogy to the probability scale, groups 1 and 2 were merged into one group of strong epistemic modality, since *apparently*, meaning 'judging by appearances', or *evidently*, meaning 'clearly', are potential candidates for group 1

7. Manual analyses are often more subjective and more time-consuming than (semi-)automated analyses. However, the latter would not have been suitable for the endeavour of this study. Manual analyses allow for a lexical-sense-sensitive analysis, i.e. coding polysemous lexical items only when they occur in their emotion meaning (Bednarek 2008). To cite Lewandowska-Tomaszczyk & Wilson (2013: 343), "when it comes to semantic and pragmatic annotations of meanings in use, particularly in large corpora, adequate corpus tools are practically in *statu nascendi*", i.e. for the time being automated analyses that take context into account are still impossible.

(Huddleston & Pullum 2002: 769). Cases of "double modality" (e.g. *It is certainly possible that he told her*, Huddleston & Pullum 2002: 769–771) were included.

Although this study is a small-scale corpus study, the corpus is large enough (Hunston 2007; Fetzer & Johansson 2010) to allow quantitative analyses. Frequency data for both emotion lexemes and EM were analyzed statistically using regression models that allow the researcher to take into account data-specific error structures and the hierarchical organization of the data (generalized linear mixed models, GLMM; Baayen 2008; Gries 2013; Levshina 2015) in the R Language and Environment for Statistical Computing (version 3.4.1; R Core Team 2017) with the 'lme4' package (Bates et al. 2015; version 1.1–13; function 'glmer' with the 'bobyqa' optimizer). I examined the frequency of emotion lexemes relative to the number of words per text and, in analogy, the frequency of emotion lexemes with EM relative to the total number of emotion lexemes, using binomial GLMMs with language and gender as interacting fixed effects in the full model and the participant as a random effect. The same general model structure was used to analyze the effect of high, medium and low EM, in which case the probability of EM was included as a fixed effect besides language and gender. In all models authenticity was added as a random effect, since the self-ratings revealed a tendency for German writers to be more fictional in their writings (cf. Appendix, Table 2). In addition, overdispersion (i.e. more variation in the data than expected) was taken into account via an observation-level random effect, if required. I used model selection based on metrics which balance the explanatory power of a model with the number of model parameters (AICcs and AICc weights; Burnham & Anderson 2002) including all possible models from the full model (all relevant explanatory variables included) to the null model (only the intercept model) to determine the best fitting model.

In the next section, I will present the qualitative and quantitative results that support the view that British English and German differ in their realization of Emotion Events, and particularly ANGER events, modalized by EM (cf. Hypothesis 2).

4. Contrastive findings

4.1 Emotion Events and ANGER events across British English and German

The number of Emotion Events, i.e. the relative occurrence of emotion lexemes against the overall word count per text, did not differ across British English and German.

This can be deduced from the small Δ AICc, the slight support (W_{AICc}) for the best model (language effect) and the overlapping confidence intervals (cf. AICc Table 2; cf. Figure 2). The relative importance of variables was 0.61 for language, 0.55 for gender and 0.12 for language-gender interaction. In the Appendix (cf. Table 3), the raw frequencies of Emotion Events across languages and genders are displayed.

Table 2. Glmer model selection based on AICcs and AICc Weights with respect to relative occurrence of emotion lexemes across British English and German

model	df	Δ AICc	W_{AICc}
language	***5***	***0.00***	***0.251***
language + gender	6	0.17	0.231
gender	5	0.44	0.201
null model	4	0.52	0.194
language*gender	7	1.44	0.123

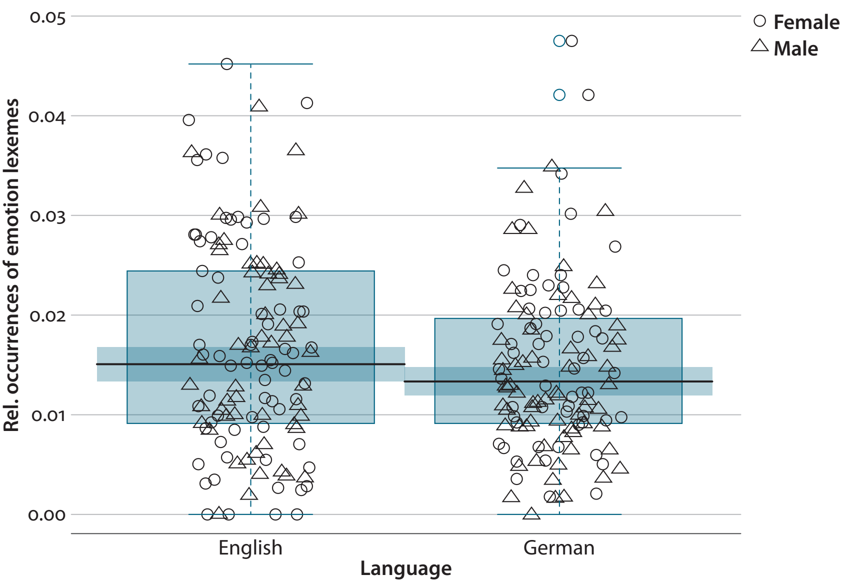

Figure 2. Relative occurrences of emotion lexemes across British English and German AICc-based model selection on binomial GLMMs suggested that the British narratives ($N = 120$) displayed slightly more emotion lexemes relative to the respective narrative's total word count than the German narratives ($N = 136$) while no gender effect could be detected (gender being shown as round and triangular point characters, respectively; see legend). Overall statistical inference was not conclusive as all models, including the null model, had roughly similar AICc weights (see Table 2 and main text for details), which is also reflected in the overlapping confidence intervals. I report all relative occurrences, their distribution (grey boxplot) as well as the best model fit (black horizontal line) with confidence intervals (grey shaded area).

The number of ANGER events, i.e. the number of ANGER lexemes relative to the overall occurrences of emotion lexemes per text, differed across British English and German, the Germans using nearly twice as many ANGER lexemes (14.5% ANGER lexemes per text), as the British (8.1% per text; cf. median, Figure 3). This was supported by the best model selected based on AICcs (cf. Table 3).

Table 3. Glmer model selection based on AICcs and AICc Weights with respect to relative occurrences of ANGER lexemes across British English and German

model	df	Δ AICc	W_{AICc}
language	***6***	***0.00***	***0.591***
language + gender	6	1.82	0.238
language*gender	7	3.72	0.092
null model	4	4.77	0.054
gender	5	6.41	0.024

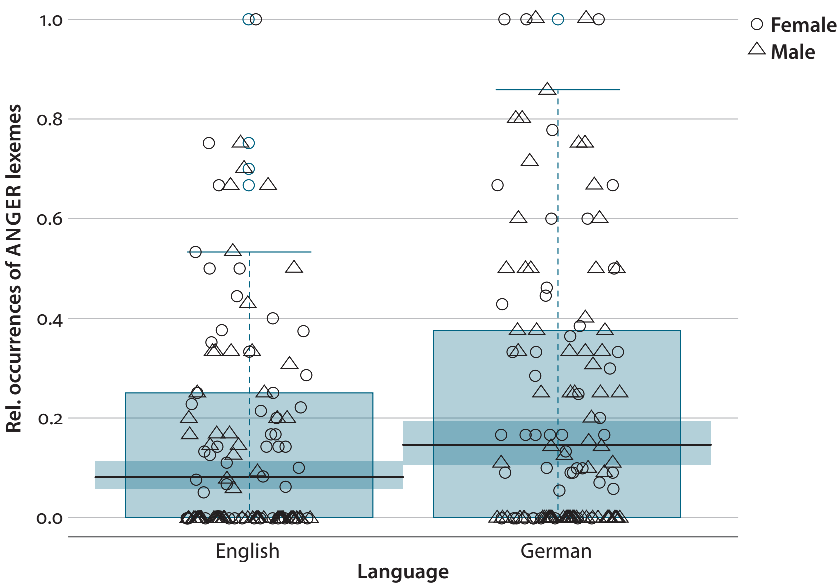

Figure 3. Relative occurrences of ANGER lexemes across British English and German AICc-based model selection on binomial GLMMs suggested that the German narratives ($N = 136$) displayed more ANGER lexemes relative to the respective narrative's total emotion lexeme count than the British narratives ($N = 120$). A slight gender effect could also be detected, the males using more ANGER lexemes than the females (gender shown as round and triangular point characters; see legend). This is supported by the AICc weights and the non-overlapping confidence intervals (cf. Table 3 and main text for details). I report all relative occurrences, their distribution (grey boxplot) as well as the best model fit (black horizontal line) with confidence intervals (grey shaded area).

Moreover, the males used more ANGER lexemes than the females (cf. second best model, Table 3; triangular/round point characters, Figure 3). The relative importance of variables was 0.92 for language, 0.35 for gender and 0.09 for gender-language interaction. The raw frequencies of ANGER events across languages and genders are again summarized in the Appendix (cf. Table 3). Thus, cross-linguistic differences in the realization of ANGER events across British English and German have been detected.

In the next two sections, I will report that, additionally, EM co-occurring with emotion lexemes and ANGER lexemes differ across British English and German. Section 4.2 summarizes the qualitative findings and Section 4.3 the quantitative ones.

4.2 EM + [ANGER] – qualitative analysis

From a qualitative point of view, important differences between British English and German ANGER events have been identified (cf. Examples (3) and (4)).

(3) *A mixture of confusion, **anger**, and shame overcame me when I received my Oxford LNAT result. Partially because **I felt** that the mark wasn't an accurate representation of my ability to analyse literature, and partially because **I felt as though** I had disappointed a number of people – including myself. […] <u>**Perhaps, then, the thing that irritates me the most**</u> about the mark isn't the final verdict but the lack of justification and explanation for it. The lack of interest from the people who I needed the support from. P**ossibly** even the failure for me to offer an explanation and a justification for what **may** have been a poor performance. Irrespective, I gave one hundred per cent and in hindsight worse things happen at sea.* (e_m_020_1)

In Example (3), a British student writes about his complex emotions after having received an unfair mark in an exam. ANGER, IRRITATION (*anger*, *irritates*), SHAME (*shame*) and DISAPPOINTMENT (*disappointed*) are part of the emotion cluster. The student makes a concluding strong point and provides the main reason for his IRRITATION, which is foregrounded by the comparative *most*, which has been included in the analysis of intensifiers (Fronhofer 2015; cf. Quirk et al. 1985: 467), albeit attenuated by the EM *perhaps*. In general, the whole narrative is colored by markers of uncertainty (*I felt*, *I felt as though, perhaps, possibly, may*) which downtone the overall narrative. In White's (2003) framework, the narrative can therefore be regarded as dialogically expansive (cf. Section 2.3.2), i.e. in using "distancing" (White 2003: 274) resources such as *perhaps*, *possibly* or *may*. Moreover, it is made clear, through recurring references to 1st person subjects in co-occurrence with the cognitive verb *felt*, which contribute to, comparable to the cognitive verb with first person subject *I think*, to the subjectification (Fetzer 2011: 261) of the narrative, that the student's personal opinion is displayed.

By contrast, a comparable German narrative reads as follows:

(4) *Wenn mich ein Dozent unfair benotet, würde ich mich **sicherlich ärgern** und das Gespräch suchen. **Natürlich** kommt es dabei [darauf] an, wie die Klausur gestellt wurde. […] Innerlich wäre ich **natürlich sauer**, auch niedergeschlagen. Ich würde reflektieren, wieso der Dozent wohl so handelt. Ob er mich **unsympathisch** findet und ob er das im Seminar auch schon zum Ausdruck gebracht hat. […] Im zweiten Fall würde ich mich **natürlich** auch **ärgern**. […] Wenn das nicht so der Fall wäre würde ich **sicherlich** die Klausureinsicht in Anspruch nehmen, […].*
'If a teacher gives me an unfair mark, I would ***certainly get angry*** and try to talk to him/her. ***Naturally***, it [my reaction] depends on how the exam questions were. […] My inner reaction would ***of course be to be angry***, also to be *depressed*. I would reflect on why the teacher acts like this. If he/she does ***not like*** me and if he/she has already expressed this feeling during the course. […] In the second case, I would also ***naturally be angry***. […] If this wasn't the case, I would ***certainly*** go and have a look at the corrected exam, […]. (g_m_32_1)

Here, the student explains his AERGER ('ANGER') and NIEDERGESCHLAGENHEIT ('DEPRESSION') after having received an unfair mark and uses mainly markers of certainty (*sicherlich*, *natürlich*) in co-occurrence with the AERGER ('ANGER') lexemes. Also, the more global context is colored by the same markers of certainty (*sicherlich*, *natürlich*). Overall, AERGER ('ANGER') is boosted and also foregrounded (*natürlich sauer*, 'naturally angry') while other emotions such as NIEDERGESCHLAGENHEIT ('DEPRESSION') are backgrounded (*auch niedergeschlagen*, 'also depressed'). In White's (2003) approach, the German narrative can be said to be dialogically contractive: in using resources such as *natürlich* ('naturally'), the writer explicitly displays the textual voice as being aligned with the construed reader, i.e. they have the same "belief or attitude or 'knowledge'" (White 2003: 269). Being angry is therefore displayed as being a natural response to unfair marking. In sum, the British English and German Emotion Events differed in their modalization by EM, the British writers tending to display EM of low certainty, and the German writers EM of high certainty. From the perspective of intersubjective positioning, the British narrative extracts were dialogically expansive, whereas the German extracts were dialogically contractive. The next section investigates whether these qualitative results, i.e. the cross-linguistic differences in high, medium and low EM, in co-occurrence with emotion lexemes and ANGER lexemes, and their respective discourse functions (boosting vs. attenuating and pronounce, concur vs. entertain), can be corroborated from a quantitative perspective.

4.3 EM + [EMOTION]/ [ANGER] – forms and functions

EM in co-occurrence with emotion lexemes did not differ across languages (the Germans using 7% EM in co-occurrence with emotion lexemes, the British 6.9%), but did differ across genders (cf. Table 4), the males (11%, cf. median, Figure 4) using more EM in co-occurrence with emotion lexemes (relative to the respective narrative's total emotion lexeme count) than the females (6.9%, cf. median, Figure 4).

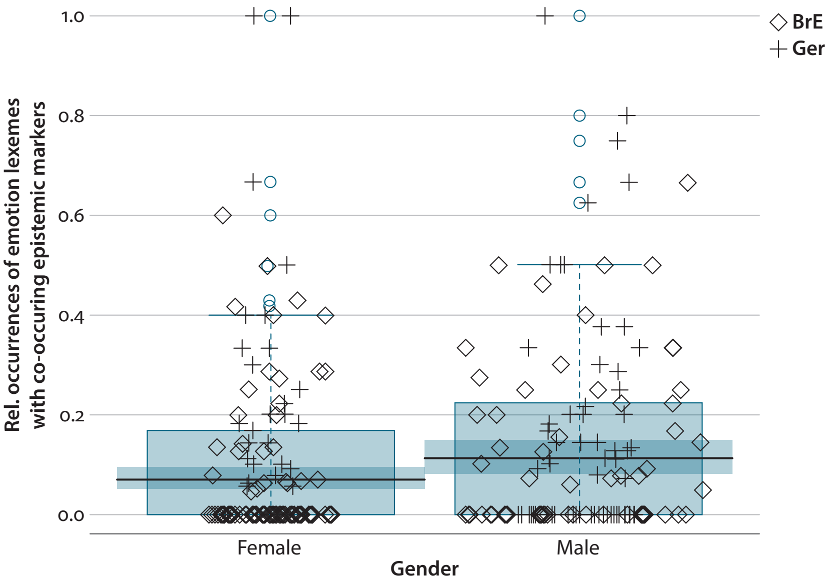

Figure 4. Relative occurrences of emotion lexemes with co-occurring EM across genders AICc-based model selection on binomial GLMMs suggested that males (*N* = 62, N/ Narratives = 124) displayed more EM in co-occurrence with emotion lexemes relative to the respective narrative's total emotion lexeme count in comparison to females (*N* = 68, N/ Narratives = 136). This is supported by the AICc weights and the non-overlapping confidence intervals (cf. Table 4 and main text for details). I report all relative occurrences, their distribution (grey boxplot) as well as the best model fit (black horizontal line) with confidence intervals (grey shaded area). Language is shown as square as against cross point characters (see legend).

The relative importance of variables was 0.83 for gender, 0.31 for language and 0.07 for a gender-language interaction. Raw frequencies of EM in co-occurrence with emotion lexemes are summarized in the Appendix (cf. Table 4).

With respect to the number of EM in co-occurrence with ANGER lexemes, no effects could be detected. Raw frequencies of EM in co-occurrence with ANGER can also be found in the Appendix (cf. Table 4).

Table 4. Glmer model selection based on AICcs and AICc Weights with respect to relative occurrences of EM + [EMOTION] across genders

model	df	Δ AICc	W_{AICc}
gender	***4***	***0.00***	***0.564***
language+gender	5	2.08	0.200
null model	3	3.07	0.121
language*gender	6	4.16	0.070
language	4	5.09	0.044

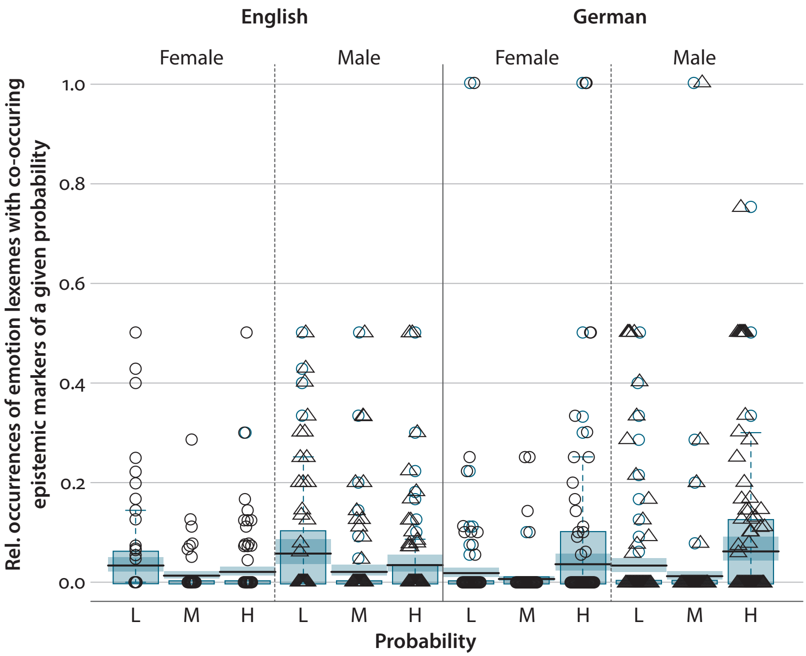

Figure 5. Relative occurrences of emotion lexemes with co-occurring EM of a given probability
AICc-based model selection on binomial GLMMs suggested that German narratives (N = 136) displayed more EM of high probability (H) in co-occurrence with emotion lexemes relative to the respective narrative's total emotion lexeme count in comparable British narratives (N = 120), which displayed more EM of low probability (L). This is supported by the AICc weights and the non-overlapping confidence intervals (cf. Table 5a and main text). There was no effect with respect to medium probability markers (M). However, a gender effect could be detected, the males using more EM than the females (cf. Figure 4; gender shown as round and triangular point characters; see legend). I report all relative occurrences, their distribution (grey boxplot) as well as the best model fit (black horizontal line) with confidence intervals (grey shaded area).

The best model selected by AICcs with respect to the number of high, medium and low EM in co-occurrence with emotion lexemes (relative to the respective narrative's total emotion lexeme count) reported a probability, gender and language effect as well as a probability-language interaction (cf. Table 5a) with more low probability markers being used, with males displaying more EM than females (cf. also Table 4 and Figure 4 above), Germans using slightly more EM than the British (cf. also Table 4 and Figure 4 above), and, most importantly, the Germans using rather high probability markers (German females 3.7%, German males 6.2% vs. British females 2%, British males 3.4%), and the British using low probability markers (German females 1.8%, German males 3.1% vs. British females 3.4%, British males 5.7%; cf. Figure 5).

Table 5a. Glmer model selection based on AICcs and AICc Weights with respect to high, medium and low EM + [EMOTION] across British English and German and genders

model components*	**df**	**Δ AICc**	**W_{AICc}**
1, 2, 3, 5	***10***	***0.00***	***0.58***
1, 2, 3, 5, 6	11	2.05	0.21
1, 3, 5	9	3.47	0.10
1, 2, 3, 4, 5	12	4.07	0.08
1, 2, 3, 4, 5, 6	13	6.14	0.03
1, 2, 3, 4, 5, 6, 7	15	10.11	0.00
1, 2	7	10.67	0.00
1, 2, 3	8	12.64	0.00
1	6	14.04	0.00
1, 2, 4	9	14.50	0.00
1, 2, 3, 6	9	14.69	0.00
1, 3	7	16.07	0.00
1, 2, 3, 4	10	16.49	0.00
1, 2, 3, 4, 6	11	18.55	0.00
2	5	39.97	0.00
2, 3	6	41.95	0.00
null model	4	43.29	0.00
2, 3, 6	7	43.98	0.00
3	4	45.32	0.00

* Model components and corresponding codes: 1 probability, 2 gender, 3 language, 4 probability*gender, 5 probability*language, 6 gender*language, 7 probability*gender*language

Table 5b. EM + [EMOTION]

	BrE		Ger	
	EM	fq	EM	fq
High certainty	I know/knew/knowing/ knowledge	11	**natürlich (‘naturally’)**	32
	naturally	5	**sicherlich/ mit Sicherheit/ sicher/ bestimmt/ auf jeden Fall (‘certainly’)**	12
	definitely	3	Tatsache/ klar/ Fakt (‘the fact/clearly’)	7
	obvious/-ly	3	Ich weiß/ wusste/ **bekanntlich** (‘I know/knew/**as you know**’)	3
	undoubtedly	1	**definitiv (‘definitely’)**	1
	surely	1	**offensichtlich (‘obviously’)**	1
	without doubt	1	**anscheinend (‘apparently’)**	1
	of course	1		
	it is safe to say	1		
	apparently	1		
	I’m sure	1		
	certainly	1		
	likely	1		
	clearly	1		
	clear evidence	1		
Medium certainty	**probably**	11	**wahrscheinlich (‘probably’)**	7
	seem/ seems/ seemed	5	scheinen/ wirken (‘seem’)	3
	should	1		
	likely	1		
	unlikely	1		
Low certainty	I think	16	**vielleicht (‘perhaps’)**	10
	can/ could	11	wohl (‘perhaps’)	7
	I feel/ felt	8	Ich weiß (gar) nicht (‘I don’t know’)	3
	may/ might	8	**vermutlich** (‘presumably’)	2
	perhaps	5	Ich glaube (‘I think’)	1
	I guess	2	könnte (‘could’)	1
	maybe	2	Ich hatte den Eindruck (‘I had the impression’)	1
	I got the impression	1	soll (‘allegedly’)	1
	I doubt	1	Möglichkeit (‘possibility’)	1
	I’m not sure	1		
	possibility	1		
	you never know	1		

* EM adverbs and adverbial phrases are printed in bold.

The relative importance of variables was reported as 1 for probability, 1 for language, 0.99 for the probability-language interaction and 0.9 for gender; the gender-language interaction received 0.24, and the probability-gender interaction 0.11. Table 5b lists all EM types, categorized into markers of 'high', 'medium' and 'low' certainty, in co-occurrence with emotion lexemes and their frequencies.

The frequencies of German *natürlich* and *sicherlich* in contrast to British English *naturally*, *surely, of course* and *certainly* are strikingly high. Moreover, in the British dataset, a higher frequency of the cognitive verbs *I know/knew/knowing* and *I think* in contrast to German *Ich weiß/wusste* and *Ich glaube* have to be noted. In the British dataset, more EM types than in the German dataset seem to have been used. The German *vielleicht* is far more frequent than the British *perhaps* or *maybe*.

For EM co-occurring with ANGER the sample size was too small to permit statistical analysis and therefore a qualitative approach was preferred. Table 6a displays the raw frequencies of high, medium and low markers across languages and genders.

Table 6a. Occurrences of 'high', 'medium' and 'low' probability markers + [ANGER] across British English and German

+ [ANGER]	BrE		Ger	
	f	**m**	**f**	**m**
high	2	2	5	10
medium	3	1	1	1
low	6	4	4	7

As the frequency data show, the pattern detected for EM in co-occurrence with emotion lexemes (cf. Figure 5) might also be revealed for EM in co-occurrence with ANGER in a larger dataset (cf. e.g. the raw frequencies of German high certainty markers). Table 6b gives all the EM types in co-occurrence with ANGER.

Assuming that the EM of high, medium and low certainty fulfil the discourse functions of attenuation (low and medium certainty markers), boosting (high certainty markers) and intersubjective positioning (low and medium certainty markers functioning as entertaining resources, high certainty markers as concurring or pronouncing resources) respectively, the cross-linguistic differences identified for EM forms are also valid for EM discourse functions.[8] In other words, the German narratives display more concurring and pronouncing resources, i.e. are dialogically contractive, while the British narratives display more entertaining resources, i.e.

8. Of course, there are a few exceptions that have been taken into account during the analysis, e.g. *I think* can function as boosting or attenuating device (Fetzer 2014).

Table 6b. EM + [ANGER]

	BrE		Ger	
	EM	**ANGER lexemes**	**EM**	**AERGER lexemes**
High certainty	know	frustrating	weiß/wusste ('know/knew')	nicht leiden/nicht mögen
	obvious	animosity	**natürlich ('naturally')**	Ärger, nicht mögen, frustriert, sauer, ärgern, ärgerlicher, wütend, verärgert
	surely	anger	**offensichtlich ('obviously')**	ärgerlich
	clearly	angry	**anscheinend ('apparently')**	nicht mögen
			sicher ('certainly')	neidisch
			sicherlich ('certainly')	ärgern
			mit Sicherheit ('certainly')	wütend
			Fakt ('fact')	aufregen
Medium certainty	**probably**	bitter, jealous	**wahrscheinlich ('probably')**	ärgern
Low certainty	think	annoying, jealous	glaube ('I think')	neidisch
	might	anger	wohl ('perhaps')	nicht mögen
	may	resent, displeased	könnte ('could')	unsympathisch
	could	annoyed, upset	Möglichkeit ('possibility')	Unzufriedenheit
	can	frustrating	**vielleicht ('perhaps)'**	nicht mögen, neidisch, stinksauer
	possibility	resentment		
	perhaps	irritate		

* EM that are adverbs and adverbial phrases are printed in bold.

are dialogically expansive. The raw frequencies of the discourse functions of EM in co-occurrence with emotion lexemes and ANGER can be viewed in the Appendix (Tables 6 and 7). Table 8 in the Appendix lists all EM displayed in the AWE-corpus.

In sum, Hypothesis 1, i.e. that overall more EM would be displayed in co-occurrence with British emotion lexemes than with German ones, could not be accepted. The pattern of more 'low' certainty markers in the British dataset, and therefore the discourse function entertain, as against more 'high' certainty markers in the German dataset, and therefore the discourse functions concur and pronounce, as was revealed in the qualitative analysis, has been corroborated from a quantitative perspective (Hypothesis 2). In other words, different EM, indexing a differential subjective construal (Lewandowska-Tomaszczyk 2011) and inter-subjective positioning (White 2003), in co-occurrence with emotion lexemes and ANGER lexemes are used in the British and German narratives.

The next section discusses these findings (Section 5.1) and views them against the background of existing models on emotion discourse (Section 5.2).

5. Discussion

5.1 EM in British and German Emotion Events Differ

A differential number of ANGER events, but not overall Emotion Events, has been identified in the British and German narratives, the German writers using more ANGER lexemes. This might be due to the British writers having more recourse to the implicit display of ANGER, whereas the German writers might choose an explicit realization. This seems, however, only to be true for specific emotion concepts, such as ANGER, as the language effect with respect to all emotion lexemes was statistically not corroborated. All in all, despite a shared cognitive basis (Lewandowska-Tomaszczyk 1998), the display of Emotion Events, more precisely ANGER, is language-specific.

When the immediate linguistic context of emotion lexemes, in particular EM in co-occurrence with emotion lexemes or ANGER lexemes, is examined, language specificities were also identified. Hypothesis 1, i.e. that in British narratives more EM should be displayed than in the German narratives, based on Kranich's (2016), Fetzer's (2009), Becker's (2009) and Taboada et al.'s (2014) results, has at first sight not been corroborated. The findings of the present study might be explained by a genre-specific display – Kranich (2016), for instance, investigated popular science texts and letters to shareholders. However, the main reason for this result lies in the operationalization of EM. Kranich (2016: 106), again to take her study as an example, investigated in her LeSh (Letters to Shareholders) corpus a slightly smaller corpus than AWE and coded "all expressions signalling that the speaker asserts only that it is possible or probable that the proposition is true", i.e. she investigated hedging strategies in Talbot's sense (Talbot 2010), i.e. all linguistic strategies and markers used by the speaker/writer that contribute to weakening the force of the utterance. The study at hand, however, also included epistemic modal marking of certainty (cf. Figure 1, the probability scale) in order to cover a fuller and more fine-grained functional spectrum (cf. the division of the probability scale into 'high', 'medium' and 'low' certainty markers in Section 2.1). Moreover, the separate coding of discourse functions allowed high or low probability contexts to be taken into account that might have an impact on the particular function of an EM such as *I think*. The latter, for instance, has been reported to be an attenuating device in contexts colored by probability and to be a booster in high certainty contexts (Fetzer 2014).

Ultimately, the results corroborate Kranich (2016), Fetzer (2009), Becker (2009) and Taboada et al. (2014) and contradict Markkanen & Schröder (1989) as well as Clyne (1991), since in the British narratives low certainty markers are more frequent than in German narratives. Additionally, it has been shown that high certainty markers are mainly used in German narratives (Hypothesis 2). Overall, I agree with Kranich (2016) that the differing results are due to the operationalization of epistemic modal marking, or rather, hedging.

From the perspective of intersubjective positioning, the German writers are rather dialogically contractive (concur and pronounce), whereas the British employ resources of dialogic expansion (entertain). This can be related to the five dimensions of communicative contrasts postulated for English and German (House 2006) which have been largely confirmed by several studies (Kranich 2016: 47–49). The Germans are attributed the property of being more direct (1), oriented towards self (2) and content (3), more explicit (4) and more ad hoc in their formulations (5) in contrast to the British, who communicate more indirectly (1), are other-oriented (2) and addressee-oriented (3), implicit (4) and use more verbal routines (5) (House 2006: 252). The high frequency of low probability markers for British English, and hence the mode entertain, points to its addressee-orientation (House 2006), while the high frequency of high certainty markers and hence the modes concur and pronounce, to the content-orientation of German (House 2006) and its "uncertainty avoidance tendency" (Kranich 2016: 27).

Gender differences, with the males using more EM in co-occurrence with emotion lexemes and the males using more ANGER lexemes than the females, have not been discussed in previous studies but should clearly be taken into account by future research. Language-specific as well as gender-specific emotion displays including EM might be due to a differential cognitive entrenchment, i.e. the "frequency of occurrence of such units" (Langacker 1987: 52) across languages and genders, having been initiated from the very beginning of (affective) language socialization (Oatley et al. 2006; Planalp 1999).

The high frequency of German *natürlich* versus the practical absence of the corresponding British *of course* or *naturally*, emerging from the analysis of EM types across British English and German, could be explained by the fact that *naturally* is more restricted with respect to stance-marking (Simon-Vandenbergen & Aijmer 2007: 235). *Naturally* means "in the normal cause of events" or "as one may predict from the natural order of things" (Simon-Vandenbergen & Aijmer 2007: 235) and is therefore very close in its meaning to the corresponding adverb of manner (Simon-Vandenbergen & Aijmer 2007). *Naturally* is moreover not very frequent in ICE-GB (Simon-Vandenbergen & Aijmer 2007: 235). *Of course*, by contrast, developed into a heteroglossic marker meaning "as we all know" (Simon-Vandenbergen & Aijmer 2007: 235–236) and could have potentially been used in the British narratives. However, it was not frequent at all in AWE. The German *natürlich* seems to have already developed into a marker of heteroglossic ENGAGEMENT, frequently displayed in the German dataset.

Consequently, heteroglossic marking is not possible with *naturally* but has to be achieved by other markers such as *of course* or the cognitive-verb-based *I know*. This also potentially explains the higher type frequency of EM in British than in German, heteroglossic function being expressed in British English by not one or two prominent, high-frequency adverbs, but various other markers.

This, moreover, underlines the importance of taking different POS into account when investigating epistemic modal marking across languages. The results suggest, for instance, the importance of epistemic modal marking by cognitive verbs, such as *I know*/*I think* in British English. The role of cognitive-verb-based parentheticals has been pointed out before (Fetzer 2009). Kranich (2016: 110) found important language-specific differences with respect to lexico-grammatical categories identified in the LeSH corpus, the Americans (USA) using, for example, more lexical verbs for epistemic modal marking than the Germans.

All in all, the findings underline the importance of considering EM in Emotion Events, especially from a contrastive perspective. In the next Section (5.2), I will view the results from the perspective of Emotion Events and revisit existing models on emotion discourse.

5.2 Revisiting models on emotion discourse

The revised Emotion Event Model as presented above allows, in contrast to the appraisal-theoretical approach (Martin & White 2005) or Bednarek's (2008) conceptualization, the integration of complex emotion displays such as the modalization of Emotion Events by EM. This integration is necessary, since EM frequently occur in Emotion Events and differ across languages (at least British English and German).

The imprecision of the Appraisal System with respect to an overlay of (in appraisal-theoretical terms) ATTITUDE, ENGAGEMENT and GRADUATION resources has been addressed before by Alba-Juez (2018), who in her article develops Thompson's concerns (unpublished) about the fuzziness of the subsystems of ATTITUDE, i.e. affect, judgment and appreciation. All in all, emotion seems to step out of affect and even the whole subsystem of ATTITUDE and to permeate the other two main systems of Appraisal, i.e. GRADUATION and ENGAGEMENT. As a logical consequence, I suggest the conceptualization of the whole ATTITUDE subsystem in terms of emotions, since emotions are an all-pervasive feature of language and "can be inferred from discourse, even when they are not explicitly mentioned" (Majid 2012: 439). judgment, which subsumes "moral evaluations of character about persons or, less commonly, non-human entities" (Taboada et al. 2014: 3), and appreciation, which is about esthetics, evaluating text and process and natural phenomena (Martin 2004: 42–45), would then be conceived of as integral parts of Emotion Events. Example (3) above, for instance, contains, in the local context of the ANGER lexeme (*irritates*), instances of judgment (*the lack of justification and explanation for it*) which, at the same time, provide the CAUSE for the student's IRRITATION and are therefore to be considered to be an integral part of the Emotion Event. In the same way, from a more global perspective, we can observe instances of judgment and appreciation in the very same narrative, this time without ANGER being made explicit, but invoked:

(5) Perhaps the marker was in some way ***biased***, or ***hadn't read the texts fully*** and ***didn't understand them*** and subsequently only searched for "***buzz*** words" and stuck to a "***generic*** mark scheme" when there was ***unorthodox*** but ***accurate*** and ***pertinent*** analysis. (e_m_020_1)

All in all, I argue that conceptualization and expression, and explicit and implicit emotion discourse go hand in hand and that instances of judgment and appreciation can be considered to be parts of an explicit or implicit emotion/-al display.

