That bloody so-and-so has retired: expressives revisited
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Abstract:

In this paper, I revisit my own work (2003a, 2003b, 2009) on interjections and non-verbal behaviours and build on Blakemore's (2011) account of the descriptive ineffability of expressive meaning. Whilst I agree with Blakemore's claim that expressives are best explained through an analysis that uses, on the one hand, procedural meaning, and, on the other, the idea that they show one's emotions, rather than mean$_{NN}$ anything in the Gricean sense, I ask two questions by way of developing the account further. Firstly, what is the relationship between the procedural meaning in Blakemore's account of expressives and the kind encoded by discourse connectives? Secondly, to what extent do we want to say that expressives *mean* anything at all? In answering these questions I aim to shed light on what expressive meaning is, and how it works.

Keywords: expressives, epithets, procedural meaning, showing, meaning$_{NN}$, emotional procedures, emotional vigilance, ostensive, non-ostensive

"Fuck off" doesn't mean "go away" […] There is no English equivalent for "fuck off"'.

Billy Connolly 2005

1. Introduction

No one with a serious interest in the study of meaning dismisses insights from truth-conditional semantic theories. The link between knowing the truth-conditions of an utterance and understanding the meaning of the sentence uttered remains perhaps *the* key insight in the study of linguistic meaning. However, an interesting challenge to the approach is posed by the existence of a range of patently meaningful linguistic expressions that make no contribution to the truth conditions of the utterances that contain them.

Consider, for example, the emboldened phrase in (1):

(1) **That bloody so-and-so** has retired.

'That bloody so-and-so' clearly communicates something over and above merely identifying a referent. And whatever this something is, it does not seem to be a part of the proposition expressed by an utterance of (1), which is equivalent to that expressed by (2):

(2) She has retired.

And while (3) might be an appropriate response to (1), (4) would not:

(3) That's not true: she's just on a sabbatical.
(4) That's not true: she's not a bloody so-and-so.

The emboldened expressions in (5)-(7) below represent further examples of non-truth conditional meaning:

(5) She may have retired **but** I doubt we've seen the last of her.
(6) She's moved to The Peak District, **they say**.
(7) **Frankly**, we were all hoping she'd go back to Wellington

A number of different frameworks have been devised within which non-truth-

conditional expressions can be analyzed. Most of these involve separating non-truth-conditional from truth-conditional content. In the account proposed by Grice (1967, 1989), 'but' does not contribute to *what is said* in an utterance of (5); instead, it conventionally implicates non-truth conditional information about a particular relationship between the two conjoined propositions. For Urmson (1958: 495-496), parentheticals (see (6)) are 'not part of the statement made, […] but function with regard to a statement made rather as READ WITH CARE functions in relation to a subjoined notice'. According to the standard speech act account (see Searle 1965; 1969 Bach and Harnish 1979), illocutionary adverbials such as 'frankly' in (7) pattern with parentheticals. They do not form part of the *descriptive* content: they *indicate* the performance of a particular illocutionary act.

But what sets the non-truth-conditional meaning in (1) apart from the other examples above is the fact that the noun phrase in (1) contributes information about the emotional state of the speaker (Kaplan 1999; Potts 2005, 2007ab, 2008; Blakemore 2011). Moreover, this information is expressed directly rather than described. Compare the direct expression of emotion in (8) with the description of it in (9):

(8)   **Damn!** That's really annoying.
(9)   **I'm cross.** That's really annoying.

The primary interjection[3] in (10) and the emotional intonational contour in (11) (uttered in a high key with high falls on the nuclei 'loved' and 'thank' – represented by \\) also convey expressive meaning:

(10) **Wow**, this book is really interesting!
(11) ¯She **loved** the $_o$ toy |¯**Thank** you |

In this paper, I build on previous accounts of expressive meaning, paying particular attention to an account I have developed myself (2003ab, 2009), and work by Blakemore (2011, 2013). In doing so, I focus on three particular properties expressives seem to share. The first of these is that it follows from their non-truth-conditionality that they contribute to speaker meaning in a manner that is somehow independent from the utterance(s) in which they appear. In this

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[3] A primary interjection is an expression that cannot be used in any sense other than as an interjection, e.g. *wow, oops, ouch*; primary interjections are contrasted with secondary interjections, words such as *hell, shit, damn,* which have an established, and separate linguistic meaning but can be used as interjections (see (8) above – the secondary interjections *hell* and *shit* would work equally well in this example).

sense they pattern with the emboldened expressions in (5), (6) and (7). The second is that the kind of meaning they convey is extremely difficult to pin down: just what does 'bloody so-and-so' mean? To use a term adopted in Potts (2007a), expressive meaning is 'descriptively ineffable', a point succinctly illustrated by the Billy Connolly epigraph above. The final shared property is that while expressive meaning is often conveyed by non-linguistic means (see (10) and (11) above) even *linguistic* expressives (such as those in (1) and (8)) have a flavor of the non-linguistic about them. As I say above, they are used to convey emotion *directly* (*cf.* (10) and (11)) rather than merely report it: this needs to be explained.

The paper is organised as follows. In the next section, I provide a brief overview of the relevance-theoretic approach to utterance interpretation; this provides the backdrop against which much of the discussion below takes place. In §3, I present a historical overview of expressive meaning and a summary of some of the explanatory accounts offered in linguistics and the philosophy of language. In §4 and §5 I summarise my own (2003) account of interjections, those partly natural, partly conventional semi-words that are paradigm examples of expressive meaning, and Blakemore's (2011) account of the descriptive ineffability of expressive meaning, looking in particular at the crucial difference between the descriptive ineffability of the emboldened expressions in (5) and (1). Both my account of interjections and Blakemore's (2011) account of expressives are composites of two separate elements:

I. The relevance-theoretic notion of procedural meaning, itself developed originally by Blakemore (1987, 2002);
II. The continuum between showing and non-natural meaning (meaning$_{NN}$) first introduced in Sperber and Wilson (1986/1995) and developed in Wharton (2003ab, 2009).

§4 deals with element I, and §5 with element II. Then, in §6 and §7 I extend the account by addressing the questions I introduce in my abstract: Firstly, what is the relationship between the procedural meaning in Blakemore's account of expressives and the kind encoded by discourse connectives? Secondly, to what extent do we want to say that expressives *mean* anything at all?

2.   Relevance theory

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2.1 The cognitive and communicative principles

Relevance theory (Blakemore 2002; Carston 2002; Sperber and Wilson 1986/1995; Wilson and Sperber 2004, 2012) is built around two principles: the Cognitive and Communicative Principles of Relevance. Relevance itself is a property of inputs to cognitive processes, and is defined in terms of positive 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.

