

Relevance, effects and affect

Abstract

In this paper, we argue that the successful integration of expressive acts of communication into an inferential theory of pragmatics faces a major challenge. Most post-Gricean pragmatic theories have worked to develop accounts of the interpretive processes at work in the communication of propositions; the challenge, therefore, is how expressive acts be integrated when their content is, as it appears to be, non-propositional. Following previous research, we link the affective effects produced as a result of such acts to descriptive ineffability and procedurality, and argue that they activate experiential heuristics through which they find relevance. Our approach stands at least partially within the development of recent approaches to emotion as evaluative devices (appraisal theory) and we suggest that certain cognitive effects arise in communication thanks to affective effects, which then act as attention attractors and boosters for optimally relevant cognitive effects. We show that, sometimes, affect can win out over the non-affective side of cognition and also that least some poetic artefacts may activate ‘pure affective effects’, which can be relevant in their own right, i.e. relevant without cognitive effects.

1 Introduction

We begin this paper with an observation and a question. Our observation is that most pragmatic theories inspired by the work of Paul Grice (see Grice 1957; 1989) have worked to develop accounts of the interpretive processes at work in the communication of propositions. Our question is: How can a cognitive pragmatic theory of Gricean descent, such as Sperber & Wilson’s (1986/1995) Relevance Theory, account for the communication of affect and emotions, if the content of such these phenomena is, as it appears to be, non-propositional? This observation and this question motivate the current paper, and in it we draw upon a number of recent works which suggest new directions of research in the domain of non-propositional meaning and, in particular, *affective effects*.¹ These include work on: i) so-called

¹ See in particular Wharton 2003; 2009; Wharton & Strey 2017; Sperber & Wilson 2015; de Saussure & Wharton 2019; Wharton & de Saussure to appear; de Saussure & Schulz 2009, among others.

descriptively ineffable contents – contents that are passed from a communicator to an audience but which cannot be broken down into representational meanings or propositions (Blakemore, 2011; de Saussure & Schulz, 2009; Wharton, 2015; Wilson and Carston, 2019); ii) impressions (Sperber & Wilson, 2015) – treated as undetermined, weakly manifest meanings; iii) literary effects (Carston, 2018; Cave & Wilson, 2018; Kolaiti, 2019). All these issues concern to some extent non-propositional meaning and expressivity.²

The importance of the expressive dimension in communication certainly needs no justification, but a taste of it is given by this remark by the famous French lawyer and former minister of Justice Robert Badinter (known for his address to the French Parliament which led to the eventual abolition of the death penalty). Whilst later summarising his defence of the final six criminals facing that penalty, a defence which ultimately led the jury to its rejection, he said:

If unfortunately you read, you are lost. (...). The reason I was able to save them, all of them [six men at risk of death penalty], was not because the language or the argumentation was perfect. The reason is different. It's that you address them, as the Italians say, 'naked face'. They must feel that it's a man that warns them against the trap set up for them and in which they are about to fall. That it is a man who is telling them: "Don't do that". (Robert Badinter, TV5 Monde broadcast, La Grande Librairie, October 2018. Our translation).

In the next section, we review and discuss previous work on non-propositional effects, in particular the communication of emotion, or affective effects. In section 3, and in order to demonstrate how powerful the effect of emotion can be, we comment on a case in which a speaker's pragmatic mistake leads to a situation in which a whole audience is forced to deal with strongly undesirable emotions – the so-called *amygdala hijack* from popular psychological work on emotional intelligence (Goleman 1995). If Badinter's argumentation owed its success to the amygdala hijack, the reverse situation is possible too. This happened famously in the example we discuss in section 3. In section 4 we discuss more precisely the 'expressive' dimension of language and introduce the relevance theoretic notion of procedural encoding. Section 5 is dedicated to summarising the main principles and

² There is a vast literature on so-called expressivity or expressive meaning (see, for example, Kaplan 1999, Potts 2007, Gutzmann 2015) but we focus here on work in cognitive pragmatics.

underpinnings of relevance theory, with a view to suggesting that it currently lacks the necessary equipment to address the affective aspects of communication. Section 6 details the notion of emotions and *affective effects*. We suggest that such effects are best characterised as activations of experiential responses procedurally rather than conceptually.

2 Moving beyond propositional meaning

Language enables us to communicate, with great subtlety, an infinite range of thoughts very easily in comparison with their inherent complexity. The communication of propositions is of fundamental importance in this. However, the communication of propositional or conceptual contents is only one dimension of human communication, which also necessarily involves the direct manifestation of mental states – sensations, emotions, feelings – which are hard to capture in propositional or conceptual terms.

Despite this fact, contemporary linguistic approaches to verbal communication fail to give the communication of phenomena such as these the attention they deserve. This, arguably, is largely due to the epistemological philosophical underpinnings of modern pragmatics, which concern themselves with the informational, propositional, component of communication – ‘meaning’, in a classical sense of the word. The tools that have been developed within formal approaches in particular have largely been designed to address phenomena of this sort. But people certainly communicate information about their emotions, and there is a sense in which they might be said to do this without describing them in propositional terms at all.

As an illustration, consider the difference between (1) or (3), which describe emotional states in propositional terms, with (2) or (4), which express these mental states in a much more direct manner (see Wharton 2015):

- (1) I am furious with you.
- (2) Bastard!
- (3) It hurts.
- (4) Ouch!

Both the formal, idealized language philosophy of Frege, Russell and Tarski, and the (so-called) ‘ordinary’ language philosophy of Austin, Searle and Grice regarded the only kind of meaning worthy of attention as that which can be rendered as propositional (Whether that be in the form of one proposition, or a few closely related ones.) As a result, and the fact that linguists, philosophers and pragmatists have tended to stay close to those areas of meaning illuminated by semantics and logic, attention has been almost entirely focused on propositional and conceptual meaning (see Sperber and Wilson 2015), i.e. the descriptive meaning illustrated in (1) and (3) above.

