Interjections, language and the showing-saying continuum

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1   Introduction

According to various definitions in the literature, interjections are a fairly heterogeneous class of items. Examples in English include *wow*, *yuk*, *aha*, *ouch*, *oops*, *ah*, *oh*, *er*, *huh*, *eh*, *tut-tut* (*tsk-tsk*), *brrr*, *shh*, *ahem*, *psst*, and even, according to some, *bother*, *damn*, (*bloody*) *hell*, *shit* (etc.), *goodbye*, *yes*, *no*, *thanks*, *well*. I will assume for the sake of argument that many of the above items *do* form a class, but will end up suggesting interjections are very disparate and should not all be treated as contributing to communication in the same way.

Existing studies of the semantics and pragmatics of interjections raise three main questions:

(1)   What do interjections communicate?

(2)   How do interjections communicate?

(3)   Are interjections part of language?

These questions have been approached from two largely dichotomous viewpoints. Ameka (1992), Wierzbicka (1992) and Wilkins (1992) argue that interjections are "semantically rich and have a definite conceptual structure which can be explicated" (Wilkins 1992: 120). They treat interjections as part of language, and propose complex semantic analyses; I refer to this as the *conceptualist* view. Others, notably

Goffman (1981), contend that an interjection "doesn't seem to be a statement in the linguistic sense". Rather, it is "a ritualised act, in something like the ethological sense of that term" (1981: 100). Interjections, according to this view, are not part of language, and are analysed in terms of the socio-communicative roles they play, rather than any linguistic content they may have.

In the light of the above questions, the aim of this paper is to assess the relative strengths and weaknesses of these two contrasting approaches and to suggest a new analysis of interjections which preserves the insights of both.

In Section 2 I offer a brief characterisation of the notion of an interjection. In Sections 3 and 4 I outline the conceptualists' and Goffman's accounts, and suggest they are problematic in certain respects. In Section 5, as a first step toward a new account, and by way of addressing question (1), I discuss various theoretical distinctions made in the analysis of linguistic meaning. In Section 6 I elaborate this account using the framework of *Relevance Theory* (Sperber and Wilson 1986, 1995) and show how it may be applied to the analysis of interjections. The resulting account avoids many of the problems of a conceptualist approach and provides the beginnings of an answer to question (2).

A question that remains is whether this analysis can be maintained in light of the widespread intuition that interjections are *para*linguistic, rather than part of language proper. In Section 7 I examine the reasons for these intuitions, and outline a framework within which I propose to answer question (3).

In Section 8 I argue that to capture their marginal linguistic status, interjections are better analysed as occupying various points along a continuum between *showing* and *saying*; these two notions are characterised in theoretical terms. This analysis sheds further light on questions (1), (2) and (3) above, and suggests a way in which the

various types of interjection might be related despite their disparities. I then consider whether this new analysis can be reconciled with the proposals made in Section 6, and conclude with a brief discussion of the implications of my analysis for theories of human communication generally.

2   Interjections

Historically, interjections have often been seen as marginal to language. Latin grammarians described them as non-words, independent of syntax, signifying only feelings or states of mind. Nineteenth-century linguists regarded them as para-linguistic, even non-linguistic phenomena: "between interjection and word there is a chasm wide enough to allow us to say that interjection is the negation of language" (Benfey 1869: 295); "language begins where interjections end" (Muller 1862: 366). Sapir described interjections as "never more, at best, than a decorative edging to the ample, complex fabric [of language]" (1970: 7).

These views can still be found in the contemporary literature: Quirk, Greenbaum *et al*. (1985: 853) describe interjections as "purely emotive words which do not enter into syntactic relations"; Trask (1993: 144) describes an interjection as "a lexical item or phrase which serves to express emotion and which typically fails to enter into any syntactic structures at all"; Crystal (1995: 207) concurs—"an interjection is a word or sound thrown into a sentence to express some feeling of the mind".

There are exceptions, though. As noted above, conceptualists see interjections as properly linguistic, with rich semantic structures. However, whilst the conceptualists are agreed that since they have semantic structure, interjections are part of language, they do not agree on what exactly an interjection is. Introducing the conceptualist

view, Ameka (1992) divides interjections into two main classes: *primary* and *secondary* interjections. Primary interjections are words that cannot be used in any other sense than as an interjection, e.g. *oops* and *ouch* in (4):

(4)   Patient: Be careful with that needle!

        Dentist: *Oops*.

        Patient: *Ouch*!

These items are non-productive in the sense that they do not inflect and are not movable between word-classes. Secondary interjections "are those words which have an independent semantic value but which can be used…as utterances by themselves to express a mental attitude or state" (Ameka 1992: 111), e.g. *hell* and *shit* in (5):

(5)   Dentist: *Hell*! I'm sorry.

        Patient: *Shit*! Get the bloody thing out of my cheek!

Both types of interjection are syntactically independent, in that they can constitute an utterance by themselves, and are only loosely integrated into the grammar of the clause containing them. When written, interjections are separated off from the main clause by means of a comma or exclamation mark. Furthermore, Ameka observes, they "always constitute an intonation unit by themselves" (1992: 108).