According to the First, or Cognitive, Principle of Relevance, human cognition tends to be geared to the maximisation of relevance. As a result of constant selection pressure towards increasing cognitive efficiency, humans have developed automatic procedures for picking out potentially relevant inputs to cognitive processes (e.g. sights, sounds, utterances, memories, conclusions of inferences) and processing them in the most productive way (*cf.* Sperber 1994; Wilson and Sperber 2002). These procedures are 'fast and frugal heuristics' in the sense of Gigerenzer, Todd and the ABC Research Group (1999).

According to the Second, or Communicative, Principle of Relevance, an utterance or other ostensive act creates a presumption of relevance not created by ordinary inputs. While ordinary inputs (sights, sounds, memories, conclusions) carry no particular guarantee of relevance, the addressee of an ostensive act is entitled to presume that it will be relevant enough to be worth his attention, and to look for an interpretation on which it satisfies this presumption. In a relevance-oriented cognitive system, we might therefore expect the task of identifying a communicator's meaning to be facilitated by the development of an automatic comprehension procedure. In recent work, relevance theorists have been exploring the idea that the following procedure is automatically applied to the on-line processing of attended verbal inputs (Sperber 2000; Sperber and Girotto 2003; Sperber and Wilson 2002; Wilson and Sperber 2002; Wilson and Sperber 2012):

> Relevance-theoretic comprehension procedure

(a) Follow a path of least effort in computing cognitive effects. Consider interpretations (e.g. disambiguations, reference resolutions, contextual assumptions, implicatures) in order of accessibility.

(b) Stop when your expectation of relevance is satisfied.

A hearer using this procedure in interpreting an utterance should (a) pay attention

to perceptually salient aspects of the input; (b) consider the most accessible disambiguations, reference resolutions, contextual assumptions, implicatures, speech-act descriptions, etc.; (c) assume that any extra processing effort demanded will be offset by extra or different cognitive effects; (d) stop when he has enough cognitive effects to satisfy the particular expectation of relevance raised by the utterance. Those effects will come in a range of different forms and from a range of different sources.

2.2   Strong and weak communication

Sperber and Wilson's framework builds on the foundations Grice laid in his seminal 1957 paper 'Meaning'. In that paper Grice proposed an account in which meaning was to be understood in terms of propositional-attitude psychology; ultimately, the meanings of words reduced to the beliefs, desires and intentions of communicators who uttered them. Grice began by drawing a distinction between *natural* meaning (meaning$_N$) (12) and *non-natural* meaning (meaning$_{NN}$) (13):

(12) That black smoke means$_N$ the tyre factory is on fire.
(13) That white smoke means$_{NN}$ the Vatican Conclave has elected a new Pontiff.

Grice was not concerned with the kind of meaning inherent in (12)[4]: the black smoke clearly simply provides evidence of a fire (this is sometimes called indicator meaning). He focussed his attention instead on cases such as (13), in which meaning typically involves a convention or code (itself underpinned by the intentions of speakers).[5]

Central to Grice's intentional account of meaning is the observation that in any act where a communicator provides evidence of an intention to induce a belief or a response, or to inform someone, there are actually two layers of information that the audience needs to retrieve. The first, basic layer is the information being pointed out; the second, the information that this first layer is being pointed out intentionally. Grice's key insight was that for a case to count as one of meaning$_{NN}$ the first, basic layer should *not* be entirely derivable without reference to the second layer (and, furthermore, this should be intended by the communicator). This insight lies at the heart of the distinction Grice drew between meaning$_{NN}$ and *showing*, which is discussed in §5 and §7.

A criticism sometimes levelled at this account is that what is typically communicated (or meant$_{NN}$) is a propositional attitude such as a belief. Recall his

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[4] Though I will return to it later in this paper.
[5] For discussion of how the nested intentions of speakers might evolve towards the possibility of coded meaning see Grice (1982).

original formulation of meaning$_{NN}$ (1957: 384):

> "*A* meant something by *x*" is roughly equivalent to "*A* uttered *x* with the intention of *inducing a belief* by means of the recognition of this intention" (my italics – TW).

But communicators do not always aim at inducing beliefs in their audiences. So, to help account for the vaguer aspects of communication, including the communication of impressions, emotions, attitudes, feelings and sensations, Sperber and Wilson argue that communicators do not intend to modify a hearer's thoughts directly, but rather his *cognitive environment*.

An individual's cognitive environment includes not only all the facts or assumptions that he is currently aware of, but also all the facts or assumptions he is capable of becoming aware of given his cognitive abilities and his physical environment – in relevance-theoretic terms, the set of facts or assumptions that are *manifest* to him (i.e. that he is capable of perceiving or inferring). The notion of manifestness plays a central role in the relevance-theoretic characterisation of an *informative intention*, which is defined not in Gricean terms, as an intention 'to produce a belief that *p*' but rather as an intention 'to make manifest or more manifest to the audience a set of assumptions **I**' (Sperber and Wilson 1986/1995: 58).

An assumption may be manifest to different degrees. The more salient a manifest assumption is, and hence the more likely to be mentally represented, the more strongly manifest it is. Vague communication typically involves an intention to bring about a marginal increase in the manifestness of a very wide range of assumptions that are weakly manifest in the cognitive environments of both communicator and audience, resulting in an increased degree of similarity or mutuality between them. Indeed, the mutual cognitive environment of two people engaged in communication is constantly calibrated, refined and readjusted by what Lieberman (2000: 123) calls 'the dance of non-verbal communication'.

The array of assumptions **I** a communicator intends to make (more or less) manifest may take many different forms. Consider the examples in (14), (15) and (16):

(14) A: How's work going?

   B: The boss is a bastard!

(15) A: How's work going?

   B: (Sighs wearily)

(16) A's colleague, who works on the next desk, catches A's eye, sits back and sighs.

B's response in (14) is very direct and her message absolutely clear; in (15) it is less so, and in (16) what A's colleague is communicating is very vague indeed.

Relevance theory captures the differences between these cases by distinguishing *strong* from *weak* communication, and *strong* from *weak implicatures*. A conclusion is *strongly implicated* to the extent that it (or some closely similar proposition) 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; Sperber and Wilson (forthcoming)). So while the sigh in (15) quite strongly implicates that all is not well at work, the sigh in (16) makes weakly manifest a wide array of weak implicatures: that is, it creates an impression rather than conveying a definite message.