Having said that, there does exist a considerable literature which pays more attention to the domain that lies beyond propositional meaning. A number of scholars throughout the twentieth century have insisted that the direct expression of affective mental states is anthropologically at least as important as the communication of propositional contents with which it combines. Traditions in French linguistics in particular, originating in Saussurean structuralism rather than in Fregean formalism, led Charles Bally to initiate research in the domain of affectivity and language (Bally 1905; 1913). He distinguished between propositional contents, which he called the *dictum*, and the particular way of phrasing the dictum, which he called the *modus*. This was typically heavily permeated with expressivity and communicated a range of speaker attitudes, relatively to what had been said.

And there were other linguists in the early twentieth century who criticized the ‘ideational orientation’ of semantics, emphasizing that the study of the expressive dimension was at least as important as that of the propositional dimension (Erdman, 1900; van Ginneken, 1907). Arguably, such a view can be extrapolated to present-day linguistics. It seems to us unreasonable that a theory of communication should leave unstudied a domain that constitutes one of its most essential aspects.

But how are we to articulate the intuitions of Bally, who was working more than a century ago, with the advances made in pragmatics as it stands today? Moreover, how do we accommodate the great many fine intuitions concerning aspects of language dealing with other than propositional contents in the whole constellation of works that followed Bally? Insightful as they are, these works, after all, fall into sometimes obsolete theoretical backgrounds; from Benveniste (1970) to Ducrot (1972; 1984) to the various works by Jakobson on phatic and poetic aspects of communication (see Jakobson 1960). We hope

this is a challenge we can rise to, and our aim is to take all these the intuitions seriously and, effectively, to bridge the gap between the cognitive and the affective (or ‘conative’, as it was sometimes known).

Our aim is not new. The relevance of non-propositional contents is now well acknowledged (Moeschler, 2009) and recently new proposals have started to flourish in order to discuss how to account for them (Wharton, 2009; 2015; Wharton & Strey, 2017; Sperber & Wilson, 2015; Briens & de Saussure, 2018, Kolaiti 2019 ; Wilson & Carston, 2019 among others). Moreover, the vast field of investigation initiated by research into cognitive heuristics, and prompted by foundational works by Tversky & Kahneman (1974) and Petty & Cacioppo (1986) has forged more and more connections between interpretive processes and epistemic attitudes (de Saussure, 2005; Maillat & Oswald, 2009; Sperber & *al.* 2010). Further questions have been raised about the role of emotions in communication (see Dezechache & *al.*, 2013 among others) and persuasion and argumentation (Plantin, 2011). The relationship between propositional and non-propositional contents, however, remains to be elucidated.

3 The Jenninger effect

It is November 10, 1988. Philipp Jenninger, President of the West-German Parliament in Bonn, delivers an official address on the occasion of the 50th anniversary of the Night of Crystal. The speech begins with an evocation of the possible reasons for which, according to him, National-Socialism could have attracted and convinced many Germans at the time. His chosen rhetorical style was to try and represent as faithfully as possible the perspective of an ‘ordinary German’ of the nineteen-thirties who would be supportive of the Nazi movement. His intention, needless to say, was to dissociate himself from the point of view he was representing.

So, mimicking the tone and stance of early Nazi partisans, Jenninger wondered out loud what it was they had found so ‘fascinating’ (his word) about Naziism. Adopting free indirect speech, he continued:

From mass unemployment had come full employment, from mass misery, something like prosperity for the broadest layers of the population. Rather than despair and hopelessness,

optimism and self-confidence now ruled. Didn't Hitler make true what Kaiser Wilhelm II had only promised, namely, to lead the Germans toward glorious times? Had he not truly been selected by Providence, a Führer, as Providence grants to a people only once in a thousand years?

And as for the Jews, had they not, in the past, presumptuously assumed a role which they did not deserve? Shouldn't they finally, for once, have to put up with some restrictions? Didn't they perhaps deserve to be put back in their place?³

The response his performance elicited was not what Jenninger had hoped for. More than 50 members of the *Bundestag* promptly walked out. The next day Jenninger was looking for a new job.

Even though there can be little doubt about Jenninger's intentions – he had been trying to communicate his abhorrence of Naziism and its crimes – the sensitivity of the members of the *Bundestag* to anyone who, even apparently, was attempting to legitimise the pro-Nazi vote was hardly surprising. Jenninger himself clearly believed it was *obvious* that he was dissociating himself from the words he had uttered. But his performance was ill-judged. His intention was to dissociate himself from the content of what he said *wasn't obvious enough*.

Our purpose in presenting this anecdote is to illustrate the impact that emotion can have. No-one present that evening believed Jenninger was a Nazi, or a Nazi sympathiser. They *knew* he wasn't. However, the shock, disgust and revulsion his performance generated was simply impossible to ignore.⁴ Whatever his exact intentions (Ensink 1997 suggests that he wanted to take the perspective of the historical heritage of the Nation), we insist on this: it was a known fact that Jenninger was obviously not a Nazi sympathiser, and yet the emotions that arose within the audience during his verbal performance were overwhelming.

³ Quote from *Franfurter Allgemeine Zeitung*, November 11th 1988 (our translation). See also de Saussure (2012), Wharton & de Saussure (to appear), de Saussure & Wharton (2019).

⁴ One year later, Ignatz Bubis, a prominent member of the Jewish community, used several passages verbatim from Jenninger's speech and offended no-one. (Admittedly, he didn't use the word 'fascinating'.) This corroborates the claim that it had not been the words Jenninger used that caused the response; rather, his whole performance.

This kind of event is just one case – though admittedly an extreme one – of those usually known as misunderstandings. But this was not a misunderstanding in the traditional sense. Typically, the spark for misunderstandings is a mismatch between the proposition expressed by the speaker and the one retrieved by the hearer. ‘Misunderstandings’ such as this occur for very different reasons. The propositional content is immaterial. They rest entirely on powerful emotional responses.

4. The expressive dimension

When we speak of the ‘expressive dimension’, we have in mind examples such as those in (2), (4) above and (5) or (7) below. Both of these utterances contain something ‘ineffable’, which is impossible to capture in words, or in terms of truth conditions (or non-natural meaning in the Gricean sense). Indeed, the truth-conditional content of (5) and (7) are identical to the truth conditions of (6) and (8).