6. Conclusion

In this chapter, EM have been viewed in British English and German narratives in the revised framework of Emotion Events. The findings shed light on important cross-linguistic differences and hence support the view that emotion displays differ across languages, as well as drawing attention to the complexity of emotion discourse that earlier models fail to capture.

As hypothesized, more uncertainty markers have been displayed in the British narratives, and more certainty markers in the German ones (Hypothesis 2). Moreover, the overall importance of EM as modifiers and resources of intersubjective positioning in Emotion Events has been demonstrated (Hypothesis 3).

And still, this chapter only provides a glimpse into disregarded complexities of emotion/-al language, since epistemic modal marking is not reduced to one EM in the immediate linguistic context of emotion lexemes (cf. Example (2b)). Instances of so-called accumulated EM have been discussed before (Simon-Vandenbergen & Aijmer 2007: 32) and are viewed, in the framework of the revised Emotion Event model, as contextualization cues in Gumperz' sense (1992a, 1992b). The latter are multifunctional, and the EM in a sequence of multiple EM can function either as a foregrounding/backgrounding device or a means of intersubjective positioning, one function being prevalent (Fronhofer in preparation).

This chapter contributes, however, to filling some gaps in cross-linguistic emotion research, in particular with respect to the limited number of (British) English and German contrastive studies on emotion discourse. Moreover, it suggests the integration of modifiers, in particular EM, in Emotion Events, into existing emotion models. Investigating modifiers in Emotion Events that operate where explicit and implicit meaning overlap might furthermore be a particularly suitable starting point to shed light on "a realm of linguistics where a lot of research has to be done", i.e. the "implicit emotional dimension of text and discourse" (Schwarz-Friesel 2015: 168).

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Appendix

Table 1. The tree structure of emotions (Parrott 2001)

primary	**secondary**	**tertiary emotions**
anger	irritation	aggravation, irritation, agitation, annoyance, grouchiness, grumpiness
	exasperation	exasperation, frustration
	rage	anger, rage, outrage, fury, wrath, hostility, ferocity, bitterness, hate, loathing, scorn, spite, vengefulness, dislike, resentment
	disgust	disgust, revulsion, contempt
	envy	envy, jealousy
	torment	torment

Table 2. Self-rated authenticity of narratives across British English and German

authenticity	**BrE**	**Ger**
authentic	22	18
mixed	67	56
fictional	15	26
NA	16	36

Table 3. Occurrences of Emotion Events and ANGER Events across British English and German

	BrE		**Ger**	
	f	**m**	**f**	**m**
EE overall	532	434	497	460
ANGER Events	72	62	91	97

Table 4. Occurrences of Epistemic Un-/certainty Markers + [EMOTION] and + [ANGER] across British English and German

	BrE		**Ger**	
	f	**m**	**f**	**m**
EM + [EMOTION]	52	57	37	57
EM + [ANGER]	11	7	10	18

Table 5. Occurrences of markers of 'high', 'medium' and 'low' probability + [EMOTION] across British English and German

+ [EMOTION]	**BrE**		**Ger**	
	f	**m**	**f**	**m**
high	15	18	***22***	***34***
medium	9	11	4	6
low	***28***	***29***	10	17

Table 6. Occurrences of discourse functions + [EMOTION] across British English and German

+ [EMOTION]	**BrE**		**Ger**	
	f	**m**	**f**	**m**
entertain	***34***	***39***	16	24
pronounce	4	12	6	12
concur	10	6	***16***	***22***
counter-expectancy	–	1	–	–

Table 7. Occurrences of discourse functions + [ANGER] across British English and German

+ [ANGER]	**BrE**		**Ger**	
	f	**m**	**f**	**m**
entertain	**9**	**5**	7	8
pronounce	–	0	2	3
concur	1	1	**3**	**7**
counter-expectancy	–	1	–	–

Table 8. List of un-/certainty markers (types) in AWE

BrE	Ger
I (don't) think	Ich weiß (gar nicht, ob) ('I don't know if')
I doubt	jeder wusste, dass ('everybody knew that')
I guess	ich glaube ('I think')
I'm (not) sure	es könnte sein ('it could be that')
I know, he knows	wirken ('seem')
I should be	scheint/ schien ('seem')
I/the teacher felt	ich soll ('allegedly')
I had the impression	ich hatte den Eindruck ('I had the impression that')
possibility	es bestand die Möglichkeit ('there was the possibility of')
I knew, knowing, the knowledge that	die Tatsache, dass/ zu + Infinitiv ('the fact that/ to + infinitive')
without doubt	der Fakt, dass ('the fact that')
it is safe to say	mir ist klar, dass ('it is clear to me that')
may	bestimmt ('certainly')
might	bekanntlich ('as is known')
seem/-s/-ed	definitiv ('definitely')
it/something that can be	natürlich ('of course')
could	vielleicht ('perhaps')
certainly	wahrscheinlich ('probably')
definitely	sicherlich, mit Sicherheit, sicher ('certainly')
naturally	offensichtlich ('obviously')
of course	vermutlich ('supposedly')
unlikely, likely	anscheinend ('apparently')
perhaps	wohl ('probably')
maybe	auf jeden Fall ('definitely')
probably	
it is obvious, obviously	
undoubtedly	
surely	
clear evidence of	
clearly	

SECTION III

Interdisciplinary studies

Emotion in linguistics and psychology

CHAPTER 10

Emotion and language 'at work'

The relationship between Trait Emotional Intelligence and communicative competence as manifested at the workplace

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This chapter presents an interdisciplinary approach to the study of emotion in language by exploring the relationship between the competences associated with Emotional Intelligence (EI) and the communicative competences involved in the verbal expression of emotion and/or appraisal, with a special emphasis on the emotional communication found at the workplace. Our main hypothesis is that emotional intelligence skills and (emotion) communication skills influence each other: people who show communicative dexterity in dealing with emotionally challenging situations are most likely to show high levels of emotional intelligence, and vice-versa. We conducted a survey among engineering companies which measured both Trait Emotional Intelligence and communicative pragmatic competence with regard to staff responses to emotionally challenging situations. The data were assessed with reference to emotional granularity, emotional diversity, speech act theory, emotion and emotional talk, and e-implicatures. Our results show a quadratic (inverted-U) relationship between the two variables in question, proving a positive (but non-linear) correlation between emotional intelligence and pragmalinguistic competence.

Keywords: language, emotion, emotion at the workplace, pragmalinguistic competence, emotional competences, Trait Emotional Intelligence

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1. Introduction

Before describing the main aspects of our study, we find it worth mentioning that the noun *emotion* is relatively new in the history of many European languages.[1] French author Michel de Montaigne is thought to have been the first to use the term, in the 16th century (Tissari 2017). According to Tissari (2017), the earliest written records of the term in English can be traced back to the 17th century. The same appears to be the case for Spanish, although in this language its use was not generalized until the 19th century (Corominas 1961). Regarding *emotional intelligence* (henceforth EI), Mikolajczak (2009) observes that the very first use of the term has surprisingly not been attributed to a psychologist, but to philologist Dorothy Van Ghent, in her description of Jane Austen's personality:

> We have suggested that moral life, in an Austen novel, is identified with *emotional intelligence*; and it is precisely through failure of intelligence – the wit to know his own limitations – that Mr. Collins appears as a moral monstrosity.
>
> (Van Ghent 1953: 304) (our italics)

Linguists such as Foolen (2016b) have pointed out that without emotion there would be no language, because we would not have the motivation to communicate in the first place. Furthermore, there are scholars like Damasio (2017)[2] who argue that the entire life of the intellect is embedded in affect, and in fact, it is difficult to find a text or discourse where no tint of emotion could be found. Indeed, it has been demonstrated that the expression of human emotion permeates all the levels of linguistic description – phonological, morphological, syntactic, semantic, lexical, and pragmatic (e.g. Alba-Juez & Mackenzie 2016; Borod et al. 2000; Foolen 2016a; Majid 2012b).

We know from neuroscience that the language areas of the brain and the limbic system (the core area of the emotional brain) have reciprocal connections, and specifically, linguistic competence is associated with areas of the human brain (e.g. the inferior parietal lobule) which are also involved in functions of emotional communication (Buck 2014; LeDoux 1986). Mayer & Salovey (1997) or Salovey & Pizarro (2003) have shown that knowledge that emotion terms can be grouped into emotional families (see Ortony, Clore & Collins 1998) and the possession of a detailed lexicon of emotional terms are among the skills of emotionally intelligent individuals. For that reason, in this study we have dealt with aspects of *emotional granularity* (Barrett, Gross, Conner Christensen & Benvenuto 2001; Barrett 2004),

1. The research done for this study has been funded by the Spanish Ministry of Economy and Competitiveness, through the EMO-FunDETT project (FFI2013–47792-C2–1-P).

2. See also Damasio & Damasio (2017).

also known as *emotion differentiation*, which refers to individual differences in ability to classify experiences into discrete emotional categories, by giving emotions precise labels. This entails the ability to verbally characterize emotional experiences with precision (e.g. Smidt & Suvak 2015), an ability which has been related to EI: It is expected that high EI individuals will demonstrate better emotional granularity (Barrett & Gross 2001). Partially based on Barrett's work, Quoidbach et al. (2014) defined *emodiversity* (emotional diversity) as the variety and relative abundance of emotions and individual experiences in a person's life, *positive emodiversity* as the variety and relative abundance of positive-valence emotions, and *emotional richness* as the number of emotions people experience habitually. It seems reasonable to expect that emotionally intelligent individuals have broader emodiversity and greater emotional richness. It is also reasonable to expect that individuals who rate high in Trait Emotional Intelligence (TEI) will show an attention bias to positive emotions, as is observed in optimists (Kress & Aue 2017), given that optimism is among the components of TEI (Petrides et al. 2016).

Our main assumption when starting this study was that, if we joined together the findings of linguistics and psychology regarding human emotion, we would achieve a clearer view of the phenomenon. Our main aim has been to explore the relationship between the emotional competences characteristic of EI and the pragmalinguistic competences (henceforth PC) displayed by speakers when dealing with emotionally challenging situations at the workplace. We make the underlying assumption that, contrary to what might seem at first sight to be the case, human beings permanently have to face and resolve many and various emotionally difficult situations at the workplace.

Thus, our approach is interdisciplinary and draws on Goleman's (1995, 1998) insights and on the findings from psychological studies such as those conducted by Scherer (2007), Mayer, Caruso & Salovey (2016), Buck (2014) or Petrides et al. (2016), as well as linguistic studies within the subfields of functional and cognitive linguistics, such as Hunston & Thompson (2000), Martin & White (2005), Bednarek (2008), Foolen et al. (2012), Foolen (2016b), Thompson & Alba-Juez (2014), Lüdtke (2012, 2015), or Schwarz-Friesel (2010, 2015).

Our main research question is the following: *Is there any relationship between the pragmalinguistic competences and the (psychological) emotional competences displayed by speakers in interaction*? This question arose from a previous analysis (Alba-Juez 2014; Alba-Juez & Neff 2015) of the emotive content of e-mails in corporate communication, where the discourse used by the e-mail writers seemed to point toward a connection between these two kinds of competences. For instance, if a writer was skillful in using linguistic politeness strategies (Brown & Levinson 1987) or the different subsystems of Appraisal (Martin & White 2005) to deal with emotionally challenging discourse situations in an appropriate way, s/he simultaneously seemed to show certain adroitness in handling psychological emotional competences such as "managing (their own) emotions" (Mayer et al. 2016) or social emotional competences such as "(showing) empathy" (Goleman 1998). Thus, an appropriate use of politeness and appraisal strategies – among other things – might be indicative of EI to a certain extent. It should also be noted that some models of EI such as that of Petrides & Furnham (2003) include *assertiveness* as one of their facets, which is usually conceptualized as the ability to express one's thoughts and feelings in a sincere way and at the same time show respect for the other, without experiencing any anxiety or distress in doing so. This is clearly in-sync with an appropriate use of linguistic systems such as those of politeness or appraisal.

The hypothesis derived from our main research question was the following: *There is a (positive) relationship between communicative, pragmalinguistic competences (henceforth CPC) and the competences related to emotional intelligence (henceforth EIC)*. Figure 1 illustrates the way we see this relationship.

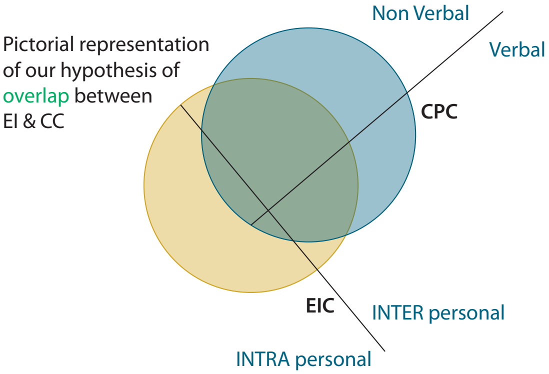


Figure 1. Relationship between CPC and EIC

Since EI refers to individual differences in people's readiness to behave intelligently in facing emotionally relevant situations, it is conceived of as a core attribute of not only the addresser but also the addressee, who has to determine communication accuracy as well. This means that EI is not only connected with the production phase of communication but also with the reception phase.

To test our hypothesis, we conducted a survey whose main aim was to measure PC on the one hand, and EI on the other. This study draws on the results of a previous minor, exploratory survey (Alba-Juez & Pérez-González 2017) which, albeit not reliable from the statistical point of view, yielded some interesting information about the general level of both PC and EI that could be expected from such a group, as well as what aspects needed improvement for the present study. The results of that previous study showed that high PC individuals could have a better basis for decisions on the most efficient emotional self-regulation strategies. Both studies have been based on samples of linguistic production in Spanish, a fact that, among other things, serves the need to compensate for the excessive dependence on the use of English in the study of the relationships between language and emotion (Wierzbicka 2009; Majid 2012a).

2. Definition of terms: What is emotional intelligence (EI) and what is pragmalinguistic competence (PC)?

As a preliminary basic condition to study the relationship between EI and PC, we deem it necessary to first define the terms and clarify what we mean by these concepts. According to Buck (2014), emotional competence is "the ability to navigate successfully the internal bodily environment, and to label and express appropriately one's own feelings and desires" (2014: 245), an ability which also involves linguistic comprehension. The main characteristic of emotional competence (Buck 1990, 2010, 2014) is its function of emotional communication, which is in turn dependent upon emotional expressiveness. And emotional expressiveness is precisely what Buck (2014) considers to be the critical skill underlying EI. Nevertheless, he has shown that there is a curvilinear (inverted-U) relationship between communication accuracy and emotional expressiveness, since the best level of the latter would be a moderate level, that is, a midpoint between hypoexpression and hyperexpression. Our results in this study corroborate Buck's findings in this respect, as will be shown in Section 9.

Mikolajczak (2009) distinguishes three levels of emotional competence in her integrative tripartite EC model: emotional knowledge, Ability EI (AEI), and Trait EI (TEI). The emotional knowledge level refers to what people know about emotions and emotionally intelligent behavior (e.g. *Do I know which emotional expressions are constructive in a given situation*?). The *Ability* EI level refers to the ability to apply this knowledge in everyday situations; it thus refers not to the knowledge that people possess, but to what they are actually able to do (e.g. *Although I am aware I should not shout when I get angry with my children, am I able to contain myself*?). And finally, the *Trait* EI level refers to dispositions related to emotions, namely, the propensity to behave in a certain way in emotional situations (e.g. *Do I usually express my anger with my son in a constructive and acceptable way*?). These three levels of EI are loosely connected, given that emotional knowledge does not always translate into emotional abilities, which in turn do not always translate into usual behavior or actual practice (Mikolajczak, Petrides, Coumans & Luminet 2009), and this is possibly due to a lack of motivation or confidence in one's own emotional abilities (e.g. Gohm, Corser & Dalsky 2005; Salguero et al.

2015; Zeidner et al. 2005). Taking all these factors into account, Mikolajczak's (2009) conclusion is that TEI might be considered the most reliable indicator of human beings' emotional competences.

According to Pérez-González & Sanchez-Ruiz (2014), perception of emotions, expression of emotions and empathy are the facets of TEI which are more clearly distinguishable from the big five factors of personality.[3] Emotional expression was the facet of TEI with the highest load in TEI factor (see Pérez-González & Sanchez-Ruiz 2014), which agrees with Buck's (2014) hypothesis that this facet is the critical component of EI.

Several meta-analyses have shown that the predictive validity of TEI has been empirically demonstrated to be much higher than that of AEI (Pérez-González & Qualter 2018), and the correlation between TEI and relevant life outcomes is usually greater when the former is specifically assessed through TEIQue (Petrides 2009). A very recent review of the literature (e.g. Petrides et al. 2016) has shown that TEI has a significant impact on important life outcomes such as mental and physical health, prosocial behavior and job performance in both non-clinical and clinical samples (see also Petrides, Gómez & Pérez-González 2017). Thus, TEI is associated with leadership skills and good communication skills in personal relationships, as well as in academic, clinical and workplace settings, the last of these settings being our main concern in this study. Notwithstanding, it should be noted that TEI is not necessarily an adaptive characteristic in every situation. For example, in Sevdalis, Petrides & Harvey (2007), high TEI scores were associated with greater mood deterioration following recall of a poor real-life decision, while in Petrides et al. (2011) high TEI scores were associated with narcissistic tendencies.

The term *communicative competence* was coined by Hymes (1972) and grew out of resistance to the concept of *linguistic competence* introduced by Chomsky (1965). Hymes was the first author to define the concept of *communicative competence* (CC) fully and explicitly, not only as an inherent grammatical competence but also as the ability to use grammatical competence in a variety of communicative situations, thus bringing the sociolinguistic perspective into Chomsky's[4]

3. The Five Factor model (FFM) or Big Five factors of personality is a model of the major categories of personality traits that has a relevant consensus in the literature. These big five factors (openness, conscientiousness, extraversion, agreeableness, and neuroticism) were identified from the analysis of language descriptors of personality used in different languages around the world. It uses descriptors of common language and therefore suggests five broad dimensions commonly used to describe the human personality (Goldberg 1993; Costa & McCrae 1992).

4. Chomsky (1965) drew the distinction between *competence* (the ideal language system that enables speakers to produce and understand an infinite number of sentences in their language, and to distinguish grammatical from ungrammatical *sentences*) and *performance* (the actual use of language in real situations).

(more reduced) linguistic view of competence. As a result, nowadays most scholars consider linguistic competence to be a part of communicative competence. Based on Hymes (1972) and Canale & Swain (1980, 1981), the *Common European Framework of Reference for Languages* (CEFRL – 2001) defines CC as a general language competence containing three main sub-competences: (1) Linguistic competence (including lexical, grammatical, semantic, phonological, orthographic and orthoepic competences), (2) Pragmatic competence (which will be defined below in more detail), and (3) Sociolinguistic competence (knowledge and skills to deal with the social dimension of language use). All three sub-competences are interrelated, and in fact, it is very difficult to separate one from any of the other two. For the purposes of this study, we will be mainly concerned with the second one, i.e. pragmatic competence (also referred to above as pragmalinguistic competence (PC)), which is defined by Thomas (1983: 92) as "the ability to use language effectively in order to achieve a specific purpose and to understand language in context". The Council of Europe provides a more extensive definition:

> Pragmatic competences are concerned with the functional use of linguistic resources (production of language functions, speech acts), drawing on scenarios or scripts of interactional exchanges. It also concerns the mastery of discourse, cohesion and coherence, the identification of text types and forms, irony and parody. For this component even more than the linguistic component, it is hardly necessary to stress the major impact of interactions and cultural environments in which such abilities are constructed. (Council of Europe 2001: 13)

Within PC, the three main sub-types of competences that are distinguished in the CEFRL are the following (2001: 123):

1. Discourse competence (DC): How messages are organized, structured and arranged.
2. Functional competence (FC): How messages are used to perform communicative functions (one of them being the expression of attitudes and emotions).
3. Design competence (DeC): How messages are sequenced according to interactional and transactional schemata.

In the assessment of our subjects' PC, we have mainly taken into account these three sub-types of PC, albeit not disregarding the fact that PC also includes aspects of the other main competences, i.e. the linguistic and sociolinguistic competences, because pragmatic competence is a kind of linguistic competence which includes the knowledge and management of the socio-cultural context and other types of context, as shown in Figure 2, from Alba-Juez & Mackenzie (2016). These authors include the types considered previously by Fetzer (2004), but they add another, crucial type: the emotional-attitudinal context.

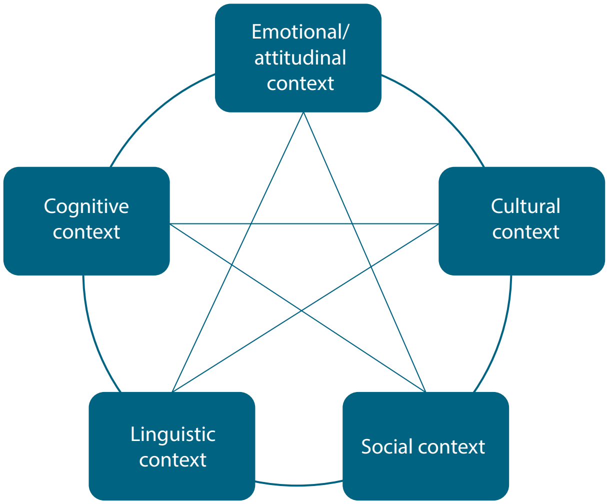


Figure 2. Types of pragmatic context (Alba-Juez & Mackenzie 2016: 8)

We believe that the emotional-attitudinal context is crucial in any kind of communicative exchange because it will determine in many ways the choice of vocabulary, syntax, or even the type of intonation used by the speakers. In fact, many of the microfunctions specified by the CEFRL as relevant for the development of functional competence are connected with the expression of emotion. Some of these, classified under the label of "expressing and finding out attitudes", include the expression of agreement, disagreement, wants, desires, intentions, preferences, emotions of pleasure/displeasure, likes/dislikes, satisfaction, interest, surprise, hope, regret, sympathy, gratitude, etc.. But the realm of emotion also belongs within macrofunctions such as persuasion, argumentation, narration, and many more, for emotion permeates all linguistic levels and dimensions, as we aim to show, among other things, in the next section.

3. Linguistic theories of emotion and appraisal

As far as the linguistic aspect is concerned, and in order to assess the kind of relationship between EI and PC, in this study we have focused in particular on the different skills, strategies and competences that speakers display when dealing with emotionally challenging discursive situations at different linguistic levels. As anticipated in Section 1, different authors, such as Alba-Juez & Mackenzie (2016), Lakoff (2016), Foolen et al. (2012), Foolen (2016a) or Majid (2012b) have pointed out that emotion permeates all the levels of linguistic description. We shall now discuss this fact, which will be illustrated by some examples in Spanish, considering that this has been the language used in our survey.

Emotion can be expressed at the morphological level in a very productive way. In Spanish some morphemes, such as the diminutive, have special emotive meanings which can be used to express affection, but – depending on the situation – may also be used to express contempt. For instance, if we say *Esta es mi herman**ita*** (*This is my little sister*), other things being equal, the derivative morpheme *–ita* is not only used to mean that the sister in question is the younger one, but also (and very frequently) to express affection. However, on some occasions, if someone uses the diminutive to say something like *Es un emplead**ito*** (literally: He is a little employee), the meaning here has nothing to do with the employee being small or short, but more accurately and appropriately, with the fact that the speaker despises or looks down on this employee in some way.

The easiest, most direct way to identify emotion in discourse is by looking at the lexicon and the semantic level. It is obvious that someone is expressing emotion when s/he uses the words and lexis used to describe affect or feelings. So, to take an example from the responses in the survey, when *Alegría64*[5] (Joy64) says (in her e-mail to her workmate) *Solo unas letras para decirte lo defraudada que me siento* (= Just a few lines to tell you how disappointed I feel), she is using the adjective *defraudada* and the verb *sentir*, which makes it very clear that she is expressing her feelings and emotion in a direct, *inscribed* (to use Martin & White's 2005 term) way. She could also have expressed the same feeling in an indirect way, but in such a case the expression of emotion would not be working at the lexical level but at the pragmatic level, as we shall see below in this same section.

The syntactic order of words in a sentence or utterance can also be manipulated for expressive purposes. To illustrate this, we can continue analyzing the above example: If *Alegría64* had used the unmarked expression *Solo unas letras para decirte que me siento defraudada (*Just a few lines to tell you I feel disappointed), i.e. without moving the subject complement to the front position of the subordinate clause as in the original text, the emotive effect would have been weaker. The fronting of the adjective "defraudada" in the original (*Solo unas letras para decirte* ***lo defraudada*** *que me siento*) makes it stand out as a stronger feeling of disappointment.

At the phonological level, we know there are numerous ways to convey emotion: a particular pronunciation, intonation or stress given to an utterance may alter its literal meaning completely in the direction of a more expressive interpretation. In written discourse, this can be done, for instance, through punctuation,

5. All the subjects were requested to use a nickname composed of an emotion plus a two- or three-digit number, as we shall see in Section 6 below.

the use of inverted commas or capital letters. Thus, when in our corpus *Amor25* (Love25) replies to her client's remark that she and her company are a bunch of crooks, she uses exclamation marks together with the verb "calmar" *(¡Cálmese por favor!* = Please, calm down!) to express both her distress and the fact that she has been able to detect her client's anger, which gives us information not only about her linguistic production but also the way in which she reacts to the bad temper (= negative emotion) of her client.

Finally, at the pragmatic level, when in our corpus *Entusiasmo64* (Enthusiasm64) replies to her boss's complaint that the job she had done had been a disaster by asking *¿Has leído mi trabajo*? (Have you read my work?), she is being ironic and therefore indirectly implying that if the boss is being so critical, it is because he has not read her work carefully. Here she is not expressing her feelings in a direct, inscribed way, but in an indirect, invoked manner. The implication arising from her rhetorical question is that she is somewhat upset about her boss's rude comment, and therefore she is also trying to hurt his feelings to a certain extent.

Indeed, feelings and emotions are very often expressed in an indirect way, especially in work environments like the one in which we have conducted our survey. People are not normally expected to talk about their feelings in a very open way when they are supposed to be working, but this does not mean that emotion is not present in their discourse. On the contrary, it is all-pervasive, and this is the reason why we have given a special prominence to the assessment of PC, for this is done by means of different and various pragmalinguistic strategies, among which are found politeness strategies (Brown & Levinson 1987) and the use of evaluative language and the different subsystems of Appraisal (Martin & White 2005). For that reason, and because all the situations presented in our survey are emotionally challenging, in our assessment of the communicative pragmatic competence shown in the responses, we have paid special attention to these two systems of language (politeness and appraisal), as well as to the *emotional implicatures* (Schwarz-Friesel 2010, 2015) conveyed and worked out by the interlocutors in question.

It is beyond the scope of this chapter to present or explain the above-mentioned linguistic theories in greater detail, for they have only been instrumental in our assessment of the pragmalinguistic competence of the subjects of our study in a way that we shall explain in Section 6 in more detail. However, we will now summarize their main ideas and tenets to justify our decision to draw on them for the analysis of our corpus.

As for Politeness Theory (Brown & Levinson 1987), suffice it to say that it is a model of linguistic behavior that basically explains the way in which speakers try to verbally reconcile their wants, needs, likes, etc. with those of their interlocutors, and it is taken for granted that in doing so they are also considering both their own and their interlocutors' emotions or possible emotive reactions. Thus, a speaker may opt to express what s/he wants or feels in a direct way (by using on record politeness strategies), in an indirect way (by using off record strategies) or may simply opt not to do the speech act, which in Brown & Levinson's jargon is referred to as a *face-threatening act* (or FTA). It is important to point out that the way in which these strategies are used varies depending on the culture, social group or discourse system in which they occur. The concept of *face* is crucial here, and it combines two desires: (1) the desire to be unimpeded (negative face) and (2) the desire to be approved of (positive face). When a speaker gives priority to the former, the strategy used will tend to be on record with negative politeness, and when giving priority to the latter, the strategy will tend to be on record with negative politeness (although there is not a direct one-to-one relationship between the type of strategy and the type of face threatened). So when (consciously or unconsciously) choosing the strategy to be used (e.g. positive politeness or negative politeness?) in a specific situation, the speaker is implicitly considering both his/her feelings and those of their interlocutor.

Brown & Levinson's is not the only approach there is to the study of politeness, but it is undisputed that it has been and still is the most influential, and this is the reason why it is the view we have adopted for the practical purposes of this study. There are also theories of impoliteness – which are, as a matter of fact, based on Brown & Levinson's theory – such as those of Culpeper (e.g. 1996, 2005, 2008, 2012) or Kaul de Marlangeon (e.g. [1993 (1995)], 2005a, 2005b, 2008a, 2008b, 2010, 2014)[6] which show that human language also has a repertoire of discourse strategies and rules of impoliteness. These have been taken into consideration in our study in equal measure, for it is a well-known fact that impolite or rude language is also charged with a great deal of emotion.

The emotive and the evaluative functions of language are tightly interrelated. This is why we have also looked into the management of the evaluative system of language in the data gathered. In doing so, we have mainly considered Appraisal Theory (Martin & White 2005), which is indisputably the most articulate theory of linguistic evaluation in the literature to date. In a nutshell, these authors define Appraisal as "an interpersonal system located at the level of discourse semantics" (2005: 33), which is divided into three main subsystems or domains: (1) ATTITUDE, (2) ENGAGEMENT and (3) GRADUATION. The first of these systems, ATTITUDE, is the one that we find most relevant for the purposes of this study (although the three are interrelated and work together to convey evaluative/emotive meanings), because it is the subsystem concerned with the linguistic expression of our feelings and emotions. This is in turn divided into three further subsystems: (1) AFFECT (concerned with registering positive or negative

6. For a more detailed account of these theories, see Alba-Juez & Mackenzie (2016), Chapter 4.

emotions), (2) JUDGMENT (dealing with attitudes towards people's behavior), and (3) APPRECIATION (involving the evaluation of things – semiotic and natural phenomena). Thus, to assess the speakers' PC in our data, one of the things we have looked into is the way in which the different speakers deal with these subsystems. We have also taken into consideration earlier (e.g. Hunston & Thompson 2000) and later (e.g. Englebretson 2007; Bednarek 2008,[7] or Thompson & Alba-Juez 2014) developments in the study of evaluation to which the reader can refer, but will not be discussed here for space reasons.

Finally, because we are mainly concerned with PC and pragmatic meaning, we have also scrutinized the emotional implicatures (*e-implicatures*) generated by the speakers/writers in our data. The term *e-implicature* was coined by Schwarz-Friesel (2010) and refers to implicatures about the emotions of the speaker that are based to a certain degree on culturally shaped encyclopedic knowledge (Schwarz-Friesel 2010). By way of example, in a work environment, an utterance like *I've been promoted to Manager!* conveys a positive evaluation with an emotive content which is inferred by drawing the specific *e-implicature* that the speaker is happy and feels satisfied with her promotion.

4. Psychological theories of emotional intelligence

As was anticipated in Section 3, with reference to EI, two different although complementary conceptualizations exist in the literature to date: Ability EI and Trait EI. *Ability EI* refers to a general cognitive ability to reason about emotions, and has been researched by authors such as Mayer, Caruso & Salovey (2016), who define EI as "the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others". *Trait EI* refers to a general non-cognitive characteristic (e.g. Petrides et al. 2016; Pérez-González & Sanchez-Ruiz 2014) comprising a set of generally advantageous personal dispositions for how to procure, maintain and optimize psychological well-being, how to regulate emotions (one's own and others'), and how to communicate emotions and socialize. But even if *Ability EI* and *Trait EI* differ in some respects, it is noticeable that both definitions highlight the relationship between EI and CC, for the *expression* and *understanding* of emotion are crucial for both of their characterizations. Since Ability EI is conceived of as a type of intelligence and Trait EI as a personality trait, the former might be reinterpreted as the cognitive/

7. Bednarek's (2008) distinction between emotion talk and emotional talk has been particularly useful for the purposes of our study. For further reflections on this distinction, see also Weigand (2004).

conscious component of emotional competence while the latter might be interpreted as the non-cognitive/automatic component of emotional competence. This idea agrees with the recognition of control vs. automatic processes of emotional-regulation in Scherer's (2007) model of emotional competence, Fiori's (2009) dual-process framework of EI, Hughes & Evans's (2016) hypothesis about the moderator role of TEI between Ability EI and emotional self-regulation, Pérez-González & Sanchez-Ruiz's (2014) interpretation of TEI as a comprehensive blend of non-cognitive qualities characteristic of the adult development of what is called 'good temperament', and the identification of TEI with the general factor of personality, as an index of social effectiveness (Van der Linden et al. 2017).

5. The relationship between emotional intelligence and communicative competence

Trait Emotional Intelligence has been associated with communicative competence in the native language (NL) (e.g. Yousefi 2006), including the clinical context in medical students (Cherry, Fletcher & O'Sullivan 2013), and with speaking ability in a foreign language (FL) (e.g. Ożańska-Ponikwia 2012; Abdolrezapour 2016; Afshar & Rahimi 2016). Nevertheless, this relationship cannot yet be said to have been established since it has not been found in other studies, such as Troth, Jordan & Lawrence (2012). Presumably, higher EI implies not only communicative competence and speaking ability, but also a capacity for leadership, a preference for face-to-face interactions and attention to non-verbal behavior, whereas lower EI implies communicative anxiety in both NL and FL. Cherniss (2001), for instance, presents a model which depicts how EI influences organizational effectiveness and argues that both individual and group EI depend on the interplay of several competences, in which communicating and giving feedback are essential. The relationship between communication and EI, therefore, seems to be acknowledged by every expert on EI; however, nobody seems to have reached full knowledge of how and to what extent it operates.