Wharton (2009) argues that those working in pragmatics cannot, as many generative grammarians have done, simply abstract away from everything that does not form part of the linguistic code. The aim of a pragmatic theory is to explain how utterances are understood, and utterances, of course, have both linguistic *and* non-linguistic properties. Also, the emotional dimension to speaker meaning (if speaker meaning is the right term, see Sperber (2014) and Sperber and Wilson (forthcoming)) is at least as important, sometimes more important, than those dimensions that tend to receive more attention: any pragmatic theory worth its salt simply must have a view on how non-verbal communicative behaviours contribute to speakers' meanings. This, I argue, involves accounting for weak as well as strong communication and, as we shall see later, returning to Grice's notion of natural meaning, briefly introduced in this section.

3.   Expressive meaning

The analysis of the expressive or emotional dimensions of linguistic meaning has certainly tended to play a secondary role to the descriptive, cognitive or rational ones. But that has not always been the case. Foolen (1997: 17) notes that in the early 1900s, linguists such as Erdman (1900), Bally (1905, 1910), van Ginneken (1907) and Sperber (1914) criticised the 'strongly ideational orientation' of the semantics that dominated at the time, suggesting instead that the study of the expressive, emotional side of semantics might be at least as important a field of

study as the cognitive, rational one. Van Ginneken, in fact, went further, proposing that rational meaning had its roots in emotional meaning. The idea, however, never really caught on and as Foolen notes, Sapir took severe exception to this view: '[I]deation reigns supreme in language […] volition and emotion come in as distinctly secondary factors' (1921: 40). Perhaps due, at least in part, to the efforts of those mentioned above, early 20th century linguists at least acknowledged the emotional function of language. Bühler (1934) contrasted the conceptualising function, *Darstellungsfunktion*, with *Ausdruck*, the emotional one. Influenced by Bühler, Jakobson (1960) recognised six functions of language or communication, one of which was the expressive/emotive function, which served not to alter the descriptive content of an utterance but rather to express the internal state of the speaker.

In the early and mid-twentieth century, however, the most common approach to the analytic philosophy of language remained the 'ideal' language philosophy of Russell, Frege, Tarski and later the 'logical positivists' led by Carnap. This was a highly formal approach, which explored natural language using logical and mathematical languages such as propositional logic and predicate calculus. Central to ideal language philosophy were the notions of truth, falsity and 'truth-conditions'. Reacting to this approach, and focusing on the illocutionary, rather than the truth-conditional, descriptive content of an utterance, Austin's *How to Do to Things with Words* (1962) puts the social functions of language at the center of its analysis. Meaning, Austin argued, can't be reduced to truth because many sentences both in the language of philosophy and in everyday language aren't *intended* to be true or false; approaching them from the perspective of truth is therefore to misunderstand what they're doing. Indeed, the conclusion to his argument is that all utterances are *performative* rather than *constative*. Following in Austin's footsteps, Searle (1969) defined expressive speech acts as those acts in which the illocutionary force is to express the speaker's own psychological state.

But not all the interesting work on expressive meaning has been done by non-formalists. Kaplan (1999) addresses the linguistic difference between 'I feel pain' and *ouch*. Well known for his work on indexicals, he remarks on the similarities between indexicals on the one hand, and expressives (interjections - *ouch*, *oops*) and epithets on the other: all these expressions, he claims, are better analyzed in terms of a *Semantics of Use* rather than (or as well as) a *Semantics of Meaning*. To account for the difference between 'I feel pain' and *ouch*, he introduces his distinction between descriptive (truth-conditional/propositional) content and expressive (non-truth-conditional/non-

propositional) content. This distinction is similar to the distinction drawn by speech-act theorists between describing and indicating mentioned above and elements of it have informed my own work on interjections. For Kaplan, one of the reasons that *ouch* and 'I feel pain' are not synonymous is that while 'I feel pain' has descriptive meaning, *ouch* has expressive meaning. In Kaplan's terms, the *modes* of expression are different.

Like Kaplan, Potts' main aim is to integrate expressive meaning within a formal semantic framework. Indeed, his 2007a paper begins with an epigraph from Kaplan (1999):

> [I]t seems to me quite possible to extend semantic methods [. . .] to a range of expressions that have been regarded as falling outside semantics, and perhaps even as being insusceptible to formalization.

Potts (2005) formulates a 'descriptive logic' for Gricean conventional implicatures and then shows how his framework can deal with, among other phenomena, expressive meaning. The effect of an utterance of *the damn dog* leads to the propositional entailment 'bad (*the dog*)' in a separate dimension ('the expressive dimension'). Whilst in subsequent work the account offered by Potts is subtly changed, the formalist approach remains. So, according to Potts (2007a), an utterance of *the damn dog* does not lead to any propositional entailment, but instead contributes to an expressive 'index', itself part of the 'context', emphasising the role played by expressives in 'pragmatic inference and discourse structure'. There have been some interesting responses to Potts' works. I remark briefly on one of these, Bach (2006), in §7. The main aim here, however, is to build on Blakemore's (2011) account. She argues, with Potts, that expressives are indeed descriptively ineffable but against the kind of formalist analysis he offers. In the next section I introduce my own account of interjections and then turn to the account offered in Blakemore's (2011) paper in more detail.

4.   Expressives, ineffability and procedural meaning

4.1   Interjections and concepts

Historically, interjections have been treated in two different ways: as part of language, or as non-words (or even *semi-words*, see Goffman 1981) that signify feelings or states of mind. Wharton (2003a) assesses two contemporary approaches that reflect the historical dichotomy, and suggests an analysis that preserves the insights of both. In the opening section of the paper, I propose a range of arguments against claims made in previous work by proponents of what

I refer to as the 'conceptualist' view (Ameka 1992, Wilkins 1992, Wierzbicka 1992, 1996, 2000), the view under which interjections encode complex, decompositional conceptual structures such as the one in (17):

(17)
> *"ow!"*
> I suddenly feel a pain (in this part of my body) right now that I
>   wouldn't have expected to feel.
> I say '[au]' because I want to show that I am feeling pain right
> now [and because I know that this is how speakers of English can
> show (other speakers of English) that they are in pain (in a situation
> like the situation here)]

I won't rehearse all the arguments here, but three of them mentioned in Wharton (2003a) are particularly pertinent to the issues being discussed in this paper insofar as they directly reflect those properties introduced in §1 as shared by expressives. Firstly, consider utterances of (18) and (19):

(18) I'm in pain! That hit me!
(19) Ouch! That hit me!

A speaker of (18) makes two assertions: it is true when the speaker is in pain and when they have been hit by something. By contrast, a speaker of (19) is making only a single assertion: it is true if and only if they have been hit by something. A person hearing (19) could not object: 'You're lying! You're not in pain'.[6] Given the discussion so far, this much is not surprising. Interjections such as *ouch* express pain rather than describing it.