- (5) A: (Disgusted tone of voice) That total prick Thompson has offended an entire nation yet again.
- (6) Horace Thompson has offended an entire nation yet again.
- (7) A: (Angrily) Those damn students have asked for an extra bloody class!
- (8) Those students have asked for an extra class.

One could wonder whether ‘total prick’ in (5) and ‘damn’ and ‘bloody’ in (7) don’t simply add other propositions to what (6) and (8) respectively convey. But arguably, ‘bloody’ does not associate a clear property to the ‘class’, as would another adjective such as, say, ‘large’: there is no distributive property that would distinguish classes that are bloody and classes that are not bloody. What is more, the scope of ‘bloody’ seems to extend to the whole proposition or at least beyond the boundaries of the NP and ultimately to something that doesn’t seem to reside in the proposition itself. It’s about the emotional reaction triggered in the mind of the Speaker by the students asking an extra class. The same holds for ‘damn students’. As for ‘total prick’, things are slightly more complicated: arguably, and according to the conceptions of a given individual, ‘total prick’ classifies Thompson in the category of humans that are total pricks. However, just as with ‘bloody’ and ‘damn’, the scope of what ‘total prick’ expresses goes

beyond its classifying ‘propositional’ meaning; it expresses directly the affective attitude of the speaker. In fact, what (5) communicates is not only that Thompson belongs to the class of total pricks according to the speaker, but, crucially, the notion that the speaker is angry, but without describing the anger. It communicates it in an immediate, expressive manner.

It is true that some pieces of information are retrieved from the use of such expressions, namely that the speaker entertains a certain type of affective state, that she thinks it undesirable to hold an extra class, etc. But these are pieces of information that are only derived, inferred, from what the audience perceives, while what is actually perceived is not propositional. It is the external manifestation of an emotional attitude, directly exhibited. That very element is much more than the description of a mental state. Expressing emotions with an epithet like ‘total prick’ about some individual is something else than describing someone as having the property of total prickness. It is in this sense that what these elements convey is descriptively ineffable: no proposition or set of propositions can render their emotional load or import, which is irreducibly emotional, expressive.

Other examples are equally revealing. We have already introduced the idea that the interjections in (10) and (12) express emotions directly, rather than describe them (as in (9) and (11)):

(9) That hurts.

(10) Ouch!

(11) I’m disgusted.

(12) Yugh!

But in the same way as examples (5)-(8) such cases are non-truth-conditional (see also Kleiber 2016 for similar cases in French):

(13) A: *Ouch!*

B: – *That’s false! / *That’s not true!

A: *It hurts.*

B: – That's false / That's not true

A: *Ouch!*

B: – *I know.

A: *It hurts.*

B: – I know.

A: *Does it hurt?*

B: – Yes / *Ouch!

Wharton (2003) also shows that an interjection like (13) is not equivalent to its propositional content in (14), since (13) shows no redundancy whereas (14) does:

(13) Ouch! That hurts!

(14) That hurts! That hurts!

And the fact that (14), in contrast to (13), does not involve any conceptual repetition, leads Wharton to propose that they encode *procedural* rather than *conceptual* information.

Blakemore (1987, 2002) introduces this distinction during her work reassessing existing accounts of discourse connectives. She argues that most words encode concepts, constituents of conceptual representations. However, some words do not map onto concepts, and rather than encoding the constituents of conceptual representations, the function of such words is to constrain the inferential processes involved in constructing or manipulating these representations. They guide the comprehension process by indicating the general direction in which the intended meaning is to be sought, by narrowing the hearer's search space.

Wharton (2003) argues that interjections encode procedures which facilitate the retrieval of a range of speech-act or propositional-attitude descriptions associated with expressions of emotion. This

idea is taken further in Wharton (2009) in which it is proposed that smiles and other natural, spontaneous facial expressions are *natural codes*, which should be analysed as encoding procedural rather than conceptual information. On this approach, the function of facial expressions of surprise or delight would be to facilitate the retrieval of similar, strongly communicated propositional-attitude descriptions to those activated by the interjection ‘wow!’ in (9). The procedural analysis is, we believe, a promising one. It cannot, however, be the whole story.

5. Relevance theory pragmatics and non-propositional meaning

Relevance theory (Sperber and Wilson 1986/1995, Blakemore 2002, Carston 2001, Wilson and Sperber 2002) is built around two principles. According to The Cognitive Principle of Relevance, the human cognitive system is geared to look out for relevant information, which will interact with information that is already mentally-represented and lead to *positive cognitive effects* (in the form of true implications, warranted strengthenings or contradictions of existing assumptions). That the search for relevance plays a central role in human cognition is now widely accepted in cognitive science: ‘Cognition is the art of focusing on the relevant and deliberately ignoring the rest.’ (Gigerenzer and Todd 1999, 21)

The disposition to search for relevance is one that is routinely exploited in human communication. Since speakers know that listeners will pay attention only to stimuli that are relevant enough, in order to attract and hold an audience’s attention they should make their communicative stimuli appear at least relevant enough to be worth processing. More precisely, The Communicative Principle of Relevance claims that by *overtly* displaying an intention to inform—producing an utterance or other ostensive *stimulus*—a communicator creates a presumption that the stimulus is at least relevant enough to be worth processing, and moreover, the most relevant one compatible with her own abilities and preferences. Utterances are relevant because they give rise to cognitive effects.

Let us illustrate this with an example. Mary is on holiday. She is staying on a cottage in the countryside and wakes early in the morning in her room. The following thoughts come to her mind. (These thoughts represent the context in which new information will be processed.)

(11) I'll (probably) go for a walk today.

(12) If the sun is shining, I'll go for a walk today.

(13) If it's raining, I won't go for a walk today.