According to *The Future of Jobs* report published in 2016 by the World Economic Forum on its website, one of the top 10 skills demanded by the workplace in 2020 will probably be emotional intelligence. But despite all this, the relationship between linguistic and emotional competences has barely been explored in the literature to date. Only two very recent studies (Dewaele, Lorette & Petrides this volume and Hendon, Powell & Wimmer 2017) have started to explore some of its aspects. Dewaele et al. (this volume) have found a positive correlation between Trait EI and linguistic proficiency as assessed through a lexical decision task (LEXTALE), and they have observed that the participants in the low linguistic proficiency group who scored higher on TEI were better at recognizing emotions. Hendon et al.'s study (2017) shows a significant positive relationship between Trait EI and social communication competence as assessed by a self-report questionnaire (i.e. a typical performance test) in a sample of information technology professionals. We do not have knowledge of other works where this relationship is explored in depth (where linguistic competences are assessed by "maximum" performance tests), and this is where we believe the novelty of the present work lies.

6. The survey: Instrument and methodology of research

As anticipated above, to test our main hypothesis and thus explore the relationship between EI and PC in work environments, we conducted a survey among the staff of five different Spanish engineering companies, after obtaining the corresponding permission from their respective General Managers. To this effect, we designed a questionnaire which was administered on-line and was open for two weeks. After this period, we obtained responses from 108 people. These subjects completed the survey in an anonymous way, and so for the sake of differentiation they were all asked to use a nickname consisting of the name of an emotion plus a number (e.g.: Joy55, Fear87, etc.).

The survey included four main sections, the first three of which were aimed at measuring the PC of the subjects while the last one was aimed at measuring TEI. We reproduce the main instructions given in each of these sections below:

A. E-MAIL: Imagine que su compañero/a de trabajo (Tomás) no ha cumplido con su tarea de entregarle cierta información a tiempo, provocando así que usted no pueda entregar su trabajo dentro del plazo que su jefe le ha había dado. A continuación, escriba el texto del mensaje de correo electrónico que usted escribiría a su compañero para expresarle lo que piensa y siente al respecto. (*Imagine that your workmate (Thomas) has not done his job of sending you a certain piece of information on time, so that you have been unable to meet the deadline that your boss had given you to present your work. Write an e-mail to Thomas to tell him what you think and feel about that*.)
B. DIÁLOGO SIMULADO: Responda a (1) y (2) de la manera en la que usted cree que reaccionaría si un cliente y su jefe (respectivamente) le dicen lo siguiente:
(*SIMULATED DIALOGUE: Respond to situations (1) and (2) in the way you think you would react if a client and your boss (respectively) said the following to you*):

SU CLIENTE: ¡Me has estafado y engañado con este trabajo! ¡Tú y tu empresa sois unos rufianes!
USTED:____
(*YOUR CLIENT: You have cheated me with this job of yours! You and your company are a bunch of crooks!*)
YOU: ____)
SU JEFE: El trabajo que me entregaste ayer está muy mal hecho. ¡En realidad, es un desastre!
USTED: ____
(*YOUR BOSS: The work you handed in yesterday leaves a lot to be desired. In fact, you've done a terribly bad job!*
YOU:____)

C. LÉXICO EMOCIONAL: Ponga el cronómetro e intente escribir en 3 minutos el máximo número de palabras (únicamente sustantivos o adjetivos) que designen una emoción, un sentimiento o un estado de ánimo:
(*EMOTIVE LEXICON: In the space below and in no more and no less than three minutes (use a stopwatch), try to write as many emotional words as possible that refer to an emotion, a feeling or a mood (only nouns or adjectives*).
D. TEIQue-SF: Por favor, responda a cada una de las 30 afirmaciones expuestas más abajo marcando el número que mejor refleja su grado de acuerdo o desacuerdo con cada afirmación. Lea cada afirmación y escoja la respuesta que se corresponda mejor con su manera más frecuente de ser, pensar o actuar. NO piense demasiado sobre el significado exacto de la afirmación. Responda con sinceridad. NO hay respuestas correctas o incorrectas. Hay siete posibles respuestas a cada afirmación, variando desde "Completamente en Desacuerdo" (nº 1) hasta "Completamente de Acuerdo" (nº 7).
(*Please respond to each of the 30 statements below by choosing the number that best reflects your degree of agreement or disagreement with them. Read each one of them and choose the answer that agrees most with your usual mode of being, thinking or acting. Do NOT think too much about the exact meaning of each statement. Be sincere in your response. There are NO correct or incorrect answers. There are seven possible answers in each case, going from "Totally disagree" (1) to "Totally agree" (7)*)

We do not reproduce the 30 statements in D for copyright reasons, but the psychometric properties of this questionnaire can be found in Petrides (2009), Cooper & Petrides (2010) or Siegling, Vesely, Petrides & Saklofske (2015).

In the case of the emotive lexicon task[8] (C), apart from observing the pragmatic competence of the subjects in terms of their repertoire of emotion words, our intention was mainly to have a brief proxy of both emotional granularity or emotional richness as an additional measure of emotion-related linguistic competence.

7. Criteria and scoring used for rating PC in the survey responses

For the sake of reliability, the different texts produced by the 108 subjects who participated in the survey were not only rated by the linguist author of this study, but also by an external judge.[9] The assessment of each participant was based on a scale from 0 to 10 for each PC component and from 0 to 30 for the PC total score. These are continuous data, and therefore, for estimating the inter-rater agreement between the two judges, instead of using the commonly used Kappa coefficient (only appropriate for categorical-scale data), we used Lin's concordance coefficient (LCC) (Maclure & Willett 1987; Lin 1989; Banerjee, Capozzoli, McSweeney & Sinha 1999). Pearson correlations between judge 1 and judge 2 were quite high ($r = .99$ for e-mail score; $r = .98$ for situation 1; $r = .94$) for situation (2), as was ratified by Lin's concordance coefficient ($LCC = .99$ [95% CI, .98-.99] for e-mail score; $LCC = .97$ [95% CI, .96-.98] for situation 1; $LCC = .94$ [95% CI, .91-.96]) for situation (2). Using the *Student t* test, a systematic significant difference was only observed for the second situation between scores assigned by judge 2 (who provided slightly higher scores) and judge 1, although the size of the effect was negligible ($t = 2.181$, $p = .031$; Cohen's $d = .07$). Consequently, it can be said that the inter-rater agreement was almost perfect.

As we anticipated in Section 2, when rating the communicative, pragmatic competence of the 108 subjects, we evaluated their performance with reference to the three main sub-competences that according to the CEFRL (2001) make up pragmatic competence, namely Discourse Competence (DC), Functional Competence (FC), and Design Competence (DeC). However, because we think that the CEFRL definition of pragmatic competence in fact presents a more complete picture of the phenomenon, we have considered the other two subcompetences of Communicative Competence in the CEFRL as part of PC as well, and therefore Linguistic Competence was included as a criterion to evaluate within

8. This task was based on the emotional lexicon investigation conducted by Bisquerra & Filella (2018).

9. We want to thank this external anonymous rater for her quick and accurate response to our request, as well as for her time and effort in rating the 321 texts produced by the subjects of our survey.

DC, and Sociolinguistic Competence was included as part of both FC and DeC. Thus, when assessing the DC of, for instance, the e-mail messages, we not only looked at how the message was organized, structured and arranged at the macro-level of analysis, but also at the micro-level of syntax, vocabulary and morphology. And when assessing their FC and DeC, we looked not only at how the messages were used to perform the appropriate communicative functions and how they were sequenced according to the corresponding transactional and interactional schemata, but also their appropriateness to the sociolinguistic context.

Each of the three sub-competences of PC was rated on a scale from 1 to 10, and thus the maximum possible mark for each of the test items was 30 (10x3). Let us take two of the e-mail messages, (1) and (2), written by *Alegría71* (Joy71) and *Risa69* (Laughter69) respectively, to illustrate the criteria taken into consideration for the evaluation and rating of all the texts. As we shall see, *Alegría71* shows considerable pragmatic competence, in contrast with *Risa69*.

(1) *Alegría71*’s email message:
Hola Tomás, Te escribo para que sepas que no he podido cumplir con la fecha de entrega del proyecto por haber faltado la parte que te correspondía y que te habías comprometido a entregarme. Como resultado, hemos perdido una gran oportunidad, y además yo personalmente he quedado mal con el jefe. De verdad, espero que exista un motivo bueno para lo que ha ocurrido, estoy muy disgustado por ello. Sabes que no me gusta tratar este tipo de temas por correo electrónico, pero no me queda más remedio, ya que no me has contestado al teléfono. Hablamos más adelante, ya me contarás lo que ha pasado.
(*Hi Thomas, I’m writing for you to know that I have not been able to meet the project deadline because the part you had to do and had promised to send me was missing. As a result, we have lost a great opportunity, and I now personally have a very poor image in the eyes of our boss. I truly expect that you have a good reason for this; I am very upset about it. You know I don’t like to touch on this kind of topic via e-mail, but I have no alternative, considering you have not answered my telephone calls. We’ll talk later; I hope you will tell me what has happened.*)

The two raters coincided in giving 10 points here for both DC and FC, and 8 points for DeC. The criteria considered are the following: As far as DC is concerned, it can be said that *Alegría71*’s discourse is cohesive and coherent, it is well-structured both at the micro- and the macro-level and shows ability to control the ordering of sentences in terms of thematic organization, logical ordering, style and register. As for FC, *Alegría71* shows that he can fulfil the main function of expounding the problem (and in a way reprimanding his workmate for not having done his job), and at the same time express his attitude, mood or emotion by saying that he is very upset about it.

If we analyze this passage in terms of the management of the subsystems of Appraisal (Martin & White 2005), we see here that the writer is dealing with AFFECT in an inscribed, direct way (*Estoy muy disgustado* (*I am very upset), No me gusta (I don't like to*…)) and appropriately, considering the situation. He also makes use of strategies of politeness that show command of the pragmatic situation: he goes mainly on record with negative politeness (by using softeners such as *De verdad (truly), espero que (I hope that)*, etc.) to be assertive but not hurt his interlocutor's feelings.

As for DeC, concerned mainly with whether the sequence is appropriate to the transactional schemata in question, the raters decided to give it 8 points and not full marks because even though the message has one of the possible openings for an e-mail (*Hola Tomás, Hello Thomas*,), the sequence does not end in the appropriate way according to this type of transactional schemata, for there is no final closure of the message by means of a greeting and a signature. Thus, the final mark obtained by *Alegría71* in the e-mail assignment was a 28.

(2) *Risa61*'s e-mail message:
Debido a tu no compromiso de fecha, perdemos el trabajo
(*Due to your 'non-commitment of date', we lose the job*)

The first problem the raters noticed in Risa61's response is that it does not look like an e-mail by any means. It consists only of a not-very-well-formulated sentence, which uses the wrong verb tense and lacks punctuation at the end, but most importantly, does not fulfil the function of addressing the problem in a proactive way so that it can be solved. There are very few signs of cohesion or even coherence, for the sentence is disconnected from any possible context and would certainly mislead any reader. Besides, the writer does not show any kind of dexterity in using politeness strategies, nor has he followed the instruction to tell Thomas what he thinks and feels (thereby showing no management of the Appraisal subsystems). Neither does he show any skills in structuring this kind of discourse (i.e. an e-mail, with an opening, development and closing, etc.), all of which made the raters give this subject a very low mark: One of the raters gave him 3 points in DC, 2 in FC and 0 points in DeC, while the other gave him 4 points in DC, 2 in FC and 0 points in DeC. So, in contrast with *Alegría71*, who obtained a total of 28 points in the e-mail section of the survey, *Risa69* got a much lower rating, namely a total of 5 points in one case and 6 in the other. The difference in PC between these two subjects is clear.

In order to simplify the set of variables, we conducted an exploratory factor analysis (using principal axis extraction criteria and PROMAX rotation criteria [$k = 4$]) of the six pragmatic competence scores, which showed a clear two factor structure (90.782% of total explained variance), with both factors (factor1 composed by simulated dialogue scores; factor2 composed by email scores) showing a positive correlation of $r = .59$ ($p < .0001$). Two scores were then calculated as e-mail global score (Cronbach’s alpha = .99) and situations global score (Cronbach’s alpha = .94). A final PC global score was also calculated combining these six scores (Cronbach’s alpha = .92).

As for the emotional lexicon task (C), the criterion used in assessing the subjects’ performance was the number of valid evoked emotional words or VEW (just nouns and adjectives, as required in the instructions). We also observed the number of evoked words (NEW), the number of invalid evoked words (IEW), the number of positive-valence VEW, the number of negative-valence VEW, and calculated the accuracy rate (VEW/NEW*100) and the hedonic rate (positive-valence VEW/VEW*100). We calculated these scores in order to explore how Trait EI is related to these variables as basic estimations of emotion granularity or emo-diversity in emotional lexicon.

8. Criteria and scoring used for the TEI test in Section 4 of the survey

Concerning the TEIQue-SF, this measure may provide five scores, for global TEI and four factors of TEI or “WESC” factors (acronym of Wellbeing, Emotionality, Sociability, and self-Control), but for the purposes of this study we only focused on the global score, since our interest is not in the separate TEI components, but on the construct TEI as a whole. Internal consistency in our sample was good (Cronbach’s alpha = .85).

9. Results and discussion

For the emotional lexicon task, our sample comprises a total of 1914 words, but only 1515 of them (79.15%) were considered to be VEW according to the consensus between the two researchers. The 1914 words were permutations of 772 different emotion concepts. The 1515 VEW were permutations of only 454 different VEW. This number is similar to the total number of emotional and motivational nouns identified by Marina & López Penas (1999) in Spanish, but it should be noted that our 454 VEW include both nouns and adjectives. From these 454 VEW only 52 were included in Hinojosa et al.’s (2016) database of affective norms for Spanish words, which implies that an extension of that database would be desirable to include a greater representation of the Spanish emotional lexicon.

Figure 3. Most frequently evoked emotional terms

This has been a residual, additional finding of our study that we think can lay the foundation for further research on Spanish emotional lexicon.

Only 2 emotion words were written by more than 50% of the sample, namely *alegría* (joy) and *tristeza* (sadness). The 11 emotional words most frequently chosen represented more than 20% of the VEW (expressed by 19 or more individuals from the sample), and the 53 most frequent words of those 454 represented more than 50% of the VEW (expressed by 7 or more individuals). In order to visually compare the differential prominence among the eleven most frequent emotional terms, in Figure 3 we represent these data through a cloud of words and through a radial diagram that quantifies the specific frequency of each word. The top five emotional words were identical to the top five emotional words found by Bisquerra Alzina & Filella Guiu (2018), which suggest high degree of coincidence between Spanish samples concerning the most frequent emotional words evoked by the three minutes task.

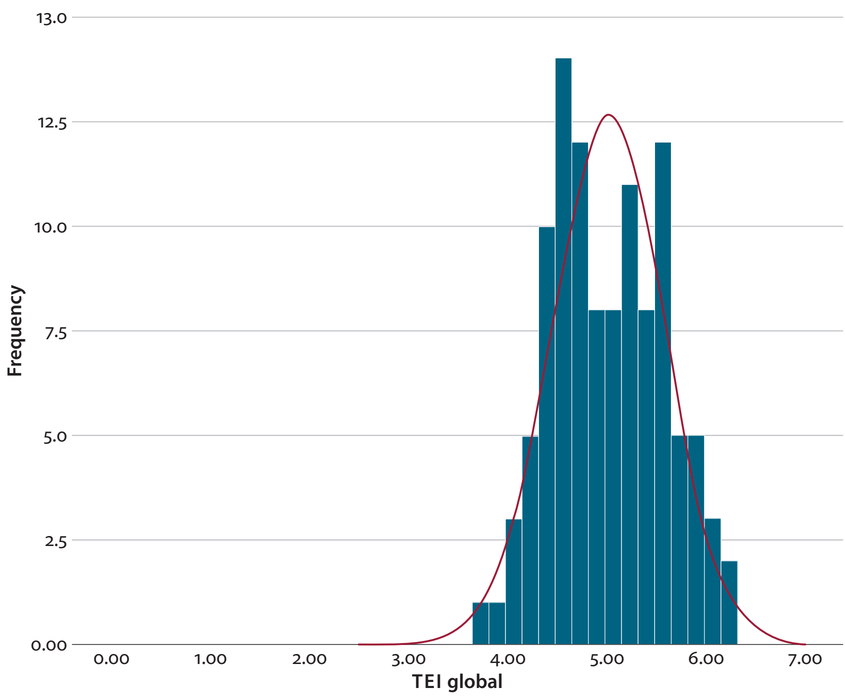
The univariate descriptive statistics for each linguistic test and the TEI questionnaire are depicted in Table 1.

Table 1. TEI, EL, and PC univariate descriptive statistics

	Min	Max	Mean	SD	Asymmetry	Kurtosis
Email J1	1.00	30.00	23.06	7.53	−1.24	.57
Email J2	1.00	30.00	23.10	7.71	−1.21	.48
Email global	0.33	10.00	7.69	2.53	−1.23	.53
1st Sim Dial J1	3.00	30.00	23.68	6.26	−1.22	1.20
1st Sim Dial J2	1.00	30.00	24.14	6.52	−1.54	1.82
2nd Sim Dial J1	2.00	30.00	23.93	6.14	−1.30	1.62
2nd Sim Dial J2	2.00	30.00	24.60	6.20	−1.52	1.87
Sim Dial global	.67	10.00	8.03	1.94	−1.48	2.20
PC global	.83	10.00	7.86	1.99	−1.30	1.13
EL Accuracy rate	8.33	100.00	81.53	24.71	−1.44	1.12
EL Hedonic rate	0.00	100.00	51.97	22.61	.31	.58
EL number of words	4.00	55.00	10.64	8.70	1.16	2.53
EL VEW	1.00	34.00	13.86	6.97	.48	.09
EL positive VEW	0.00	17.00	6.90	3.73	.39	−.14
EL negative VEW	0.00	19.00	7.00	4.52	.37	−.34
EL VIEW	0.00	47.00	3.77	7.09	3.52	15.47
Trait EI global	3.73	6.27	5.03	.57	.14	−.74

These results make it clear that there is a range restriction in both variables (EI and PC), since the sample displays a high average score together with a negative kind of asymmetry, most of the subjects obtaining high scores in PC and TEI. Only 5.6% of the sample (i.e. 6 individuals out of 108) has a low TEI score (i.e., <4.12 out of 7) according to Spanish normative means (Pérez-González 2010). This range restriction in both predictor and criterion variables has been commented on as a common problem in research on personality at work (e.g. Hough 1998), since it could lead to an underestimation of the true extent of the relationship between predictor (i.e. TEI) and criterion (i.e. PC).

As for correlational results, a positive moderate correlation ($r = .27$, $p = .005$) was observed between emotional lexicon (VEW score) and PC, which demonstrates that both are different but related constructs. No significant (linear) correlation was found between linguistic competences (emotional lexicon (EI) and PC) and TEI. Nevertheless, a very interesting curvilinear relationship (specifically a quadratic one) was observed between TEI and PC (see Figures 4 and 5). A cubic curvilinear relationship was also explored, but was not estimated because of collinearity problems. This result implies that in our sample a medium level (not a high level) of TEI was positively associated with better results in PC, which reflects indirect support for Buck's (2014) curvilinear hypothesis (previously explained in 2) of a relation between communicative competence and expressiveness. At least 9% of the variance in PC ($R2 = .093$; $F[2, 105] = 5.390$, $p = .006$) and 10% of the variance in the simulated dialogue global score ($R2 = .100$; $F[2, 105] = 5.816$, $p = .004$) can be attributed to this inverted-U relationship, which points towards the acceptance of our hypothesis of a positive relationship between EI and PC.



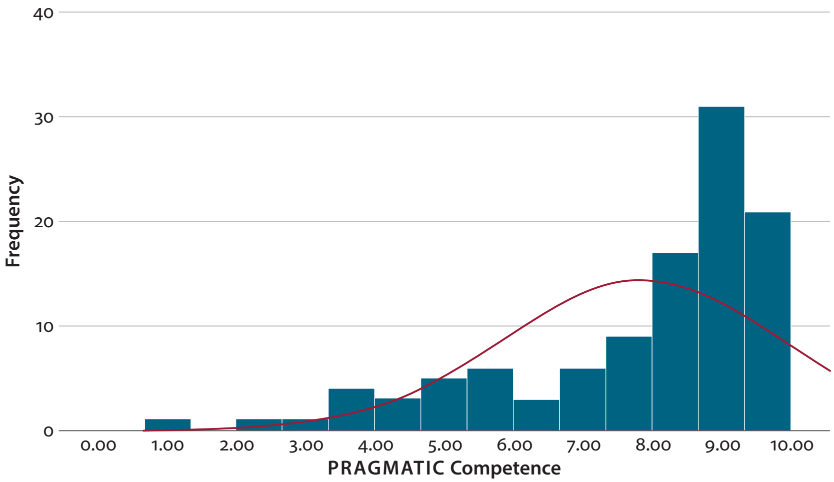
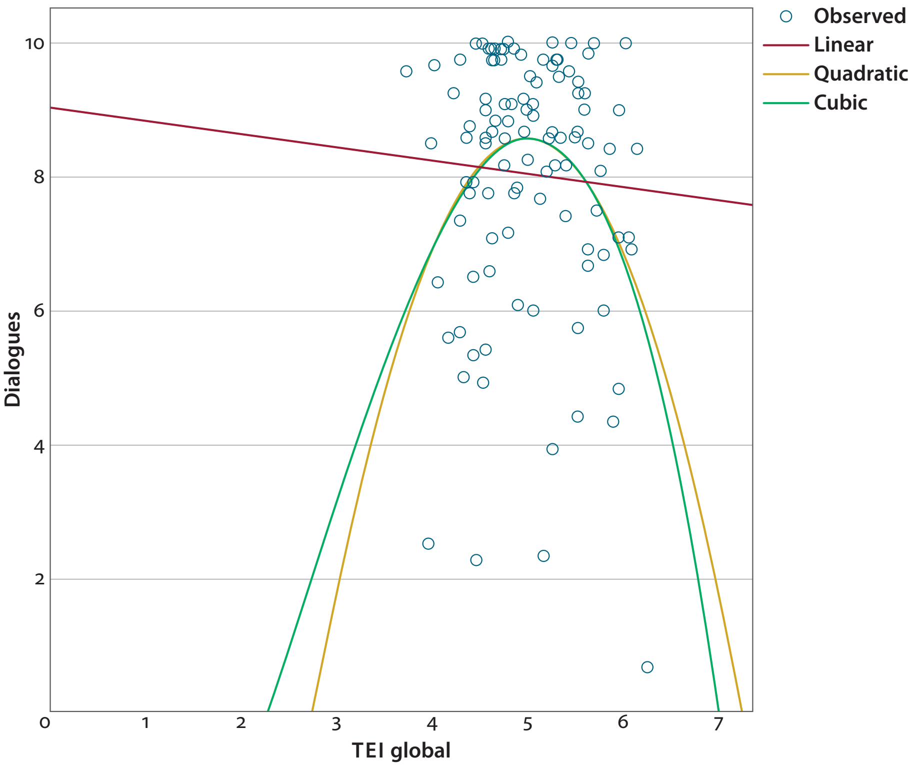


Figure 4. EI and PC distributions



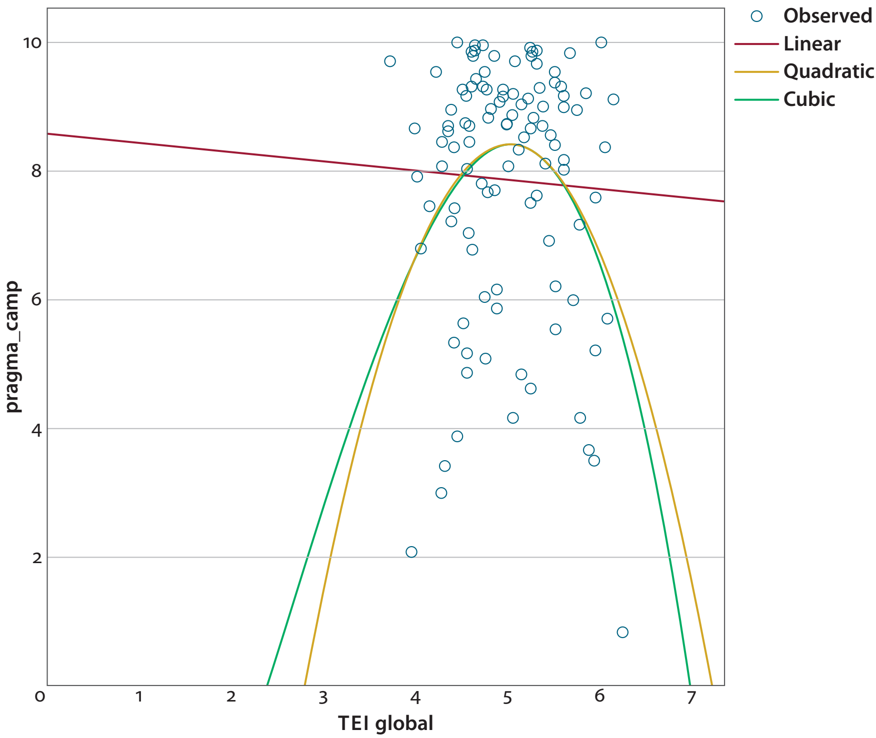


Figure 5. Inverted-U relationship observed between EI and PC

10. Conclusions

We consider the main contributions of this work to be the following:

- We have designed and tested two new tools for the assessment of emotional lexicon and pragmatic competence which have shown convergent validity.
- We have explored for the first time the kind of Spanish emotional lexicon that can be quickly evoked by native speakers in the short time lapse of three minutes if required.
- We have explored for the first time the relationship between EI and two other variables: (1) emotional lexicon as a proxy of emotional granularity and emotional richness assessed by maximum performance tests, and (2) PC assessed by a new valid and reliable maximum performance test based on the CEFRL.
- We have carried out empirical work connecting theories of emotional communication competence (e.g. Barrett & Gross 2001; Buck 2014) and EI (e.g. Petrides et al. 2016), as well as interdisciplinary studies in the fields of lin-

guistics and psychology with the aim of understanding the connection between PC and EI.
- Since the language scrutinized was Spanish, we believe an additional contribution of the study has been to serve the need to compensate for the excessive dependence on the use of English in the study of the relationships between language and emotion.
- Most important of all, our hypothesis about a positive relationship between EI and PC can be accepted, for we have found that there is a curvilinear (inverted-U relationship) that shows that in our sample a medium level of TEI is positively associated with better results in PC (in relation with Buck's 2014 curvilinear hypothesis related to communication competence and expressiveness). A hypothesis of a strict linear correlation of these two variables, however, is rejected for the sample examined.
- The finding of an inverted-U relationship between EI and PC (where only medium levels of TEI seem to show suitability in PC) agrees with Sevdalis et al.'s (2007) warning that scoring higher in TEI rate is not necessarily an indicator of better performance, for moderate levels of TEI can show a better adaptation of individuals to their emotional contexts. Therefore, our findings are in line with TEI theory, according to which the construct is not always necessarily adaptive (e.g. Petrides & Furnham 2003; Sevdalis et al. 2007).

Like every piece of research, the present work has its own limitations, which we consider to be the following:

- Further studies would be needed to explore the replication of our results using bigger sample sizes.
- The mood state of the subjects (e.g., task engagement, worry, distress) in the base line before the task and during the task (which may have affected their performance) could not be controlled in the assessment of emotional lexicon in our survey, since it was distributed on-line. However, it should be noted that although we treated emotional lexicon as proxy of both emotional granularity and emotional richness, it cannot be assumed that the number of VEW written by each individual is indicative of their habitually experienced emotions and feelings.
- The environmental conditions pertaining during the realization of both the linguistic tests and the TEI questionnaire could not be controlled, due to the medium through which it was administered (the internet).

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CHAPTER 11

The effects of linguistic proficiency, Trait Emotional Intelligence and in-group advantage on emotion recognition by British and American English L1 users

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This chapter focuses on individual differences in emotion recognition ability (ERA) of 150 British and 151 American first language (L1) users of English (151 females, 150 males). Individual differences in ERA have been linked to linguistic, cultural and psychological profiles of individuals. The analysis of ERA scores based on correct identification of emotions portrayed six video clips by a British L1 English-speaking actress showed that participants who scored higher on linguistic proficiency and Trait Emotional Intelligence (Trait EI) were better at recognizing emotions. Cultural background had no apparent effect. Participants with lower levels of linguistic proficiency relied more heavily on their Trait EI to recognize the emotions.

Keywords: emotion recognition, English, Trait Emotional Intelligence, linguistic proficiency, culture

1. Introduction

The ability to recognize the emotional state of an interlocutor is a crucial skill in social encounters. Children learn it from the cradle, observing family members around them. Vaillant-Molina et al. (2013) tested 40 American babies' ability to match positive and negative emotional infant vocalizations with a paired infant facial expression. They found that, by five months of age, infants can recognize each other's emotions, at six months they can match emotions in familiar adults, and a month later in other adults.

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The absence of language means new-borns need to communicate through affect or emotion. The skill to recognize emotional states certainly helps children to get the timing right when asking for a special favor (e.g., not when the interlocutor looks angry or tired). Children may even have learnt that extra attention is needed when facing potential interlocutors who show signs of emotional distress. They will have to rely on visual cues more than linguistic ones because there seems to exist an implicit social rule prohibiting the direct expression of one's emotional state in certain contexts ("emotion display rules"; Malatesta & Haviland 1982, Rintell 1984).

It is unlikely for someone at the start of an interaction to declare explicitly how they feel. The emotional state will have to be inferred through relatively indirect cues, typically vocal or non-verbal. Unsurprisingly, some people are better at recognizing emotions than others. Part of their advantage is due to their particular personality profile (Shao et al. 2015), while another part depends on their vocabulary knowledge and their familiarity with the expression of emotion within a particular social and cultural context (Lorette & Dewaele, 2015, 2018a, b). Research in this area is not motivated by just academic interest. Thompson & Balkwill (2006: 421) point out: "Understanding how emotion judgments are guided by physical properties of stimuli and cultural norms has valuable implications for cross-cultural communication in many domains, including business, education, and conflict resolution". The notion of "culture" is central in the present study. We adopt the definition of Geerts (1973) who describes culture as "a historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge and attitudes towards life" (1973: 89). A culture is not a static category, it is often overlapping with other cultures, mutually influencing each other, and constantly evolving.

One question that is hotly debated by Americans in the UK and British people in the US is the extent to which having a common language extends to having a common culture. Of course, even the affirmation that the two populations have a common language has been contested. The American lexicographer Noah Webster forecast back in 1789 that eventually American English would be as different from British English as Dutch, Danish, and Swedish are from German or from each other (Davies 1998).

Others have insisted that the British and American cultures are far apart: "Brit-think and Ameri-think are light years apart. We cherish widely different values and aspirations and have developed separate habits of mind. In some ways, a camel and a porpoise have more in common." (Walmsley 1987: 2). This a point made also on the British website of the Fulbright Commission that sends students to the US: "there are numerous cultural differences between the US and the UK that you will likely encounter. Just as there are Language Differences between the US and UK

(…)" ("Cultural Differences" 2015, para. (1)). Taking the American perspective, Edwards (2000) warns American students in the UK that because Americans and Brits speak "mutually-comprehensible varieties of English" they should not "leap to the belief that a shared language implies shared culture" (Edwards 2000: 86). One cultural difference that is potentially relevant to our study of emotions is the indirectness in English culture (Edwards 2000). British speakers tend to be more indirect and use more euphemisms than Americans.

The present study focuses on key independent variables that have been linked in previous research to emotion recognition ability (ERA), namely in-group advantage of linguistic proficiency in the language in which the emotion is expressed, and Trait Emotional Intelligence (Trait EI). The main original contribution of the study lies in the fact that we are looking for cultural effects among participants who grew up speaking British or American English, and we investigate general L1 English language proficiency differences. No research has – to our knowledge – investigated whether the combination of in-group advantage, linguistic proficiency, and Trait EI have any effect on Emotion Recognition. We will use the term "L1 user" when referring to our participants rather than that of "native speaker" and we will refer to foreign language users (LX users) rather than non-native speakers. We have argued that the term "native speaker" has strong ideological overtones and is always interpreted as somebody who has maximal competence/proficiency in the L1 (Dewaele 2018). This is not necessarily always the case, as L1 users may attrite in their L1 and can vary on the language proficiency continuum over a range of skills. As the point of the present study is to look for differences at the high end of the proficiency continuum among participants who acquired English before the age of 3, the term "L1 user" is conceptually appropiate.

2. Universal or culture-specific emotions?

Elfenbein et al. (2002) referred to the long-standing debate about the universality versus cultural specificity of emotion recognition and the attempts to integrate the evidence for both perspectives. A meta-analysis of cross-cultural research on emotion recognition by Elfenbein & Ambady (2002) found evidence for both universality and cultural differences. On the one hand, emotions are recognized at above chance levels across cultural boundaries, but members of the same national, ethnic or regional group also have an "in-group advantage", recognizing emotions more accurately when they are expressed by members of the same group. Elfenbein et al. (2002) explained that emotional communication may be a universal language, but that subtle differences exist across cultural groups as people develop their own emotional dialects.

Shao et al. (2015) investigated the extent to which emotions are universal or culture-specific. Their starting point was the observation that little research had examined the relative impact of culture across the branches of emotional intelligence. They looked at three emotion domains in the cascading model of emotional intelligence (emotion perception, emotion understanding, and emotion regulation). A comparison of data from 580 participants collected from five countries in different parts of the world showed that emotion perception was the most universal domain of emotional intelligence (with 71% shared answer keys), while emotion understanding (with 53% of shared answer keys) and emotion regulation (with 33.3%) were comparatively more culture-specific domains.

A crucial fact is that emotions are not communicated just through words but also through vocal and visual channels (Burns & Beier 1973). Verbal cues are conveyed via the content of language. Vocal cues might be provided by pitch, rhythm, timbre, and speaking rate or intensity, while visual cues might, for instance, be gleaned from facial expressions or body language.

The following sections summarize some of the emotion recognition research according to the channel in which the emotion was observed. Many of these studies are framed in the universality versus culture-specificity debate and are, therefore, directly relevant to it.