Wierzbicka's definition of an interjection correlates closely with Ameka's conception of a primary interjection. She suggests that it is preferable not to regard exclamations such as *shit* and *hell* as interjections, since their semantics should be included in the semantics of the nouns/verbs they are derived from: I shall follow her

on this. While Ameka's definition is too broad for her, for Wilkins it is too narrow. He uses a variety of hedges in his formal definition of interjections (1992: 124), which "catches elements that would be called 'secondary interjections'…'interjectional phrases' and 'complex interjections' by Ameka" (1992: 125). There is thus no general agreement on how interjections can be defined.

Since Goffman (1981) does not regard interjections as part of language, he does not define them in the same way. In fact, for the majority of expressions I shall look at in this paper, he prefers the term *response cry*: "We see such 'expressions' as a natural overflowing, a flooding up of previously contained feeling, a bursting of normal restraints" (1981: 99). By 'response cry', Goffman is referring primarily to expressions such as *ouch*, *oops*, *yuk*, *wow*, *eh*, *ah*, *aha*, *oh* etc., which he regards as non-words. Since "nonwords as a class are not productive in the linguistic sense, their role as interjections being one of the few that have evolved for them…[they] can't quite be called part of language" (1981: 115). However, he does grant that since these cries are found cross-linguistically, and since certain forms stabilise within a given speech community, the term *semiword* might be more appropriate. Swear words are of course highly productive. But while conceding that they are probably more a part of language than non-words such as *oops* and *ouch*, he does not see this as reason to exclude them from the class of response cries, which exist on a continuum between display and properly linguistic items.

One point of agreement between the conceptualists and Goffman is that:

- *an interjection is capable of constituting an utterance by itself in a unique, non-elliptical manner*.

Another point accepted by both camps is that interjections are tied to emotional or mental attitudes or states. From the examples on my introductory list, *wow* might be said to express excitement, delight, wonder etc., *yuk* to express disgust or revulsion, *ouch* a feeling of pain, *aha* surprise etc.. Wierzbicka suggests that alongside these *emotive* and *cognitive* interjections, there are some *volitive* ones, used to express wants or desires: *psst*, *ahem*, *shh* and *eh*, for example, serve as requests for attention, quiet or confirmation. A second criterion, then, by which we might classify an expression as an interjection is that:

- *an interjection expresses a mental or emotional attitude or state*.

These two criteria seem to me to form an adequate working characterisation. In what follows I will retain the conceptualists' primary/secondary distinction, and focus mainly on primary interjections, which have no counterparts in other syntactic categories. Focussing on primary interjections also allows me to largely abstract away from linguistic expressions such as *yes*, *no*, *thanks* and *goodbye*, which could be seen as fitting the above criteria, but are not central to the claims of this paper. I will, however, consider the status of certain stylised imitations, such as 'ha ha', 'boo hoo' etc..

3   Interjections and concepts

According to the conceptualists: "interjections have real 'semantic' (i.e. propositional/conceptual) content…" (Wilkins (1992: 119). They would answer

questions (1) to (3) along the following lines: first, interjections communicate complex conceptual structures; second, communication is achieved principally by means of *encoding* conceptual structures; third, since interjections are viewed as having 'semantic' content, they are part of language.[1] Below in (6) is an example of the kind of analysis the conceptualists propose, Wierzbicka's conceptual structure for *wow* (1992: 164):

(6)   *wow!*

I now know something

I wouldn't have thought I would know it

I think: it is very good

(I wouldn't have thought it could be like that)

I feel something because of that

As can be seen from this analysis, conceptualist analyses of interjections are massively decompositional, and should be seen in the wider context of Wierzbicka's programme to develop a Natural Semantic Metalanguage. This approach is based on a set of around fifty primitives, designed to represent the innate building blocks of meaning: "research of recent years has proved Wittgenstein wrong…words can be rigorously defined" (Wierzbicka 1994: 433). Wierzbicka extends this approach to interjections: "we can capture the subtlest shades of meaning encoded in interjections relying exclusively on universal or near-universal concepts such as 'good' and 'bad', 'do' and 'happen', 'want', 'know', 'say', or 'think'" (Wierzbicka 1992: 163).

Although many subtle and intuitively appealing analyses have been proposed within this framework, there are several problems with this approach. Firstly, there are

serious objections to decompositional accounts of meaning. Fodor, Fodor and Garrett (1975) provide experimental psycholinguistic evidence against decompositions containing negative elements. If the concept [bachelor] decomposes into a complex negative concept, for example, [unmarried], then difficulties associated with processing and evaluating the validity of arguments containing negative items should arise with processing the word 'bachelor'. However, in tests, this was found not to be the case; (7a) is easier to process and evaluate than (7b):

(7a)   If practically all the men in the room are bachelors, then few of the men in the room have wives.

(7b)   If practically all the men in the room are unmarried, then few of the men in the room have wives.