If *ouch* does encode a concept, and one that forms part of the proposition expressed by an utterance, one would expect intuitions of a synonymy between (20) and (21) below:

(20) I'm in pain! I'm in pain!
(21) *Ouch!* I'm in pain!

But while (20) intuitively involves a conceptual repetition, (21) does not (and overlooks entirely the distinction between expressing and describing). In short, interjections seem to function in a way that is separate to the conceptual

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[6] See earlier discussion of (4) and (1).

structures around them.

Secondly, what is conveyed by an interjection is highly context-dependent, which suggests a substantial pragmatic contribution to their comprehension, one that is not captured by the rigid structure in (17), and is also descriptively ineffable. Utterances of *wow* or *aha*, particularly when they function as stand-alone utterances, might convey a vast range of different emotional states, each of which is hard to describe independently of their context of use. Finally, the conceptualist approach overlooks the fact that interjections share with certain non-verbal behaviours the property of being partly natural and partly coded. Another analysis is needed.

One possibility that has recently been explored is what while the conceptualist account discussed above is hugely problematic, interjections might still have some conceptual content. Walaszewska (2004) and Padilla Cruz (2009a) argue that instead of encoding the rigid structure in (17) interjections encode some quite general, vague concept that subsequently needs inferential adjustment. Perhaps, they also suggest, there might exist something like a cline, along which interjections can be shown to encode more or less conceptual content. I return to these arguments in §6, but turn firstly to the account I originally developed (2003a) as a response to the conceptualist view.

4.2 Procedural meaning

Blakemore (1987, 2002) reassesses the Gricean account of discourse connectives within a relevance-theoretic framework by introducing a distinction between *conceptual* and *procedural* encoding. Most words encode concepts, constituents of conceptual representations. Most of these contribute to the truth-conditions of an utterance; they have logical properties, can act as input to inference rules, and are used to *describe* the world. Some words, however, do not map onto concepts. Rather than encoding the constituents of conceptual representations, the function of these words in Blakemore's view is to constrain the inferential processes involved in constructing or manipulating these representations. They guide the comprehension process by narrowing the hearer's search space and *indicating* the general direction in which the intended meaning is to be sought. There are a vast number of possible cognitive effects the speaker might have had in mind, and since processing effort is a factor in achieving relevance, such expressions will contribute to relevance by reducing the hearer's effort in finding the intended effects.

Consider Blakemore's analyses of the discourse connectives 'so' and 'after all'. Two possible interpretations of (22) would be spelled out more explicitly in (23) or (24):

(22) She reads Katherine Mansfield all day long. She's retired.
(23) She reads Katherine Mansfield all day long; *after all*, she's retired.
(24) She reads Katherine Mansfield all day long; *so* she's retired.

On Blakemore's account, in (23) the expression 'after all' encodes a procedure which leads to the second proposition being understood as evidence for the first. In (24) the word 'so' encodes a procedure which leads the hearer to process the two propositions in such a way that the first is a premise from which the second follows as a conclusion. Blakemore's analysis classifies them as examples of procedural expressions constraining inference at an implicit level. Wilson and Sperber (1993) extend this analysis to pronouns, mood indicators and discourse particles, which they see as examples of procedural expressions constraining the construction of *explicatures*.[7]

4.3   Interjections, procedures and natural codes

Wharton (2003a) argues that interjections share with discourse connectives and discourse particles the property of encoding procedural rather than conceptual information. On this approach, the function of an interjection such as *wow* might be to facilitate the retrieval of a range of speech-act or propositional-attitude descriptions associated with expressions of surprise or delight. These in turn might be narrowed in context by information derived from prosody, facial expressions, background assumptions, discourse context etc., and contribute to the speaker's meaning in the regular way, by falling under the relevance-theoretic comprehension procedure. In a different context, as a stand-alone utterance, it might marginally alter the strength or salience of a wide array of conclusions rather than providing strong support for a single, determinate conclusion. If so, it will communicate weakly and create an impression.

Padilla Cruz (2009b) extends a version of this analysis to so-called conative/volitive interjections, which speakers use to express desires and intentions rather than emotions. So when *hey!* or *oi!* is uttered by a mother to

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[7] In relevance theory terminology the basic level *explicature* is equivalent to the proposition expressed in an utterance. See *fn.* 6 for further types of *explicature*.

prevent a child from touching an object that is fragile and valuable, such as a vase, the procedural information encoded by the interjection is pointing to some assumptions that need to be made manifest to him *in order that he infer she wants him not to do something*. I agree with Padilla Cruz that this idea opens a path well worth exploring.

The argument originally proposed in Wharton (2003a) is taken further in Wharton (2003b) and (2009), where 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. The idea that facial expressions might be coded has its roots in the ethological literature. Hauser (1996) applies a distinction between signs and signals to cases of information transmission among animals. *Signs* carry information by providing evidence for it. *Signals*, on the other hand, are those behaviours that convey information and have been 'moulded by natural selection to do so' (Seeley 1989: 547). As Brandon (2005) puts it: 'if an *adaptation* is a product of the process of evolution by natural selection…then these things are adaptations. And so, I claim, they have functions. Their *functions* are their effects that make them adaptively superior to the trait variants with which they compete'. Put differently, the adaptive function of a behaviour is the effect which is historically responsible for the reproduction and propagation of that behaviour within a species (Millikan 1984, Origgi and Sperber 2000, Sperber 2007).

The distinction between natural signs and signals in the human case can be illustrated by comparing shivering with smiling. Shivering is a natural behaviour whose function is to generate heat by rapid muscle movement. It may provide evidence to an observer that the individual is feeling cold. However, it is not its function to carry this information: it is not a signal but a sign. Smiling, by contrast, appears to have evolved as a signalling activity whose function *is* to convey information to others (van Hooff 1972; Ekman and Rosenberg 1987; Ekman 1989, 1992, 1994, 1999; Fridlund 1994). As Ekman, puts it, smiling and other spontaneous facial expressions 'have been selected and refined over the course of evolution for their role in social communication' (1999: 51). Like the bee dance and the bullfrog calls, they are signals rather than signs.

If some natural behaviours are coded signals, we would predict that they are interpreted by specialised, perhaps dedicated, neural machinery. This prediction appears to be borne out: both non-human primates and humans have neural mechanisms dedicated both to recognising faces and to processing facial expressions (Gazzaniga and Smiley 1991). Moreover, human neonates appear able to distinguish basic facial expressions of emotion, a fact which provides

more support for the view that their interpretation is governed by innately-determined codes (Field et al. 1982; Phillips et al. 1990; Nelson and de Haan 1996).

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*, or, again, weakly implicated assumptions along the lines of the account sketched in §2.2. If linguistic and non-linguistic expressives encode procedural meaning, this at least goes some way to explaining why the former have the flavour of the latter.