2.1 Visual channel

Hwang & Matsumoto (2015) define facial expression as a dynamic nonverbal behavior, alongside gestures, tone of voice, and body postures. They describe facial expressions as "one of the most complex signal systems in the body" (Hwang & Matsumoto, 2016: 257) and see them as rapid signals of the face. Indeed, "people's faces contain many muscles that can produce literally thousands of different types of expressions. Moreover, muscle contractions of the face are under the neural control of two different areas of the brain, one controlling voluntary movements and the other involuntary reactions" (2016: 257).

Hwang & Matsumoto (2015) provide a comprehensive overview of the research on facial expressions of emotion, starting with the early debates and reviewing the scientific evidence for the universal expression and recognition of facial expressions of emotions. They argue that the universality of facial expressions of emotion informed the basic understanding of emotions, particularly the basic emotions (Ekman et al. 1982; Matsumoto & Hwang 2012). They point out that facial signals of emotions interact with culture. In other words, biologically innate expressions can be moderated by exposure to specific cultures, which may underlie more culture-specific emotions, such as shame, embarrassment, or pride (Matsumoto & Hwang 2012). Members of the same culture have an in-group advantage for facial

ERA: they tend to recognize each other's facial expressions more accurately than people from different cultures (see also Elfenbein & Ambady 2002).

The debate on universality versus relativity of emotions is raging on but falls outside the scope of the present study (see Gendron et al. 2014b; Gendron et al. 2018; Cordaro et al. 2015; Nook, Lindquist & Zaki 2015) used a repetition-priming paradigm combined with signal detection and individual differences analyses to examine how providing emotion labels affects emotion recognition. The researchers found evidence that providing emotion concepts (through discrete emotion labels like "sadness") increased their participants' sensitivity for recognizing emotions when shown pictures of faces, "sharpening" their representations of emotional faces.

2.2 Vocal channel

In-group advantages have been detected in studies of vocal ERA. Scherer et al. (2001) focused on the vocal ERA of 428 participants from different cultural and linguistic backgrounds. Participants had to identify emotions conveyed by four German actors in meaningless multi-language sentences. These were artificial sentences combining syllables from different languages. Females were significantly better than males at recognizing emotions. Participants' country of origin also had a significant effect, with German participants outperforming the other nationalities. Second-best were the French-speaking Swiss, who are more familiar with German prosody, since German is an official language in Switzerland. Emotion recognition rates declined gradually for the speakers of Germanic languages, namely the British, Dutch and American participants. Rates declined further for speakers of Romance languages (Italian, French and Spanish participants). The group who struggled most were Indonesian participants, who are speakers of a language typologically and culturally most distant from German. It thus seems that linguistic and/or cultural distance is linked to vocal ERA.

Thompson & Balkwill (2006) investigated the effect of language and cultural distance on emotion recognition. They asked 20 Anglo-Canadian listeners to judge the emotions of joy, sadness, anger and fear conveyed in semantically-neutral utterances produced by English, German, Chinese, Japanese and Tagalog speakers. Recognition rates were above chance level (25%) in all languages, but the L1 English listeners recognized the emotions expressed by English speakers better (94% accuracy) than speakers of other languages. The authors interpreted this as evidence that cultural distance affects ERA, since the least accurate answers appeared for Chinese and Japanese speakers (54% and 59% correct respectively), with the German participants occupying an intermediate position with 68% recognition accuracy (2006: 421). The only puzzling finding was that the emotions expressed by Tagalog speakers were recognized better (an average 72.2% correct) than those expressed by the German speakers. Moreover, sadness was better recognized in Tagalog than in English speakers.

Pell, Monetta, Paulman & Kotz (2009) carried out a similar study involving 61 monolingual speakers of Argentine Spanish. Participants had to recognize basic emotions from pseudo-utterances produced in their L1 and in three foreign languages with which they had had very little – if any – contact (English, German, and Arabic). The researchers found that vocal expressions of basic emotions could be decoded in each language condition at accuracy levels exceeding chance. Participants performed significantly better overall in their L1 (64%), which suggests the existence of an "in-group advantage". The scores for the other languages were not very different: English: 58%, German: 56%, Arabic: 59%. The authors conclude that ERA in speech is partly independent of linguistic ability and involves universal principles, although it is also shaped by cultural and linguistic variables.

Pell et al. (2015) developed this research by focusing on event-related brain potentials (ERPs) in order to compare the time course of emotion processing of 24 Canadian L1 users of English who listened to emotional vocalizations (growls, laughter, sobbing) and to emotional pseudo-utterances that expressed anger, sadness and happiness. Participants were significantly better in categorizing emotions for vocalizations than for speech prosody. They were also faster (shorter P200 latencies) in recognizing emotion through vocalizations than through speech. The researchers interpreted this in evolutionary terms, arguing that vocalizations are a "raw" form of emotional expression, while "emotional prosody represents the *socialization* of emotional cues in speech behaviour" (2015: 23). While the former is processed in phylogenetically older brain systems (amygdala and other subcortical structures), speech recognition involves more recent brain systems (cortically-based circuitry) that have evolved as human language developed. Participants detected vocalizations of happiness, like laughter, more quickly than vocalizations conveying anger or sadness. The researchers also found that ERP responses were modulated by Trait Anxiety and Neuroticism. Participants scoring higher on these dimensions allocated their attention to emotional voices at very early stages, in the 100–200 ms time window, and showed higher neural response sensitivity at later cognitive processing stages.

Sauter, Eisner, Ekman & Scott (2010) investigated how emotional vocalizations (screams and laughs) were recognized by 26 English-speaking European participants and 29 Himba participants. The vocalizations communicated "basic emotions" (anger, disgust, fear, joy, sadness, and surprise) and were recognized by all. However, some additional emotions were "only recognized within, but not across, cultural boundaries" (2010: 2408). The results are used as proof of the universality of emotions, namely that "nonverbal vocalizations communicate specific emotional states, regardless of the valence of the distractor with which they are presented" (Sauter et al. 2015: 355).

Gendron et al. (2014a) researched emotion recognition in the same group of Himbas. In the first part of the study, participants listened to vocalizations and freely labeled them. In the second part, they had to choose which of two vocalizations matched a brief emotional story (embedded with emotion words). Participants correctly perceived vocalizations according to their positivity or negativity (i.e., valence), but not their presumed universal emotion categories (e.g., anger or fear). This confirmed their study on the recognition of facial expressions with the same population (Gendron et al. 2014b), but contradicted the findings of Sauter et al. (2010).

Sauter, Eisner, Ekman & Scott (2015) contested the conclusion of Gendron et al. (2014a), pointing to differences in the research design and in procedures. Their main point was that participants could listen several times to a given recorded story, "until they could explain the intended emotion in their own words, before they proceeded to the experimental trials for that story". In a reply, Gendron, Roberson & Barrett (2015) pointed out that they "did not provide any guidance to participants to ensure that they understood the emotion stories in a Western way; participants listened to each emotion story until they indicated they understood it (i.e., from their cultural perspective). We did not ask participants to describe the scenarios (or have an experimenter verify content), as this check would have defeated the purpose of the experiment" (2015: 358).

Frye & Creel (2013) looked at the relationship between listeners' L1 plus other languages they knew and the ability to identify vocal emotional information in those languages. They focused both on languages with lexical tone, such as Mandarin Chinese, and those without, such as English. Their participants were 18 American English L1 students and 18 bilingual Mandarin-English speakers, who were fluent in English and had acquired the language as children. Participants listened to sentences (half in each language) and categorized the emotional content of English and Mandarin sentences. English listeners were significantly better at identifying emotions in the English sentences, while bilinguals were equally good at identifying emotions in both languages.

2.3 Verbal channel

Picking up emotion-laden words in an utterance can help infer the interlocutor's emotional state. This can be challenging for those whose linguistic proficiency is suboptimal, and who may be unsure about the exact meaning of a word, the kind of script in which it appears, the circumstances in which its use is warranted, and its emotional connotations or offensiveness (Dewaele 2015a; Dewaele & Pavlenko

2002). Sometimes, the absence of emotion or emotion-laden words (Pavlenko 2008) in contexts where these words are expected by members of the speech community can also be telling. Noticing the absence of an emotion word or expression is particularly difficult for those with insufficient linguistic and pragmatic knowledge. Even speakers of different varieties of the same language can struggle to understand subtly different semantic and conceptual representations of emotion and emotion-laden words in another variant.

Dewaele (2015b) collected data from 970 L1 users of British and American English concerning self-reported understanding of the meaning, perceived offensiveness, and frequency of use of 30 negative emotion-laden words and expressions extracted from the British National Corpus and found significant differences in semantic representations and self-reported frequency for many words. In a follow-up study that focused exclusively on the 556 American English participants, Dewaele (2018b) found signs of semantic change in four swearwords of British origin among Americans living outside the USA. This was interpreted as evidence that semantic representations of emotion-laden words originating from another variety of the L1 are more likely to transform as a result of exposure to these words in other varieties.

The next study presented in this review considered a combination of visual, vocal and verbal channels for emotion recognition (Lorette & Dewaele 2015). The authors focused on individual differences in the ERA of 920 L1 and LX users of English. Participants were shown in an online survey the six short English videos that were also used in the present study and were asked to identify the emotion portrayed by the L1 English-speaking actress. Both L1 and LX users of English recognized an average of four emotions, despite the latter scoring significantly lower on a lexical decision task, which was used as an indicator of English proficiency. Linguistic proficiency turned out to be significantly positively related to ERA among the LX users, and marginally so among the L1 users. Asian LX users scored significantly lower on emotion recognition than European LX users, despite the fact that they had similar linguistic proficiency scores (Lorette & Dewaele 2015). The authors concluded that cultural distance from the target language and linguistic proficiency in that language both affect ERA. In a further study using the same database, complemented by data from 449 participants who had only heard (but not seen) the input, Lorette & Dewaele (2018a) found that English LX users struggled more than L1 users, especially Asians and LX users with low proficiency. A final study based on the data of 1222 L1 and LX users showed an advantage for LX users who had grown up with two languages from birth (not including English). Finally, Alqarni & Dewaele (2018) investigated the emotion perception of 205 Arabic-English bilinguals, 333 English monolinguals and 71 Arabic monolinguals who watched six short videoclips in English and six clips in Arabic. The bilinguals outperformed the English monolinguals in English but not the Arabic monolinguals in Arabic, which was interpreted as modest evidence for a bilingual advantage in emotion perception.

2.4 Trait Emotional Intelligence

The theory of Trait Emotional Intelligence (Trait EI or trait emotional self-efficacy) emerged from the distinction between two EI constructs (Ability EI and Trait EI; Petrides & Furnham 2000). Trait EI is formally defined as a constellation of emotional perceptions located at the lower levels of personality hierarchies (Petrides et al. 2007). The construct essentially concerns people's self-perceptions of their emotional abilities and an alternative label for it is trait emotional self-efficacy.

Research has shown that high Trait EI individuals are better at identifying facial expressions of emotion than their low Trait EI peers (e.g., Petrides & Furnham 2003). This relationship has also been observed in children (Mavroveli et al. 2009), suggesting that it is established early on in development. Mayer & Salovey (1997) pointed out that high Trait EI individuals are better able to identify emotions and content, not just through facial expressions but through their "own muscular and bodily sensations and social surroundings" (1997: 10). This stronger emotional perception is not limited to ambiguous emotional facial expression but extends also to colors and novel graphics (Mayer, DiPaolo & Salovey 1990). The authors interpret this as evidence that high Trait EI individuals are able to detect consensual emotion content across different domains because they are able to understand others' thought processes and may be able to tap into some universal rules for the extraction of emotion (1990: 779).

3. Research hypotheses

Based on the literature reviewed in the previous section, the following hypotheses were investigated:

1. British participants will score higher ERA scores in watching a British actress than American participants because of their in-group advantage.
2. Participants with higher linguistic proficiency scores will have higher ERA scores.
3. Participants with higher Trait EI will have higher ERA scores.

One additional exploratory analysis was performed in order to investigate a possible link between linguistic proficiency and Trait EI.

4. Method

4.1 Participants

A total of 301 participants (151 females, 150 males) participated in the study. The average age was 39 years ($SD = 14$), with a range from 17 to 68 years. Half of the participants were British ($n = 150$) and the other half American ($n = 151$). Most participants reported being monolingual English users ($n = 210$). Self-reports revealed that among the remaining participants there were 52 bilinguals, 22 trilinguals, 13 quadrilinguals, and 2 pentalinguals. A one-way ANOVA showed that the degree of multilingualism was not linked to ERA scores ($F(4, 296) = 0.3$, $p =$ ns).

4.2 Materials

Firstly, participants provided information about their social and linguistic background: gender, age, nationality, their L1(s) and other languages. Five participants who did not include English as an L1 (i.e., a language they had been exposed to before age 2) were excluded.

Secondly, participants were presented with six audio-visual stimuli, each between 30 and 55 seconds long (see the Appendix for a transcription). To ensure some homogeneity in the video clips and to have maximum control over the stimuli, we developed videos especially for this study. In each clip, a 43-year-old professional actress improvised a short monologue displaying a particular basic emotion. The use of acted emotion portrayals has been welcomed by researchers as a practical and ethical way to obtain pertinent data as "spontaneous emotional expressions are especially difficult to access" (Bänzinger & Scherer 2007). Moreover, the use of professional actors allows more natural representations of emotions, without exaggeration or caricature of the emotion (Douglas-Cowie et al. 2003). Ekman (1993) also suggested that as actors display the facial expression of emotion they actually feel the emotion. These recordings correspond to typical situations in which one must rely on simultaneous visual, verbal and vocal cues to decide on the emotional state of the interlocutor. The actress was born in Canada, grew up bilingually in Latvian and English, then settled in London, where she had lived for more than 20 years. She uses British Received Pronunciation (RP) with a slight London accent. The choice of an actress, rather than an actor, was based on the finding that females' emotional states are generally more easily identified than males' emotional states (Scherer et al. 2001).

The actress was provided with brief example scenarios related to each basic emotion – happiness, sadness, anger, fear, surprise, and disgust. She was told "Please improvise a short monologue based on these scenarios". The absence of strict guidelines was intended to strengthen the authenticity of her play. She was familiar with improvization, namely the creation of performance within a set of relaxed constraints (Busso & Narayanan 2008). Just as in real life, participants could vary their focus on various channels: in some videos, the verbal channel was the most informative, whereas in others more salient cues were conveyed via the vocal and/or visual channels. The URLs of the six recordings are included in the Appendix. The actress did not use any emotion words linked to the emotion she was portraying, though she did use some emotion-laden words ("really"?, "cancer", "Brilliant"…). The instruction inviting the participants to choose a particular emotion was formulated as such: "Please choose the answer that you think applies most to the video above. The main emotion expressed by the speaker is: anger – happiness – surprise – disgust – sadness – fear – neutral emotion – no idea."

ERA scores were calculated by assigning one point for each of the six videos in which the intended emotion had been identified correctly. Each participant could thus score between 0 and 6. The mean ERA score was 3.4 ($SD = 1.4$). The most accurately recognized emotion was disgust (78% correct), followed by happiness (74% correct), surprise (64% correct), fear (53% correct), sadness (38% correct), and anger (29% correct). While some of these scores may seem rather low, they are well above what would be expected if participants had chosen at random. In other words, it provides validation for the fact that the emotions were recognized as the actress intended them to be. The ERA scores were not normally distributed (Kolmogorov-Smirnov = .18, $p < .001$). However, a close look at the distribution showed only a slight skew toward the high end. Due to the central limit theorem and the fact that ANOVA is generally robust to violations of assumptions (Rosenkrantz 2008), we opted to report parametric analyses. Results for non-parametric tests are available from the corresponding author.

The third part of the survey consisted of the English version of the LEXTALE, a 60-item lexical test developed by Lemhöfer & Broersma (2012). The authors describe LEXTALE as a "quick and practically feasible test of vocabulary knowledge for medium to highly proficient speakers of English as a second language. It consists of a simple un-speeded visual lexical decision task" which takes "on average 3.5 minutes to complete" (Lemhöfer & Broersma 2015). The test exists in different language versions such as French, German and Spanish and they have been judged to give a good indication of overall proficiency. Moreover, because results are not at ceiling level for L1 users, it can be used for the assessment of first and second language (Brysbaert 2013). Lemhöfer & Broersma (2015) report that LEXTALE scores correlate highly with those of the Test of English for International Communication and the Quick Placement Test, established tests of English proficiency (Lemhöfer & Broersma 2012). Thus, even though LEXTALE was not designed to capture general English proficiency fully, it is nevertheless a useful indicator of it (Lemhöfer & Broersma 2012).

Lorette & Dewaele (2015) showed that the rates of L1 users of English on LEXTALE varied between 80% and 100%. The mean score in the present sample was 86.8% (SD = 14.2%), with scores ranging from a minimum of 42.5 to the maximum possible score of 100. Three groups were created roughly based on tertiles, the "low" linguistic proficiency group (n = 97), the "medium" linguistic proficiency group (n = 101), and the "high" linguistic proficiency group (n = 103). An independent t-test revealed no differences on linguistic proficiency between the British and American groups ($t(290.9) = .19$, p = ns).

The final part of the survey consisted of the Trait Emotional Intelligence Questionnaire (Short Form; Petrides 2009), which contains 30 items and yields a global Trait EI score. The mean score was 4.7 (SD = 0.8), with scores ranging from 2.7 to 6.8 (absolute mi$n$ = 1, absolute max = 7). Three groups were created, again roughly based on tertiles, with 99 participants in the "low" Trait EI group, 102 participants in the "medium" Trait EI group and 100 participants in the "high" Trait EI group.

An independent t-test revealed that the Americans scored significantly higher ($t = 4.5$, $df = 299$, $p < .0001$, Cohen's $d = 0.52$) on Trait EI ($M = 4.96$, $SD = .82$) than the British participants ($M = 4.45$, $SD = .80$). One consequence of this is that the mean Trait EI values for the three groups are slightly different for American participants (low Trait EI group: $M = 3.0$, medium Trait EI group: $M = 3.6$, high Trait EI group: $M = 3.9$) compared to their British peers: (low Trait EI group: $M = 2.7$, medium Trait EI group: $M = 3.2$, high Trait EI group: $M = 3.8$).

4.3 Procedure

The recruitment of participants was organized via the television broadcaster Euronews that asked RealEyes Media, a digital agency specializing in advanced internet media applications, to constitute a panel of volunteers matching our selection criteria, i.e., L1 users of British and American English. Participants were remunerated by RealEyes Media with funding from Euronews. Participants watched the video segments from home and provided data via a computer link.

5. Results

5.1 Effects of country of origin, linguistic proficiency and Trait EI on ERA scores

A three-way ANOVA was performed in order to test hypotheses 1, 2 and 3. The independent variables were country of origin (UK, US), linguistic proficiency (low, medium and high), and Trait EI (low, medium, and high) and ERA scores were the dependent variable. The effect of country of origin was not significant (F(1, 300) = 1.1, p = .3). However, the analysis showed significant positive main effects of linguistic proficiency (F(2, 283) = 12.5, $p < .0001$, eta^2 = .081) and of Trait EI (F(2, 284) = 7.5, $p < .001$, eta^2 = .050). Moreover, a significant two-way interaction emerged between linguistic proficiency and Trait EI (F(4, 284) = 3.5, $p < .009$, eta^2 = .047).

In order to unpack the interaction, separate one-way ANOVAs were performed to determine the effect of Trait EI on ERA scores in each of the three language proficiency groups. A significant main effect of Trait EI (F(2, 97) = 22.0, $p < .0001$, eta^2 = .312) emerged in the Low proficiency group. A series of post-hoc Tukey HSD tests revealed that the low Trait EI group had lower linguistic proficiency than both the medium ($p < .019$) and the high ($p < .001$) Trait EI groups, which were also significantly different between them ($p < .003$), with the latter scoring higher (see Figure 1).

In contrast, the effect of Trait EI was not significant either in the Medium (F(2, 97) = 1.6, p = .20) or in the High (F(2, 98) = .13, p = .88) language proficiency group (see Figure 1).

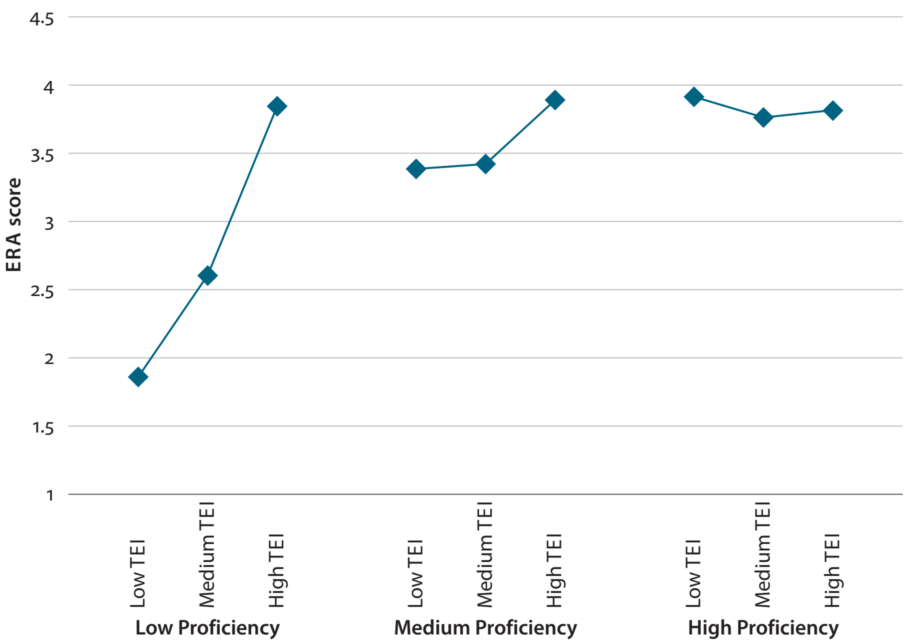

Figure 1. The combined effects of Trait EI and proficiency on ERA scores

Finally, a Pearson correlation analysis was performed to check for a possible link between Trait EI scores and linguistic proficiency scores. This revealed a significant positive relationship ($N = 301$, $r = .42$, $p < .0001$). In other words, participants who scored high on Trait EI were more likely to score high on linguistic proficiency, with about 17.6% of overlap between both dimensions.

6. Discussion

The first hypothesis had to be rejected as no difference was found between the British and American participants in ERA scores. In other words, the British participants asked to identify the emotion portrayed by one of their own did not show the expected in-group advantage. This was surprising because testimonies from Americans living in the UK suggest that they need time to adapt to British sociocultural norms and emotional behavior (Davies 1998). They also need to recalibrate the perceived emotionality of some words that have different values in the US and the UK (Dewaele 2015b). Therefore, the finding that British and American participants recognized the emotion portrayals of a British actress at identical rates was counter-intuitive, albeit not entirely unexpected (cf. Lorette & Dewaele 2015).

The second hypothesis was confirmed as L1 users' linguistic proficiency turned out to have a strong effect on their ERA scores. Those who scored higher on linguistic proficiency were significantly better at recognizing the emotions portrayed in the video clips. The amount of variance explained suggest a small to medium effect size ($\text{eta}^2 = 8.1\%$) (Cohen 1988). A similar relationship was found among the English L1 users in Lorette & Dewaele (2015, 2018a), who suggested that L1 users with higher linguistic proficiency may have had a higher verbal aptitude that helped them understand the meaning of the words and the emotions displayed in the videos. Nook et al. (2015) pointed to the mounting evidence that language plays a role in emotion perception.

Our third hypothesis was also supported, as participants with higher Trait EI scores were better at recognizing the emotions portrayed by our actress. Trait EI explained a further 5% of variance (eta^2), which accords well with previous studies showing that high Trait EI children and adults are better at emotion recognition than their low Trait EI peers (Mavroveli et al. 2009; Petrides & Furnham 2003). It is important to point out that these previous studies did not include proficiency as an independent variable. There are various possible mechanisms underlying this relationship, the most obvious of which is that people's perceptions of their emotional abilities reflect externally verifiable reality much as IQ self-estimates reflect actual IQ scores (Paulhus et al. 1998).

The final, supplementary, analysis did confirm the existence of a strong relationship between linguistic proficiency and TEI. Although it is not possible to prove whether there are any underlying causal links involved, a hypothesis that could be tested in a longitudinal design is that individuals who exhibit some of the personality characteristics that are typical of high Trait EI, such as adaptability, emotion expression, emotion management, self-esteem, and self-motivation, gradually develop superior linguistic proficiency in their first language.

The most original finding of the present study is the unexpected interaction between linguistic proficiency and Trait EI, which explained an additional 4.7% of the variance (eta^2) in ERA scores. The strength of the Trait EI effect varied across linguistic proficiency groups, from very strong at low levels of linguistic proficiency to absent at medium and high levels. It is possible that participants with lower levels of linguistic proficiency relied more heavily on their Trait EI to meet the emotion identification challenge. Those with medium or higher levels of linguistic proficiency may not have encountered difficulties in sifting through the linguistic input to look for clues about the emotional state of the speaker. If this is indeed the case, it mirrors findings from the domain of academic achievement, where it has been shown that high Trait EI is a significant promoter of academic performance in low, but not high, IQ pupils, presumably because the former, but not the latter, have to utilize resources other than their cognitive ability in order to improve their exam performance (Petrides et al. 2004). What the present design did not allow us to investigate was whether those with weaker language skills relied more on vocal, verbal or visual clues in order to recognize the emotions portrayed.

What we had not anticipated were the interactions between our independent variables whose effects could have canceled each other out. It seems possible that the Americans' psychological advantage of higher Trait EI scores was neutralized by the British participants' in-group advantage. In other words, the Americans relied on their above average Trait EI levels to overcome a cultural gap, which ultimately allowed them to identify the emotional expressions as accurately as their British counterparts. Just as it may have enabled low linguistic proficiency participants to overcome a linguistic obstacle, Trait EI may also have helped American participants to overcome a subtle in-group hurdle. The lack of differences in ERA scores should not lead to the conclusion that American and British participants relied on identical resources to achieve their scores.

While the present study does not contribute directly to the debate on universality versus culture-specificity of emotions (cf. Gendron et al. 2015, Sauter et al. 2015), it does raise some relevant points. Firstly, the use of audio-visual fragments, rather than pictures, to test participants' ERA gives a major boost to ecological validity. We rarely have to judge the emotion from a picture in daily life, but we are constantly scanning the faces, voices and words of those around us to ascertain their emotional state. Secondly, our findings show that L1 users of English can struggle with the relatively "messy" audio-visual portrayals of emotions by a professional actress. Thirdly, they suggest that differences in linguistic proficiency, and, to a lesser extent, cultural familiarity among L1 users are linked to differences in ERA, and that, for those scoring lower on these dimensions, Trait EI can make a positive difference. We would predict that if our fragments were presented to Himba participants, having no knowledge of English or Western culture, Trait EI would be the main predictor of their ERA.

The use of stimuli generated by a single actress is both a strength and a limitation of our design (Bänzinger & Scherer 2007; Douglas-Cowie et al. 2003; Ekman 1993). Although she is a professional actress, the objection could be raised that enacted emotions might not always reflect the natural, non-consciously encoded emotions encountered in daily life. We also realize that the use of clips from a single person means inevitably that the observed patterns are linked to that person's unique portrayal of emotions (Wallbott & Scherer 1986).

7. Conclusion

The present study looked at sources of individual differences that have not attracted much attention so far in emotion recognition research, namely the in-group advantage of L1 users of their variety of L1, linguistic proficiency in the L1 – as determined by a lexical decision task – and Trait EI. Statistical analyses revealed that higher levels of linguistic proficiency in the L1 and higher levels of Trait EI are linked to significantly higher ERA scores, but that there was no apparent in-group advantage.

An interaction between linguistic proficiency and Trait EI suggested that those with lower levels of linguistic proficiency, but higher levels of Trait EI, utilized this as a psychological advantage to bridge the gap and recognize the emotions portrayed by the actress. Participants with higher levels of linguistic proficiency did not seem to need this psychological support to the same extent.

Our findings suggest that variation in ERA scores among English L1 users is linked in the first instance to their ability to understand language, which can be supplemented by Trait EI in case of a deficit. Individuals draw on different resources and combine different strategies in order to identify emotions.

8. Compliance with Ethical Standards

Funding: This study was funded by the television channel Euronews.

Conflict of Interest: Jean-Marc Dewaele has received a research grant from Euronews. Pernelle Lorette and Konstantinos V. Petrides declare that they have no conflict of interest.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The study received ethical approval from the Ethics Committee of the School of Social Sciences, History and Philosophy at Birkbeck, University of London.

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Appendix: The stimuli

1. Disgust: http://www.youtube.com/embed/rH6evcth9Vs
   So, Jerry, you wanted to discuss the proposal that I put together for the two separate groups. You, you, you've got something… Kind of… No, no, it's not… It's sort of there. No, it's still there. It's now dripping down a little bit. Maybe if you use a napkin somewhere that you could wipe it with.
2. Anger: http://www.youtube.com/embed/8VcoNbk3HVE
   Yesterday, I went to see my mother-in-law. It was actually her birthday the day before yesterday, but I couldn't go because I had a business meeting. And I bought her a very nice bunch of flowers. Very nice. And when I got there, she said, "What is this about?" And I said, "Well,

it is your birthday, Maria. Happy birthday!" And she said, "It's not my birthday; it was my birthday yesterday." So anyway, I really hope she liked the flowers.

3. Happiness: http://www.youtube.com/embed/x1S3IzTmf6A
   So, I went to my Pilates class after a really long time of absence of a few weeks, which you start to really notice if you haven't been. But the teacher is absolutely amazing. What she's really into is torturing us, basically. And she, she wants you to work really, really hard. And she says, "Oh, when I'm coming in a… You know, if I am in a bad mood, if I see you there and I can hear you groaning a little bit, and gasping and running out of breath, then I think "Brilliant, I'm really getting them to do some good work."
4. Fear: http://www.youtube.com/embed/T_5uBEYC8Wc
   So, I've got quite bad back pain, and it's been like that for about three weeks. It's really on my right side. And I suppose what I want to know is what… what it… you know, because I've tried doing some stretching but they haven't… haven't really worked at all. And I just kind of wondered whether you could tell me if you could exclude some things that it could be. It's just that I know that one of the indications is some kind of… I know this sounds stupid but… some indications of… And I know I'm probably fine but… some indications of… of… of… certain kinds of cancers can be… to do with back pain. And that's kind of when… I don't know, if you could just, kind of, eliminate it, that would be really helpful.
5. Surprise: http://www.youtube.com/embed/rHuCJ6rojzE
   So this is like a really beautiful restaurant. It's just really, really nice, and… I just, you know, kind of… Oh my god! Really? Yes, okay!
6. Sadness: http://www.youtube.com/embed/B-k3ivqrVDw
   So, yesterday, I went to see my mother in law. It was actually her birthday the day before that and I actually couldn't go. I was, you know, away working. So, I went the following day. And I bought her some flowers, and gave her the bouquet. And she was asking me why I bought her some flowers. And I said, "Well, because it is your birthday, Maria." And she said, "No, it isn't; it was my birthday the day before." So, yeah, well anyway, I really hope she liked the flowers.

CHAPTER 12

Rethinking Martin & White's AFFECT taxonomy

A psychologically-inspired approach to the linguistic expression of emotion

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Utterance production/interpretation depends unmistakably on emotional contexts. This makes the analysis of emotion in language fascinating and difficult, as it permeates all levels of linguistic description. Appraisal Theory is a powerful instrument intended to capture the subtleties of emotion in discourse. Its status as an open-ended tool, though, reveals a need for more sharply defined categories. Whilst the APPRECIATION subsystem has already been elaborated, AFFECT seems to require further refinement. In this chapter, we do so by using corpus evidence and drawing inspiration mainly from three psychological approaches to emotion: appraisal theories, construction theories and neuroscience. In emphasizing the notion of goal as the foundation of all emotion types, our revised model aims to describe emotional instances in more detail.

Keywords: appraisal, affect, emotion, psychology, linguistics

1. Introduction

When Martin & White (2005) developed Appraisal Theory, their aim was to comprehend the linguistic construction of social relations through alignment, which they reported to be realized by ENGAGEMENT, GRADUATION and ATTITUDE.[1] The scholarly attention attracted by the latter is probably due to its focal nature and its complexity. ATTITUDE helps to classify emotion and

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emotional talk through AFFECT, JUDGMENT and APPRECIATION. There is growing consensus about the desirability of treating AFFECT as conveying self- and other-report emotion, with JUDGMENT and APPRECIATION expressing opinion through emotion by attending to ethics and esthetics (Bednarek 2009a: 181). This refinement to the current theory was preceded by Bednarek's (2008) exceptional corpus-based modifications to the original AFFECT sub-system.

However, to our eye, despite the improvement represented by the latter proposal, it still appears to rely on folk concepts and intuitions to account for the substantial influence of emotion on all kinds of discourse. This said, we believe that the semantic domain of AFFECT should be enriched through a more explicit focus on affective psychology, as this may help to provide categories that can describe any instance of emotive language more accurately. As Thompson (2014: 64) argues, the flexibility and open-ended nature of the model leave much scope for endowing the current classification with greater reliability and fine-grained detail.

In view of the above, in this chapter, we examine the existing categories, redraw the boundaries between some of them, specify those that are only broadly defined and, at times, propose new labels. Before presenting our adjustments to the AFFECT subsystem, as inspired by psychological emotion theories and data from the *British National Corpus* (henceforth, BNC), we address some questions arising from our detection of several inconsistencies within the current taxonomy, hopefully to fill in some clearly challenging theoretical gaps. In this respect, one of our main priorities is to overcome the fuzziness of areas such as un/happiness and dis/satisfaction. Accordingly, for instance, we have come to conclude that pleasure, or the lack thereof, cannot be taken as one emotion subtype but a dimension that cuts across all the categories forming part of the AFFECT continuum. Likewise, as is well known, the adaptive function of emotions contributes to human survival and development; and at the core lie human goals, needs and values. In our scheme, in fact, goals now play a significant role. Given their crucial influence on our emotional experiences, they must also be regarded as the mainstay of the linguistics of emotion.

2. Appraising and re-appraising AFFECT

2.1 Rethinking ATTITUDE

Martin & White's (2005) Appraisal Theory offers one of the most comprehensive classifications available to explore linguistic evaluation. Its division into three areas allows researchers to delve into people's interpersonal construal of the world through their alignment with particular discourse entities (i.e. ENGAGEMENT), their positive or negative assessment of them (i.e. ATTITUDE), and their modulation of the evaluative responses pertaining to both former domains (i.e. GRADUATION). Of the three layers, ATTITUDE is the one that often receives most attention, so much so that it is treated as "focal" (Martin & White 2005: 39). At the heart of this area are feelings. AFFECT, one of the three ATTITUDE sub-systems, concerns our emotional reactions, while JUDGMENT and APPRECIATION capture our evaluation of people and things through their ethical or esthetic qualities, respectively (Martin 2000: 147; Martin & White 2005: 35). In their view, AFFECT is crucial to understanding the two other areas in that our evaluations are driven by the feelings generated when participating in any discourse practice (Martin & White 2005: 45).