This objection applies directly to the definition in (6), which also contains negative elements. While there are obvious problems applying the above test to interjections, which do not integrate into syntactic structure, and to definitions such as (6), which are too long to be satisfactorily embedded in their entirety, the proposal that *wow* contains a negative element is not supported by the data in (8ab); (8a) is easier to process and evaluate than (8b), suggesting it does not contain a negative element:

(8a)   If the fireworks were good and he didn't say *wow*, he wasn't really impressed.

(8b)   If the fireworks were good and he didn't say he wouldn't have thought he would know it, he wasn't really impressed.

Wierzbicka's structures for *oops* (163) and *yuk* (168) also contain negative elements, as do Wilkins' for *ow* (149) and *wow* (see (10) below), and the same objection applies to these structures too.

Fodor (1981) provides further arguments against decompositionalism. Very few words, he claims, are decomposable into satisfactory definitions: in this respect, the classic example 'bachelor' is exceptional. Fodor demonstrates that the task of analysing other words into necessary and sufficient conditions is a hopeless one.[2] He takes the word 'paint' as an example, and argues that *x paints y* is not satisfactorily defined as *x covers y with paint*.[3] To support his claim, he raises a series of objections, each of which he attempts to counter with a more complex definition. When an explosion at a paint factory covers a passer-by with paint, the factory has not painted the passer-by: perhaps, then, the definition should stipulate an *agent*. However, in covering the surface of the ceiling of the Sistine Chapel, Michelangelo, while most certainly an agent, was not painting the ceiling, but rather painting *a picture on* the ceiling. With these counter-examples in mind, Fodor defines *x paints y* as meaning *x is an agent and x covers the surface of y with paint, and x's primary intention in covering the surface of y with paint was that the surface of y should be covered with paint in consequence of x's having so acted upon it*. However, he finds a counter-example to even this most complex definition. For when Michelangelo dipped his brush in his paint pot, the above conditions were satisfied, but he was not painting his paintbrush: "when it comes to definitions", Fodor concludes, "the examples almost always don't work" (1981: 288).[4]

Along similar lines we can find counter-examples to the conceptualist structures for interjections. Firstly, the definition in (6) includes the line *I think: it is very good.*

But this overlooks the fact that *wow* can just as easily express negative feelings, such as outrage, or disgust;

(9)   *Wow*! That's outrageous!

        Wow! That's disgusting!

This point is also is raised by Wilkins (1992: 150). To account for it, and the fact that neither Wierzbicka's nor Ameka's definition capture the immediacy of the kind of reaction expressed by an utterance of *wow*, he proposes the more complex structure below (1992: 151):

(10)   "*wow!*"

        I_U have just now$_T$ become aware of this$_I$ something,

        that I_U wouldn't have expected

        [or 'that I_U wouldn't have thought I_U would become aware of']

        This$_I$ something is much more $X_{[Pr\text{-}of\text{-}this\ I]}$ than I would have expected,

        and this causes me$_U$ to feel surprised,

        and to feel that I_U could not imagine this something being more $X_{[Pr\text{-}of\text{-}this\ I]}$

        than it already is now$_T$.

        I_U say '/ωαυ!/' because I_U want to show how surprised (and impressed)

I_U am feeling right now$_T$.

But as with Fodor's more complex definitions, there are still problems. For example, there are aspects of the meaning of *wow* that the structure in (10) does not adequately capture. Does '*this is much more X than I would have expected and…causes me to feel surprised*' 'rigorously' define the subtle shades of positive meaning that an utterance of *wow* might communicate? from surprise and being mildly impressed, through amazement and astonishment to jaw-dropping bewilderment? from satisfaction through enjoyment to absolute exhilaration? Also, is it true that *wow* communicates that the speaker feels they '*could not imagine this something being more X than it already is*'? does a spectator at a firework-display communicate that he feels that this is the most spectacular firework he can imagine when he utters *wow*? Fodor's point that there are always counter-examples to be found, no matter how complex the definition, appears to hold for interjections too.

The second problem with the conceptualist approach is that an utterance of *wow* seems to communicate something altogether vaguer than the kind of structures they propose would predict: as suggested above, the meaning of *wow* surely cannot be 'rigorously defined'. This is not to deny that interjections can communicate a great deal. However, the range of communicative effects an utterance of *wow* might give rise to, when combined with different intonations and facial expressions, seems to go well beyond anything capturable in conceptual structures such as those proposed above.

An analogy with some of the other methods humans use to communicate is instructive here: paralinguistic phenomena such as tone of voice, or even non-linguistic behaviour. What a speaker might communicate by using an affective tone of

voice seems too nebulous to be paraphrased by a fixed structure such as (6). A facial expression or gesture might convey more than a string of words ever could, but it is not obvious that it is *encoding* anything.[5]

The context-dependence of interjections is the third problem for the conceptualist approach. Of course, (6) is not a fully propositional structure, because it contains uninterpreted indexicals (*I*, *it*, *now*) which are assigned reference by means other than linguistic decoding. Wilkins employs a variety of deictic sub-scripts (see (10)) to account for this context-bound nature: "each deictic element must be filled referentially before the interjection can be fully meaningful" (1992: 137). But the communicative content of interjections is *so* context-dependent that it seems implausible to suggest that the only contribution of pragmatic/contextual factors to their interpretation is the assignment of reference to indexicals. The conceptualist approach fundamentally underestimates the contribution of pragmatic/contextual or *inferential* factors to the interpretation of interjections. I will return to this point below.