As she pulls back the curtain in your bedroom, she might become aware of a whole range of things: dogs barking, songbirds flitting in and out of branches in a nearby tree, the ringing or church bells in the distance. But none of these things are relevant to her in the context of the thoughts that she is entertaining. Some things are available to her consciousness and she knows she is aware of them, while others, such as the dogs barking, whilst still accessible among the things she knows, are not strongly activated in her consciousness: indeed, she may not even not be aware that she knows them. For example, it's highly likely that there is some form of heater (or fan) in the room in which you are currently reading this. But while you *know* that, you may well be unaware of that thing at the moment. Elements of knowledge that are highly accessible to consciousness are *more manifest* and things that are not, are *less manifest*. Cognitive effects are all about giving manifestness to pieces of information that were not manifest to the interlocutor, or more manifestness to those who are less manifest than the speaker wishes.

In the example above, what she *does* attend to is the fact that the sun is rising in a clear sky. This new information is highly manifest; it strengthens the assumption in (11) and interacts with assumption (12) in order to yield the implication 'I'll (definitely) go for a walk'. If, by contrast, she had noticed it the sky was dark with clouds, this information would have interacted with the assumption in (13) and yielded the implication 'I won't go for a walk'. Notice, also, that assumption (11) is therefore contradicted. Relevance, then, is a property of inputs to cognitive processes, and is defined in terms of cognitive effects gained and processing effort expended: other things being equal, the more positive cognitive effects gained, and the less processing effort expended in gaining those effects, the greater the relevance of the input to the individual who processes it.

Many researchers from other disciplines who are interested in relevance theory are critical that the theory tends to concentrate exclusively on epistemic states (see, for example, Dukes et al (forthcoming)). As Deirdre Wilson put it during a workshop in Oxford in 2011:⁵

...relevance theory is a theory of communication, and it defines communication rather narrowly in conceptual terms. Communication involves providing evidence for a range of intended effects, and while this leaves room for images and emotions to play a role as causes or consequences of an appropriate interpretation, they cannot be part of that interpretation unless embedded into a conceptual description.

Nonetheless, Sperber & Wilson (2015) do not ignore non-propositional contents and envisage what they call ‘impressions’ as ‘arrays of weakly manifest propositions’, that is, a more or less indeterminate enumeration or description of propositions, the manifestness of which to a particular individual can’t be predicted. If having opened the curtain, Mary catches the eye of the person she is sharing her room with and gazes up at the blue sky outside, she does not make manifest any particular proposition, but rather – in relevance theory terms – shares a number of weakly manifest ones. The interpretation of creative metaphors involves a similar process. A metaphor such as ‘Juliet is the sun’, uttered by Shakespeare’s Romeo, implicates an undetermined array of ideas that relate love to the sun. However, no matter how weakly manifest this array is, or how unpredictably it may rise in an individual’s mind, these elements are still essentially propositional. In recent work (Carston, 2018; Wilson and Carston, 2019) intuitions of ineffability and non-propositionality are further described by supplementing the above account with some form of ‘mental imagery’.

The kind of imagery they have in mind is ‘consciously experienced’ or ‘phenomenologically salient’ and Wilson and Carston (2019) point out that they are unclear how this type of imagery relates to the kind of ‘simulations’ described in theories of cognition such as those offered by Barsalou, 1999;

⁵ Balzan Project, St John’s College, Oxford, 2011.

Barsalou et al., 2003; Glenberg, 1997) which are typically described as ‘embodied’. In support of their claim they cite experimental evidence which demonstrates:

... (a) that novel/creative metaphors take longer and are more costly to comprehend than familiar/frozen ones (Giora, 2003; Lai et al., 2009); (b) that novel/creative metaphors evoke significantly more and longer activation of sensorimotor areas of the brain than familiar/frozen metaphors (Just, 2008; Desai et al., 2011). A plausible hypothesis is that the extra time and effort required for understanding a novel/creative metaphor facilitates, and perhaps intrinsically involves, the conscious grasp and manipulation of mental images. The same line of thought applies to non-metaphorical uses of language that induce a hearer/reader to slow down, take more time and expend more effort in reaching an interpretation (Wilson & Carston 2019:36).

As an analysis of certain factors involved in the interpretation of poetic metaphors, we see this as a promising direction. We agree that in the kind of cases they describe ‘imagery and affective states are automatically activated by-products of linguistic and pragmatic processes’. However, when it comes to the kind of emotional communication we are trying to characterize we believe that a much stronger stance is necessary.

Firstly, as argued above there is clearly something about the expressive dimension that is not conceptual at all: in many ways, it is something better defined not only as in some way procedural, but also as *pre-conceptual*, a term we explain below. Secondly, we believe its role is central to human communication rather than merely supplementary: emotion is hardly an incidental part of human mental life. Finally, we do not think that an account involving mental imagery of the kind Wilson and Carston describe goes far enough when it comes to describing the role of the sensorimotor systems in emotional communication. The role of mental imagery is merely the tip of some sensorimotor iceberg, and we claim that emotional communication exploits a host of other sensorimotor ‘images’, of varying types, which interact in ways which are synesthetic in nature. References to this kind of cross-sensory ‘imagery’ are common: from Danté’s ‘region where the sun is silent’ to more commonplace expressions such as ‘a sweet sound’ or ‘a loud shirt’.

A more promising suggestion than one involving mental imagery, we suggest, is that offered in Kolaiti (2019), who argues that thought is a mixture of causally interconnected conceptual and perceptual representations and that the aesthetic effects of literature and art cannot be properly explicated using the traditional relevance theoretic notion of positive cognitive effect at all. She proposes that the notion be supplemented with a new notion of *positive perceptual effect*: improvements, made sub-attentively, in the mind's perceptual and neural organisation. We propose to complement this with our notion of *positive affective effect*.

6. Affective effects

An affective state involves the presence of a range of separate elements. Our own account follows Rey (1980), for whom 'emotions' can be distinguished from 'sensations' or 'feelings' by the fact that they involve an interaction between the *cognitive* element necessary for an emotion proper, as well as the *physiological* and *qualitative* elements involved in sensations and feelings. Let's take 'fear' as an example. This emotion is characterised as involving an interaction between a *sensation*, the physiological element – among which are the secretion of epinephrine, a neurotransmitter associated with changes in heart rate and respiration rate, and cortisol, which heightens awareness and short term memory (and impacts negatively on information processing and rational analysis); a *feeling*, the qualitative element – the physical feeling of being afraid, which is typically accompanied by behaviours consistent with feeling this way; and a *cognitive* element – a belief that you are in danger, knowledge that you are in a situation you would prefer not to be in. Whilst emotional states crucially involve cognitive as well as qualitative and physiological elements, 'feelings' or 'sensations' need not.⁶ On our construal, 'feeling' an emotion does not involve the cognitive processes which manages epistemic states and other representational outcomes.