Language, one very complex human phenomenon, does not occupy an unconnected compartment in our brain. Like any other cognitive process (e.g. decision-making), discourse processing and production are always filtered by emotion (Plutchik 2003: 48; Klann-Delius 2015: 141; cf. also Alba-Juez & Mackenzie, this volume). This is illustrated in Example (1), where, in response to the question *How are you*?, the speaker produces an utterance that, depending on the context, will be interpreted as worry, annoyance or some kind of underspecified negative affect.

(1) I've been waiting for you for six hours (*BNC*, H7A)

Even explicitly evaluative adjectives denoting JUDGMENT (e.g. *awful* in (2)) or APPRECIATION (e.g. *good* in (3)) seem to derive from one's affective state at a particular moment.

(2) And he has this **awful** friend, called Claude. (*BNC*, H7F)

(3) But it's a really **good** place to go to. (*BNC*, G4U)

Opinion statements convey the impression that the qualities ascribed to any entity are their inherent properties (e.g. *He is inherently awful as a friend*). However, psychologists and neuroscientists (Forgas 2003; Barrett 2017: 75) argue that our opinions stem from how we feel in relation to the entities concerned (e.g. *I don't like him; hence, he is a bad person*). This being the case, we believe, in line with Bednarek (2009b: 410–412), that one of the first steps towards a more psychologically-inspired Appraisal taxonomy could be to substitute AFFECT for ATTITUDE. *Attitude* in the psychological literature features as a global, sustained and stable standpoint in our memory associated with any entity of relevance to us (Forgas 2003: 596; Ferguson & Bargh 2008: 290). On these grounds, examples such as *I hate smoking* or *He is my best friend* encode generalized attitudes ingrained in the speakers' minds. Nevertheless, compared to these examples, where it may be hard to recall what triggered the emoters' reactions, (4) is less enduring in its denotation, as the emotion conveyed results from a particular situation.

(4) I **hated** you when you said he was like an angel! (*BNC*, FS2)

The term *attitude* thus seems too narrow in its scope, as it applies to generalized stances, but fails to capture the more temporary, event-driven nature of many instances. *Affect*, by contrast, extends to any feeling experienced as relatively un/pleasant and de/activating through which we communicate specific moods, attitudes, emotions, etc. (Ochs & Schieffelin 1989: 7, Lindquist et al. 2016: 580). Promoting AFFECT to the superordinate node in Appraisal involves reconsidering the labels for the original attitudinal regions. In this respect, Bednarek's (2009a: 181) division of the evaluative space into EMOTION and OPINION is undoubtedly useful. EMOTION encompasses terms referring to highest ranked emotion categories (e.g. *happy, sad*) and to the expressions ascribed to particular emotions based on their encapsulation of a range of triggering situations (e.g. (1) above), and/or physiological, motor and/or cognitive responses (e.g. (5a-c)).

(5) (a) *sweating, blushing*
(b) *jumping, hugging*
(c) *feeling helpless, in control*

OPINION statements such as (2) or (3) above also originate from AFFECT, but, unlike instances of EMOTION, the focus is on the evaluation of sentient and non-sentient entities by reference to our ethical or esthetic norms and values. Whilst all OPINION statements indicate valenced judgments and our feeling state (i.e. pleasant or unpleasant), only if the surrounding co-text affords a clear EMOTION reading, should we double-code the example as both OPINION and EMOTION. Example (6) illustrates one such case; while the passage explicitly denotes OPINION, the highly loaded opinion terms used (in bold) and the sense of injustice conveyed evoke an EMOTION script of anger in the reader's mind.

(6) That **bastard** Harley **dumped** me after I'd looked after him for nearly ten years [...]. (*BNC*, CS4)

Be that as it may, the potential of OPINION statements to signal specific EMOTION readings is an area deserving more attention from linguistic and psychological research; such collaboration would prove extremely fruitful in endowing the Russian doll syndrome that "bedevils" (Thompson 2014: 64) Appraisal coding with a higher level of reliability. For space constraints, this will not be further pursued in this chapter;[2] in the remainder, our focus will shift to the structure of Appraisal's EMOTION component.

2.2 Rethinking EMOTION

Table 1 outlines the changes discussed in Section 2.1 regarding ATTITUDE. In our attempt to make the current taxonomy more psychologically inspired, we delve into the building blocks of the EMOTION component.

Table 1. The previous ATTITUDE system and the new AFFECT system

ATTITUDE	AFFECT	**AFFECT**	EMOTION
	JUDGMENT		OPINION
	APPRECIATION		

Martin & White (2005) divide EMOTION into four groups: dis/inclination, un/happiness, in/security and dis/satisfaction. This classification originated in Martin's observations of his young son's evolving engagement with the world, particularly relative to his distress calls. These were interpreted as demands for his bottle (dis/satisfaction), his parents' affection (un/happiness) or his favorite blanket (in/security) (Martin 2000: 150, Martin 2017: 31). Whilst not denying the appeal of these categories, Martin (2000: 150) acknowledges that, in the absence of a "more principled basis for classifying emotions", the taxonomy should be treated as hypothetical, thereby offering scope for its improvement. One major attempt at reconsidering the current boundaries is Bednarek (2008), whose use of corpus data leads to a scheme whereby emotion terms can be classified "more realistically" (Bednarek 2008: 169). Her modifications, concerning in/security and dis/inclination, are summarized as follows:

i. *confidence* is re-labeled as *quiet*;
ii. *surprise*, originally under insecurity, is promoted to superordinate status;
iii. *distrust* occupies the gap left by *surprise*, featuring as the opposite of *trust* within security;

2. Semantic and discourse prosody (e.g. Louw 1993, 2000; Morley & Partington 2009), as well as some other concepts such as Schwarz-Friesel's *emotional implicatures* (e.g. Schwarz-Friesel 2015), are key to understanding the workings of EMOTION-OPINION, particularly in relation to their implicit realizations (e.g. where explicit OPINION implicitly evokes EMOTION, and the other way around). In Benítez-Castro & Hidalgo-Tenorio (in progress), we will test the revised taxonomy presented herein and, in so doing, will elaborate on the usefulness of applying psychological parameters to linguistic analysis, and on how these may help to uncover implicit EMOTION in discourse.

iv. *fear*, originally under disinclination, becomes part of *disquiet* within insecurity;
v. the gap left by *fear* is filled with the new subcategory of *non-desire*, becoming the opposite of *desire*.

Table 2 presents the taxonomy resulting from these changes. In our refinement of Appraisal's EMOTION, we draw on Bednarek (2008).

Table 2. Bednarek's (2008) EMOTION system

Dis/inclination	Desire	Non-desire
In/security	Security:trust	Insecurity:distrust
	Security:quiet	Insecurity:disquiet
Dis/satisfaction	Satisfaction:interest	Dissatisfaction:ennui
	Satisfaction:pleasure	Dissatisfaction:displeasure
Un/happiness	Happiness:cheer	Unhappiness:misery
	Happiness:affection	Unhappiness:antipathy
Surprise	Surprise	

In order to identify and address the gaps and improvement areas in the taxonomy, we must first examine the key defining features of each category:

i. *Dis/inclination* encodes instances of volition to engage with a stimulus (e.g. *aspire to*, *desire*), and unwillingness to do so (e.g. *refuse to*, *reluctant*). In Martin & White (2005: 48), dis/inclination encapsulates affectively positive desire (i.e. what you want to happen) and affectively negative fear (i.e. what you do not want to happen). Bednarek (2008: 166), by comparison, argues that, unlike the other EMOTION types (*surprise* excluded), this does not involve an affectively valenced distinction, but one based on polarity.
ii. *In/security* includes affective states pertaining to our "ecosocial wellbeing" (Martin & White 2005: 49), as in the tranquility experienced when the outer world is in sync with ourselves (i.e. quiet; e.g. *untroubled*, *at ease*); the feelings of safety derived from our belief in the reliability and goodness of another person or a future event (i.e. trust; e.g. *confident*, *optimistic*); the feelings of agitation when perceiving a threat (i.e. disquiet; e.g. *afraid*, *worried*); and the feelings of reservation concerning the reliability and goodness of another person or future event (i.e. distrust; e.g. *suspicious*, *pessimistic*).
iii. *Dis/satisfaction* is a set of emotions concerned with "the pursuit of goals" (Martin & White 2005: 49). Depending on our success level, we will feel interest or ennui, and pleasure or displeasure. We feel the former if our attention fluctuates between active engagement (e.g. *carried away*, *spellbound*) and

disengagement with ongoing stimuli (e.g. *bored*, *uninterested*); and the latter, after attaining our goals (e.g. *enjoy*, *content*) or failing to do so due to something impeding our progress (e.g. *annoyed, frustrated*).

iv. *Un/happiness* is the first group people mention when asked to list emotion types; that is why Martin & White (2005: 49) regard it as the most cognitively salient. Concerned with "affairs of the heart", it draws on a distinction between undirected moods and directed emotions. Moods signal feelings whose cause one may be unaware of, and are typically realized by relational processes (e.g. *I am happy*); conversely, directed emotions involve a trigger, and are realized by mental processes (e.g. *I like you*) (Martin & White 2005: 47). Although both are introduced as part of a subsystem that cuts across all EMOTION categories, their relevance is underscored within un/happiness in that cheer and misery (e.g. *glad, happy*; *sad*, *dejected*) are treated as moody emotions turning into affection or antipathy when directed at another entity (e.g. *like, admire*; *dislike, hate*) (Martin & White 2005: 49).

v. *Surprise* has been the subject of debate in the psychological literature, with some arguing that it is an affectively valenced state with distinct physiological and motor responses (Plutchik 2003; Soriano et al. 2015), and others describing it as a neutral cognitive state linked to the perception of novelty but lacking the physiology and expressions of emotions (Ortony & Turner 1990; Power & Dalgleish 2008). Martin & White (2005: 50) treat it as a negatively valenced state within *insecurity*, based on the sudden disruption of one's affect and cognition produced by any unexpected stimulus. Bednarek (2008: 164), however, posits that surprise is not intrinsically positive or negative; valence resides in the triggering event, but not the feeling. Martin (2017: 37) counters Bednarek (2008) by asserting that, whilst the lexical item *surprise* is associated with positive and negative affective states (e.g. *surprise and pleasure* vs. *fear and surprise*), there are other lexical items denoting surprise with a clear intrinsic valence (e.g. *stunned, astounded*). Corpus evidence reveals that some of the terms not investigated by Bednarek (2008) refer to positive or negative states.[3]

In redrawing some boundaries, Bednarek (2008) manages to overcome some of the ambiguities in the original taxonomy, as all categories (*surprise* excluded) are structured around polar opposites. This being the case, however, her revised classification still "incorporates fuzziness and gaps" (Bednarek 2008: 169). Although such fuzziness is to be expected given people's prototype-based construal of

3. In the *BNCweb* we can see that *shocked* and *stunned* generally conjoin with negative emotion terms (e.g. *shocked and angry/appalled/outraged*; *stunned and bewildered/speechless/angry*).

emotion concepts (see Section 3), the question arises as to whether, in refining the structure of EMOTION, we should focus solely on the need to provide categories accounting for authentic linguistic data (Bednarek 2008: 169), or whether we should strive for categories inspired by both linguistic and psychological authenticity. Bednarek (2009b and 2009c) brings the cognitive component into SFL EMOTION when discussing the importance of affect, emotion schemata and psychological cognitive dimensions (see Section 2.1), but does not reassess the validity of the existing SFL EMOTION taxonomy in light of the cognitive research reported in the articles.

Following our review of the current system, we will now identify the areas that seem to be in need of refinement. These will set the foundation for the more psychologically-inspired EMOTION system presented in Section 3. Of the five groups in the taxonomy, the way in which dis/satisfaction and un/happiness are conceptualized raises doubts from a psychological perspective. When applying the system, we are often faced with the difficulty of deciding between happiness:cheer and satisfaction:pleasure:

(7) She was completely **happy** that her semaphore message had saved Joe. (*BNC*, B0B)

(8) I'm **glad** that you got here so quickly. (*BNC*, H0D)

(9) Erika smiled, **pleased** that the little cloud had passed over. (*BNC*, A7A)

(10) I remember feeling really **satisfied** that we were changing the world. (*BNC*, HSL)

If we use the goal-based criterion that characterizes satisfaction:pleasure, all four examples above involve a feeling of achievement resulting from a successful move towards certain objectives relevant to the speaker or somebody else. Adopting the mood criterion of happiness:cheer also affords a satisfaction:pleasure reading: these instances are triggered emotions, as evidenced by the *that*-clause following each head adjective. However, Martin & White (2005) and Bednarek (2008) classify *happy* and *glad* under happiness:cheer, and *pleased* and *satisfied* under satisfaction:pleasure.

Bednarek (2008: 182) hints at the problematic nature of this dichotomy arguing that "there is some overlap between dis/satisfaction and un/happiness". To address this overlap, we must explore the psychological validity of the dimensions underlying both categories. The points raised in the following discussion are structured around a range of questions that, to the best of our knowledge, are relevant to refining and rethinking SFL Appraisal categories:

i. Do we not feel pleasure when we are happy?
ii. Do we not feel satisfied when we are happy? Why is happiness not also goal-related?
iii. Do we not feel momentarily happy after enjoying a good meal?
iv. Why are happiness and sadness treated as moods?
v. Do our feelings of affection and antipathy derive from happy and sad moods respectively?
vi. Do we feel satisfied when something interests us?

2.2.1 *Do we not feel pleasure when we are happy?*

One of the most striking features of the satisfaction/happiness distinction concerns the inclusion of pleasure only within satisfaction. Dictionaries define *pleasure* as "the feeling of happiness, enjoyment or satisfaction that you get from an experience" (*Longman Dictionary of Contemporary English*; henceforth, *LDCE*), suggesting its link to any positively valenced affective state. This is corroborated by dimensional emotion models, where emotions are said to derive from more basic affective components. One of the most salient dimensions is *valence*, i.e. the amount of pleasure/displeasure attached to a feeling as evoked by a particular trigger (Ellsworth & Scherer 2003: 577; Scherer 2013: 17). *Valence* is also crucial in neuroscientific research, as the hedonic tone of a stimulus activates the appetitive (approach) and defensive (avoidance) behavior guiding our emotional responses (Lang & Bradley 2008: 52, Kringelbach & Berridge 2015: 231). The language we use does not remain unaffected by our subjective experience, since valence, along with arousal, lies at the core of our conceptualization of any vocabulary item (irrespective of its more or less explicitly emotive nature) and our construal of verbal reports of emotion (Osgood et al. 1957; Barrett 2004; Fontaine et al. 2007). From this evidence, therefore, it is reasonable to conclude that pleasure/displeasure is not unique to dis/satisfaction; it affects the entire EMOTION domain, happiness included.

2.2.2 *Do we not feel satisfied when we are happy? Why is happiness not also goal-related?*

If *happy*, *glad*, *pleased* and *satisfied* in Examples (7) to (10) indicate pleasure, the question remains as to the status of satisfaction and the role of goals in the taxonomy. The *Oxford Advanced Learner's Dictionary* (henceforth, *OALD*) associates *satisfaction* with "the good feeling that you have when […] something that you wanted to happen does happen". The *Encarta Thesaurus* (2001: 1121–1122) lists it as denoting pleasure and elation, along with *happiness*, *delight*, etc. This is also shown in several psychological studies into people's structuring of the emotion lexicon, where *happy/happiness*, *satisfied/satisfaction* and similar items are grouped into one broad prototype family (Storm & Storm 1987: 812; Barrett 2004: 267), even to the extent of regarding *satisfaction* as one of four basic emotion categories (including *sadness, fear* and *anger*) (Kemper 1987).

In appraisal emotion theories, *satisfaction* is understood in its sense of "fulfilling a need or desire" (*OALD*). From this perspective, all triggers are evaluated in terms of their relevance and contribution to fulfilling our goals and needs. The more relevant and conducive an event or situation is to our goals and needs, the more satisfied we will feel; this general feeling of satisfaction, or lack thereof, may be labeled and modulated more specifically as *elation*, *contentment*, etc. Goals, therefore, do not determine only specific groups of emotions, as SFL Appraisal claims; psychologically, they constitute the hinge upon which we evaluate and respond emotionally to the world (Stein & Trabasso 1992: 227, Roseman 2008: 347, Ellsworth 2009: 37, Keltner et al. 2014: 4). Goals are emotion anchors even when they are not our own, but somebody else's; this other person, however, should be relevant to us for some reason. Our goals are also hierarchically structured, with some emotional experiences being triggered by higher-order motives (e.g. our bodily integrity) and others by more immediate ones (e.g. passing tomorrow's exam) (Ellsworth & Scherer 2003: 578). Returning to our two initial questions, happiness seems to be most likely an emotion category built upon a more general feeling of satisfaction triggered by our success in attaining relevant goals.

2.2.3 *Do we not feel momentarily happy after enjoying a good meal?*

Under Appraisal, the lexical items in bold below would be coded as satisfaction:pleasure. The goals and triggers involved, however, differ noticeably: (11) and (12) denote short-term states of sensory pleasure, or lack thereof, following one's consumption of more or less tasty food; (13), and especially (14), express more ongoing triggers and states where the feeling of sensory pleasure is rendered more complex by an active and conscious reliance on the emoter's socio-cognitive schemas.

(11) Got something nice for tea […] I done some fresh plaice and some scallops […] I so **enjoyed** it […] (*BNC*, KBE)

(12) […] the mound of teacakes began to go down, but not everyone was **pleased** with what they were given. (*BNC*, ACK)

(13) González, who said that he was **pleased** by the progress made […] in stabilizing the economy, announced further measures […] (*BNC*, HKU)

(14) I very often miss nursing. I thoroughly **enjoyed** it. […] I didn't ever seem to get the same sort of **satisfaction** […] as I did out of seeing a patient recover, which was something you'd helped them to do. (*BNC*, EBR)

Previous psychological research on happiness has shown that feeling happy encompasses the physical pleasures resulting from our satisfaction of a range of bodily and sensory needs (e.g. enjoying a drink, a movie), as well as the more social pleasures evoked by our achievements as members of particular social groups (e.g. enjoying your job, winning a race). This translates into a contrast between two kinds of happiness: *hedonic* and *eudaimonic* (Power & Dalgleish 2008: 322, Berridge & Kringelbach 2016: 133).

Eudaimonic happiness transcends hedonic feelings to incorporate a more conscious assessment of the social purpose and meaning of the activities we engage in (Dolan & Kudrna 2016: 441–443). In this respect, Csikszentmihalyi (1990: 50–52) argues that physical pleasures do not guarantee happiness; we need enjoyment to lead truly fulfilling lives. To feel enjoyment, we must do activities we feel capable of but which are challenging enough to keep pushing us towards a more complex version of ourselves; once our psychic energy is fully focused on one of these activities, we will start experiencing *flow*, a kind of eudaimonic happiness. Example (14) above nicely illustrates this type of happiness, as shown in the enjoyment derived from helping patients to recover. To answer our opening question, when saying that we enjoyed a good meal, we are revealing our happiness, although of a short-term hedonic kind that stands in contrast with a more socially-oriented sense of meaningful and purposeful achievement.

2.2.4 *Why are happiness and sadness treated as moods?*

The psychological literature distinguishes *moods* from *emotions*, based on their being more long-lasting and lacking a specific trigger (Frijda 2009: 259, Scherer 2013: 24). This description is echoed by Martin & White (2005: 47), except for their emphasis on the lexicogrammatical realization of moods by relational attributive processes and of emotions by mental processes. In their view, the central position of the trigger in a mental process (i.e. Direct Object: *She loved* <u>*the idea*</u>; Subject: <u>*The idea*</u> *pleased her*) justifies treating the example as a triggered emotion; nevertheless, when functioning as Complement in a Subject Complement (e.g. *I was sad* <u>*about that*</u>), the affective state is claimed to be mood-like. We believe that, although for coding purposes it is interesting to consider the trigger's syntactic realization, we cannot use this criterion to distinguish between moods and emotions, since mood-like adjectives such as *cheerful* or *miserable* may be construed as moods (see (15)) or triggered emotions (see (16)). We agree with Storm (1996: 289) that, whilst certain adjectives favor either moody or triggered realizations (e.g. *gloomy* vs. *distressed*), this distinction depends on the saliency of the trigger, with many words accepting both readings.

(15) I felt **cheerful** and reasonably well during the first pregnancy. (*BNC*, CCN)

(16) She's **miserable** that it all has to end. (*BNC*, FYV)

2.2.5 *Do our feelings of affection and antipathy derive from happy and sad moods respectively?*

In Martin & White (2005: 49), affection and antipathy feature as two emotions triggered by "the moods of feeling happy or sad". This description, however, begs the question of whether our likes and dislikes are distinct emotions, or preferences construed on happy and sad moods. The emotion literature supports the happiness origin of affection or liking. In Johnson-Laird & Oatley (1989: 99), Power & Dalgleish (2008: 342) and Fontaine & Scherer (2013: 119) love is a happiness-driven non-basic emotion. As for hatred, its corresponding basic emotion is not sadness, as in SFL Appraisal, but anger (Power & Dalgleish 2008: 285, Fontaine & Scherer 2013: 119) or disgust (Johnson-Laird & Oatley 1989: 99, Plutchik 2003: 74). Its association with the former is understandable from examples such as (17), showing how we often construe punctual displays of anger in hatred terms.

(17) 'You're lying! I **hate** you!' she shouted **angrily** […]. (*BNC*, GWH)

Nonetheless, this connection does not always apply, as you may hate someone without feeling angry, and feel angry with someone you do not hate (Johnson-Laird & Oatley 1989: 99). Similarly, we may like or love somebody or something without feeling generally happy, since perhaps several other areas of our life lack the meaning and purpose underlying eudaimonic happiness (see Section 2.2.3). From this standpoint, affection and antipathy might be described as a separate group. Unlike sadness or anger, which are typically event-driven, affection and antipathy are identified as generalized interpersonal relations, attitudes, plots, preferences and stances felt vis-à-vis particular entities (Storm & Storm 1987: 812, Ekman 1999: 55, Scherer 2013: 24). These are akin to attraction and repulsion forces compelling us to approach or avoid the entity in question (Talmy 1988; Kövecses 2000), as based on several previous un/pleasant associations with the entity (e.g. being irritated or praised by somebody every day) (Berridge & Kringelbach 2016: 136), or on intuitive preferences such as liking somebody or something without knowing why (Mcclure & Riis 2009: 313). Further evidence proving the separate emotion status of affection and antipathy lies in their distinct social functions. Affection rests on a general motivation to affiliate with other people and entities, and to maintain such bonds, while antipathy reveals a hostile motivation aimed at moving away from whatever may pose a danger to our in-group (Fischer & Manstead 2008: 457, Keltner et al. 2014: 41–42).

To conclude, all the evidence in this section appears to prove the feasibility of rethinking affection/antipathy in SFL Appraisal as a semantic area in its own right. The best candidates in this group are those signaling affection or antipathy relations evoked by intuitive preferences, as in (18), or by generalized attitudes resulting from prior experiences, as in (19).

(18) I really **liked** your trousers […] the material […]. (*BNC*, KP3)

(19) I never **liked** his wife or the daughters, they always thought they were something. (*BNC*, KDN)

Example (20) below uses the same lexical item (*like*) but the emotion is more temporary: it refers to a feeling of enjoyment triggered by a particular event (i.e. meeting Albert Finney), justifying its treatment as happiness (see Section 2.2.3). This suggests a cline between clear affection/antipathy interpretations of a word, and other uses affording a more eventive and short-term reading.

(20) I really **liked** meeting Albert Finney. It was nice to sit there and have a chat […]. (*BNC*, K4P)

2.2.6 *Do we feel satisfied when something interests us?*

The emotion literature has explored this question from two positions: interest as a positively valenced emotion (Tomkins 1962; Izard 2007) or as a cognitive state for which only arousal is salient (Storm & Storm 1987; Ortony & Turner 1990). In SFL Appraisal, the inclusion of interest within satisfaction indicates an adherence to the first position. Dictionary entries for *satisfaction/satisfied* and *interest/interested*, however, do not reveal such conceptual correspondence: *interest/interested* is defined as the feeling experienced when our attention is captured by a stimulus and we "want to find out more about it" (*LDCE*), while *satisfaction/satisfied* involves a feeling of happiness or pleasure experienced when "you have achieved something or got what you wanted" (*LDCE*). Similarly, in the Encarta Thesaurus (2001: 1121–1122), *satisfied* and *happy* or *delighted* are categorized as indicating Pleasure, whereas adjectives such as *interested, immersed* and *absorbed* are part of the Pensiveness and Interest family. Examples (21) to (23) illustrate the often tenuous connection between interest and satisfaction:

(21) I was **interested and depressed** […] to read Richard Smith's editorial highlighting exactly why we have problems in attracting adequate candidates […] (*BNC*, EC7)

(22) 'I want you to join a scientific team […]' Kim narrowed his eyes, **interested but also wary**. (*BNC*, G04)

(23) […] I was **curious** to see what she meant by 'laying out'. So, avoiding Granny's staring eyes, I watched Mum, Mrs Taylor and the big-bosomed woman […] lift Granny with some effort out of her chair and up the creaky stairs. I stood **engrossed** by this until I heard the rocking chair creak […]. (*BNC*, CDM)

Interest (i.e. *interested*, *curious, engrossed*) signals cognitive engagement with a situation or event, as well as a desire to learn more about it, but it may occur with states of unhappiness (as in (21), i.e. *depressed*) or distrust (as in (22), i.e. *wary*), which we would not associate with satisfaction. As regards (23), the speaker's curiosity indicates a sustained effort to pay attention, but it is unclear whether, in witnessing this event, there was a feeling of pleasure or enjoyment. This evidence, however, does not mean that interest and enjoyment cannot co-occur; they do, but only when the event or activity in question evokes previous similar experiences where the cognitive and volitional effort derived from our interest triggered a feeling of pleasurable goal achievement. As Ainley & Hidi (2014: 212) explain, many medical students feel a mixture of interest and disgust when first facing corpse dissection, since, despite its novelty and complexity, it feels inherently aversive. Nevertheless, as they become more knowledgeable about the human body, their initial interest mingles with a feeling of pleasurable enjoyment. Examples (24) and (25) also show this initial dissociation and subsequent gradual conflation of interest and enjoyment. In (24), *even* indicates that *interest* and *enjoyment* are conceptualized as two separate states, with one expressing the attention Nellie was devoting to the trip and the other referring to the pleasure she seemed to derive from her eager anticipation. Example (25), in contrast, reveals how the activities we enjoy are also those that attract our attention.

(24) […] Nellie was beginning to **take an interest**, and **was even enjoying herself** as they sat in the bus. He asked if she was looking forward to the sea voyage. 'Oh, I am', she said […] (*BNC*, ATE)

(25) What I **like** doing, what **interests** me particularly, is the fusion of different discourses. (*BNC*, G1N)

To better understand the interest/satisfaction distinction, we will turn to neuroscience. Some studies into the nature of pleasure have discovered a link between pleasure and liking brain systems, and between interest and wanting mechanisms (Kringelbach & Berridge 2015: 233, Berridge & Kringelbach 2016: 136). Liking systems bring into focus the hedonic impact evoked by our successful interaction with, or consumption of, a rewarding stimulus producing the calm sensation associated with satisfaction. Conversely, wanting systems propel us into engaging with our environment, giving us energy to look out for potential rewards. The dopamine circuits underlying these systems do not produce the pleasurable sensations triggered by our liking mechanisms; they motivate us to assess the incentive salience of any novel stimulus. The more rewarding a stimulus appears to be, the more willing we will feel to engage with it. Silvia (2008: 58) argues that this willingness to become cognitively involved (i.e. interest) stems from appraising a stimulus as new, unfamiliar and complex, but within our grasp. If the stimulus is too complex or incomprehensible, we will feel confusion or anxiety; or boredom, when it is too easy or familiar (Csikszentmihalyi 1990: 72).

From the above, we can conclude that interest is a cognitive state of sustained attention occurring with a positive or negative valence, which energizes us to engage with stimuli that may prove rewarding. Psychobiologist Jaak Panksepp (1998) regards this state as forming part of a primitive neural circuit in our brain termed the SEEKING system. Considered as the "primordial emotional system of the brain" (Panksepp & Moskal 2008: 71), it arouses our curiosity relative to the new stimuli around us, focusing our attention, and subsequently making us want to explore potentially pleasurable ones. Thanks to this system, we feel interest and desire; without it, we may feel bored, unmotivated and, if its absence endures, even depressed (Webb & Pizzagalli 2016: 859). With this in mind, for the sake of psychological authenticity, the way dis/interest is treated in Appraisal could be reconsidered in terms of a new structure where it is moved out of dis/satisfaction and into a new cluster encompassing interest, inclination and surprise (see Section 3.1). These three categories share their more explicit cognitive nature, their more ambiguous intrinsic valence and their association with people's "internally driven search for novelty" (Ainley & Hidi 2014: 210). They differ in terms of the degree of salience of novelty and motivation. In surprise, novelty stands out, as the focus is on one's momentary cognitive agitation following the perception of an unexpected event or situation, as in (26):

(26) She looked at me, slightly **surprised**, as if she had not expected me to be interested. (*BNC*, CEX)

As for interest, the emphasis is also on the perception of novelty but, unlike surprise, it requires more active and sustained attention, and an ensuing motivation to learn more about the event or situation, as in (27):

(27) The forlorn scene **fascinated** Eliot and in spite of the cold and the drizzle he stayed […]. (*BNC*, EFX)

As regards desire, it is the motivational dimension that is highlighted, since the focus lies on one's inner drive to engage with a stimulus perceived as potentially rewarding, as in (28):

(28) […] Alice **craved** and **longed**. Oh, she did so **hope** that Jasper would not be late […], would **want to** go out. (*BNC*, EV1)

3. Towards a more psychologically-inspired EMOTION taxonomy

Section 2 has cast light on the descriptive power of SFL's EMOTION taxonomy. Its gaps and fuzzy areas, however, underscore the need to draw explicitly on the workings of our mind, as it is there where our emotion concepts are stored and our emotional experiences processed. Without an input from psychology, any attempt at capturing the linguistic expression of emotion will rely on folk conceptualizations that, whilst accurate from the researcher's standpoint, lack psychological validity (see Butler 2013). Similarly, a psychological study of emotion overlooking the verbalization of our affective experiences loses sight of the mechanisms underlying people's conscious awareness and communication of their emotions. In this regard, we share Reilly & Seibert's (2003: 535) view of the importance of combining linguistics and psychology to explain the nature of emotion (see also Alba-Juez & Pérez González, and Dewaele, Lorette & Petrides, this volume).

To make the most of this combination in our revision of SFL EMOTION, we need to explore the concept of *emotion* itself. Despite the wide-ranging views on their origin and functioning, psychologists agree that emotions are neurophysiological processes emerging from our perception of an event, situation or entity as relevant, beneficial or harmful to our goals, needs or values. In detecting the relevance of a stimulus, our physiological, motor and cognitive systems are set in motion to help us to respond in a biologically adaptive and contextually appropriate way (Frijda & Scherer 2009: 142–144, Keltner et al. 2014: 27). The role of language is essential in this process, as it is the means whereby our emotion concepts take shape.

For the sake of cognitive efficiency, the spectrum of emotion labels language provides is mentally organized into more basic prototypes, scripts, scenarios or schemas through which we interpret our feelings (Fehr & Russell 1984; Shaver et al. 1987; Wierzbicka 1999; Izard 2007). In this sense, emotion terms such as *glad*, *joyous* or *ecstatic* tend to be conceptualized as part of one prototypical concept of happiness indicating any "successful move towards or completion of a valued role or goal" (Power & Dalgleish 2008: 99). Each emotion term is processed through its resemblance to the prototypical members of a given category, resulting in conceptual boundaries that are fuzzy and, at times, indeterminate. From this perspective, an emotion is not a biological entity with distinct neurophysiological fingerprints; it is a concept mediated through our culture and language that names "a population of diverse instances" (Barrett 2017: 39) with a common goal (cf. also Wierzbicka 1999). Each major category is mentally structured around profiles or scripts summarizing the most frequent (but not necessary) behaviors and responses underlying the typical components of an emotional experience (Scherer 2013: 27).

An instance of extreme anger like (29) shows three of these components: the antecedent (i.e. *being told it happened earlier*), the awareness of the emotion (i.e. *I was furious*) and the subsequent motor reaction (i.e. *shouting*).

(29) He told me it happened 10 days earlier. I was **furious** and shouted: 'Why didn't you come sooner?' (*BNC*, AJU)

Not all experiences of fury, however, involve the same trigger or the same reaction; these are only part of prototypical instances to which the concept of *fury* may be applied. That is, they are "tactical, context-determined actions" (Lang & Bradley 2008: 53) typically co-occurring with certain labels, but not always; in (30) and (31), crying and smiling, prototypically associated with sadness and happiness, are here reactions to experiences of happiness and sadness, respectively.

(30) He **cried with happiness** […] (*BNC*, GUS)

(31) The girl […] **smiled sadly**. (*BNC*, FRK)

From the above, it follows that our linguistic encoding of emotion is "organized as a prototype […], with core, better and worse members, and family resemblances" (Bednarek 2008: 168). Sections 2.1 to 2.6, however, reveal that the boundaries in the current EMOTION system are not as cognitively accurate as they appear. To help us to reconsider some of these boundaries, we have drawn mainly on three psychological approaches to the study of emotion: appraisal theories, construction theories and neuroscience. Whilst we have been inspired by the basic or most general tenets of all three perspectives, our reformulation has been built up in the main on appraisal theories, especially on the Component Process Model of Emotion (Scherer 2009; Fontaine et al. 2013; see also Benítez-Castro & Hidalgo-Tenorio in progress).

Appraisal theories (Ellsworth & Scherer 2003) hold that our emotions derive from our evaluation of the impact of any event, entity or situation on our general well-being, or on specific goals or needs. Our appraisal of the relevance, goal-conduciveness and implications of the stimulus leads to the activation of our physiological and motor systems, producing a complex subjective feeling that reaches our consciousness and which we use to communicate our experience.