The vagueness and context-dependence of interjections also relate to a fourth, more general problem with the conceptualist account. As mentioned above, humans use a wide range of behaviours to communicate. Consider, for example, how an individual might convey a feeling of pain. Methods range from allowing someone to see an entirely natural and instinctive contorted facial expression, to a scream such as 'aaaargh', to a culture/language-specific *ouch*, to a fully linguistic 'it hurts like hell'. No one would propose that grimaces or screams encode conceptual structure, but communicate they do. Interjections retain an element of naturalness and spontaneity that suggests they fall somewhere *between* the natural and the linguistic. With tone of

voice, facial expressions and even gestures, they share the property of being partly coded and partly natural: the conceptualist approach overlooks this.

A fifth problem with the approach is that intuitions do not support the claim that interjections encode the kind of conceptual structure the conceptualists propose. Consider (11) below, Wilkins' conceptual structure for *ow* (Wilkins 1992: 149):

(11)   *"ow!"*

I suddenly feel a pain (in this part of my body) right now that I

wouldn't have expected to feel.

I say '[αʊ!]' 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)]

While one is happy to concede that the italicised expressions in (12ab) encode the same (or similar) concepts, it is not obvious that the same is true of those in (13ab), which do not *feel* synonymous in the same way:

(12a)   Be careful with that *needle*!

(12b)   Be careful with that *hypodermic*!

(13a)   *Ow*! What did you do that for?

(13b)   *I suddenly feel a pain* etc. What did you do that for?

It could, of course, be our unfamiliarity with the sheer complexity of the conceptual structure in (11) that is responsible for this intuition. However, even if we strip the conceptual structure down to its bare essentials, where *ow* encodes something like 'I feel pain', there are still problems. (14a), for example, intuitively involves a conceptual repetition, while (14b) does not:

(14a)   I feel pain, I feel pain.

(14b)   *Ow*, I feel pain.

And interjections are not interchangeable with their conceptual counterparts; they do not, for example, occur in embedded positions[6]:

(15a)   If I feel pain, I'll tell you.

(15b)   * If *ow*, I'll tell you.

   In a recent talk (Paris 1998), the philosopher David Kaplan addressed (among other things) the linguistic difference between 'I feel pain' and *ouch*. Better known for his work on indexicals, Kaplan sees similarities between them on the one hand, and expressives (interjections—*ouch*, *oops*) and epithets ('that bastard') on the other: all these expressions, he claims, are better analysed 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 the notions of *descriptive* and *expressive* content: while 'I feel pain' has descriptive (truth-conditional/propositional) content, *ouch* has expressive (non-truth-conditional/non-propositional) content. This distinction is similar to the distinction drawn by speech-act theorists between describing and indicating, which I will consider further below.

Reasons of space prevent a fuller discussion of Kaplan's proposals here[7], but his notion of descriptive content does seem to parallel the conceptualists' notion of conceptual/propositional content. In this case, the descriptive/expressive distinction supports the above intuitions that one of the reasons *ow* and 'I feel pain' are not interchangeable in (14ab) and (15ab) is that *ow* does not encode conceptual structure. In Kaplan's terms, the *modes* of expression are different.

The sixth problem relates to the fact that interjections do not contribute to the truth-conditions of the utterances that contain them. In fact, the non-truth-conditionality of interjections may be one of the factors responsible for the intuitions in (14ab). Consider (16ab):

(16a)   I feel pain, the anaesthetic isn't working.

(16b)   *Ouch*, the anaesthetic isn't working.

(16a) makes two assertions: it is true when and only when the speaker feels pain and the anaesthetic isn't working; (16b) only makes a single assertion, and is true if and only if the anaesthetic isn't working. The dentist could not respond to a patient's utterance of "*Ouch*!" in (4) with: "You're *lying*, you can't feel any pain". Conceptual representations have logical properties, and are capable of being true or false. As a result, a conceptual representation can contradict or imply other conceptual

representations and act as input to logical inference rules. Since interjections do not seem to have these properties, it would be surprising if they encode fully conceptual structures.[8]

To summarise, there are six problems with the conceptualist approach: firstly, there are problems with decompositionalist accounts of meaning generally; secondly, the communicative content of interjections is vaguer than the proposed conceptual structures would predict; thirdly, the highly context-dependent nature of interjections suggests a substantial pragmatic contribution to their comprehension; fourthly, the approach overlooks the fact that interjections share with certain paralinguistic behaviours the property of being partly natural and partly coded; fifthly, the fact that they do not appear to be synonymous with their fully conceptual counterparts suggests they do not encode concepts; sixthly, the non-truth-conditionality of interjections suggests that a conceptual account is inappropriate, and that alternative semantic treatments should be explored.