Feelings, after all, need not be conscious at all. Having a 'feeling' that the weather is worsening, or that you performed poorly in an exam, differs, we argue, from 'believing' or 'thinking' either of those things. Having a 'feeling' that someone is attracted to you, or that two people are talking about you in a

⁶ Notice, therefore, that our view of 'feeling' is different to those found in Damasio (2006) and appraisal theory (Ellsworth, 2013; Frijda, 2007; Lazarus, 1991 nor in the version by Deonna and Teroni, 2012).

conspiratorial manner, is not the same as believing or thinking those things. We do not believe that feelings, in this sense, are the same as 'impressions', characterised in relevance theory as above.

Propositions are not the correct currency to use when trying to characterise feelings.

While the terminology differs, elements of our view make it consistent with the fundamental assumptions of the approach to emotion elicitation in Appraisal Theory (Ellsworth 2013; Ellsworth & Scherer, 2003; Moors, Ellsworth, Scherer & Frijda, 2013). This approach takes it that emotions consists of several, different components and that they involve an evaluation or appraisal that has caused the reaction. It also, we claim, fits with the view of emotion presented in Cosmides and Tooby (2000 / 2008). They assume that the human mind possesses a species-specific neural architecture which evolved in response to adaptive problems faced by our ancestors. They define emotion as a superordinate cognitive programme, the function of which is to regulate or mobilise cognitive sub-programmes responsible for perception and attention, goal choice, information-gathering, physiological changes and specialised types of inference.

Roughly since the work of David Hume it has been assumed that rationality alone does not suffice to motivate an individual to engage in an act of reasoning. According to Hume, that motivation comes only from the 'passions'. Cognition and affect, so often regarded as two opposing forces, actually work together in complex ways. As Greenspan (2002: 206) puts it:

[E]motions can function as 'enabling' causes of rational decision-making [...] insofar as they direct attention toward certain objects of thought and away from others. They serve to heighten memory and to limit the set of salient practical options to a manageable set, suitable for 'quick-and-dirty' decision-making.

Emotions generate cognitive processing by constraining the construction of the context⁷ in which the informative, propositional, underpinnings of the emotional state, for example that the speaker is anxious,

⁷ See de Saussure (2005) and Maillat & Oswald (2009) about the notion of constraining the construction of context.

afraid, angry, excited etc., derived by a hearer faced with such stimuli, has to be interpreted. It is in that sense that we understand Greenspan's idea of emotions 'limiting the set of salient practical options'. Emotions impact on the manifestness of these options and they do so below the level of consciousness.

At all times, we are communicating information about our emotional state, attitudes, and evaluations of whatever we are currently confronting [...] We produce most of our nonverbal cues intuitively, without phenomenological awareness. (Lieberman 2000:111)

Emotional communication works on a number of different levels. Interjections, facial expression and affective tone of voice lead to the construction of higher-level explicatures and these (together with the proposition expressed by an utterance) lead to strong and weak implicatures by either providing strong support for a single, determinate conclusion or marginally altering the manifestness of a wide array of conclusions.⁸ But these positive cognitive effects need to be supplemented by a new type of effect.

A person who is experiencing fear, for example, automatically becomes hyper-alert. The sensations and feelings they experience will cause them to pay a high degree of attention to perceptual inputs they may not normally even notice. Once cognition becomes involved, they will be equipped with an entirely newly defined set of goals and directed to prioritised inferential processes. The elicitation of an emotional state gives rise to *affective effects*, which are powerful boosters for the search for relevance insofar as they dramatically facilitate the identification of what is worth being attentive to. As Wharton & Strey (2019: 263) put it, '[they] are the bridges between, on the one hand, feelings and sensations and, on the other, cognition as traditionally construed'. Since they have a property of intrinsic directness in communication, they reduce considerably the effort involved in reaching optimal relevance, driving the

⁸ Relevance theory distinguishes *strong* from *weak* communication, and *strong* from *weak implicatures*. A conclusion is *strongly implicated* to the extent that it must be derived in the course of constructing a satisfactory interpretation: in this case the array of assumptions **I** contains a single, strongly manifest, assumption. It is *weakly implicated* if its recovery helps with the construction of a satisfactory interpretation, but is not essential because the array of assumptions **I** contains a wide array of roughly similar conclusions, which are all made weakly manifest (Sperber and Wilson 1986/95: chapter 1, sections 10-12, chapter 4, section 6).

audience to worthwhile conclusions in the manner of calls to action. There is neurological evidence to support this. The processing of information through the subcortical pathways of the amygdala (the same amygdala that is sometimes hijacked, and is central to emotional experience generally), allows for much faster transmission of information than is possible in the cortical hemispheres responsible for conceptual thought. This increased speed enables us to respond to a dangerous stimulus well before we have become consciously aware what that stimulus might be. No-one on the planet has ever seen a saber-toothed tiger, but we all certainly have ancestors who could vouch for the adaptive value of such a response.

The processing of affective effects involves processes that are not adequately described by the representation and management of conceptual information. It is a kind of mental processing which involves, in Sperber and Wilson's words (2015: 139, 'patterns of activation, none of which might be properly described as the fixation of a belief' (in other words, procedures). These patterns do not involve a search for relevance in the sense of the derivation of cognitive effects, but typically arise as a precursor to them. In some cases, such as the Jenninger case discussed above, the affective effects pretty much exhausted what there was to retrieve from his performance. At other times, however, (and indeed more usually) they serve as a starting point for further processing and better enable the search for cognitive effects. Thus, it is not the case that the recovery of emotional effects has nothing to do with the derivation of cognitive effects, but rather that the two dimensions interact. In our example above of the person drawing back the curtain looking out of the window might accompany their glance at the person with whom they are sharing a room with a certain facial expression. This facial expression might cause sensations and feelings between them to be shared, and these sensations and feelings they share might cause cognitive effects (and hence, relevance) to be sought in a different direction.