Construction theories (Barrett 2017) differ from appraisal theories in the more integral role assigned to linguistic categorization. In their view, our emotions are driven by conceptual acts whereby we interpret our inner core affect (i.e. valence and arousal) in terms of families of emotion concepts formed from previous similar experiences. From this perspective, emotions are goal-related constructs rooted in our culture and language that help us to make sense of our bodily feelings in relation to our goals (e.g. feeling unpleasantly agitated in an unfair situation, and interpreting the feeling as anger). Without these language-based concepts, we are experientially blind, as illustrated by occasions when we feel unpleasantness (e.g. *bad*) or activation (e.g. *restless*) but cannot ascribe this feeling to one emotion category.

The goal-related nature of our emotions is also highlighted by neuroscientists (Lang & Bradley 2008), who claim that our feelings of dis/pleasure are closely intertwined with the brain's appetitive and defensive motivational systems.

Additionally, we have also turned to basic emotion theories to find out about the emotions most frequently cited in empirical research into their most salient motor expressions, and in listing experiments revealing people's prototype-based construal of the emotion domain (Storm & Storm 1987; Ekman 1999). The most frequently mentioned emotions are happiness, sadness, anger, fear, disgust and surprise, in that order.

Despite some differences, the emotion literature agrees on the major influence of goals and needs in the antecedent stage of the emotional experience (i.e., Is the stimulus relevant to my goals and needs?), and in the motivation it engenders (i.e., Am I inclined to approach or avoid the stimulus?). Goals have also been emphasized in linguistic evaluation (Hunston 1993: 63, Thompson & Hunston 2000: 14), where the axiology of an entity or proposition is said to rely on its perceived contribution to achieving a goal (i.e. it is good, if goal-conducive; bad, if goal-obstructive).

Accordingly, to endow SFL EMOTION with more psychological authenticity, we need to promote goals from a subsidiary position in the current taxonomy (where they apply only to dis/satisfaction) to becoming the key organizing principle in our model. Based on the premise that the mind is a "functional, goal-directed system" (Power & Dalgleish 2008: 131), we have divided the emotion spectrum into *goal-seeking emotions*, *goal-achievement emotions* and *goal-relation emotions*. Below we describe each conceptual group in turn.

3.1 Goal-seeking emotions

Table 3. The goal-seeking group

Goal-seeking emotions	**Attention-grabbing**	Surprise	
		Interest	Interested
			Uninterested
	Inclination	Inclined	
		Disinclined	

This category revolves around Panksepp's (1998) SEEKING system (see Section 2.2.6), which keeps us cognitively engaged with the happenings, situations and entities in our environment. To explain how our psychic energy is directed to particular stimuli, we distinguish between *attention-grabbing* and *inclination* emotional experiences. This suggests a cline from *surprise*, covering instances of immediate attentional focus on an unexpected stimulus; through *interest*, where our attention is captured by novel and complex stimuli making us want to invest a sustained effort to learn more about them; to *inclination*, where our mind is set on obtaining a potentially pleasurable stimulus. Surprise draws on the perception of novelty and unexpectedness; interest involves attention and motivation; and inclination is about motivation. The more marked cognitive focus of these affective states reduces the salience of the valence dimension, as one may feel surprised, interested or desirous, but perhaps not intrinsically pleased or displeased. In these instances, valence emerges from the co-text, particularly if the lexical item denotes high intensity. For example, *desperate* and *crave* below indicate an inclination that, from the harrowing context in (32) and the bleak situation in (33), could be interpreted as a negative desire akin to extreme concern in (32) and deprivation in (33).

(32) But although I was in great pain, I was **desperate** to know if Magwitch was safe. (*BNC*, FPU)

(33) Flora **envied** them because all the things she **craved** in life they could buy cheaply in the NAAFI. (*BNC*, CMJ)

With the exception of *uninterested*, all the other descriptive labels used here are taken from Bednarek's (2008) taxonomy. We decided to relabel *ennui* as *uninterested* to provide a term perhaps more transparent in its denotation, mirroring the morphologically negated opposites of the other categories. In line with Hupka et al. (1999: 256), we considered the possibility of including *expectedness* as the opposite of surprise. Nevertheless, we realized that, whilst sudden and unexpected events may trigger an emotional experience of surprise (Soriano et al. 2015: 438), expecting something to happen is an experience we could classify under the security group of emotions, because it signals a high level of confidence as to the likelihood of something happening.

3.2 Goal-achievement emotions

Table 4. The goal-achievement group

Goal-achievement emotions	**Satisfaction**	Security	Quiet	
			Trust	Confident
				Trusting
		Happiness	Hedonic	
			Eudaimonic	
	Dissatisfaction	Insecurity	Disquiet	Confused
				Anxious
				Fearful
				Embarrassed
			Distrust	Doubtful
				Mistrustful
		Unhappiness	Anger	Frustrated
				Angry
			Sadness	

In goal-achievement emotions, the valence dimension becomes essential, as the focus is on the feeling of dis/pleasure itself, derived from events or situations with a bearing on our goals, needs and values. We distinguish between *satisfaction* and *dissatisfaction* emotion categories, the former concerned with any instance of success in attaining or maintaining our goals, needs and values, and the latter with cases of inability, threat or blockage in trying to pursue or keep them. The SFL Appraisal dis/satisfaction dichotomy is thus retained, but now applies to a wider range of emotional experiences.

The in/security area, treated separately in the original taxonomy, is now within the bounds of dis/satisfaction, based on the cognitive similarity among *happy*, *satisfied*, *relaxed* and *quiet*, and among *angry*, *nervous, disappointed* and *sad* (Barrett 2004: 267, Plutchik 2003: 78). Security feelings arise whenever our outer and inner worlds are consistent with our goals, while insecurity stems from situations where our well-being or a specific goal is threatened. Although Bednarek's (2008) dis/quiet and dis/trust remain unchanged in our revised system, for the sake of more descriptive detail, they are split into several subtypes.

The confident/doubtful contrast in our taxonomy rests on one's certainty and assurance as to the truth and/or likelihood of a particular event or situation (e.g. *certain*, *optimistic, expect*, *foresee* vs. *uncertain, pessimistic, reservation, suspect*), while the trusting/mistrustful distinction signals one's secure attachment to people inspired by a belief in their honesty and goodness. Therefore, *trust* in (34) would be coded as security_trust_trusting, while in (35) it would be analyzed as security_trust_confident.

(34) I don't ask about your affairs […] I **trust** you. (*BNC*, FP7)

(35) I **trust** that with spring just round the corner you will feel better. (*BNC*, ADS)

As to disquiet, the unpleasant cognitive arousal it denotes may be characterized in terms of confusion (e.g. *puzzled*, *mixed up*), signaling a perceived inability to understand something (Storm & Storm 1987: 813), as in (36); anxiety (e.g. *worried*, *troubled*), revealing our ongoing ruminations on vague and, at times, unfounded threats (Power & Dalgleish 2008: 177), as in (37); fear (e.g. *scared, petrified*), triggering a quick fight or flight response to an imminent or current menace (LaBar 2016: 751), as in (38); and embarrassment (e.g. *abashed*, *ashamed*), or a feeling of unwanted exposure after something happens or we do something that violates a social (rather than moral) standard (Wierzbicka 1999: 113), as in (39).

(36) I knew I hadn't done anything to Joanna and at the same time I was totally **confused** as to how it could have happened. (*BNC*, A70)

(37) 'I often **worry** that my other two children are suffering […]' However, Kathleen's daughters […] are quick to contradict their mother. (*BNC*, EFG)

(38) […] the clergyman's daughter […] ran off **terrified** when she saw the fearsome-looking tramp […]. (*BNC*, CBN)

(39) I'm all **embarrassed** cos my mac's all with the pee. (*BNC*, A74)

Turning now to un/happiness, satisfaction and happiness are now conflated into a more inclusive category. As discussed in Section 2.2.3, fleeting sensory pleasures, or *hedonic happiness* (e.g. (40)), normally related to our most basic needs (e.g. food, drink, sex), are distinguished from cases of *eudaimonic happiness* (e.g. (41)), where the fulfilment of more social needs is apparent (e.g. having friends, family, stability).[4] Eudaimonic experiences trigger feelings of positive social fulfilment and purpose that transcend the mere pleasurable sensation linked to more basic hedonic states.

(40) As I **enjoyed** the stew I looked at my watch […] (*BNC*, A61)

(41) I was **delighted** and **over the moon** to hear that I was the father of a blue-eyed, black-haired baby girl. (*BNC*, CH2)

4. See Maslow's (1943) hierarchy of needs.

Unhappiness, originally applying only to misery, now covers sadness and anger. This is based on dictionary evidence suggesting two senses: one of them synonymous with *sadness* and the other with your feeling "annoyed because you do not like what is happening in a particular situation" (*LDCE*). Further support for this modification lies in the combined influence of both emotions in episodes of emotional distress (Power & Dalgleish 2008: 229), as in (42):

(42) I was **sad and angry** that he should want to place a bolt […] **peeved** that my own route – Centrefold – had been usurped. (*BNC*, A15)

Their potential co-occurrence, however, does not mean that they are cognitively and experientially alike. Sadness concerns our perception of loss or defeat in our attempt to achieve or maintain a role or goal (Webb & Pizzagalli 2016: 859). When feeling sad, there is little or nothing we can do to reverse the effects of the undesirable outcome, creating a sense of energy drain that makes us divert our attention away from other goals (Shaver et al. 1987: 1077). Example (43) illustrates the defeat, listlessness and attentional focus accompanying experiences of sadness. This is also evident in (44), where the perception of loss is verbalized.

(43) If only she could have seen me […] Sitting **drooped** over walls, utterly **dejected**. I felt the full force of her criticism. (*BNC*, FR3)

(44) […] Mrs Cooper […] suffered two miscarriages […] '[…] it takes time to unthink yourself pregnant. I felt really **down** when the baby was due and there's still a sense of **loss**.' (*BNC*, K54)

With anger, the emphasis shifts from loss or defeat to the thwarted attainment of a goal. This often results from an attribution of unfairness and deliberate provocation to a specific situation or person. Unlike sadness, where one feels incapable of changing the negative outcome, the angry person feels determined to confront the situation or person, in the belief that the obstacle can be removed (Harmon-Jones & Harmon-Jones 2016: 776). In our revised taxonomy, we distinguish between two anger states: *frustrated* and *angry*. *Frustration* is a feeling of impatience derived from our perceived lack of control over a situation we thought to be manageable (Wierzbicka 1999: 72, Harmon-Jones & Harmon-Jones 2016: 779). When frustrated, we unsuccessfully try to change the undesirable situation by putting some effort into it, leading to a kind of unpleasant contained annoyance, as in (45). This sense of perceived irritability is also apparent in (46):

(45) She was very, very **frustrated** cos she couldn't speak […] And she couldn't write anything down. (*BNC*, KBC)

(46) I get very **impatient** when I hear arguments about whether the whales are going to extinction […] if you say 'no, they aren't', then to hell with them. (*BNC*, B04)

If sustained and reaching high levels of unpleasant arousal, our frustration may turn into *anger*, and, subsequently, aggressive behavior (Roseman 2008: 357, Berkowitz 2009: 188), as in (47) and (48):

(47) […] he was so **mad** that he got a knife to scare them. (*BNC*, K23)

(48) The artist became so **angry** that he started to slash the canvas. (*BNC*, ANF)

3.3 Goal-relation emotions

Table 5. The goal-relation group

Goal-relation emotions	**Attraction**	Liking
		Affection
		Respect
		Sympathy
		Tolerance
	Repulsion	Disgust
		Antipathy
		Disrespect
		Indifference
		Intolerance

As explained in Section 2.2.5, goal-relation emotions signal more or less instinctive attitudes permeating our interaction with certain entities, often going beyond specific events and situations where those entities were involved (as in the goal-achievement emotions) to a generalized valenced focus and stance on the entities themselves. We distinguish between two kinds of affective relations: *attraction* encodes instances where X feels positively attracted to Y, and *repulsion* refers to cases where the emoter's aversion is apparent. The *attraction/repulsion* contrast replaces SFL's *affection/antipathy* to accommodate a wider range of options. Particularly, *affection* involves a sense of care missing, for example, in cases of esthetic preference. The subcategories in each group are based on Shaver et al. (1987: 1068) and Storm & Storm (1987: 811–812 and 2005: 348).

As far as *attraction* is concerned, *liking* (e.g. *like*, *fond of*, *keen on*) applies to simple sensory, esthetic or intellectual preferences towards things, as in (49), or people, as in (50).

(49) Those prawn things? Oh, I **like** them but I **prefer** the crisp ones. (*BNC*, KCA)

(50) I **liked** him when I met him and I still **like** him now. (*BNC*, AAC)

Affection (e.g. *love, warm*, *attached to*) involves a high level of personal involvement, leading to X's willingness to look after and nurture Y. Example (51) illustrates the contrast between the sensory liking preference associated with sexual attraction, and the tenderness and concern accompanying affection. Example (52) shows these tender feelings of affection towards a pet:

(51) Sabrina was the only person he had ever **loved**. 'It was more than just a **sexual attraction** between us. I **cared about** her […]' (*BNC*, CEM)

(52) […] the emotionally more disturbing death of Minto's dog […] they had grown **much attached** to him and could hardly endure the thought of his death. (*BNC*, A7C)

Respect (e.g. *reverence, awe*, *worship*) is more cognitive in nature; it implies our positive appreciation of another entity in terms of outstanding qualities, skills or achievements, as in (53). Respect and affection frequently co-occur, as in (54):

(53) But I think some of the best photographers are women. I really **look up to** people like Mary Ellen Mark. (*BNC*, APL)

(54) He was a forthright man who made enemies, but was **loved** and **respected** by his friends. (*BNC*, GUF)

Sympathy, bordering on sadness, is a feeling of fond attachment towards a distressed entity (e.g. *pity*, *compassion*, *empathy*). Example (55) shows a combination of this nurturing feeling (i.e. *sorry*) with the kind of sensory attraction coded as *liking* (i.e. *fancied*):

(55) […] I never saw him talk to anybody. […] He had blond hair, light eyes and a thin face. I suppose I **fancied** him although I told myself that it was just that I felt **sorry** for him. (*BNC*, A0U)

Finally, *tolerance*, closer to the *repulsion* family, refers to situations where we accept certain people or things even when feeling aversion (e.g. *tolerate*, *accept*, *admit*). In (56) we can see the contrast between affection and tolerance; in (57), the connection between tolerance and antipathy:

(56) […] we were the first to really '**love**' children while other restaurants **tolerated** them. (*BNC*, HC4)

(57) They had **despised** him, **tolerating** him for his share of the rent. (*BNC*, CEB)

Turning now to *repulsion*, *disgust* features as the most visceral kind of aversion (e.g. *squeamish*, *sickened*, *yuck*). It draws on our appraisal of the trigger's potentially polluting and noxious nature, producing a nauseating sensation that makes us reject any physical contact with the entity. Rozin et al. (2016: 817, 821) distinguish between the physical kind of disgust, termed *core*, and the *moral* subtype; this is linked to our evaluation of a person as "degraded, base, or subhuman" (2016: 821), based on their socially improper actions. Whilst moral disgust could be treated as anger (Shaver et al. 1987: 1069), we agree with Rozin et al. (2016: 822) on labeling it as disgust proper, since its physical sensations (metaphorically expressed) are often similar to those of core disgust. Additionally, the kind of motivation it engenders is one of rejection. Example (58) represents an experience of physical disgust evoked by the presence of dead bodies; conversely, (59) illustrates the moral subtype, as indicated by the embodied metaphors verbalizing the solicitor's reaction to the police's action.

(58) Another former passenger […] said he was **sickened** by the smell last October. (*BNC*, CH6)

(59) Police were accused yesterday of leaking a secret report […] Solicitor James Nichol said he was '**sickened and disgusted**' […]. (*BNC*, CH2)

Antipathy involves generalized hostility towards a person or thing, without the visceral component typical of disgust (e.g. *hate, abhor, hostile*). Although it frequently results from a series of angering events, we may hate somebody but not recall the cause, as in (60); what stands out is a feeling of antagonism towards the "mere existence of the hated" (Miller 2009: 204). Unlike reactions of disgust, which are more punctual, experiences of antipathy are normally more enduring (Power & Dalgleish 2008: 285). This distinction is exemplified in (61); while *disgusting* signals X's gut reaction to one offensive stimulus, *hate* denotes an ongoing negative disposition towards Y:

(60) […] for a panicky moment Maria couldn't remember why she **hated** him […]. (*BNC*, H9L)

(61) […] I **hate** people that are biased, like the new Madonna book. That book's **disgusting**! […] (*BNC*, KPG)

Disrespect is a special type of antipathy derived from a strong belief in certain entities' inferior status, making us feel that these deserve no consideration (e.g. *contempt*, *disdain*, *look down on*). Examples (62) and (63) are two cases in point.

(62) When Benn puts himself in my face and tries to **discredit** and **disrespect** me, I take that *personally*. I am not a street fighter […] (*BNC*, ACP)

(63) Most of the other mothers **looked down on** her because she was single. (*BNC*, JY0)

Indifference (e.g. *insensitive, cold, unmoved*) involves a lack of concern towards an entity that perhaps other people regard as being in distress, as in (64):

(64) […] I don't think I'm the only one who gets slightly bugged by dropouts trying to make me feel like I'm **insensitive** and **uncaring** if I don't pay for their drink. (*BNC*, HWX)

Finally, *intolerance* borders on antipathy and disinclination, as it expresses X's marked unwillingness to accept Y, often resulting in displays of contempt or disrespect, as in (65):

(65) She was **intolerant and contemptuous** of the majority of the human race […] (*BNC*, HJH)

4. Conclusion

Emotion lies at the core of human behavior, as our experience and understanding always seem to be filtered through emotion. Even if we intend to hide it from interlocutors or onlookers, our facial expression and body posture, the tone of our voice or our silences may reveal whether we are happy, bored, disgusted or shocked, to name but a few; but it is by means of verbal language that we normally convey, either explicitly or implicitly, how we feel; and it is the lexicogrammar of the language we speak that allows others to interpret whether we are experiencing a particular emotional state.

In the last two centuries, the psychology literature has approached this phenomenon from diverse perspectives. These are nicely complemented by the analysis of the linguistic construal of emotional reactions initiated by Martin & White, and improved soon after by Bednarek. The undeniable descriptive power and utility of this tool is matched by its flexible and organic structure. As it happens, the authors' emphasis on its being to a certain extent work in progress encourages scholars to improve it for further use and investigation. That is in fact our driving force behind this chapter.

After detecting some discrepancies, we have reappraised the system of AFFECT, putting more emphasis on the notion of emotion as defined by psychologists. Many of the questions we have tried to answer arise from the fuzziness and closeness of happiness and satisfaction, perhaps the most controversial and key categories in the current taxonomy. Once the intricacies of both have been unraveled more or less successfully, our own proposal stems from the reformulation of the status and role of goals and pleasure. In our view, the former is the most strategic component of any emotion type, given that human beings are goal-oriented organisms. With regard to the latter, the empirical evidence suggests that it is a parameter that somehow or other shapes any emotional experience. The emoter's attention may be grabbed by any stimulus in the environment, or not; and subsequently, they may be disposed to approach it, or not. The emoter's achievement of the goal will lead to their satisfaction, realized in terms either of happiness or security; in contrast, the opposite will result in disquiet, distrust, anger or sadness. Finally, we believe that the emoter's goals, needs and values impel them to move towards stimuli from which they anticipate some pleasurable impact and to reject or distance themselves from those where the impact is likely to be unpleasant.

Bearing the above in mind, we have classified emotions into three distinct groups: goal-seeking emotions, goal-achievement emotions and goal-relation emotions. We are aware that the labels may be questionable, that there may still be considerable overlap between the classes and that the combination of our taxonomy with a parameter-based approach inspired by emotion research (but see Bednarek 2009c and Benítez-Castro & Hidalgo-Tenorio in progress) would certainly endow the tool with more descriptive detail. Be that as it may, there is no doubt that it was necessary to rethink SFL's AFFECT sub-system through more explicit psychological lenses; and, simply put, that is what this chapter is about.

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SECTION IV

Emotion in different discourse types

Journalistic and scientific discourse

CHAPTER 13

Victims, heroes and villains in newsbites

A Critical Discourse Analysis of the Spanish eviction crisis in *El País*

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This chapter explores, from a systemic-functional perspective, the role that emotional meaning plays in the press representation of news actors in the Spanish housing crisis. By drawing both on the Appraisal framework and on the transitivity distinctions made in Systemic Functional Linguistics, 139 newsbites published in the Spanish newspaper *El País* and tagged with "desahucios" ("forced evictions") were collected and analyzed. Descriptive statistics were used to describe the results. Findings show that: (a) *El País* triggers emotional responses from their audience by representing social actors in the eviction crisis as emotionally suffering victims, as sympathetic heroes or as dehumanized financial and political villains, and (b) journalists strategically use emotional meaning as encoded in verbal processes to highlight the differences in the press representation of the main news actors in the Spanish eviction crisis. These results contribute to a deeper understanding of the social issue under analysis and are discussed in relation to previous literature in Critical Media Discourse Analysis.

Keywords: newsbites, Spanish, eviction crisis, emotional meaning, news actors

1. Introduction

The concepts of 'objectivity' and some related terms such as 'factuality', 'neutrality' or 'balance' in the media have been the object of much research in journalistic studies (Mindich 1998, Bowman 2006, Hampton 2008).[1] Imported from the US journalistic tradition, the notion of 'objectivity' constitutes a claim to professional

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distinction which places newsmakers as mere 'observers and recorders' of the reality which is being reported to the audience. However, as many scholars have shown over the last few years, objectivity is more a desire than a reality (Richards & Rees 2011; Wahl-Jorgensen 2013a and b, *inter alia*). In real journalistic practice, reporters not only act as observers, but as active writers who purposely filter their vision of the world – which normally corresponds to the one of the news company they work for – as they write their pieces (Haddington 2004; Richardson 2006; Martínez Lirola 2010). This professional praxis has been unveiled by a plethora of studies in Critical Discourse Analysis (henceforth CDA), a well-known theoretical framework employed to "explore relationships of causality between discursive practices, events and texts, and wider social and cultural contexts and examine how these practices, events and texts arise and are ideologically shaped by power relations" (Fairclough 1993: 135) in a variety of contexts.

Thus, informed by CDA, this chapter's main aim is to dig into one of the elements that contribute to increasing subjectivity in the media milieu: the representation of emotional meaning in digital news. Traditionally restricted to tabloids and to certain types of sensationalized, 'soft' news pieces, emotions have been recently acknowledged to play an important part in hard news as well. As Peters (2011) puts it, "one significant change over the past few decades in journalism is not that the news *has become* emotional (indeed, it has always been); rather, the diversity of emotional styles, the acceptability of journalistic involvement, and attempts to involve the audience have become more explicit" (2011: 297). Yet, the balance between emotion and news is delicate, that is, journalists struggle to integrate sentiments into the news in the name of objectivity and professional ethics. In this respect, this chapter aims to offer an evidence-informed contribution to the way *El País*, one of the daily newspapers with the highest circulation in Spain and also one of the world's most influential in Spanish, strategically uses emotional meaning to highlight the differences in the discourse representation of the main news actors in the Spanish eviction crisis.

During the years of the economic crisis (2008–2014), many families were forcibly removed from their homes in Spain due to the tough foreclosure laws existing in the country. The so-called "eviction crisis" was extensively covered by the international media. Drawing on Systemic Functional Linguistics and more specifically on Appraisal Theory (Martin 2000; Martin & White 2005) and the Transitivity systems (Halliday & Matthiessen 2014), I analyzed 139 newsbites tagged with the word *desahucios* ("forced evictions") and published in the online version of *El País* in 2014 (http://elpais.com/tag/desahucios/a/). This sample was gathered within the framework of the UAM-SPHERA project, the corpus of SPanish-English JouRnAlistic Discourse, compiled by the DAIC (Discourse Analysis and Intercultural Communication) research group at the University Autónoma de

Madrid (Alonso Belmonte, McCabe & Chornet-Roses 2010, Maddalena & Alonso Belmonte 2011; Alonso Belmonte, Chornet & McCabe 2012; Alonso Belmonte, McCabe & Chornet 2013, *inter alia*). Both Appraisal Theory and the transitivity system are recurrently employed by critical discourse analysts to explore "how the same individual or series of actions may be represented in a variety of ways in discourse, thus simultaneously providing insights into the power relations and prevalent ideologies in a given culture or society" (Bartley 2017: 33).

The present chapter is organized as follows: Section 2 introduces the reader to the most relevant literature on the linguistic expression of emotions in the press. Section 3 seeks to encapsulate the characteristics of the sample and the methodology used. After placing the study in its theoretical framework, the results are presented and discussed in Sections 4 and 5, respectively.

2. Emotions in the written press

Emotions are generally viewed as internal mental states representing evaluative reactivity to events, agents and objects that vary in intensity (Ortony, Clore & Collins 1988, in Nabi 2002: 289–290). Emotions are social and communicative in nature (Fischer & Manstead 2008) and their verbal and non-verbal expression helps strengthen emotional bonds with others (Roberts 2009). During the last twenty years, the study of emotions has gained momentum across different research fields. In linguistics, multiple studies have focused their attention on the way emotions are encoded at different structural levels of language, in different text, types and in different languages (Niemeier & Dirve 1997; Bednarek 2008; Dewaele 2010; Foolen 2012; Baider & Cislaru 2014; Romano, Porto & Molina 2013; Lüdtke 2015, *inter alia*). Two important linguistic devices include the labeling of emotions (i.e. *joy*, *disappointment*, etc.) and the description of what is clearly emotional behavior (i.e. *she cried*). According to Bednarek & Caple (2017: 85–89), references and descriptions of emotional experiences are key in news stories, which are construed through negativity and personalization as news values. Personalization is about giving a human face to the news through references to ordinary people, their emotions, views and experiences, and negativity occurs when the event is discursively constructed in the press as "bad". News stories that are personalized and that attract the audience's attention to negative aspects of the story are more "newsworthy" than the portrayal of generalized concepts or processes (Bell 1991: 158). These two news values are clearly conflated in the Spanish eviction crisis.

In discourse analysis, there is a plethora of studies on the linguistic expression of affect and subjectivity in the written press, applying different functionally-oriented tools (Martin & White 2005; Bednarek 2006, 2008; McCabe & Heilman

2007; Stenval 2008; Alonso Belmonte, McCabe & Chornet-Roses 2010; Alonso Belmonte, Chornet & McCabe 2012; Alonso Belmonte, McCabe & Chornet 2013; Wahl-Jorgensen 2013a and 2013b; Bednarek & Caple 2017; *inter alia)*. A very interesting line of work in the field of media discourse analysis is that of Wahl-Jorgensen, who illustrated journalists' systematic practice of infusing their reporting with emotion in personalized Pulitzer Prize-winning stories (Wahl-Jorgensen 2013a and 2013b). This "ritual of emotionality", as she calls it, manifests itself in the overwhelming use of anecdotal leads, personalized story-telling and expressions of affect in the news. In the author's own words: "Journalists 'outsource' emotional labor by describing the emotions of others, and drawing on sources to discuss their emotions" (Wahl-Jorgensen 2013a: 129). She also maintains that emotional expression, whether by journalists or sources, is predominantly negative (2013a: 141), a fact that correlates with 'newsworthiness', and that rarely relies on evidence in the form of quotes from sources (2013a: 142). These claims highlight (once more) the increasing level of subjectivity in the present media nowadays and complement previous CDA research on the representation of news actors through newspapers' quotation patterns as a way to build the public image of specific social groups (Caldas-Coulthard 1994; 2003; Floyd 2000; Li 2009; Teo 2000; Van Leeuwen 1996). Just to illustrate this point, in a previous article on the discourse representation of immigrants in the Spanish press it was shown how broadsheets use emotionally-charged reporting verbs and adverbial phrases to present immigrants as highly emotional speakers (Alonso Belmonte, McCabe & Chornet-Roses 2010). This praxis, together with the negative affect of the immigrants' words and the predominance of negative judgments in immigrants' stories of police brutality, and discrimination at the hands of authority, construct a more general discourse which can be referred to as 'the plight of the immigrant' (2010: 237). The authors claim that the plight of the immigrant may be an attempt to appeal to the emotions of the readers, although it also victimizes them and thus keeps reinforcing their status as 'others', as reported in various media studies (see, among others, Wodak & Krzyżanowski 2007; Wodak 2008). In sum, recent research has shown that the expression of emotions in the media is extensively used and intentionally attributed to external sources with the purpose of building public belief about specific social groups.

Quite recently, the literature has pointed at some cultural differences in how news actors and their voices are portrayed in the press. Pounds (2012: 121), for example, in her contrastive analysis of British and Italian news, claims that "the British reporters appear to distance themselves to a larger extent from the facts reported while the Italian reporters show a deeper involvement (intensification and counter-expectation, affectual and dramatic reporting) and refer more frequently to the emotive impact of the events on the participating parties (mental and affectual responses and source of attribution)". Although the present study is not intended to be contrastive, Pounds's article (2012) raises interesting questions about how emotional meaning is conveyed in hard news across languages.

3. The present study

3.1 Research questions

The research questions that guide my analysis are:

RQ1: Who are the main actors in the news on the Spanish eviction crisis published in *El País*?
RQ2: How are these actors described? What is their social role?
RQ3: Which language choices are made to present different types of news actors?
RQ4: What is the role of emotional meaning in this characterization?

3.2 The context: The case of the news on Spanish "desahuciados"

The eviction crisis in Spain started with the global financial crisis of 2008. Spain suffered from a severe rise in unemployment. With over 5 million people left unemployed, many homeowners who owed a mortgage debt to the banks became unable to pay the interest. At the time, the Spanish law on mortgages dictated that a person who received a mortgage loan to buy a house and failed to repay the loan back to the bank, would lose their property and if its value should not be enough, they would still be in debt, with the exception of vulnerable families. Thus, owners who did not pay or did not agree a payment plan acceptable to the banks, could face foreclosure to recover the money due and be eventually evicted by force. According to Kenna, Benjaminsen, Busch-Geertsema and Nasarre-Aznar (2016), 38,961 families from different backgrounds were evicted in Spain in 2013.

Evictions became the symbol of Spain's economic plight and were extensively covered by the news media. In reaction to this financial and social crisis, many ordinary people started to gather in associations and became active, initiating numerous protests and campaigns across the country to shed light on this problem and to force government officials to find solutions. One of the largest and most important organizations specifically dealing with house evictions is the *Plataforma de Afectados por la Hipoteca (Mortgage Victims Platform)*, otherwise known as PAH, which started working in 2009, and designed a very successful campaign called *Stop Desahucios (Stop Evictions)*. Political parties also had to position themselves on this issue and on eviction law reform, which was carried out some years later. In 2012, the Spanish Council of Ministers approved Decree-Law no. 6/2012 of March 9th with urgent measures designed to protect mortgage holders with no resources, and establishing measures to lessen the problem of eviction for persons in risk of social exclusion. It also included, as an attachment, a *Good Conduct Code* for banks. This code's main objective was to reduce the problem of evictions due to non-payment of interest on mortgages for this segment of the population. Unfortunately, banks could decide whether or not to adhere to this code; many did not do so, and forced evictions have continued to take place right up to the present time.

3.3 Method, data and procedure

As explained in Section 1, the findings presented in this chapter are mostly drawn from the analysis of 139 newsbites tagged with "desahucios" and published in the online version of *El País* during the years of economic crisis (http://elpais.com/tag/desahucios/a/). First identified and studied by Knox (2007), newsbites are a specific kind of news stories that can be found mainly on online newspaper homepages. They are presented synthetically in the form of headlines, a lead, one or more hyperlinks and visual supports (videos, images, etc.) in order to respond to their readers' needs for "quick hits of information, interactivity and the ability to seek out other information" (Kolodzy 2006: 10).

For the purposes of this chapter, each of the 139 newsbites collected was numbered and saved as a Microsoft Word document coded by newspaper type and date, for example: EP 13/12/2014. Only headlines and the lead were linguistically annotated and analyzed using the UAM Corpus Tool 2.8.12 (O'Donnell 2012); the analysis of images and videos is too extensive to be included in this chapter. As for the procedure followed, the dominant news character of each clause was scrutinized, first with respect to its role in society and then to the accompanying lexis and verbal process, in order to determine to what extent evaluative judgements or emotionally charged attitudes were expressed. For this purpose, I drew upon the descriptions of transitivity found in Systemic Functional Linguistics (Halliday & Matthiessen 2014). Furthermore, the analysis of the verbal processes was combined with some features from the Appraisal Theory framework (The Appraisal website; Martin 2000; Martin & White 2005) to provide enriched descriptive results. To verify the stability of the coding, 50 randomly chosen texts were re-coded independently by a postgraduate student. After comparison of the results, some of the codes for these sample texts were revised. Then the analysis of the entire sample set was checked for any discrepancy between the original and revised coding. The resulting analysis of the texts is considered stable enough for reliable results.

The Hallidayan transitivity system has been recurrently used in previous CDA research to explore the social representations of news actors in newspaper discourse in relation to sensitive issues like their ethnicity, gender, nationality, religion or sexual orientation (Oktar 2001; Mitsikopoulou & Lykou 2015; Alameda-Hernández 2008; Lee 2016, *inter alia*). As for Appraisal Theory, it has also proved its effectiveness for the analysis of attitudinal resources in a number of studies about newspaper discourse (cf. White 2004; Coffin & O'Halloran 2005; Bednarek 2006 and 2010; Wahl-Jorgensen 2013, Alba-Juez 2017; inter alia).[2] Although I presuppose familiarity with these two frameworks of analysis, I shall provide a brief account of them from a systemic functional perspective.

3.3.1 *The transitivity system*

The transitivity system is related to the experiential dimension of meaning inside the clause (Halliday & Matthiessen 2014). It is linguistically realized through a process (the verbal component of the clause), one or more participants (the people or entities involved in the process) and one or more circumstances (the when, where, why and how of the process). Verbal processes are classified as material, mental, relational, behavioral, verbal or existential. Material processes construe actions or "doings" or "happenings" and may be realized transitively or intransitively, in either the active or passive voice (i.e. *cook, run, paint*, etc.). Mental processes construe the speakers' inner experiences, that is, they are concerned with their thoughts, emotions, perceptions and desires. Mental processes are divided into perception processes (*see, hear*), cognition processes (*think, suppose, believe*), desiderative processes (*want, hope for, intend, decide*) and emotive processes (*love, fear, like, enjoy*). Emotions can also be expressed as relational processes, as in *I felt in love with him*, which essentially denote a static relationship between two entities. Existential processes construct clauses about the existence or the happening of something. Just like relational processes, they also usually feature the verb *be* and the construction *there is/ are* to indicate the feature of existence. Behavioral processes are related to physiological and psychological behaviors (*laugh, talk, cry, breath*) and finally, verbal processes are realized by a verb about verbal activity (*speak, say, tell criticize, congratulate*).