4   Interjections and 'response cries'

"During the Wimbledon tennis championships in 1981, officials were confronted with an unusual problem. Some male players, notably Jimmy Connors, were regularly grunting loudly as they hit the ball. Their opponents…claimed the noises were distracting and were emitted deliberately to throw off their timing. When officials confronted Connors…he explained that he had no control over his grunting; it just happened when he hit the ball hard…Wimbledon officials then observed

the different players, trying to discern which grunts were intentional and which were not" (Seyfarth & Cheney 1992: 78).

Goffman (1981) discusses interjections in terms of the socio-communicative roles they play rather than any linguistic content they may have. Of the questions that are the focus of this paper, he is concerned with questions (1) and (3), and not question (2).

He considers three examples of "roguish utterances", which violate the conditions that normal 'talk' observes: *self-talk*, *imprecations* (swearing) and *response cries*. It is the latter two which are relevant here, and Goffman's distinction between response cries such as *oops*, *ouch*, *wow* etc. and imprecations reflects the conceptualists' primary/secondary interjection distinction discussed in the last section.

Goffman would not support Jimmy Connors' claim that his grunts were unintentional. Indeed, his primary concern is the fact that such sounds are invariably intended for the benefit of others. The purpose of *strain grunts*, for example, is often to warn others to stand clear. He comments, "these sounds are felt to be entirely unintentional, even though the glottis must be partially closed off to produce them and presumably could be fully opened or closed to avoid doing so" (1981: 105): Goffman fifteen, Connors love.

Goffman classifies response cries according to the function they serve. Some are indeed more or less instinctive, natural reactions: the *transition display*, where a person uttering *brrr* when leaving a warm atmosphere for a cold one might not only do so to restore some sort of physical equilibrium but also to "fall into cadence with the others in the room" (1981: 101); the *spill cry*, where a person uttering *oops* on dropping something might do so because it has the effect of "downplaying import and

hence implication as evidence of our incompetence" (1981: 102). According to Goffman, the main function of *ouch* (the *pain cry*) is to warn others that a threshold for pain is being reached, or about to be breached. Such response cries are not productive linguistically and are therefore peripheral to language proper.

Imprecations, by contrast, are highly productive linguistically. However, Goffman notes that an exclamation of *shit!* "need no more elide a sentence than need a laugh, groan, sob, snicker or giggle—all vocalisations that frequently occur except in the utterances ordinarily presented for analysis by linguists". Nor does it help "to define *shit!* as a well-formed sentence with *NP!* as its structure". He concludes that "imprecations, then, might best be considered…as a type of response cry" (1981: 112).

One of the most important points that Goffman raises is the notion of a continuum of elements between the properly linguistic and the non-linguistic, or between showing and saying. Since *ouch*, *oops* etc. are not productive linguistically, they "can't quite be called part of language" (1981: 115). Because of their productivity, imprecations are part of language (17abc) (though recall that when used as interjections they are non-productive):

(17a)   That dentist is shit.

(17b)   The dentist got really shitty with me.

(17c)   He was the shittiest dentist I've ever had the misfortune to see.

The distinction, however, is not clear-cut: "response cries such as *eek!* might be seen as peripheral to the linguist's domain…but imprecations…are more germane, passing

beyond semiword segregates to the traditional material of linguistic analysis" (1981: 121).

One illustration of this proposal might be as follows: to show someone you are delighted with a gift you allow them to see your natural reaction, a smile; to tell them you are delighted you utter something like 'it's wonderful!'; to utter an interjection like *wow* is to communicate that you are delighted by adding a certain element of coding which takes it beyond mere display, but falls short of language proper. I will return to this point later below.

Despite regarding response cries as outside language proper, Goffman does not ignore their communicative adaptability. He points out that if you are being told by a friend about a particularly gruesome moment from their last trip to the dentist's, you might utter *ouch* sympathetically on their behalf.[9] Or it might be used as in (18):

(18)   Dentist: That'll be £75 for the consultation and £30 for the cavity.

        Patient: *Ouch!*

Here, Goffman is distancing himself from the view that primary interjections are a simple "natural overflowing". It is, after all, intuitively clear that while they are instinctive in some respects, *ouch* and most primary interjections are under our conscious control. If I bring a hammer down forcefully on my thumb, the four-letter word I utter is unlikely to begin with 'o'.[10] A person screaming in agony is not screaming *ouch*. We should be careful not to overestimate the expressive, instinctive nature of these primary interjections.

There are many interesting ideas in Goffman (1981). The question of what interjections communicate is, in some cases, beautifully explicated. In terms of the

questions asked in this paper, the problem is that he says nothing about *how* interjections communicate. In this respect, whilst it affords some insights that are certainly worth preserving, his analysis does not provide a satisfactory theoretical alternative to the conceptualist approach. In the next section, I will look at some analyses of linguistic meaning which offer some alternatives to the conceptualist account of interjections.

5 Interjections and meaning: *what do interjections communicate*?

Over the last 30 years, philosophers of language and linguists have explored the idea that not all linguistic meaning is descriptive, or conceptual. At various times the distinction has been made between *truth-conditional* and *non-truth-conditional*, or *propositional* and *illocutionary* content, and between *describing* and *indicating*, or *saying* and *conventionally implicating*. If interjections do not encode descriptive, or conceptual meaning, it is worth exploring whether they can be analysed as non-truth-conditional indicators of some kind (see Wilson and Sperber (1993) for further discussion).