We remarked above that aspects of the expressive dimension might be 'pre-conceptual' in some way. What might that mean? Consider human neonates. Tye (2004: 225) asks us to consider the reaction of a new-born baby when a cotton-bud dipped in liquid sulphur is held under her nose. A baby typically turns up her nose in that universal facial expression of disgust and turns away. The obvious explanation, as Tye goes on, is that this reaction occurs because, to the baby, the cotton-bud smells foul. But this reaction does not depend on the activation of a concept FOUL (any more than the frog's reaction to the fly involves entertaining the concept FLY). Indeed, it does not even presuppose that the baby even

possesses the concept FOUL. The baby's reaction is an emotional one, and in developmental terms might be said to be pre-conceptual.

And such emotional responses do not end once a human has acquired the concept DISGUST. Of course, as we develop, it becomes possible to reflect on such a response and to conceptualise it. An individual might report it, by using an utterance of (11) above. (Repeated below as (14)). But they might also express it directly by an utterance of (12). (Repeated below as (15)):

(14) I'm disgusted.

(15) Yugh!

If, on looking out of the window, Mary utters (14), it will lead her room-mate to derive a range of cognitive effects: Mary is clearly unhappy with an aspect of the view: perhaps a new apartment block has been built since the last time she visited, and obscured the view. Of course, an utterance of (15) might also lead to cognitive effects too, but crucially these cognitive effects have, as their precursors, affective affects. Mary communicates her disgust directly: perhaps she doesn't even conceptualise it at all. In this sense it is pre-conceptual in terms of process rather than ontogeny.

As we mature, it is certainly true that our experiences, which over time turn perhaps into dispositions to feel a certain way, play a key role in our emotional life. Radcliffe (1999, p. 113) puts it like this:

Since I am disposed to be fearful of heights... the representation of standing at the edge of the cliff is associated for me with the idea of discomfort. As a consequence of this association, when I come to the belief that I am actually standing at that location, I feel fear. But if I don't have these tendencies, but others, I might associate the idea of being at the cliff's edge with pleasure, and then I would feel joy at the view or at the sense of freedom I get standing there.

Being angry, moved, or passionately in love, are foreign mental states to individuals who have never experienced them. Young children may understand love stories rationally but are not usually very sensitive to them, and it's not to be unexpected that they do not get what adults try to communicate about the extreme sophistication of relationships. However, there comes a point when they begin to be interested in what it is like to be in such circumstances. It could be, for example, that their growing knowledge enables them to grasp some of the more weakly manifest assumptions carried by sentences like 'Juliet is the sun'. However, you can be sure that this sentence will be opaque to anyone having no experience of passionate love at all. This observation sits neatly alongside the notion that only some aspects of knowledge are representational whereas some sensations, for example, can only be talked about when interlocutors have experienced them (or at least similar ones). This is the main property of qualia, and after all, emotions and feelings are qualia. 'Juliet is the sun' is only truly understood by accessing something like an experience of love. Besides conveying weakly manifest indeterminate assumptions, creative metaphors are ineffable for the reason that no imaginable explicit counterpart such as an array of propositions, if spelled out, can do the job of exhausting what they convey for an individual. We suggest that any attempt to paraphrase 'Juliet is the sun', be it in one or several sentences, destroys a fundamental element of its sense which contributes to make it powerful. We suggest that such creative metaphors evoke intimate experiences about love in a specifically expressive manner, and in so doing elicit affective effects. The metaphor articulates together love in the particular sense of the passionate love of Romeo for Juliet with the sun in its known effects. Besides purely conceptual properties such as warmth and light etc., the metaphor raises other feelings associated with them: the recollection of what it is to stand in the warmth of the sun, what it is to see the world around illuminated by bright sunlight, what it is to feel the source of warmth and light right located above, etc., all this together with what it is to feel a deeply great passionate love. These elements lie beyond any account that relies on propositions.

If we follow the idea that affective effects somehow activate experiential reactions, then it should follow that the comprehension of a poem, for example, relates whatever is made manifest with equivalents in the reader's experiential memory or imaginings, hence their impact on the reader's affective life. The interpretation of poetry is widely about how to 'make sense' of our intimate experience, and feeling that emotional states similar to our own are shared by others, and that we may be

called to share those which we have not yet known directly by ourselves. Many poems have this touch of ‘expressive maieutics’.

We believe the idea that the processes involved in affective effects are of another kind than those involved in propositional communication is one that is worthy of exploration. The latter is well-known and involves a process of ‘mindreading’ that rests on Theory of Mind. But sharing emotional states seems rather to activate another circuitry. Notions such as ‘empathy’, the psychological ‘simulations’ of other minds, etc. spring immediately to mind. However, these notions are misleading simplifications. Sensing someone else’s emotional state does not happen through a scheme of inference, nor through logical steps of derivation. The procedures that are sub-attentive and automatic and emotional states are caught in a direct and immediate way when an individual resorts to the appropriate means: expressives or other linguistic forms loaded with affectivity. This claim is in no way new. There is a vast literature on emotional contagion (see Hatfield *et al.* 1994) which claims that instances of emotional communication convey not only conceptual information about emotional states, but ultimately and above all, something of *the emotional states themselves*. A theory of utterance interpretation needs to have the machinery to account for such phenomena, and we believe the notion of affective effect is a step in the right direction.

Further work will need to articulate in details how affective effects respond to general principles of interpretation such as those of relevance. They are, of course, relevant in a broad sense: they are attractors of attention, they can lead to quick cognitive effects, they convey forms of information at small interpretive cost, all things that fit with the notion that the human mind is geared towards relevance. In face of principles articulating cognitive effects with cognitive efforts, we suggest that similar principles articulate affective effects with processing efforts, either in their own right (as with feelings) or as facilitators for cognitive effects themselves.