4.5   Expressives and procedures

The notion of 'procedure' developed in Wharton (2009) is, on the face of it, a very different one to that originally proposed in Blakemore (1987, 2002). Nonetheless, having seen her original distinction extended somewhat, Blakemore (2011) embraces the changes and uses them in her own account of expressive meaning.

The paper begins with a review of the linguistic semantic account of expressive meaning proposed in Potts (2005, 2007ab, 2008). When it comes to expressive meaning there is, it transpires, a great deal of common ground between Potts and Blakemore. Recall once more the three properties expressives share: the independence of expressive meaning from the proposition expressed; its descriptive ineffability; the non-verbal flavour of linguistic expressives. Potts recognises all three of these: (i) As Blakemore points out, according to Potts, 'there is a "disconnect" between the expressive and the sentence that houses it' (2011: 3543); (ii) The notion of 'descriptive ineffability', the idea that the meaning of expressives is hard to pin down in conceptual terms, is central to Potts' account: in a large number of interviews and surveys reported in Potts (2007a) *bastard* was only defined by one person as a 'vile, contemptible person', and while people will happily explain that such words are used to express feelings or vent emotions, pinning down exactly what they mean is much harder to do; (iii) Potts does indeed recognise that there are parallels between linguistic expressives and natural, non-verbal behaviours of the kind that typically signal expressive information.

However, that is where the similarities between the two accounts end. Blakemore takes issue with the formal approach to expressive meaning adopted by Potts. And while Potts' account offers some interesting insights, it is hard to disagree

with Blakemore that his notion of an emotional setting is 'a rather one-dimensional approach to the range of emotional attitudes and states which can be communicated by an expressive' (Blakemore 2011: 3543). Perhaps instead of analyzing expressives as contributing to expressive 'indices' or 'contexts', we might be better to re-interpret his work in cognitive terms and explore what kind of processes they actually activate.

Blakemore's solution is to invoke her own notion of procedural meaning:

> Like discourse markers, these expressions correspond to procedures for interpretation. However, in contrast with discourse markers, they activate procedures for retrieving representations of emotional states.

She goes on (2013: 3544):

> [U]sed expressively, *damn*, *bastard* and *shit* are not understood to encode concepts which are pragmatically enriched in different ways in different contexts... Thus used, these words play a role in the communication of a speaker's emotions by corresponding to a procedure for retrieving representations rather than a constituent of a propositional representation.

The similarity, and essential difference, between the non-truth-conditional phenomena in (1) and (6) is thus explained. However, there is still more to be said about what precisely these procedures for retrieving representations of emotional states actually are. Before turning to that issue in §6, I present the second element shared by the analyses offered in Wharton (2003ab, 2009) and Blakemore (2011).

5.   Expressives, showing and meaning$_{NN}$

A further controversial feature of the account of intentional communication offered in Grice (1957) is the line he draws between meaning$_{NN}$ and *showing*. Consider (25):

(25)   Feeling faint, a girl lets her mother see how pale she is (hoping that she may draw her own conclusions and help).

In this example, Grice's *M*-intention – the higher-order intention that an intention to convey a particular piece of information is not only recognised, but also plays a role in the audience inferring that piece of information – is largely redundant. The fact that the little girl is pale is evidence enough to the mother that she needs help: any intentions the little girl might have play no causal role in the mother

arriving at the conclusion she reaches. According to Grice, then, the kind of intentional communication in (25) does not count as one of meaning$_{NN}$.

This distinction has had important effects on the evolution of pragmatics since, following Grice, pragmatists have focused on the notion of meaning$_{NN}$, the tendency being to abstract away from cases of showing. But the distinction is much easier to conceive of than it is actually to apply in communicative exchanges. Utterances are complex things. Yes, they involve linguistic expressions that clearly do involve non-natural meaning, but there also seem to be cases where the open showing of a spontaneously produced natural behaviour makes a difference to the speaker's meaning. To develop an example from Wilson and Wharton (2006):

(26)   Jack is late.

If the speaker of (26) utters this sentence while making no attempt to conceal the spontaneous anger in her facial expression and tone of voice, then she would naturally be understood to mean not only that Jack was late but also that she was angry that he was late. Moreover, intended strong implicatures may well depend on the audience understanding the degree to which the speaker is angry, itself indicated by the amount of anger indexed by his tone of voice: the speaker may be largely apathetic, and just not prepared to wait for Jack any longer; or she may be incandescent with rage, because this is absolutely the last straw. Weak implicatures may depend on it too.

The framework drawn up by Grice excludes such spontaneous expressions of anger from contributing to a speaker's meaning. But expressive meaning is typically communicated in this natural way and relevance theorists have consistently argued that there is a continuum of cases between showing and meaning$_{NN}$, all of which may fall within the domain of pragmatics and contribute to a speaker's meaning (Sperber and Wilson 1986/95: chapter 1, section 10, Sperber and Wilson (forthcoming)). Wharton (2009) presents a defence of this view.

While Potts (2007ab) restricts his discussion of expressives to secondary interjections such as *damn* and *bastard*, he does, as remarked earlier, compare the descriptive ineffability of expressives with the descriptive ineffability of non-verbal behaviours such as facial expressions. However, without broadening the domain of pragmatics, and without extending it beyond strict Gricean meaning$_{NN}$,

it is genuinely hard to see how any such parallels can be made to work. Grice *was* happy for faked, deliberate frowns to mean$_{NN}$, provided that whatever the frown means cannot be derived independently of the intentions behind showing it, and presumably an account along those lines could be developed for *non-spontaneous* utterances of *damn*. But to do this misses the spontaneity of cases of expressive meaning, and their cathartic nature. Recognising that the domain of pragmatics should not just be restricted to cases of meaning$_{NN}$ and embracing all cases of overt intentional communication, including those Grice would have classified as showing, is the only way they can be captured.

As well as being inspired by the relevance-theoretic showing-meaning$_{NN}$ continuum, the analysis of interjections offered in Wharton (2003a) was partly inspired by a section in Goffman's famous paper 'Response Cries' in Goffman (1981), in which he suggests that there may be a continuum between the properly linguistic and the non-linguistic, or between display (or showing) and saying: '[R]esponse cries such as *eek!* might be seen as peripheral to the linguist's domain […] but imprecations […] are more germane, passing beyond semi-word segregates to the traditional material of linguistic analysis' (1981: 121).

A feature of interjections is that they express attitudes, so utterances of (27a) and (28a) might lead a hearer to embed the proposition expressed under attitudinal descriptions such as in (27b) and (28b). In relevance theory these would be *higher-level explicatures*:[8]

(27a)   *Aha*! You're here.
(27b)   The speaker is surprised that I am here.
(28a)   *Wow*! You're here.
(28b)   The speaker is delighted that I am here.