Of course, interjections are not the only example of non-truth-conditional meaning. Other examples are non-declarative sentences such as (19ab), which in contrast with (19c), are not capable of being true, or false:

(19a)   Does Lily go the dentist?

(19b)   Lily, go to the dentist!

(19c)   Lily goes to the dentist.

Under the Speech-act approach of Austin (1962), Searle (1969, 1979), Bach and Harnish (1979), sentences both express propositions, which *describe* the world, and may contain non-truth-conditional expressions, which *indicate* the speech act (illocutionary act) a speaker is intending to perform, or the propositional-attitude a speaker is expressing. The difference in meaning between (19abc) is captured by proposing that although all three sentences express the same proposition—*Lily goes to the dentist at time X*—they differ in their illocutionary force: (19a) has the force of a question; (19b) of a request for action; (19c) of an assertion.

Speech-act semanticists claimed their approach could deal with a whole range of non-truth-conditional linguistic expressions, including mood indicators—the linguistic features which mark interrogatives and imperatives (word-order in (19abc))—and various types of illocutionary or attitudinal adverbials, for example those in (20ab):

(20a) *Frankly*, the tooth is rotten.

(20b) *Regrettably*, it will have to be extracted.

In (20a) the illocutionary adverbial 'frankly' indicates that the speaker is saying frankly, or telling the speaker frankly, that the tooth is rotten. In (20b), the attitudinal adverbial 'regrettably' indicates the performance of what Searle (1979) defines as an *expressive* speech-act: "the illocutionary point of this class is to express the psychological state specified in the sincerity condition about a state of affairs specified in the propositional content" (Searle 1979: 15). Thus, in (20b) the adverbial indicates that the speaker has a regretful attitude to the fact that the tooth will have to be extracted. I examine in more detail below the question of whether interjections might be analysed as performing expressive speech-acts according to this definition.

The philosopher H. Paul Grice also investigated non-truth-conditional phenomena (1975, 1989), in particular discourse connectives such as 'but' and 'moreover', which he analysed as performing higher-order speech acts. Grice distinguished between *what is said* (broadly speaking, the truth-conditional content of an utterance) and what is *implicated*. Via the Co-operative Principle and Maxims a hearer could derive *conversational implicatures*, and recover meaning beyond the decoded content of an utterance. This fits with clear intuitions that we can 'say' one thing and 'mean' another, as in (21):

(21)　　Jack: Would you like some ice cream?

　　　　Lily: (regretful tone of voice) I've got toothache.

In (21), the fact that Lily does not want any ice cream is a *non-conventional* conversational implicature. However, Grice also proposed that part of what is implicated by an utterance is *conventionally* implicated, where a conventional implicature is stipulated as part of the grammar. Discourse connectives, such as 'but', conventionally implicate the performance of higher-order illocutionary speech acts. So while a speaker might be asserting (22b) and (22c) in an utterance of (22a), what she is conventionally implicating is that the two assertions are to be contrasted.

(22a)　Liz is dentist but she's quite nice.

(22b)　Liz is a dentist.

(22c)　Liz is quite nice.

　　Relevance Theory (Sperber and Wilson 1986, 1995) is an account of communication which builds on the foundations that Grice laid. It is, however, based

on a fundamental principle of human cognition rather than Grice's more socially motivated maxims. Humans are geared to look for relevant information, information that will interact with existing mentally represented information and bring about cognitive effects in the form of inferences that would not otherwise have been possible. The relevance of information is defined in terms of cognitive effects gained and processing effort expended: the greater the cognitive effects gained, and the smaller the processing effort required to achieve those effects, the greater the relevance of the information.

The relevance theory *explicit/implicit* distinction reflects the one Grice drew between saying and implicating; however, the two are not exactly parallel (see Carston (2002) for further discussion). In relevance theory, *explicatures* are recovered via a mixture of linguistic decoding *and* inference: the more decoding involved, the more explicit the communicated content of the utterance. The basic explicature, the proposition expressed (roughly equivalent to Grice's *what is said*), is rarely recovered by disambiguation and reference assignment alone, and the construction of *higher-level explicatures* requires even more pragmatic development, such as the embedding of the basic truth-conditional content under a speech-act or propositional-attitude description. In this way, aspects of both speech-act theory and Gricean pragmatics are retained within the relevance theory framework.

To illustrate this approach, consider how Jack might interpret Lily's utterance in (21). Having recovered the proposition expressed, he might embed it under a speech-act description, as in (23a), or a propositional-attitude description, as in (23b). These would be higher-level explicatures of Lily's utterance in (21).

(23a)   Lily is saying that she's got toothache.

(23b)   Lily regrets that she's got toothache.