Positive affective effects might be said to arise in their own right so long as non-cognitive aspects of the mind are also subject to the principle of relevance provided, for example, that a notion of *affective relevance* is integrated into the picture. Consider a case in which affective effects are activated through a process where personal memories and anticipations are compared with the mental states attributed to the communicator, which suddenly appear to make sense in some non-propositional way. That ‘sense’ could be linked to a mismatch between the normal course of events as anticipated

and the affective mental state displayed by the communicator by means of her behaviour.

However in most cases, we suggest, the affective state displayed will impact the cognitive environment of the hearer in a more dramatic way, and reduce processing effort drastically while providing cognitive effects in the form of reasons underlying the direct displaying of the affective mental state. Affective effects are therefore linked to attention, as sorts of deictic pointers to those reasons in the circumstances.

8. Conclusion

In this paper, we have tried to open a new avenue of research in order to integrate expressive acts of communication and in particular affective effects in the general framework of mainstream pragmatic theories (in particular relevance theory), which have arisen on the basis of formal, propositional, approaches to language use. Following previous research (Wharton 2009), we link affective effects to descriptive ineffability and procedurality, and argue that they activate an experiential kind of heuristic through which they find relevance. Our approach stands at least partially within the development of recent approaches to emotion as evaluative devices (*appraisal theory*) and we suggest that certain cognitive effects arise in communication thanks to affective effects, which then act as attention attractors and boosters for optimal relevance. Badinter's trick succeeded, and Jenninger's speech failed, because affect won out over the non-affective side of cognition. Perhaps poetry, or at least some poetic artefacts, may activate 'pure affective effects' that can be relevant in their own right – relevance without cognitive effects – but this remains, as much of what we have explored in this paper, to be further examined.

References

- Bally, C. (1905) *Précis de stylistique*, Genève, Eggitman.
- Bally, C. (1913) *Le langage et la vie*, Genève, Atar.
- Barsalou, L. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences* 22(4), pp. 577–660.
- Barsalou, L., K. Simmons, A. Barbey and C. Wilson (2003) Grounding conceptual knowledge in modality-specific systems. *Trends in Cognitive Sciences* 7(2), pp. 84-91.

- Benveniste, E. (1970) L'appareil formel de l'énonciation, *Langages* 17, pp. 12-18.
- Blakemore, D. (2002) *Relevance and Linguistic Meaning: The Semantics and Pragmatics of Discourse Markers*, Cambridge, Cambridge University Press.
- Blakemore, D. (2011) On the descriptive ineffability of expressive meaning, *Journal of Pragmatics* 43, pp.3537-3550.
- Briens, S. & L. de Saussure (2018) Les fonctions discursives et narratives des émotions. Pour un nouveau champ de recherche 'littérature et émotions', *Revue de littérature comparée* 2018(1), pp. 67-82.
- Carston, R. (2001) *Thoughts and Utterances*, Oxford, Blackwell.
- Carston, R. (2018) Figurative Language, Mental Imagery, and Pragmatics. *Metaphor and Symbol* 33(3), pp. 198-217.
- Cave, T. & D. Wilson (2018) (eds) *Reading beyond the code*, Oxford, Oxford University Press.
- Cosmides, L. & J. Tooby (2000) Evolutionary psychology and the emotions, in Lewis, M. & J. Haviland Jones (eds) *Handbook of Emotions*, New York, Guilford, pp. 91-115 (3rd éd. 2008).
- Damasio, A. (2006) *L'Erreur de Descartes. La raison des émotions*, Paris, Odile Jacob (1st ed. 1994).
- Deonna, J. & F. Teroni (2012) *The Emotions: A philosophical introduction*, London, Routledge.
- Desai, R., J. Binder, L. Conant, Q. Mano & M. Seidenberg (2011) The neural career of sensory-motor metaphors. *Journal of Cognitive Neuroscience* 23(9), pp. 2376-2386.
- Dezacache, G., H. Mercier & T. C. Scott-Phillips (2013) An evolutionary approach to emotional communication. *Journal of Pragmatics* 59, pp. 221-233.
- Ducrot, O. (1972) *Dire et ne pas dire*, Paris, Hermann.
- Ducrot O. (1984) *Le dire et le dit*, Paris, Minuit.
- Ellsworth, P. C. (2013) Appraisal theory: Old and new questions, *Emotion Review*, pp. 125-131.
- Ellsworth, P. C., et K. R. Scherer. (2003) Appraisal processes in emotion, in: R. J. Davidson, K. R. Scherer & H. H. Goldsmith (eds), *Handbook of Affective Sciences*, New York, Oxford University Press, pp. 572-595.
- Enzink, T. (1997) Collective misunderstandings due to misframing: The cases of Orson Welles (1938) and Philipp Jenninger (1988), in: I. Rauch & G. Carr (Eds), *Semiotics around the World: Synthesis in Diversity*, Berlin, De Gruyter, pp. 1131-1134.