In the stand-alone use of the interjection *wow* in (29) the speaker shows how they feel, rather than describes it (as in (30)). The interjection makes weakly manifest a wide array of weak implicatures:

(29)   Wow!
(30)   I am delighted.

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[8] In relevance theoretic terminology, a *higher-order explicature* is a representation in which the basic level *explicature* (the proposition expressed) is embedded under a speech-act or propositional-attitude description. Compare with the speech-act distinction between *describing* and *indicating* outlined in §1.

Blakemore proposes a similar analysis of the difference between (31) and (32) and this analysis can be extended to cover the emotional tone of voice in example (26) above:

(31)   I am angry!
(32)   Damn!

Interjections, Wharton (2003a) concludes, are partly natural and partly coded. They fall at various points along a continuum between display and language proper, or showing and meaning$_{NN}$. In one way interjections offer fairly direct evidence of the basic layer of information being communicated but their partly coded nature makes them *less* direct than, say, completely spontaneous, natural sounds.[9] The continuum also allows us to capture the heterogeneity and marginal linguistic status of the class in general and makes it relatively easy to see how a given expression (e.g. an interjection) might move along the continuum from 'non-linguistic' to 'partly linguistic' to 'linguistic' without radically altering the type of information it conveys. Seeing interjections in this way, we should not be surprised either at their descriptive ineffability, or the fact that what they convey is sometimes too nebulous to be paraphrased in determinate conceptual terms: they are *partly* natural responses. Expressing emotion is more about showing than it is about meaning$_{NN}$.

6.   Procedural meaning and emotion

Procedural meaning was originally conceived to deal with the kind of non-truth-conditional discourse connectives that Grice had analysed as conveying conventional implicatures (see (5) above). Indeed, in this respect, there is something interestingly cyclical to note about the relationship between the procedural account of expressives offered here and Potts' account of expressives as communicating conventional implicatures.

Extending procedural meaning to the analysis of interjections was not an entirely uncontroversial move. The main objection was that expressions such as 'but' and *ouch*, have little in common. And in a way, of course, that's right. 'But' is uncontroversially a word, a part of language; 'ouch' enjoys marginal linguistic status at best. However, they do share interesting properties. Indeed, 'but' shares with expressives two of the properties I have been focusing on in this paper. Like expressives, 'but' is a non-truth-conditional indicator. It is also descriptively

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[9] Compare, for example, *ouch* with *aaaaaaaaaaaaargh*!

ineffable. Experience with students has taught me that when people try to define the meaning of 'but', they typically say how it is used; much as they do with, say, the expressive 'bastard'. Nonetheless, it is clear that the kind of procedure encoded by 'but' does seem to be a very different type to that encoded by *ouch*.

In a recent paper that explores the past, present and future of procedural meaning, Deirdre Wilson (2011) discusses the function of the kind of procedures encoded by discourse connectives such as 'but'. Originally, it was thought that such procedures existed in order to make inferential communication easier: to guide the hearer's path. However, building on Sperber *et al*'s (2010) work on 'epistemic vigilance' – those cognitive strategies by which hearers avoid being either accidentally or intentionally misinformed – she proposes an interesting alternative:

> On this new account, the main function of discourse connectives would be not so much to guide the comprehension process as to trigger argumentative procedures which yield intuitions about evidential relations, and form part of the capacity for epistemic vigilance directed at the content of communicated information.

And goes on:

> The function of the procedural expressions in a language may be to activate […] domain-specific procedures. In principle, these could be of any type at all, although in practice they are likely to be drawn from modules which play a significant role in linguistic communication: these include the modules (or sub-modules) involved in mindreading (Baron-Cohen, 1995), emotion reading (Wharton, 2003, 2009), social cognition (Malle, 2004; Fiske and Taylor, 2008), parsing and speech production (Levelt,1993), comprehension (Sperber and Wilson 2002) and so on.

Wilson (2011: 17)

But what precisely are these emotion-reading procedures? This is a question that cannot adequately be answered without considering the nature of emotions themselves.

Wharton (2009) presents a view of emotions based largely on the work of philosopher Georges Rey (1980). According to that view, full-fledged emotional states are distinguished from 'sensations' or 'feelings' by the fact that they involve an interaction between several elements: *cognitive*, *qualitative* and *physiological*. So the emotion sadness is characterised as involving an interaction between a *cognitive* element – knowledge, perhaps, that something has happened you would prefer not to have happened (or a belief that something you would prefer not to happen is about to); a *qualitative* element – the feeling of being 'down',

which is typically accompanied by behaviours consistent with feeling this way; and a *physiological* element – neurochemical changes, which, in the case of sadness or depression, involves depletion of norepinephrine. Whilst emotional states crucially involve cognitive as well as qualitative and physiological elements, 'feelings' or 'sensations' need not.

A central tenet of Rey's account is that it embraces the idea that emotion and cognition work together. As such, it goes against a tradition – rooted in Cartesian dualism – in which cognition and affect are viewed as entirely separate: a tradition implicit in the Sapir quote in §3 above and perhaps responsible for the fact that expressive dimensions of linguistic meaning have played a secondary role to the rational ones.

In a recent paper that attempts to build interdisciplinary bridges outwards from pragmatics, Strey (2015) asks what neuroscience is saying about emotion. The results are interesting but, whilst the terminology adopted could not be more confusingly different, work on emotion by Damasio (1994) appears to be in a similar spirit to that of Rey.[10] Indeed, the book in which he presents his main thesis is entitled *Descartes' Error*. For Damasio, 'emotions' are body states (so, 'feelings' or 'sensations' in Rey's terminology) and 'feelings' are mental representations of those body states (so, in Rey's terms, 'emotions'). Crucially, however, this interaction between 'emotions' and 'feelings' is pervasive and, indeed, can become a permanent one stored in memory. According to Damasio's 'somatic marker hypothesis', 'feelings' about body states (mental representations of physical states) can function to guide inference.

But there are problems. Firstly, and probably least importantly, Damasio's terminology is bafflingly counter-intuitive. Is 'feeling' an emotion really the correct term to use to explain that it is being mentally represented? When I use the term 'feeling', I will continue to use it in Rey's sense. Secondly, and more worryingly, as pointed out by Greenspan (and, indeed, recognised by Damasio later in his book), Cartesian mind/body is not the correct 'philosophical foil' (Greenspan 2003: 114) for his approach:

> He [Damasio – TW]) implicitly recognizes, at one point toward the end of the book, that his announced target, Descartes *cogito*, does include emotions, or at any rate their mental aspect ('suffering'), and he [Damasio – TW] cites Descartes' detailed account of emotions in *The Passions and the Soul*. But Descartes' explanation of emotions in that work in terms of 'animal spirits' (essentially an outdated predecessor of neurological impulses) seems to bridge body and mind (or soul), despite his official

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[10] I am particularly grateful to Claudia Strey and Ernst-August Gutt for communication and conversations on ways in which Damasio's work might inform relevance theory.

dualism. […] The title of both books – Damasio's and Descartes – may be somewhat unfortunate.