The framework as presented so far suggests a way we might approach question (1). Interjections might be indicators of higher-level explicatures, containing speech-act or propositional-attitude information. A candidate for an interjection that might encode a similar sort of information to interrogative mood indicators, although it is not as integrated into the syntax, is *eh*. Thus, in relevance-theoretic terms, a patient interpreting the dentist's utterance in (24a) might form the higher-level explicature in (24b), or perhaps (24c):

(24a)   Dentist: So you're having three teeth out, *eh*?

(24b)   The dentist is asking whether I'm having three teeth out.

(24c)   The dentist is requesting confirmation that I'm having three teeth out.

In many languages such particles appear to be fully grammaticalised. Wilson and Sperber (1993) point out that certain dialects of French have an interrogative particle 'ti' which performs the function carried out by word-order in other dialects, and might be analysed along similar lines to the one proposed above. Indeed, in English a similar questioning attitude toward the proposition is often conveyed by the word 'right?', or the tags 'aren't you?' or 'are you?'.

Wilson and Sperber (1993) also propose that the English interjection *huh* might be used to encourage the construction of higher-level explicatures involving a dissociative attitude toward an attributed utterance or thought. Consider (25a), which might lead a hearer to derive the higher-level explicature in (25b):

(25a)   Lily: Dentists are human, *huh*!

(25b)   It's ridiculous to think that dentists are human.

Cross-linguistic data suggest that many languages contain particles that might be analysed in a similar way. Japanese (Itani 1995) and Sissala (Blass 1989) have hearsay particles, [ττE] and [ρE] respectively, which mark propositions as attributed to another speaker (or thinker). Sadock and Zwicky (1985: 161) note that Lahu has "a very large number of particles that indicate attitudes, rational or emotional, toward a proposition".

Since a feature of interjections in general is that they express attitudes, we might consider the extent to which these attitudes are similar to those conveyed in example (20b). An utterance of (20b) might lead a hearer to embed the proposition expressed under speech-act or propositional-attitude descriptions and construct the higher-level explicatures in (20b') and (20b''):

(20b') The dentist is saying that the tooth will have to be extracted.

(20b'')The dentist regrets that the tooth will have to be extracted.

In a similar way, utterances of (26a) and (27a) might lead a hearer to form the higher-level explicatures in (26b) and (27b):

(26a)   *Aha*! You're here.

(26b)   The speaker is surprised that I am here.[11]

(27a)   *Wow*! You're here.

(27b)   The speaker is delighted that I am here.

In speech-act terms both *aha* and *wow* in (26) and (27) can be analysed as performing expressive speech acts. In fact, all the examples I have considered so far seem to fit the speech-act framework, in that there appears to be an attitude, emotional or otherwise, being conveyed toward the proposition expressed—satisfying Searle's definition.

Consider (28ab), however:

(28a)   *Yuk*! This mouthwash is foul.

(28b)   *Wow*! This ice cream is delicious.

Here, the attitudes being expressed are not being expressed to an embedded proposition. Utterances of these sentences would not lead a hearer to form the higher-level explicatures in either (28a') or (28b'):

(28a') The speaker is disgusted that the mouthwash is foul.[12]

(28b') The speaker is delighted that the ice cream is delicious.

In these examples the attitudes are being expressed to objects rather than propositions: in the case of *yuk*, to the mouthwash (or more particularly the taste of it), and in the case of *wow* to the ice cream (or the sight or taste of it). As another example, consider (29):

(29)   Child: (taking foul-tasting medicine) *Yuk!*

Here, the interjection stands alone as an utterance in its own right in the unique non-elliptical manner characteristic of interjections. Not only is the attitude not directed at

any embedded propositional content, there *is* no propositional content to embed. For this reason, it is hard to analyse (29) as conveying a higher-level explicature or expressive speech act since there is no linguistically encoded logical form to embed under it.

In fact, we might ask whether what is communicated by the interjections in (28ab) and (29) are emotional attitudes at all; in (29) in particular, what the interjection communicates seems to be something more like a 'feeling' or a 'sensation'.

Rey (1980) defines 'emotion' in terms of a process of interaction of the various elements that he regards as comprising emotional states: *cognitive*, *qualitative* and *physiological*. Thus, sadness might be defined as the interaction between a cognitive element—the knowledge that something has happened which you would prefer not to have happened, or the belief that something which you would prefer not to happen is going to; a qualitative element—that feeling of being 'down' (perhaps accompanied by behaviour consistent with feeling this way, such as drooping shoulders and a flat tone of voice); and a physiological element—chemical changes in the brain (in the case of sadness or depression, depletion of norepinephrine). Whilst emotional states crucially involve the cognitive, as well as the qualitative and physiological elements, feeling or sensations need not. Seen in these terms what is communicated by *yuk* in (29) is indeed a feeling or sensation rather than an emotion, and not an emotional attitude or propositional-attitude proper. It seems, then, the framework as being presented so far is too restrictive: perhaps it is not possible to account for the meaning of interjections *solely* in terms of propositions and propositional-attitudes, as existing speech-act and relevance-theoretic analyses seem to suggest.

As well as the example in (29), other interjections, such as *ouch* (see (4)), are difficult to account for in terms of propositional attitudes; these might also be said to

communicate feelings or sensations rather than emotions: the speaker simply reveals something about her internal state. In Kaplan's terms this state is *expressed* rather than *described*. In cognitive terms, we might cash this out by proposing that there is something *non-representational* about interjections. This proposal would be consistent with the arguments presented in Section 2, and is one I explore in the next section.