- Erdmann, K. O. (1900) *Die Bedeutung des Wortes — Aufsätze aus dem Grenzgebiet der Sprachpsychologie und Logik*, Leipzig, Avenarius.
- Frijda, N. H. (2007) *The Laws of Emotion*, Mahwah NJ, Erlbaum.
- Gigerenzer, G. & P. Todd (1999) Fast and frugal heuristics: the adaptive toolbox, in: G. Gigerenzer, P. Todd & the ABC Research Group (Eds), *Simple Heuristics That Make Us Smart*, Oxford, Oxford University Press, pp. 3-34.
- van Ginneken. J. (1907) *Principes de Linguistique Psychologique*, Paris, Rivière.
- Giora, R. (2003) *On Our Mind: Salience, Context, and Figurative Language*, Oxford University Press, New York.
- Glenberg, A. (1997) Mental models, space, and embodied cognition, in: T. Ward, S. Smith & J. Vaid (Eds.), *Creative thought: An investigation of conceptual structures and processes*, American Psychological Association, pp. 495-522.
- Goleman (1995) *Emotional Intelligence*, New York, Bantam Books Inc.
- Greenspan P. (2002) Practical reasoning and emotion, in: A. Mele & P. Rawlings (Eds) *Rationality*, New York, Oxford University Press.
- Grice, H.P. (1957) Meaning, *Philosophical Review* 66, pp. 377-388.
- Grice, H. P. (1989) *Studies in The Way of Words*, Cambridge MA, Harvard University Press.
- Gutzmann (2015) *Use-Conditional Semantics*, Oxford, Oxford University Press.
- Hatfield, E., Cacioppo, J. & Rapson, R. R. (1994) *Emotional Contagion*, Cambridge, Cambridge University Press.
- Jakobson, R. (1960) Linguistics and poetics, in: T. A. Sebeok (Ed), *Style in language*, Cambridge MA, MIT Press, pp. 350-377.
- Just, Marcel, 2008. What brain imaging can tell us about embodied meaning, in: M. de Vega, A. Glenberg & A. Graesser, pp. 75-84.
- Kaplan, D. (1999) What is meaning? Explorations in the theory of meaning as use, ms., UCLA.
- Kleiber, G. (2016) Du cri de douleur au signe de douleur: l'interjection 'Aïe', *Synergies Pays Scandinaves*, 11/12, pp. 113-133.
- Kolaiti, P. (2019) *The Limits of Expression. Language, Literature, Mind*, Cambridge University Press.

- Lai, V., Curran, T., Menn, L. (2009) Comprehending conventional and novel metaphors: an ERP study. *Brain Research* 1284, pp. 145-155.
- Lazarus, R. S. (1991) *Emotion and adaptation*, New York, Oxford University Press.
- Lieberman, M. (2000) Intuition: A social-cognitive neuroscience approach, *Psychological Bulletin* 126, pp. 109-137.
- Maillat, D., & S. Oswald (2009) Defining Manipulative Discourse: The Pragmatics of Cognitive Illusions, *International Review of Pragmatics* 1, p. 348-370.
- Moeschler, J. (2009) Pragmatics, propositional and non-propositional effects. Can a theory of utterance interpretation account for emotions in verbal communication?, *Social science information* 48(3), pp. 447-463.
- Moors, A., Ellsworth, P.C., Scherer, K.R., Frijda, N.H. (2013) Appraisal Theories of Emotion: State of the Art and Future Development, *Emotion Review* 5, pp. 119–124.
- Petty, R. E. & J. T. Cacioppo (1986) The elaboration likelihood model of persuasion, in: L. Berkowitz (Ed), *Advances in Experimental Social Psychology* 19, pp. 123–205.
- Plantin, C. (2011) *Les bonnes raisons des émotions*, Berne, Peter Lang.
- Potts, C. (2007) The expressive dimension, *Theoretical Linguistics* 33(2), pp. 165-197.
- Radcliffe, E. (1999) Hume on the Generation of Motives: Why Beliefs Alone Never Motivate *Hume Studies* XXV(1-2), pp. 101-122
- Rey, G. (1980) Functionalism and the emotions, in: A. Rorty (Ed) *Explaining Emotions*, Los Angeles, University of California Press, pp. 163-198.
- de Saussure, L. (2005) Manipulation and Cognitive Pragmatics: Preliminary Hypotheses, in: L. de Saussure & P. Schulz (Eds), *Manipulation and Ideologies in the Twentieth Century. Discourse, Language, Mind*, Amsterdam-Philadelphia, John Benjamins, pp. 113-146.
- de Saussure, L. (2012) Compétence et contre-performance pragmatiques, *Mémoires de la Société de Linguistique de Paris* 21, pp. 135-159.
- de Saussure, L. & P. Schulz (2009) Subjectivity out of irony, *Semiotica* 173, 1, pp. 397-416.
- de Saussure, L. & T. Wharton (2019) La notion de pertinence au défi des effets émotionnels, *TIPA* 35, <http://journals.openedition.org/tipa/3068>.

- Sperber D. & D. Wilson (1986) *Relevance. Communication and cognition*, Oxford, Basil Blackwell (2nd ed.: 1995).
- Sperber, D. & D. Wilson (2015) Beyond speaker's meaning, *Croatian Journal of Philosophy* XV, 44, pp. 117-149.
- Sperber, D., Clément F., Heintz C., Mascaro, O., Mercier, H., Origgi, G. & Wilson D. (2010) Epistemic vigilance, *Mind and Language* 25, pp. 359–393.
- Tversky, A., & D. Kahneman (1974) Judgment under Uncertainty: Heuristics and Biases, *Science* 185-4157, pp. 1124-1131.
- Tye, M. (2004) On the non-conceptual content of experience, in: M. E. Reicher & J. C. Marek, (Eds.), *Experience and Analysis: Papers of the 27th International Wittgenstein Symposium*, Vienna, Austrian Ludwig Wittgenstein Society, pp- 221-239.
- Wharton, T. (2003) Interjections, language and the 'showing'/'saying' continuum, *Pragmatics and Cognition* 11(1), pp. 39-91.
- Wharton, T. (2009) *Pragmatics and Non-Verbal Communication*, Cambridge, Cambridge University Press.
- Wharton, T. (2015) That bloody so-and-so has retired: Expressives revisited, *Lingua* 176, pp. 175-176 (2016).
- Wharton, T. & de Saussure L. (to appear) Love, argument and conflict: the pragmatics of emotion, in: G. L. Schiewer, J. Altarriba and B. Chin Ng (Eds), *Handbook on Language and Emotion*. Berlin: De Gruyter Mouton.
- Wharton, T. & Strey C. (2019) Slave to the passions: making emotions relevant, in: R. Carston, B. Clark & K. Scott (Eds), *Relevance Pragmatics and Interpretation*, Cambridge, Cambridge University Press, 253-266.
- Wilson, D. and Sperber, D. (2002) Truthfulness and relevance, *Mind* 111, pp. 583-632.
- Wilson, D. and Carston, R, (2019) Pragmatics and the challenge of 'non-propositional' effects. *Journal of Pragmatics* 145, pp. 31-38.