3.3.2 *Appraisal Theory*

Appraisal theory is a functionally-oriented approach to exploring, describing, and explaining the way language is used to evaluate, to adopt stances, to construct textual personas; and to manage interpersonal positioning and relationships (The

2. A comprehensive list of references in which the Appraisal framework is used to analyze media discourse can be found in Su & Bednarek (2017).

Appraisal website; Martin 2000; Martin & White 2005). For the analysis of emotions and value judgments expressed in the newsbites headlines, we use the system of ATTITUDE. The system of ATTITUDE is divided into three subsystems: AFFECT (essentially, the expression of people's emotions, like in *I feel happy* or *A sad woman*), JUDGEMENT (that is, the evaluation of people's behavior: *he reacted as a coward*) and APPRECIATION (the evaluation of things and events including their emotive and esthetic impact: *the sunset was incredible*). Each of these attitudinal categories can be implicit or explicit and can be further analyzed in terms of the attribution of positive, negative or ambiguous valence.

Within the subsystem of AFFECT, emotions can be classified under three categories (un/happiness, in/security and dis/satisfaction) and can be categorized as *realis* (reaction to a stimulus) or *irrealis* (a disposition to a stimulus). On its part, the JUDGEMENT subsystem consists of two subdomains: Social Esteem and Social Sanction. The former denotes appraisal or criticism without legal consequences; the latter refers to those examples of behavior which if negative, may break official laws and regulations and consequently, may have legal implications. We divide social esteem into the following three subcategories: normality or custom (how unusual someone is, how customary their behavior is: *fashionable*), capacity (how capable someone is: *clever*) and tenacity (how dependable someone is, how well they are disposed emotionally or in terms of their intentionality: *weak*). As for judgements of social sanction, they have to do with veracity (how truthful someone is: *honest*) and propriety (how ethical someone is: *corrupt*). Finally, APPRECIATION, which concerns the "evaluation of things" (Martin & White 2005: 56), can be of three types, namely REACTION (relating to how one reacts to something and, thus, can answer the question of whether we liked X or whether it grabbed our attention), COMPOSITION (relating to how something is composed and, thus, can answer the question of whether X is logical or how complex X is) and, thirdly, VALUATION (i.e. what one perceives something is worth). Not many instances of APPRECIATION are expected to be found during the analysis in the sample texts since the eviction crisis is mainly about people.

4. Results

4.1 Participants

The results show that the newsbites analyzed are mainly concerned with local and regional eviction events in which two types of news actors are represented: anonymous people and human organizations, see Table 1.

Table 1. Number and type of participants

Participant-type	*N* = 366	
People	203	55.46%
Organizations	163	44.54%

The organizations and bodies referred to in the sample texts are mainly the different local and regional police departments (22.70%), political parties (17.79%), the national government (15.95%), the local town halls (15.95%), the PAH and other associations of activists (15.34%), and the banks (12.27%). As for human participants, they are represented as adult anonymous people, only labeled with their family roles (78.9%), or presented as a collectivity (21.04%), or both:

(1) EP/126/22nd July: Una familia en paro y con un enfermo
(An unemployed family in charge of an sick person)

(2) EP/22/4th March: Desahuciada en Ourense una familia con un bebé
(An family with a baby evicted in Ourense)

(3) EP/22/4th March: Una pareja con dos hijos y sin ingresos
(A couple with two children and no income)

As the previous examples show, journalists rely heavily on a strategy of collectivization (Van Leeuwen 1996), representing ordinary people as one body and thus essentializing their experiences and existences, rendering them anonymous. This interpretation also explains why 128 of the 203 references to human participants present them as having no identifiable profession. Table 2 shows the results:

Table 2. Professions

Profession-type	*N* = 203	%
no_profession_mentioned	128	63%
Activist	23	11.3%
Politician	21	10.3%
Judge	10	4.9%
Fireman	8	3.9%
Sportsmen (footballers)	5	2.4%
Landlord	6	2.9%
Banker	2	0.9%

Thus, ordinary people are represented as an unemployed collectivity, "all sharing similar characteristics, backgrounds, intentions, motivations and economic status" (Khosravinik 2010: 1). At the other extreme, the individual actors represented by their profession are famous members of the elite: politicians, judges, famous sportsmen, etc. These participants only appear in the sample texts when they speak or act on behalf of ordinary anonymous people, thus assuming a central social role in the conflict:

(4) EP/31/19th February:
Carmona afirma que 3000 familias están en riesgo de ser desahuciadas
(Carmona – a local politician – claims that 3000 families face the risk of eviction)

(5) EP/126/18th June:
El juez Fernández Seijo obliga a un banco a devolver a la mujer la vivienda de la que fue expulsada en abril del año pasado.
(Judge Fernández Seijo forces a bank to return to a woman the house from which she had been evicted in April of last year)

4.2 News actors' social role in the conflict

The results show that journalists generally classify news actors in the eviction crisis into three groups: anonymous victims, cold and dehumanized villains or heroic models of behavior, ready to defend the interests of the weakest. Table 3 shows the distribution of social roles in the sample texts analyzed:

Table 3. Social roles in the eviction crisis

Social Role_Type	*N* = 366	%
Victim	146	39.8%
Hero	108	29.5%
Villain	100	27.3%
Not clear	12	3.2%

Anonymous victims are the best represented group in the sample texts. The heroes may be PAH activists and judges or collectivized anonymous people who manifest their disagreement with the decisions made by the villains or who help the victims by challenging the official version of the event and thus make it possible to know the 'truth' about the events being told:

(6) EP/95/11th November:
Decenas de jugadores y vecinos se concentran contra el desalojo
(Dozens of (football) players and neighbors congregate in protest against eviction)

(7) EP/43/29th January:
Vídeos del arresto de un activista social desmienten a la policía
(Videos of the arrest of a social activist contradict the police version)

Most references to villains are to political, legal and financial organizations and bodies (59.1%): the police department (13 references), town halls (9 references), the banks (8 references), regional and national government (5) and the courts (only 1 reference). Human participants are mainly depicted either as heroes of the people or as victims of the legal system, or both, as Examples (8) and (9) show:

(8) EP/107/4th September:
El bombero "antidesahucios": "no es nuestra labor echar a la gente de casa"
(The "anti-eviction" fireman: "it's not our task to drive people out of their homes")

(9) EP/108/3rd September:
Multa al bombero que se negó a facilitar un desahucio en A Coruña.
El trabajador municipal se enfrenta a una sanción de 600 euros.
(Fireman is fined for refusing to participate in an eviction in A Coruña. The local worker faces a 600 euro fine.)

4.3 Language choices to represent news actors

The archetypical representation described above is enabled by the strategic use of different linguistic resources. As will be shown, emotional meaning is strategically encoded in some verbal processes in order to highlight the differences in the press representation of victims, villains and heroes in the Spanish eviction crisis. Let us turn to the analysis of the verbal processes used to construe villains in the sample texts. As Examples (10) and (11) show, villains (*Town Hall bulldozers; the bank*) are recurrently construed as non-human bodies who perform as actors of material processes (*sweep away; withholds money*) in clauses of "doing and happening":

(10) EP/84/11th November:
Excavadoras del Ayuntamiento arrasan el club de futbol Aviación
(Town Hall bulldozers sweep away the Aviación football club)

(11) EP/51/18th January:
El banco retiene fondos a un hombre que cobra 365 euros al mes por un dinero que le debe desde hace 18 años
(The bank withholds money from a man who gets 365 euros a month, to pay a loan he was granted 18 years ago)

As a matter of fact, no explicit instances of AFFECT have been described for villains. If anything, several examples of negative JUDGEMENT of the villains' actions have been found in the sample texts (*sweep away; crushes; waste*):

(12) EP/98/28th September:
El papeleo aplasta al desahuciado
(Burocracy crushes the evicted)

(13) EP/61/24th December:
Mientras los ayuntamientos derrochan millones de vatios de luz en la iluminación navideña, toca hablar de pobreza energética.
(While the municipalities waste millions of watts on Christmas lights, it's time to talk about energy poverty)

These material processes are sometimes accompanied by adverbial phrases which denote excess and violence, as in the following example (*by force*):

(14) EP/70/27th November:
A Coruña desaloja entre porrazos a una familia para hacer 2000 pisos
(A Coruña town hall evicts a family by force to build 2000 apartments)

All these instances of negative social sanction (propriety) show that *El País* reporters question the villains' actions.

Unlike villains, heroes are generally accompanied by a wider range of processes. The most frequent ones are verbal processes with a clear assertive illocutionary voice: *denounce, announce, promise, defend, accuse, admit, proclaim*, etc.

(15) EP/109/25th August:
Stop Desahucios acusa al Gobierno de intimidarles y criminalizarles
(Stop Evictions accuses the Government of intimidating and criminalizing them)

As Examples (16), (17) and (18) show, heroes are also represented as actors of material processes (*sue*) and as sensers of mental actions. Most mental processes attributed to heroes are desiderative (*wanted to*) and emotionally charged (*fear*):

(16) EP/106/5th September:
Ocho manifestantes contra el desalojo de una anciana llevan a juicio al Gobierno
(Eight protesters against the eviction of an old woman sue the government)

(17) EP/75/27th November:
Cerca de 200 personas han querido ayudar a la mujer desahuciada
(About 200 people wanted to help the evicted woman)

(18) EP/11/17th March:
Los activistas temen que desahucie a las familias
(Activists fear that the families will be evicted)

As for victims, they are linguistically construed as powerless and motionless as opposed to the material processes of "doing" attributed to the villains and to a lesser extent, to heroes. This effect is achieved by the extensive use of material processes in the past participle (19) or in the passive voice (20), and less frequently, of existential (21) and relational processes (22):

(19) EP/105/8th September:
Discapacitada, abandonada y desahuciada
(Disabled, abandoned and evicted)

(20) EP/76/25th November:
Una familia con dos menores es desahuciada tras una carga policial
(A family with two children is evicted after a police charge)

(21) EP/115/18th July:
Los afectados están en inferioridad de condiciones
(The people affected are in a weak position)

(22) EP/100/23rd September:
Un matrimonio en paro con dos hijos se queda sin vivienda
(An unemployed couple in charge of two children becomes homeless)

Victims are also depicted as suffering people through the occasional use of emotionally-charged phrases *(in anguish)*:

(23) EP/131/2nd June:
146 personas viven con angustia el desalojo de un edificio
(146 people experience evacuation in anguish from a squatter building)

Con angustia (in anguish) is also one of the few instances of AFFECT described in the sample texts.

Finally, victims are frequently represented as silent in the sample texts. However, in the occasions in which they speak, the use of emotional direct quotes predominate:

(24) EP/39/5th February:
"Estoy muy dolorida, pero sonrío". El desahucio de la mujer enferma del Guinardó fue suspendido ayer
("I am sore, but I smile." The eviction of the sick woman living in the Guinardó district was suspended yesterday)

(25) EP/3/22nd November:
"Ya no me quedan lágrimas". Carmen Martínez, la mujer de 85 años desahuciada el Viernes en Madrid, vivirá en un piso pagado por el Rayo Vallecano
("I have no more tears." Carmen Martínez, the 85-year-old woman evicted on Friday in Madrid, will live in a flat paid for by the (local football team) Rayo Vallecano)

By using direct speech, journalists dramatize the discourse of victims offering vividness and idiosyncratic nuances to their voices. Among the three main different groups of emotions that AFFECT covers, the findings show that in general, victims express misery and dissatisfaction, and are thus construed as suffering individuals who lack control over the situation they are facing.

5. Discussion

Results presented in the previous section yield interesting insights into the way *El País* represents news actors in the eviction crisis. Two main discourse strategies are consistently deployed in the newsbites analyzed the victimization of anonymous people, who are represented as powerless against the financial and legal system, and the depiction of local institutions and organizations as agentive villains who act as oppressors. The third group of news actors, the heroes, are construed as credible individuals who are mobilized against the system's wrongdoing and denounce it in public.

The use of this archetypical narrative convention – victims, villains, heroes – is widely recognized in scholarly research on narratives and myths as a way of creating meaning shared with the audience (Propp 1928; Lévi-Strauss 1955). In hard news, however, it is underexplored. To my knowledge, it has only received some attention in discourse studies about tabloid TV talk (Gregori-Signes 2002), TV news (Kaplan 2009) and TV series (Wodak 2009). In any case, findings are in tune with existing research that reveals journalists to operate like traditional storytellers, using conventional structures to shape events into a story (Bird & Dardenne 1988 and 2009; White 1997). The use of this narrative triad in the news on the eviction crisis positions the participants in particular ways that reflect and reinforce the audience's notions of reality (Van Langehove & Harré 1999). For instance, the sense of "ordinariness" attributed to victims (Sacks 1984) is intended to deny differences between people and seems to suggest that this social drama could affect everyone. This positioning eventually leads the audience to make social and moral judgments and, ultimately, to forge an emotional connection with some of the news actors.

This chapter has also shown that the expression and attribution of emotional references is used strategically in the sample texts to highlight the differences in the press representation of victims, villains and heroes in the Spanish eviction crisis. More specifically, the findings show that the presence of verbal and emotional processes when speaking about heroes construe these as sensible individuals who publicly denounce the victims' situation. At the other extreme, emotions are completely absent in the case of the villains, who are portrayed as cold and dehumanized. This tactic is reinforced by the predominance of negative judgments of the villains' actions. Finally, emotions are also used to give voice to the victims' suffering, particularly through the use of emotionally-charged verbal processes and of direct quotes. This is particularly noticeable when it is taken into account that the victims are usually silent. Previous research has shown that people linked to power relations or institutions are thought to be more reliable and consequently more frequently 'quoted' than others, such as the powerless – the young, the poor, the weak, and the 'other' (Fairclough 1992 and 2003; Van Leeuwen 1996; Van Dijk 2008). Thus, it can be concluded that the choice of quotation patterns in the sample texts is by no means objective. As proved elsewhere, direct quotes can play a distancing and disowning function in newspaper discourse when journalists do not wish to be seen as endorsing the content or the linguistic form used by the news source (Alonso Belmonte, McCabe & Chornet 2013: 383). Besides, the extensive use of verbal processes in the passive voice to refer to the victims' actions combined with the negative AFFECT of their words constructs a strategy of victimization which may have the effect of creating sympathy for the victims and ultimately of legitimizing a demand for political action through public support and solidarity (Boltanski 1999).

6. Conclusion

In this chapter, special attention has been given to newsmakers' intentionality when producing newsbites, to their conscious use of language to generate empathy, to emotionally touch the audience and ultimately to send a social message. By acknowledging the salience of emotions in the news as a journalistic tool to attract the readers' attention, this chapter contributes to previous research in media discourse analysis on how newspapers and their representation of the world provide the audience with a lens of subjective interpretation. Methodologically, the findings obtained complement the already well established link between the transitivity system and Appraisal Theory in recent functionally-oriented literature (Caffarel & Rechniewski 2009; Scott 2008; Aloy Mayo & Taboada 2017; Bartley 2017).

Considering the results obtained, Spanish reporters seem to be closer to the professional practices of their Italian colleagues regarding their degree of involvement in the news since they refer more frequently to the emotive impact of the events on the participating parties than their British counterparts (Pounds 2012). At this point, however, it is essential to be cautious about the interpretations provided. There is a need for in-depth interviews with journalists investigating their writing processes and with their readers to test whether the explanations provided in this chapter can be confirmed or not. In addition, further work should be carried out in the functionally oriented multimodal analysis and annotation of a wider corpus of newsbites across newspaper types and languages. Although it has been claimed by some authors that newsbites have already reached maturity as a consolidated genre of digital news, different from traditional press news (Porto-Requejo 2016), potential differences in content and form across cultures and languages may constitute an appealing area of research, as pointed out by Tereszkiewicz (2012: 223).

Finally, another interesting line of research would be to explore the interaction between the visual and the textual modes in newsbites in relation to the expression of emotions, given that pictures and videos interact with the text in various and complex ways, and that consequently they may also contribute to the expression of emotions. All these proposals no doubt will provide interesting insights about the role of emotional meaning in newspapers.

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CHAPTER 14

Promoemotional science?

Emotion and intersemiosis in graphical abstracts

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In this chapter I explore how the visual mode favors the expression of *emotion* in *graphical abstracts*, an academic genre increasingly demanded by high-impact scientific journals. My starting point is the set of expectations aroused by written scholarly discourse with regard to attitudinal projection, as well as recent research on emotion in computer-mediated communication in general. Next, I examine the major challenges posed by graphical abstracts and analyze the emotional language of some actual samples from researchers publishing in high-impact journals. My findings identify a hybridization of the genre and suggest that the presence of emotion may relate to the adoption of roles other than those of scientist, such as journalist, advertiser, and entertainer.

Keywords: graphical abstract, emotion, academic scientific discourse, hybridization, visual literacy

1. Introduction: Towards an *emotional turn* in the professions?

During the spring of 2016, many bus stops in Madrid displayed posters advertising *Expofood Service*, an exhibition and meeting place for professionals in the hotel and catering sectors to be held in the city that June (Figure 1a). What struck my attention was the direct appeal to emotion in its slogan *("Emotion in catering. From food service to food experience*", translated into English from the original Spanish source, as shown in Figure 1) and the enticing photographs of ecstatic human faces emerging from different ingredients (Figures 1b and 1c) such as cherries, French fries, pasta, coffee beans and herbs, all of them inviting viewers to 'feel' and enjoy cuisine. Emotion has been traditionally associated with the arts, but relatively recently the link has been made explicit with other fields and activities that, while basically functional in their origin, border on artistic quality – namely advertising, architecture, decoration, cooking, politics, fashion, and design.

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Figure 1. Posters advertising the 2016 *Expofood Service* meeting in Madrid and appealing to emotion in its slogan. 1a (top left), 1b (top right) and 1c (bottom)

For example, in searching for the phrase 'emotion and design' in Google, one may find quite a few websites promoting emotional experiences among practitioners, researchers and industry through blogs, articles and conferences. Of particular interest are the definitions of 'emotional design' by Norman (2002) and the homepages of the Interaction Design Foundation (2002) and The Design & Emotion Society (2005), to cite but a few. For Norman, a scholar of the cognitive and computational sciences, an emotionally-designed product must strive to elicit appropriate emotions at three levels: *visceral, behavioral*, and *reflective*, in order to provide a positive experience to the user. The first of these, the visceral level, deals with our initial reactions to the esthetic quality of the object. It is an engagement of the senses. The second level refers to the product's usability: how well it performs the desired functions and whether it is easy to handle, whereas the reflective level leads us to consider the impact of the item on our lives (i.e. how important it is and how we feel when not handling it) and its attached values. For the Interaction Design Foundation, it is a priority issue to offer customized training and educational materials on emotional design. Its courses target both individuals (beginners and seasoned professionals) and companies, are taught by academics and industry experts, and widely used by internationally renowned universities such as the Massachusetts Institute of Technology, the University of Cambridge, Imperial College London, or Indiana University. Last, for the Design and Emotion Society, the overriding aim is to establish an international network of researchers, designers and companies that facilitates dialogue and the exchange of insights on emotion-driven design, as well as methods and research tools.

This keen interest in emotion has also reached the discipline of cultural heritage management, especially in museology and museography (Eve Museología + Museografía 2014), consisting in the design of physical and virtual public spaces for the organization and display of cultural heritage items, be they tangible or immaterial. One of the latest international events in these specific areas, the international conference '*Researching Digital Cultural Heritage*', which took place at Manchester Museum at the close of 2017, included presentations dealing with the design and evaluation of emotionally engaging digital stories in cultural heritage (Economou et al. 2017) or the 'emotional geographies' of museums (Hoare 2017).

In light of this everyday evidence, it appears that we are witnessing the gradual expansion of an 'emotional turn' from art and the humanities to the social sciences and certain professions, as happened in the past with several other orientations or paradigm shifts within the study of culture: the so-called 'interpretive', 'performative', 'reflexive/literary', 'postcolonial', 'translational', 'spatial' and 'iconic/pictorial' turns (Bachmann-Medick 2016), the last-mentioned being deeply rooted in the transmission of science. We may wonder, however, whether emotion is not only impacting art, literature, history, economics and psychology but also 'hard' scientific disciplines with regard to how individuals represent facts and make decisions. Bachmann-Medick (2016: 285–288) does in effect acknowledge a current 'neuroscientific turn' thanks to the advances in brain research, and predicts that, coupled with the iconic/pictorial turn, it will account for how perception, emotionality and consciousness work in neural networks, which may smooth the interaction between the soft and hard sciences through a process of translation, negotiation and mediation, and presumably generate a more emotional language for describing phenomena.

My purpose in this chapter is precisely to explore the language of science dissemination in the genre of the graphical abstract, which is increasingly being demanded by high-impact scientific journals and is prominently reductionist and emotional in nature. As my point of departure I shall take the set of stylistic expectations conventionally aroused by written scholarly discourse with regard to the projection of attitudes and emotions, and draw on recent research on emotion in computer-mediated communication in general. Next I shall examine the major challenges posed by *transduction* – according to Kress's definition (2010: 125), the translation of meanings and materials from one mode of communication to another – and the problems generated by the genre in question, in particular *subjectivity*. Here I shall provide a qualitative analysis of the phenomenon of *stylization*, which tends to concentrate emotion, identify the semiotic devices deployed to transmit it and discuss their effects on the overall communicative efficacy of the message. To do so, I shall lean on an eclectic theoretical framework combining Multimodality, the Appraisal and Metadiscourse Models and Positioning Theory to analyze actual samples devised by researchers publishing in high-impact journals.

2. Point of departure: Communicative expectations in academic communities of practice

Communities of practice, a concept introduced by Wenger (1998), share a 'joint enterprise' (e.g. solving problems, explaining facts), a 'mutual engagement' (accomplished through actions such as experimentation, research, the dissemination of results, the establishment of relationships with peers, etc.), and a 'common repertoire' that comprises concepts, tools, routines and procedures, roles, and discourses, the latter being made up of terminologies, registers, genres and (inter) disciplinary intertexts. The conventions governing academic discourse repertoires operate at several levels: *registers*, the handling of *media* and *modes* for the production of meaning, and *genres*. All four levels intertwine and condition one another to a greater or lesser degree and may also be influenced by other factors such as the sender's idiolect (i.e. his/her linguistic or non-verbal preferences), national culture (e.g. a higher or lower tendency to manifest authorial presence or self-effacement and hedging within the limits set by academia), or societal trends and movements. One of these factors is the current evolution of science communication from a 'top-down', 'one-way' or 'deficit' model to more dialogic, inclusive and participative schemas of transmission (Gregory & Miller 1998; Roland 2007). The deficit model establishes that knowledge is solely transmitted by experts, as addressees are supposed to suffer from a deficit of knowledge,

If science is a language of power, as Aronowitz (1988) claims, the emergent democratic models might 'dethrone' scientists, who would lose their status as owners and controllers[1] of scientific processes and results, unless they decide to involve themselves directly with lay audiences. Popularization is now becoming key to the scientific enterprise, and initiatives like 'street science' events (Riise 2008), which make scientists available to the general public in everyday social situations (e.g. festivals, 'science weeks', 'science cafés' or 'open-door days' at research centers), are not infrequent. In such events there are no mediators, explainers, adapters or translators between the researcher and his/her expected audience. Through the popularization of topics of public concern (Kim 2012), scientists continue to be power holders, but this time as 'news generators' and 'interest mongers' whose role may be equated with that of corporate leaders, union officials or statesmen (Fjæstad 2007). Furthermore, virtual forms of direct one-to-one communication have developed thanks to digital media (e.g. science blogs, tweets and webinars), and laypeople may educate themselves in scientific matters with the aid of downloadable lectures and podcasts. The outcome of these new science dissemination paradigms and technical advances is that non-expert audiences are no longer as 'scientifically illiterate' as portrayed by the deficit model.

Having become a central aspect of the professional activity of a researcher, popularization does however run into a number of issues: first, succeeding at it may seem detrimental to a scientist's career, because popular science may be conceived of as a shallow surrogate for 'serious' scholarly science (Fjæstad 2007). Second, most scientific researchers have not been specifically trained in the strategies required for mass communication (Gregory & Miller 1998). Third, the boundary between scholarly and popular science is fuzzy. Clearly, the popularization of scientific contents is not merely a matter of adjusting one's language but also of attuning to interactional settings and actions, regulated by 'mental context models or scripts' (Van Dijk 2016). These are sets of beliefs accepted and shared by an epistemic community as defining the common ground of the participants, which consists of sensory, proxemic and emotional properties that unfold in the course of the interaction. Mental context models, then, control both what can be said and how it can be communicated (i.e. the register and style – for instance, as regards the expression of emotions and opinions). The problem lies in the disparate epistemic backgrounds of the interacting communities and the conceptual ambiguity that this gap in expertise may cause, which is exacerbated when a non-verbal mode of communication is adopted. The graphical abstract genre (henceforth GA) instantiates this epistemological disparity: given the specificity and complexity of its contents, it is obviously far from being a form of science popularization, but

1. It might be argued, though, that any 'sense of ownership' is fallacious, because since the second half of the 20th century the majority of scientists have been subject to the policies of laboratories and institutions and hardly ever have really owned or controlled their own research.

its visual language may borrow elements from popular culture for promotional reasons or/and in order to build rapport with the intended audience. The final product may conjure up the style of 'scifotainment' genres (Zhang & O'Halloran 2014)[2] and thus could be labeled as 'scifotainment for experts', but, interestingly, it may happen that the loans from popular culture chosen (e.g. similes and situational metaphors; see Figures 9 and 10) strike fellow researchers as arcane and end up being misinterpreted.

2.1 Register expectations in written scholarly discourse

Although corpus evidence documents the fact that written academic discourse has been evolving towards informality in the last half century, especially in the hard sciences (Hyland & Jiang 2017), scholarly prose is still expected to be highly impersonal (Swales & Feak 1994; Biber & Conrad 2009) and lacking in explicit appraisal (Hyland 2009), as well as manifesting low emotivity. Only very sparingly and tentatively does it express authorial attitude and feelings by means of 'emotive controlling words' (Dzung Pho 2013) such as 'valid', 'important', 'convenient', 'unreliable', and the like. Gotti (2008) enumerates 'lack of emotion' among the lexical features of specialized discourse, which are monoreferentiality, precision, transparency, conciseness and conservatism. According to this author, lack of emotion prevails whenever a text is mainly informative, because the denotative purpose (i.e. its inherent monoreferentiality and tendency to maximize the semantic value of words and propositions) rules out emphasis and emotive connotations, considered to be distracting and redundant. As the illocutionary force of academic discourse derives from the support of factual evidence and logical inference, the tone is usually neutral, at the risk of seeming "cold and artificial" (Gotti 2008: 36). In Gotti's words (2008: 142), emotive language "is normally considered alien to the epistemology of specialized texts." The academic register, in sum, is still characterized by its factual nature, an abundant use of the passive voice and nominalization, and an avoidance of the second person pronoun, direct questions, verbal contractions and other conversational features.

However, if the pragmatic goal is persuasive rather than informative, Gotti (2008: 36) observes, as is the case in promotion and argumentation, the emphasis on emotion (rhetorical *pathos*) surfaces, even in specialized academic texts. The fact (and to some extent the problem too) is that, in today's globalized and interdisciplinary world, science has inevitably become a commodity (Swales 2004;

2. As the term suggests, 'scifotainment' is a blend of simplified scientific information and entertainment. It was originally applied to science news reports and has recently been claimed to be found in genres marketing universities and researchers, such as academic websites.

Gross & Chesley 2012) and its discourse is becoming increasingly promotional (Bhatia 2004; Pérez-Llantada 2012) and, in consequence, less distinctive. Scholars have stepped out of their 'ivory towers' and not only address other communities of peers – 'invisible colleges' (Crane 1969) that interrelate workwise, cite one another and progress in terms of career development – but also a cohort of potential sponsors, experts from neighboring and distant fields, and a general lay audience, all the more so if the research has been publicly funded. In this regard, Puschmann (2015) remarks that, although science is inconceivable without scholarly discourse, science communication is a recent invention: nowadays it is the scientists themselves who mediate between audiences with different levels of expertise and translate their findings, instead of systematically delegating this function to scientific journalists. The effect has been that science dissemination has come to consist of three stages (Lievrouw 1990): 'conceptualization' (the informal generation of ideas within expert disciplinary circles), 'documentation' (the shaping of knowledge into forms that allow presentation) and 'popularization' (communication to a broader public). These tripartite dynamics enable future research.

As for popularization, many a scholar thinks that the linguistic adjustment it demands is not necessarily confined to lay spheres but can pervade expert communities as well. Roland (2007), for one, advocates a reform of the established written academic register on the grounds that impersonal passive forms create confusion and are responsible for a lack of quality in the research being reported. She also notes that the scientific register comes across as too neutral and bureaucratic, concealing the personality of the authors. In her view, this fact calls for a revision of the values upheld by academic culture (i.e. neutrality, objectivity and responsibility) and for an encouragement of connectedness between practitioners and researchers. For Halliday & Martin (1993), the acquisition of the academic register simultaneously entails losses and gains: the ability to discuss, categorize, quantify and evaluate abstract concepts and complex issues according to disciplinary standards inescapably leads to a sacrifice of concreteness and empathy. Certainly, much information is taken for granted in research texts and goes unsaid, as scientists are writing for readers who possess the same expertise (Gregory & Miller 1998),[3] whereas popularizations contain a large number of glossing devices: analogies, metaphors, similes, and definitions (Gotti 2008).

3. It is assumed that the intended audience of scientists writing in journals is one formed by specialists in their discipline and researchers from other fields who belong to the same scientific paradigm. Yet this assumption is being questioned by Roland (2007), who contends that the real motivation underlying specialized scientific dissemination is harsh competition and pressure to publish within scientific communities. Together with inherited practices, this competitiveness may be responsible for a lack of transparency in scientific reasoning that hinders comprehension even for experts in the discipline: Roland complains that research questions, hypotheses and the

It is no wonder, therefore, that Hyland & Jiang (2017) have detected an ever greater incidence of direct questions, appeals to the reader as 'you' and exclamations but also an increase in compressed phrasal and clausal expressions (Biber & Gray 2016) that deepen the knowledge rift between experts and novices or laypeople. Thus written academic discourse is pulled in opposite directions. On the one hand, it pursues 'proximity' (Hyland 2010, 2012), that is, interaction ruled by the norms of the disciplinary/epistemic community, based on shared knowledge and consequently on implicitness. On the other, it attempts to achieve 'positioning' (Hyland 2005a, 2005b, 2008, 2011a, 2011b, 2012, 2014; Hyland & Jiang 2016), a certain degree of awareness of an audience outside the expert group, customarily in the form of deferential glossing and didacticism. This interplay of proximity and positioning entails that writers have adjusted to the presence of two apparently incompatible audiences. What Hyland & Jiang (2017) conclude is that research articles in the hard disciplines have gradually increased their level of engagement (in the Hylandian sense: an acknowledgment of readers), which entails a crucial and gradable component of informality and, in fields such as advertising and marketing, is a necessary precursor of emotion (Wang 2006; Green 2007).

Yet the notion of engagement is not limited to the presence or absence of the shared knowledge markers, questions, reader appeals and mentions, directives and asides catalogued by Hyland's (2005a, 2005b) metadiscursive approach or the 'affective stances' of Jaffe's (2009) sociolinguistic standpoint. In Martin & White's (2005) Appraisal model, for example, ENGAGEMENT is the expression of epistemic stance meanings, and even more divergently, in marketing, advertising and the visual arts it is linked to the addressee's response to the message and conceptualized as a "subconscious emotional construct" or "the amount of feeling/empathy going on when an advertisement is being processed" (Heath 2007: 1). The idea of 'emotion' is no less difficult to pinpoint and measure in registers such as written scientific discourse. How much emotion can one truly expect in academic writing, and of what kind? Of the three major appraisal resources in Martin & White's (2005) model (i.e. ENGAGEMENT, ATTITUDE and GRADUATION),[4] ATTITUDE seems to be the category best fitted to the type of emotion acceptable in the academic context because GRADUATION (e.g. 'boosting' and 'hedging', Hyland 2006) is strongly regulated by stylistic conventions. Of the three compo-

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expression of relations and research motivations are often too tacitly formulated, and doubts that scientists really communicate among themselves.

4. ENGAGEMENT can be defined as the expansion or contraction of textual space for other voices in order to negotiate ATTITUDE, which is the range of options for expressing positive or negative evaluation. GRADUATION is the adjustment of ATTITUDE and ENGAGEMENT in terms of strength.

nents of ATTITUDE (i.e. APPRECIATION, JUDGMENT and AFFECT),[5] AFFECT is the most relevant to scientific texts, which, outside the humanities and the social sciences, seldom evaluate esthetic qualities or (un)ethical behavior.

As to the type of emotions conveyed by authorial affect and evaluation in academia, it is sensible to discard the overt expression of extreme emotions such as fear, anger, love, hate or disgust. From Bednarek's (2008) taxonomy of affect types, one may expect to find mitigated forms of *(in)security* (e.g. trust, confidence, doubt, worry and reserve in relation to the academic work of others or future prospects regarding a given phenomenon or situation), *(dis)satisfaction* (e.g. an interest in or frustration with phenomena, situations and results, commonly expressed by adverbs like 'interestingly', 'unfortunately', etc.), *(dis)inclination* (e.g. in statements of the objectives that the author wants to tackle or of desired effects, and in the description of the article's organizational structure with expressions of volition and preference like "want", "would rather", "hopefully", etc.), and *surprise* (e.g. mostly to qualify the unexpectedness of results with adjectives and adverbs such as 'amazingly', 'surprising', 'strikingly', 'curiously', 'unexpected', etc.).