For cognitive scientists such as Leda Cosmides and John Tooby 'mind' and 'brain' are two terms that refer to precisely the same thing. The mind is 'a set of information processing procedures (cognitive programs) that are physically embodied in the neural circuitry of the brain' (2000: 97). Put differently, 'the mind is what the brain does' (*ibid.*). According to the view they develop, an emotion is a kind of superordinate cognitive program, the function of which is to regulate or mobilise cognitive sub-programs responsible for perception and attention, goal choice, information-gathering, specialised types of inference, physiological changes etc.

> An emotion is not reducible to any one category of effects, such as effects on physiology, behavioural inclinations, cognitive appraisals, or feeling states, because it involves evolved instructions for all of them together, as well as other mechanisms distributed throughout the human and mental and physical architecture.
>
> (*ibid.* 93)

They give the example of fear. Experiencing the emotion of fear an individual is: automatically put into a state hyper-alertness, in which they pay a high degree of attention to perceptual inputs they may not normally even notice; equipped with a newly defined set of goals, in which safety is suddenly the most important of a range of new informational priorities – *Where is my baby? Where are others that can protect me?* (*ibid.* 93); subconsciously directed to different, prioritised inferential processes which are activated to aid the making of valuable inferences; subject to the kind of physiological changes summarised in the discussion of Rey's notion of sensations.

If this account is right, then emotions can be seen as procedural heuristics in the sense of Gigerenzer *et al.* (1999), involving the interplay between cognition, on the one hand, and feelings (in Rey's sense) and perhaps even 'gut feelings' (in the sense of Gigerenzer 2007) on the other.

Co-evolving with the emotional programs or procedures described above would have been emotion-reading programs and procedures. These procedures are sub-attentive and unintentional (Lieberman 2000), and will play a role in communication, as well as cognition, whether that communication is ostensive or non-ostensive. The procedural information encoded by linguistic expressives, interjections, facial expressions or tone of voice puts the user into a state in which emotional procedures are highly activated, and are therefore much more likely to be recognised and selected by an audience using the relevance-theoretic

comprehension procedure. Sometimes, in fact, the states themselves may be contagious (Hatfield *et al.* 1994, Dezecache *et al.* 2013a).

In recent work, Dezecache *et al.* (2013b) have argued for a notion of 'emotional vigilance' related to, but not entirely parallel with, Sperber *et al*'s epistemic vigilance. According to them 'receivers are endowed with a suite of mechanisms designed to modulate their responses to emotional signals' (2013b: 6). As Dezecache *et al.* concede, a full analysis of precisely what emotional vigilance mechanisms involve is beyond the scope of their paper. Part of the answer, however, will involve a deeper understanding of not only the relationship between ostensive and non-ostensive communication, but also the relationship between decoding and inference in the way we read the emotions of others.

Consider gaze direction. In terms of the distinctions introduced in §4.3 this is a natural sign: it merely happens to carry information for an observer. However, the potential relevance of this information is such that a relevance-oriented cognitive system might well be improved by the development of a special-purpose inferential mechanism of this type. Indeed, in the discussion of fear in the Cosmides and Tooby paper, inferences drawn from the gaze direction sub-program are just the kind of inferences that may be prioritised in a dangerous situation: *if the bear is not looking at me, it may not have seen me.*

Natural codes, however, which facilitate the production and interpretation of affective facial expressions or tones of voice in terms of underlying mental states, might be seen as automatic emotion-reading mechanisms of a *coded* rather than an inferential nature, dedicated to the interpretation of natural emotional signals rather than natural emotional signs. What distinguishes a special-purpose inferential mechanism from a coding mechanism is: firstly, that the inferential mechanism applies to natural signs rather than signals; secondly, that it is genuinely inferential (i.e. it draws warranted conclusions on the basis of evidence); thirdly, that it is not part of a signalling system with corresponding encoding mechanisms at the production end. Emotional vigilance may make use of both specialised inferential and coding-decoding mechanisms.

One final point, also raised in Wilson (2011), concerns the question of whether linguistic and non-linguistic expressions might encode both conceptual and procedural meaning. In the case of expressives, this is a particularly pertinent point, for two reasons. Firstly, as was pointed out earlier, Wałaszeska (2004) and Padilla Cruz (2009ab) argue the case that interjections might, in fact, have some conceptual content. I find some of the arguments convincing, particularly the claim in Padilla Cruz that the grammaticalisation of an interjection might somehow be reflected in the fact that, over time, they become associated with

conceptual material. If this is right, then the showing-meaning$_{NN}$ distinction may well have diachronic applications of the kind discussed in the final chapter of Wharton (2009). Secondly, one of the aims of Blakemore (2013) is to argue against a unified account of expressive meaning. One of her motivations for doing so is the fact that in the account of racial epithets she offers their expressive effects are achieved 'via the encyclopedic assumptions associated with the *concepts* they are understood to communicate (2013: 33 – my italics). My hunch is that we *do* want a unified account of expressive meaning and the suggestion that words might be able to tap in to both concepts *and* procedures may be one way of achieving this. The procedural account of interjections offered in Wharton (2003a) and the conceptual one proposed by Padilla Cruz and Wałaszeska might *both* be on the right track.

7.   Showing and meaning$_{NN}$ revisited

As we saw in §5, one way in which the more natural elements of communication can be accommodated within a theory of utterance interpretation is by broadening the theory's domain to include those cases of intentional communication that are not, strictly speaking, cases of Gricean meaning$_{NN}$. Of course, an alternative approach would be to maintain Grice's definition and exclude spontaneous expressions of emotion from the domain of pragmatic theory. This, effectively, is the approach adopted by Bach (2006: 494) in his review of Potts (2005):

> To implicate something entails meaning it, that is, intending to convey it to one's audience. Presumably what is meant is a proposition, something that anybody can entertain or believe. But […] if I say, '*That blasted TV isn't working'*, what do I mean in addition to the TV isn't working? Is it something that my audience can agree with? […] I do not mean ANYTHING in using *blasted*, although I can express a certain negative feeling towards my TV. Although my audience can recognize that I am expressing this feeling, in using *blasted* I do not MEAN that I have this feeling. I am expressing that feeling, not implicating it.