Affect terms fulfil cardinal textual functions in academic texts: they provide explanations, introduce problems, illustrate points, develop cause-and-effect lines of reasoning, observe and describe aspects, elaborate arguments, construct research topics by stating their importance or relevance, create writer/reader personae and build rapport with the audience (Bednarek 2008: 218–219). Now, bearing in mind this multifunctionality of affect, the register conventions for academic writing, and Bednarek's (2008: 12) distinctions, one would predict that written scientific texts in conventional print(-like) format should contain more *emotion* than *emotional talk*. In other words, in formal settings emotion is more likely to be expressed with emotion terms associated with a first or a third person than to be shown via syntax, lexical choices, punctuation, typography and even rhetorical structure (e.g. through climactic textual progressions). It remains to be seen whether visual and multimodal academic texts confirm this expectation or blur the boundary between the language of emotion and emotional language.

2.2 Medium and mode expectations: The visuals of science

The term 'medialization' (Weingart 1998) reflects the impact on science of media and in particular computer-mediated communication. Digital media have achieved greater inclusiveness by reaching out to outer circles of 'invisible colleges'

5. While AFFECT and APPRECIATION respectively consist in the emotional and esthetic/functional evaluation of things, processes or states of affairs, JUDGMENT evaluates the ethics of human behavior.

and have also empowered audiences (Turnbull 2015), who thereby obtain immediate access to information and connections and can react to the information presented to them in science blogs, webinars, online conferences and forums, postings on social network pages, websites, tweets, and the e-mail addresses of editors-in-chief. Nevertheless, the affordances of digital technologies may give rise to both utopian and dystopian feelings (Gómez Cabranes 2013): to an 'illusion of nearness' sustained by the ubiquity and viral powers of the Internet, the possibility of enjoying virtual experiences through audiovisual and haptic devices, and by the opportunities to project one's own identity in public settings, as is found on some personal academic pages that fuse private verbal and visual information with institutional websites (e.g. with photos of scholars during their leisure time, practicing their hobbies). Turning to the genre that is the object of this study, the GA in Figure is a prime example of public/private intersection: its image-flow format (narcissistically?) includes the researcher's portrait in order to transmit a humorous mood by means of apparent self-deprecation.

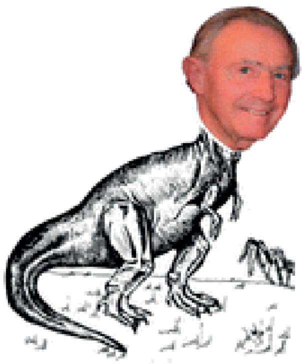

Figure 2. Blurring of public and private spheres with a mix of naturalistic and pictorial renderings

This blurring of the public and private spheres may bring about and interweave opposite 'cyberemotions' (Gómez Cabranes 2013), such as a desire for disclosure and its manifestation in quasi-exhibitionist behaviors paired with a fear of control. A second outcome of digitalization has been, from a metadiscursive perspective, a loss of empathy towards non-digital native audiences. Yus (2014) calls attention to the diminution in reader/viewer guidance in computer-mediated communication, which obfuscates authorial intention and engages addressees in multitasking to process small portions of texts at the risk of 'infoxication', produced by informative overload. A third repercussion is the massive cross-disciplinary spread of 'multimodal composites' (Hoffmann 2010), new narrative formats that incorporate various semiotic resources and/or hypertextuality and interactivity and serve promotional aims (Engberg & Maier 2015). Graphical and video-abstracts typically embody these attributes: they are not hypertext themselves but are embedded in a multimodal, hypertextual and interactive constellation of academic genres or a 'genre colony' (Bhatia 2002) integrated in turn into a broader 'genre system' (Bazerman 1993, 1994) that transcends the community of practice and addresses other epistemic communities with different discourses. Swales (2014: 323) predicts that by 2035 all abstracts will be graphical "if Elsevier gets its way".

Visual modes of meaning are holistic, amalgamated, synthetic, open and dynamic (Barry 1997; Dondis 1973; Messaris 1994, 1998). They cannot mediate between the real object or phenomenon and the human perceiver, nor parallel the linear logic of the verbal text (Machin 2007). This means that, despite Kress & Van Leeuwen's (1996) efforts to provide a 'visual grammar', there cannot properly be one. But beyond this shortcoming – caused by the difficulties inherent in the transference of meaning between modes (i.e. in transduction), which adds to the mimetic limitations[6] of scientific iconography – visuals have always been an essential part of scientific discourse for one simple reason: they not only reproduce nature and 'show rather than tell', but also generate knowledge (Kress 2010; Lynch 2006; Pauwels 2006; Trumbo 2006; Tufte 1983). The relationship between ideas and representations is circular in nature: visuals can shape an argument as much as they can be shaped by it. They nurture an esthetic sensitivity necessary to clear and good thinking (Tufte 1983) and create contextual frameworks suitable to expressing and testing hypotheses (Cambrosio et al. 2006). Not in vain does Kress (2010: 27) assert that "representation makers are knowledge makers".

While entities, simple linear narratives, cause-effect sequences and componential relationships of inclusion, exclusion and hierarchy are easy to represent with visuals, the visual expression of hierarchical criteria, complex ideas, arguments and speech acts is quite another matter, and even more so if it involves implicatures or/and is tinged with emotion. Forceville (2017) warns that visuals carry a stronger emotional impact than verbal information, and that emotion may turn into an obstacle to semantic optimization (i.e. to identifying the most relevant meaning in a given context, according to Relevance Theory). Another two caveats made by multimodality scholars are that one should not compare verbal text with reductive instances of image, and that linearity/staging is not a reliable criterion for genre analysis (Hiippala 2014). In fact, linearity is the first genre feature to disappear when modes move away from the verbal (Bateman 2014). In the case of the GA, by its very nature a reductionist genre theoretically built on a linear

6. Science is considered a symbolic enterprise (Latour 1990) in which visual conventions (e.g. symbols, diagrams, etc.) are ordinarily more efficacious than naturalistic renderings such as photographs or depictions.

narrative scheme that is iconic of the scientific method in real life, the only way to unify codifications and interpretations is through visual literacy (Bateman et al. 2017), in which the abilities of 'visual thinking', 'visual learning', and 'visual communication' (Trumbo 2006) can be developed. Visual thinking organizes thought into imagistic schemata and resorts to shape, line, color and composition to make them meaningful. Visual learning facilitates the interpretation of images created by others, and visual communication designs and conveys symbols. These three visual competences serve to underpin a command of materials, semiotic resources and discourse semantics, the three strata that compose any full-blown semiotic mode (Bateman 2011).

Along with visual literacy, journals' guidelines for authors should help the latter to acquire all of these capabilities, but, disappointingly, journal gatekeeping does not contribute very much to the dissemination of desirable GA features. With the exception of *Cell*, one of Elsevier's most prestigious biomedical journals, and the *FEMS* publications (Federation of European Microbiological Societies), other journals merely show uncommented exemplars that may not work so well for experts, only requiring visual encapsulations of the article's take-home message that meet specific format standards (e.g. shape, size, font and type of file) and encourage browsing and interdisciplinary scholarship. By contrast, *Cell* rejects graphics already presented in the article and demands one-panel compositions that focus on just one point, process or procedure. These must avoid speculation unless it can be expressed unambiguously, have a clear start and end and a reading path from right to left or from top to bottom, provide labels and indications, include fragments of text but no data, and be free of distracting elements, emotion presumably being one of those. Curiously enough, whereas journals' exemplars of GA exhibit quite sanitized designs, a considerable number of samples resemble cartoon strips, comic book panels, advertisements, and memes.

2.3 Genre expectations: The role of abstracts in academia

Abstracts are brief independent texts with four basic functions (Huckin 2001): to *summarize* a topic of study in the prototypical IMRD structure (i.e. the Introduction, Method, Results, Discussion sequence of scientific narratives; Swales 1990), to act as *screening devices* helping readers decide whether or not to read the whole article, to offer a *preview* of the content of the research article, and to provide *indexing help* for professional abstract writers and editors. Hyland (2004: 64) highlights their persuasive nature and defines the genre as "a selective representation rather than an attempt to give the reader exact knowledge of an article's content." Graphical abstracts may be categorized as 'hybrid practices' (Sancho Guinda 2016) halfway between the verbal and the visual, between conventional and structured summaries (they may include headings), between objectivity and subjectivity, between disciplinary specificity and interdisciplinarity, between symbiotic and independent statuses in relation to the verbal abstract, between mimesis and creation, and between specialization and popularization. They push their summarizing function to its limit, heighten promotion by means of visuals to encourage further examination of the complete text, and are at the same time pedagogical tools, vehicles for scientific dissemination, promotional lures, and digital decorations, with representations ranging from the naturalistic (photographs) to the symbolic (e.g. art, diagrams, charts and equations). Owing to their subjective nature, as they are culture-bound and the authors' creativity is scarcely curbed by the guidelines of the high-impact journals requiring them, they are not always correctly interpreted by experts, and some online journals have opted for displaying GAs attached to their verbal version instead of placing each in a separate window, which invalidates their status as stand-alone texts.

As I have pointed out elsewhere (Sancho Guinda 2015), if full social recognition is a must for genres to be regarded as such, perhaps the GA is not a genre in its own right but a visual variant of the traditional verbal abstract, or even its paratextual gloss, although it frequently confuses more than it clarifies. The additional issue of linearity/staging, mentioned in the preceding subsection, might be settled by adopting Lemke's (2005) notion of 'traversals', multimodal artefacts working as sites for addressees to construct genre-conformant meanings and whose textual linearity can only be social (it turns 'virtual' in the addressee's activity). In any case, traversals should at least act as guides for interpretation to achieve social purposes, but this may not be true for every GA. The useful questions suggested by Berkenkotter & Huckin (1995) may shed light on fundamental generic traits:

– Where does the genre come from and where is it going?
– What does a text in the genre look like?
– How/when/where/why do people use the genre?
– What sort of society does the genre create?
– Who owns the genre?

The GA was initially part of the 'Article of the Future' project launched online by the Elsevier publishing company in 2011,[7] but its evolution and permanence are uncertain because of a number of factors: the looseness of the few guidelines for authors in journals and the divergence among these, the ensuing unpredictability of formats, and the circumstance that GA users neither come from nor conform to a particular community of practice that can be said to 'own' the genre, whose presence is guaranteed only when journals (generally high-impact ones from the

7. https://www.elsevier.com/connect/the-article-of-the-future

biomedical sciences) make it compulsory. The chief motivation for GA use seems to be to attract readers' attention and to stimulate an emotional state conducive to further reading. Without a shared visual literacy for scientists and agreed conventions regulating semiotic modes, the social consequence may be, as I have noted in previous work (Sancho Guinda 2015, 2016), a division of epistemic communities into interpretive ones (a term harking back to Fish 1980) according to individual abilities at decoding visual information. If 'multiple memberships' (Wenger 1998: 158) and interdisciplinarity have made communities of practice more diversified, permeable, transient and labile than ever, the only certainty about GA ownership is that at present it belongs to few 'journal tribes' (Sancho Guinda 2015, 2016) such as the Elsevier, Taylor & Francis and FEMS readerships.

We could define GAs as 'visual abstractions of abstracts'. Indeed they abridge their verbal version: the drastic selectivity imposed by the visual mode may sacrifice the inclusion of the complete IMRD sequence of genre moves in favor of emotion as an eye-catcher. The weight of emotion is variable and may be arranged into two different layouts or 'semiotic modes' (Bateman 2011): a 'static image flow' that takes up the whole of the space (with or without signals indicating the reading path for chronological and/or causal relationships), and a specific spot within a 'page-flow', which alternates image and text and assigns separate spaces for emotional stimuli and rhetorical relations.

3. Transduction-generated challenges: Emotion as distracter and intersemiosis enhancement

Transduction, the translation of meanings and materials from one mode of communication to another, is the biggest challenge faced by GAs. It was mentioned above that ambiguity may be caused by a number of factors: the lack of correlation between visual and verbal language, the synthetic nature of visuals, the uncurbed creativity of layout formats, and the high selectivity of the genre, which derives from its dual social function of screening scientific information and promoting research, researchers and, more or less explicitly, their sponsors and supporting institutions. Nevertheless, along with these immanent features, *subjectivity* – and remarkably its expression as *emotion* – plays a salient and double-edged part (deliberately or not) in the selection of content and its rendering. Although emotion most probably improves the effectiveness of the message by enhancing intersemiosis and functioning as a mnemonic device, it may also obscure IMRD narratives and hinder the interpretation of complex ideas and contexts when the lines of reasoning presented are not simple.

3.1 Analytical procedure

The small-scale qualitative study I have conducted[8] analyzes actual GA samples devised by researchers publishing in high-impact journals and has been based on a blended theoretical framework combining the principles of Multimodality (Bateman 2011, 2017; Forceville 2009, 2017; Hiippala 2014; Kress & Van Leeuwen 1996; Jewitt 2009; Machin 2007; Yus 2009), the Appraisal and Metadiscursive Models (Bednarek 2008; Martin & White 2005; Hyland 2005a, b) and Positioning Theory (Van Langenhove & Harré 1999). To classify primary emotions I have used Bednarek's (2008) five-item typology of '(un)happiness', '(dis)inclination', '(in)security', '(dis)satisfaction' and 'surprise', scrutinizing some 1,000 GAs covering the time span August 2010-December 2017. Most of the samples have been criticized in science blogs (exactly 916 come from TOC ROFL)[9] and on academic network forums (e.g. ResearchGate),[10] and others were found at random while browsing high-impact journals. After this compilation, recurrent findings shaped a preliminary 'road map' (Figures 3a and 3b) that may prove useful for other analysts and structures the comments on the results presented in what follows.

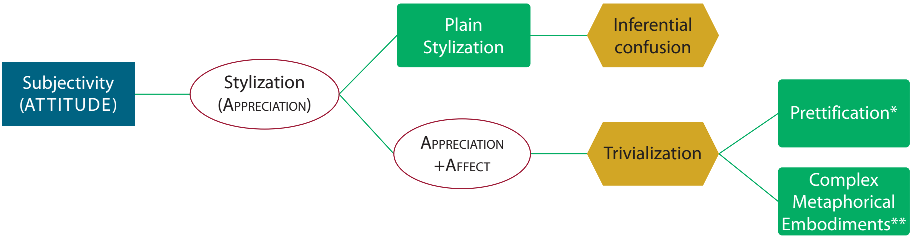

Figure 3a. First-level road map for the analysis of ATTITUDE and its subsumed emotional talk in GAs (Oval shapes stand for attitudinal categories, smooth-cornered rectangles for stylization types, and hexagons for discursive effects)

Subjectivity, understood in a first approach as ATTITUDE,[11] manifests itself as APPRECIATION in the abundant representational embellishments found, which I

8. This study has been supported by the research project 'Emo-Fundett' (FFI2013–47792-C2–1-P), funded by the Spanish Ministry of Economy and Competitiveness, and coordinated by Prof. Laura Alba-Juez as principal investigator.

9. blogs.nature.com/thescepticalchymist/2011/07/the_art_of_abstracts.html

10. www.researchgate.net/post/How_to_create_a_graphical_abstract

11. The analysis of subjectivity as 'GRADUATION' (Martin & White 2005), also liable to express emotion, would require the development of sophisticated tools for measuring visual depth, the degree of detail, the semiotics of light and color (e.g. tone and hue, modulation, saturation and brightness, and luminosity), and distances and angles of interaction, among other variables.

have called *stylizations*. These may be merely esthetic and at most cause inferential confusion due to misrepresentation, or they merge APPRECIATION and AFFECT, in which case a trivialization of the scientific information occurs. Regular causes of trivialization are two concrete types of stylization: *prettification* and *complex metaphorical embodiments*. The latter are visual or multimodal situational metaphors that normally involve emotion clusters.

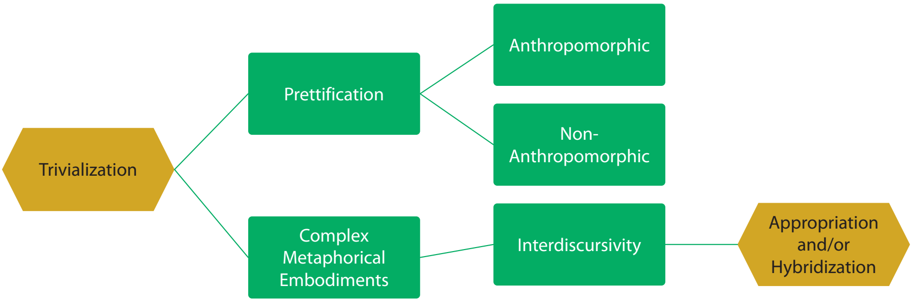

Figure 3b. Second-level refinements for stylization analysis detailing the components of emotional talk devices

Figure 3b specifies the subtypes of these two emotional talk devices, which almost invariably downplay scientific discourse. Prettification may take human-like shapes (which might constitute an indirect way of expressing JUDGMENT), while complex metaphorical embodiments encapsulate scientific facts as real-life situations and encompass the appropriation of non-scientific discourses (e.g. literary, legal, journalistic, artistic, advertising, pedagogical, etc.), which could ultimately lead to *regenring* (English 2011), that is to say, to a genre shift due to substantial changes in register, layout, or organization. In the next subsection, commented examples of every type of stylization are presented.

3.2 Examples, analysis and findings

More often than not, GAs present an incomplete, too implicit or too condensed IMRD narrative in which genre moves are hard to discriminate; inferential confusion increases when esthetic appreciation comes into play and produces stylized visuals. A case in point is the *plain stylization* seen in Figure 4, which shows arbitrary shading, based on individual esthetic taste, of a molecule representation in a chemistry GA. The shaded surfaces may be mistakenly interpreted as areas of chemical bonding.

Similarly, there are no reliable devices for the measurement of subjectivity understood as 'visual engagement' (i.e. epistemic modality in the visual mode).

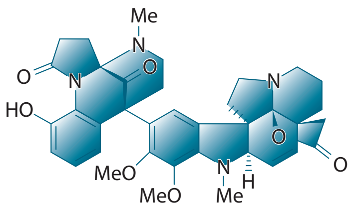

Figure 4. Plain stylization due to arbitrary shading

A second level of stylization is the '*prettification*' of chemical symbols, which on the whole has a bearing on the emotional load of the message and trivializes scientific content. Scientific symbols and entities may be embellished with cartoonish faces and bodies (Figure 5) in order to express amusement, cheerfulness and a humorous mood (all of them ingredients of Bednarek's 2008 basic emotion of un/happiness). Prettification may be boosted with lively colors, emojis, and fonts such as Comic Sans to enhance the overall jocular tone. The conjunction of such stylizations has been criticized as infantile by expert science bloggers and described by some forum participants as "cartoons without captions" or "more amusing than instructive".

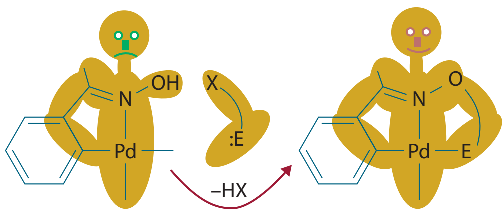

Figure 5. Anthropomorphic prettification of molecules

Albeit less abundant than its anthropomorphic counterpart, non-anthropomorphic prettification is also possible, engaging viewers through shared knowledge and metaphorizing the object, entity or situation represented as another, thus creating common ground and thereby an attitude of empathy and an optimistic mood. In Figure 6, the synthesized sweetener has been metonymically and naturalistically rendered as an ice-cream cone by assembling two photographs colored in accordance with the prototypical metaphorical referent.

A final level of stylization is visual/multimodal metaphor, tagged as 'complex metaphorical embodiments' in the methodology just described. Their complexity resides in the scientific situation they attempt to reproduce (chained ideas or inferences whose verbal translation would need a minimum of one or two full sentences) in their frequent conjugation of visual and verbal text, in their recourse to cultural and encyclopedic knowledge taken for granted in decodification, in their habitual utilization of page-flow layouts, and in the clusters of emotions depicted – for instance, cheerfulness and amusement through parody, or amalgams of surprise and empathy, the latter in the form of appeals to shared everyday situations or encyclopedic knowledge.

Figure 6. Non-anthropomorphic prettification based on metonymy and metaphor

In Figure 7 the surprise sparked by unpredictable chemical behavior has been metaphorized as Robert Louis Stevenson's *The Strange Case of Dr Jekyll and Mr Hyde* (1886), with varying degrees of visual and verbal iconicity. Figure 7b, additionally, draws on the speech balloon stylistics of comic books and graphic novels, and the character's stilted utterance mimics the speech of the 19th century. Both renderings make use of a page-flow layout that turns the leftmost spaces into 'empathetic sites' devoted to reader engagement, while the rightmost part is reserved for the 'serious' scientific content.

The GAs shown in Figure 8 parody Shakespeare's most universal quote from Hamlet's soliloquy, which evaluates epistemic meaning as it expresses doubt and indecision while transmitting playfulness. The two instances have substituted the skull, the object originally expected to be held by the parodied character, with the molecule or chemical substance researched. It is also worth of note that both samples round off the metaphorical mapping with phonetic verbal puns: The title of 8a is "tBu or Not tBu?" (tBu being the name given to the molecule under study) and 8b includes a legend that takes advantage of phonetic resemblance and substitutes "question", the word in the original quote, with "pressure", a physical variable dealt with in the chemistry paper.

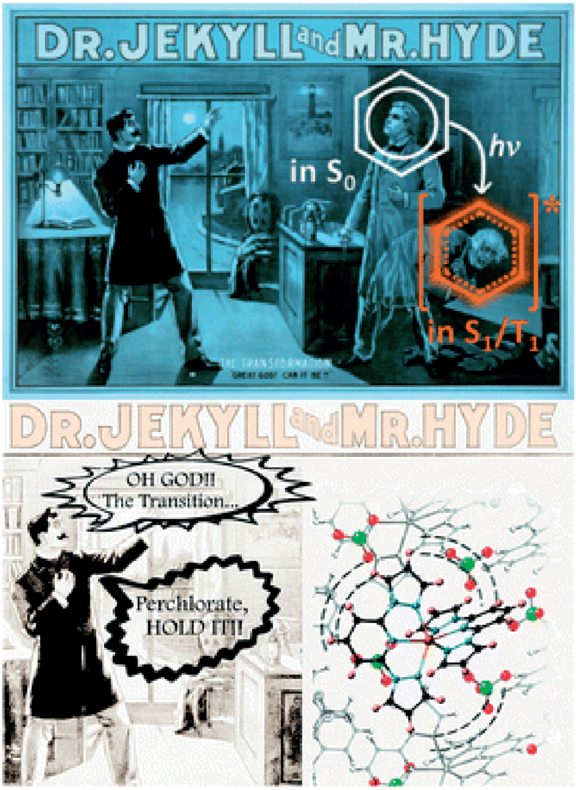

Figure 7. Surprise encoded as shared literary knowledge in 7a (top) and 7b (bottom)

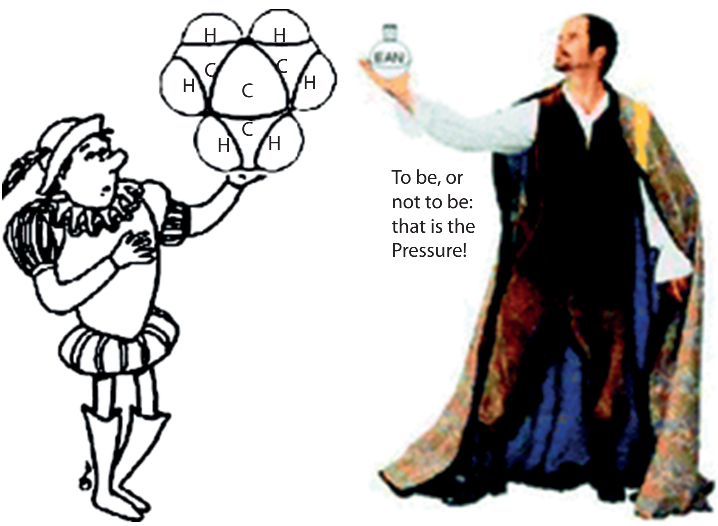

Figure 8. Doubt encoded as shared literary knowledge in 8a (left) and 8b (right)

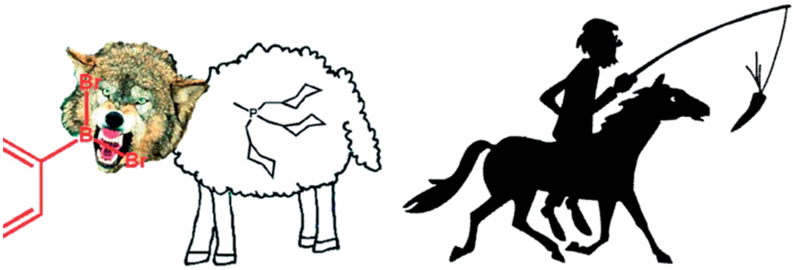

Figure 9. Surprise and doubt encoded as shared idiomatic knowledge in 9a (left) and 9b (right)

The same pattern of metaphorical embodiment finds in Figure 9 a higher level of interpretive complexity, since the knowledge demanded neither is situational nor references more or less universal works of art, but invokes national idiosyncrasies, popular wisdom and linguistic expertise. The absence of titles in the image (cf. 7a, 7b and 8b) impels the viewer to rely exclusively on the visual. 9a iconizes the idiomatic expression "a wolf in sheep's clothing", which epitomizes the idea of evil hidden under a pleasant, innocuous appearance. The idiom is contained in the article's title, with phonetic and spelling modifications due to the commercial name of the chemical product to be discussed ('Wolphos'). In contrast, 9b offers a less empathetic embodiment without any verbal clues (the article's title "Current Trends in Finite-time Thermodynamics" does not assist decodification), and represents the insecurity engendered by the persuasion/coercion duality.

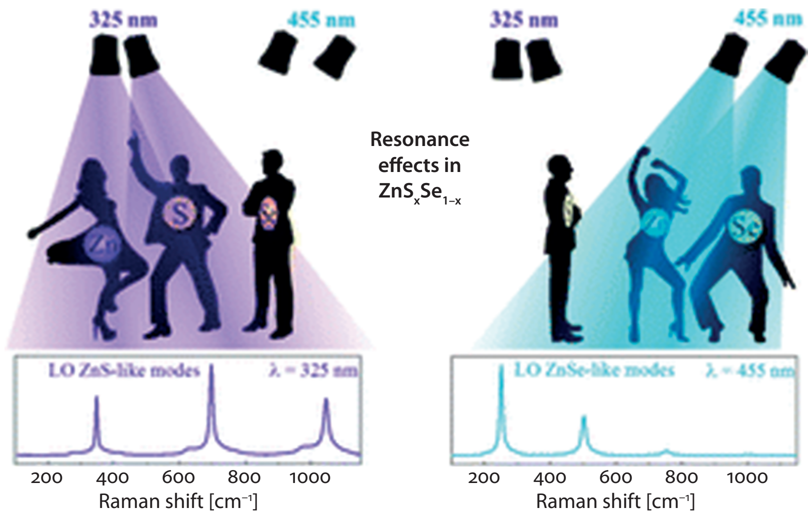

Figure 10. Surprise and interest unempathetically encoded as shared cultural knowledge

Empathy diminishes even more in the page-flow representation of Figure 10, whereas metaphorical complexity increases. There is a metaphorization of inanimate entities (chemical elements) as human beings and a particular chemical behavior is represented as a real-life situation in a two-panel narrative format. Moreover, the feminine role chosen (i.e. an active seductress?) and its rendering (i.e. in tempting attire and with potentially provocative body stances) in a disco scene, might be misunderstood and even be offensive to some cultures and creeds. Finally, the narrative flow from left to right may furthermore be perceived as ethnocentric because it reproduces the reading scheme of western languages, scripted from left to right.

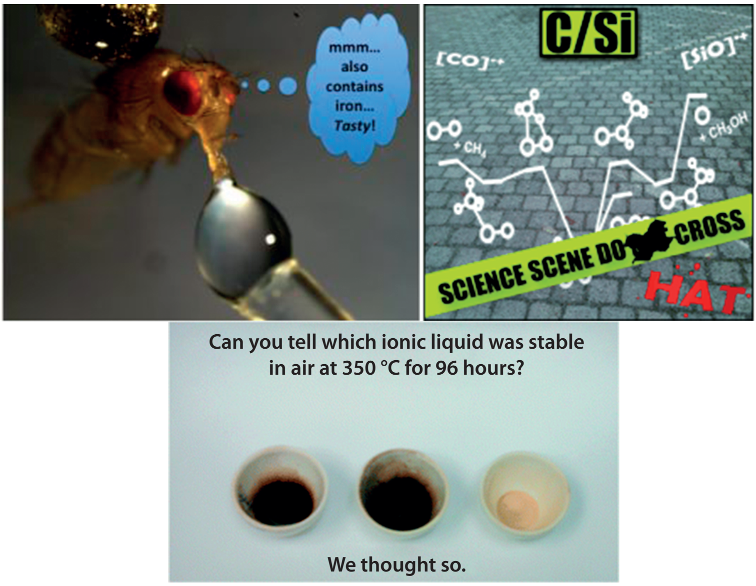

Figure 11. Inclination (desire), surprise, interest and humor embodied as discursive and sociocultural knowledge in 11a (top left), 11b (top right) and 11c (bottom)

Finally, Figure 11 brings together three examples of manifest interdiscursivity. The personification of 11a appropriates the thought balloons of comic books and the open praise typical of advertising. It is one of the very few instances of overt 'language of emotion' in GAs, but is assigned to a fictitious character and not directly to the author(s). Figure 11c verges on *regenring* and could perfectly pass as a printed or billboard advertisement if it were presented without any cotextual (e.g. a title) or contextual clues (i.e. its viewing outside of the journal and the academic circle) and the verbal language were not so technical. This GA exploits four devices characteristic of advertising: personal self-identification with exclusive 'we' as a marker of authority and nearness, audience involvement through pronominal appeal ('you'), rhetorical questions, and pragmatic implicatures to maintain suspense. In 11b there is a manipulated appropriation of authoritative instructional discourse ("Police line. Do not cross.") in an artistic key that evokes the style of urban graffiti, especially the erasure on the police line. Metaphorical mappings are here more intricate and subtle: the chemical formula written on the photograph cobblestones stands for the chalk outline temporarily surrounding the corpse in a crime scene, and the scientific issue being researched becomes, by analogy, a crime scene under investigation: a 'science scene'. In addition, the symbols of the two chemical elements studied, carbon (C) and silicon (Si), are present in the words 'science' and 'scene', as a sort of phonesthemes superposing accessory symbolism through alliterative sounds and repeated graphemes (**sc**ene, **sc**ience, Si, C) to the altered verbal message on the police line. The capitalized acronym 'HAT', which in the article means 'hydrogen-atom transfer', might be embodying, as signifier, the pictorial representation of the real-life referent it signifies, a hat, here a blood-covered one at a distance from the body, outside the chalk outline. However, unless interviews with the scientists are conducted, it is difficult to ascertain whether the authors' intention was to challenge the addressee with a *sui generis* detectivesque conundrum by stinting on '*ad hoc* pointers' of metaphor (Yus 2009), which signal the incongruence of a denotative interpretation.

4. A closing thought: The birth of a *promoemotional* science?

Current academic communication is nowhere near the "exercise in depersonalisation" described years ago by Van Langenhove & Harré (1999: 103). Digital media and the growing promotionalism of science have compelled scholars to adopt a more fluid discursive positioning towards their addressees, especially in genuine online genres, and in this respect GAs differ notably from their verbal versions. The present study has revealed that the presence of emotion in GAs seems to be related to scholars' adoption of such extra-academic roles as journalist, advertiser, designer and entertainer. Ten important points can be presented in conclusion:

1. Contrary to what is expected for verbal abstracts and written academic genres in general, GAs manifest a greater amount of emotional language (both visual and verbal) than language of emotion. Unlike in verbal abstracts, in GAs the promotional and luring functions dominate the informative.
2. Emotion is not a central objective of GAs but, save in plain stylizations, it surfaces and may function simultaneously as intersemiotic enhancer and distracter that disregards the expected IMRD narrative scheme.

3. Esthetic appreciation (stylization) frequently generates affect (trivialization of scientific content in multiple forms).
4. Sensory engagement precedes emotion. In the expression of complex ideas, usually as a visual appeal to shared encyclopedic knowledge of a (socio)cultural, discursive, literary, or idiomatic kind.
5. Conceptual, representational, and emotional complexity go hand in hand: complex metaphorical embodiments tend to use page-flow layouts and convey clusters of emotions.
6. GAs blur the public and private domains and the boundary between emotion and emotional talk, the latter by placing language of emotion in the speech of stylized entities/characters.
7. Interdiscursive hybridization of the genre on the visual and verbal planes may lead to regenring (i.e. genre shift) and thus obstruct interpretation in the epistemic community.
8. Ethnographic research and reception studies need to be undertaken to find out about authorial intention and communicative effects on addressees.
9. GA interpretation does not simply depend on scholarly expertise. Thus, visual literacy is necessary at the levels of thinking, learning and communicating.
10. Most journal policies concerning GA gatekeeping seem vague and inconsistent, as they provide uncommented sanitized exemplars but publish highly emotional submissions.

Epistemic communities are slowly overcoming their initial skepticism about the effectiveness and permanence of GAs, which are colonizing more and more journals across the disciplines and can already be found in non-empirical sciences. Only time will tell whether the GA will become a fully independent text under stricter gatekeeping and with the incorporation of new technological affordances (e.g. static holograms with voiceovers), whether it will survive forever in tandem with its verbal counterpart or in platforms such as Elsevier's "Article of the future", or will be absorbed by the video abstract, yet more emotional and heavily encouraged by the editorial giants. Another fertile research avenue may be the 'emotional contagion' of GAs in other genres within the academic genre system. Whatever the future may hold, GAs have been a step forward in the direction of science democratization.

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Interest in human emotion no longer equates to unscientific speculation. 21st-century humanities scholars are paying serious attention to our capacity to express emotions and giving rigorous explanations of affect in language. We are unquestionably witnessing an 'emotional turn' not only in linguistics, but also in other fields of scientific research.

Emotion in Discourse follows from and reflects on this scholarly awakening to the world of emotion, and in particular, to its intricate relationship with human language. The book presents both the state of the art and the latest research in an effort to unravel the various workings of the expression of emotion in discourse. It takes an interdisciplinary approach, for emotion is a multifarious phenomenon whose functions in language are enlightened by such other disciplines as psychology, neurology, or communication studies. The volume shows not only how emotion manifests at different linguistic levels, but also how it relates to aspects like linguistic appraisal, emotional intelligence or humor, as well as covering its occurrence in various genres, including scientific discourse. As such, the book contributes to an emerging interdisciplinary field which could be labeled "emotionology", transcending previous linguistic work and providing an updated characterization of how emotion functions in human discourse.

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