Blakemore (2013: 9-10) quotes the same paragraph, remarking:

> In this paper, I do wish to take the analogy between expressives such as *damn* and *blasted* and non-verbal behaviour seriously. However, in contrast with Bach (2006), I do not accept that the fact that an utterance of *blast* or *blasted* is a case of showing or display, analogous to frowning or thumping the table, means that it should be excluded from cases in which one means or intends to convey something to one's audience.

A degree of unpacking is necessary here. Firstly, as we have seen, Bach is not right that Grice's framework excludes *all* expressions of emotion from meaning. Grice was quite happy for deliberate frowns to mean$_{NN}$ something. As was earlier remarked about Potts' account, however, an account of expressives that deals only with non-spontaneous stimuli is surely missing something. Equally, we should not forget that expressive meaning may sometimes not serve a communicative function at all. Swee and Schirmer (2015) perform a series of experiments which show that uttering *ow* when your hand is in painfully cold water can actually improve pain tolerance: the cathartic nature of expressives should not be overlooked.

But secondly, and perhaps more importantly, we have seen in §6 that even if it *were* true that such an expressive utterance was excluded from cases of meaning$_{NN}$, it would certainly *not* follow that it would be excluded from cases in which 'one intends to convey something to one's audience' (see the Blakemore quote above). As we have seen, cases of meaning$_{NN}$ are just one sub-type of cases of intending to convey something to an audience, albeit a sub-type that has to fit a set of very strict criteria. While many instances of ostensive behaviour fail to meet these criteria, it does not follow that they fail to be instances of overt intentional communication more broadly construed. An alternative to arguing against Bach's view that expressives don't mean anything, then, would be to respond that if they don't, then the problem lies not with expressives but with the notion of meaning itself. This is the solution adopted by relevance theory.

8.   Conclusion

About 90% of the volume and mass of an iceberg lies submerged beneath the surface. Sailors learned that the hard way. Semanticists continue to focus on truth-conditional meaning and pragmatists, by and large, continue to focus on non-natural meaning$_{NN}$. But, as this paper has tried to show, that is to miss a lot. Broadening the domain of pragmatics in the way I have suggested, may lead us to a deeper understanding of not just intentional communication, but also other means of self-expression.

I have argued in the past, for example, that the kind of 'meaning' inherent in music is more to do with showing than meaning (Wharton 2011). And there is now a rich, and burgeoning literature from researchers interested in how expression and interpretation in the artistic sense might be dealt with in cognitive terms (Macmahon 2001; Bateman 2009; Pignocchi 2009; Wildgen 2009; Furlong 2014; Jucker and Barrett 2011; Oliviera 2013; Kolaiti 2015;

Mitchell 2015).

Why does the music of *Les Mystères des Voix Bulgares* resonate within me so strongly? Why does Monet's *Antibes* make me warm inside? Why do the following few lines from Seamus Heaney's description of freshwater perch (2001: 4) set me free?

> Guzzling under the current, against it, all muscle and slur
> In the finland of perch, the fenland of alder, on air
>
> That is water, on carpets of Bann stream, on hold
> In the everything flows and steady go of the world.

But 'resonance', 'warmth' and 'freedom', as used here, are metaphors. Because, when it comes to words, metaphors are all we have. There are no words to describe what music, painting and poetry communicate to us. As William Burroughs (1965) once put it: '…words are an around-the-world, oxcart way of doing things, awkward instruments, and they will be laid aside eventually, probably sooner than we think.'

<p style="text-align:center">*</p>

In this paper I have attempted to build on previous accounts of expressive meaning paying particular attention to work I have done over the past ten years or so and work by Diane Blakemore. A thread running through the whole paper has been the three properties expressives share: (i) their non-truth conditionality and hence their independence from the proposition expressed; (ii) their descriptive ineffability; (iii) the way they parallel with non-verbal behaviours. The discussion has attempted to take these properties into account. I asked two questions. Firstly, what is the relationship between the procedural meaning in Blakemore's account of expressives and the kind encoded by discourse connectives? Secondly, to what extent do we want to say that expressives *mean* anything at all?

In answering both questions, the iceberg metaphor is again apposite. Regarding the first question, and as I discussed in the first paragraph of §6, procedural meaning was conceived to deal with non-truth-conditional discourse connectives. It has subsequently been applied to pronouns, discourse particles, mood indicators, interjections, prosody, facial expressions, natural codes of all kinds

and even emotions. As it is construed in the current paper, procedural meaning is far away from that original conception. In Wharton and Wilson (2006), we put it like this (embracing a suggestion made by Dan Sperber):

> The function of… 'procedural' expressions would be to facilitate the identification of the speaker's meaning by narrowing the search space for inferential comprehension, increasing the salience of some hypotheses and eliminating others, thus reducing the overall effort required. Following a suggestion of Dan Sperber (p.c.), such expressions might be described as encoding *meta-procedures,* which manage the accessibility or activation levels of the regular relevance-oriented procedures for perception, memory retrieval or inference.

If cognition crucially involves a set of procedures (or programs, to use Cosmides and Tooby's terminology), then those elements of procedural meaning first identified in Blakemore (1987) are meta-procedures that are parasitic on them. It is by chance that we found them first.

Turning to the second question, in any given communicative exchange it is probably true that as much is shown as it is meant: indeed, in a sense *it is all shown*, since relevance theorists dispense with the philosophical term 'meaning' and see those cases that satisfy Grice's definition as simply special cases of showing, or *ostension*. To conceptualise ostension and the vaguer aspects of communication, Sperber and Wilson (forthcoming) develop the showing-$meaning_{NN}$ distinction and augment it with a separate, orthogonal dimension, which allows them to accommodate the fact that what is shown or $meant_{NN}$ might be more or less determinate. They conclude that linguists, philosophers and pragmatists have, up to now at least, focused all their attention on cases that congregate in one corner of the square formed by the two axes: determinate $meaning_{NN}$. The vaguer aspects of communication – the communication of impressions and 'meanings' that are descriptively ineffable – have been largely left untouched. This needs to change.

And returning finally to the class of expressives, and – indeed – the title of this paper, a point developed in Blakemore (2013) is that while the literature on expressive epithets, for example, tends to focus on those noun phrases that express negative feelings, there exist epithets that are linked to the expression of positive feelings, such as 'the poppet' and 'the sweetie'. There are also probably cases in which a speaker uses an expressive phrase such as 'that bloody so-and-so' which, while on the face of it is highly negative, the speaker implicitly dissociates themselves from any negative interpretation and, instead, is merely being playful, conveying affection, even love. Such cases, however, are extremely rare and I will not discuss them here.

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