The question of what interjections communicate, then, requires various answers. In some cases they might be analysable in terms of speech-act or propositional-attitude information they convey. In this regard, interjections such as *eh* and *huh* pattern with discourse particles such as those I mentioned earlier. The interjection *alas* also might express a propositional-attitude proper. Thus, instead of sighing regretfully, Lily might have prefaced her utterance of (21) with *alas*, and in doing so expressed her attitude of regret more explicitly.

Other interjections (e.g. in (26a), (27a)) also express propositional attitudes: emotional attitudes expressed toward propositions in the sense suggested by Searle. However, in some instances what an interjection expresses might be directed toward a percept or object which is the cause of a qualitative or physiological response, and not to an embedded proposition (e.g. (28ab)). In these cases, whether or not what is communicated is an *emotional* attitude is dependent on there being a cognitive element interacting with the qualitative and the physiological. The cognitive element is not always present: in fact, it could be argued that interjections are *primarily* geared to the percepts and objects that are the causes of particular responses, and only by extension to propositions. Finally, some uses of interjections (see (29), (4)) clearly communicate feelings or sensations, and not propositional attitudes proper.

An adequate analysis of what interjections communicate should take account of all these observations. It should also address the fact that whatever interjections communicate—propositional attitudes, emotions, feelings or sensations—it does not seem to be done via encoded conceptual representations. I turn to this question in the next section.

6　　Interjections and procedures: *how do interjections communicate*?

Diane Blakemore (1987) reassesses Grice's account of discourse connectives within a relevance-theoretic framework by introducing a distinction between *conceptual* and *procedural* encoding. Having argued against conceptualist accounts of interjections, I now want to explore the possibility of a procedural approach.

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 (31a) would be spelled out more explicitly in (31b) or (31c):

(31a)   Jack visits the dentist every six months. His teeth are good.

(31b)   Jack visits the dentist every six months; *so* his teeth are good.

(31c)   Jack visits the dentist every six months; *after all*, his teeth are good.

On Blakemore's account, in (31b) 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. In (31c) the expression 'after all' encodes a procedure which leads to the second proposition being understood as evidence for the first. Blakemore's analysis classified 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. Thus, for example, the construction of the higher-level explicature in (25b) would be encouraged by a procedure encoded in *huh*.

Not all non-truth-conditional meaning is procedural, however. Consider once more example (20b):

(20b)   Regrettably, it will have to be extracted.

Despite the fact that 'regrettably' in (20b) is non-truth-conditional, there are reasons to think that it does encode something conceptual (see Ifantidou-Trouki 1993). Firstly,

it has conceptual counterparts which *do* contribute to the truth-conditions of utterances containing them (32ab):

(32a) The incident at the dentist's was extremely *regrettable*.

(32b) The dentist *regrets* her actions.

Secondly, illocutionary adverbials such as 'frankly', which do not contribute to truth-conditions in (33a), combine compositionally with other expressions to form complex adverbial phrases, as in (33b):

(33a) Frankly, she's an absolute menace.

(33b) To put it frankly, and more frankly than I would dare if she had her drill in

         my mouth, she's an absolute menace.

This compositionality is to be expected if these adverbials encode conceptual representations, but it is hard to explain on a procedural account. This suggests an important modification to speech-act analyses, in that not all non-truth-conditional 'indicators' seem to work in the same way.

In the case of interjections, however, we already have good evidence against conceptual accounts. They have *no* truth-conditional counterparts; they are linguistically *non*-productive and are not subject to compositional semantic rules. I would therefore like to explore the idea that rather than encoding conceptual structure, they encode procedural information which 'points' in the general direction in which relevance should be sought.

What exactly does procedural information look like? Drawing on the representational/computational distinction we might characterise it as providing

computational *instructions* to the hearer: this is how it is often described in discussions of discourse connectives such as 'although', 'however', 'so', 'after all'. With other non-truth-conditional expressions, however, it might be better to view procedural content in a broader sense, as simply *activating* certain types of representations, or contextual assumptions, or expectations about cognitive effects. Thus, a pronoun might activate a certain class of candidate referents from which the hearer must choose. We might characterise the procedural information encoded by mood indicators in this broad sense, as activating certain propositional-attitude descriptions, which the hearer is expected to draw on during the comprehension process.

One might, in fact, adopt the broader view for discourse connectives too. For what discourse connectives, mood indicators and pronouns have in common is that rather than *translating* into the constituents of conceptual representations[13] they *activate* something. What is actually activated may be computational deductive rules, or contextual assumptions, or simply expectations about cognitive effects. In each case, the function of the non-truth-conditional expression is to help the comprehension process by reducing the search space the inferential processes are working in.

Along these lines, the procedural information encoded in interjections might activate various attitudinal concepts or types of concepts. Under such an account *wow* would not encode a concept that a hearer translates as 'X is delighted'. Instead *wow* activates a range of attitudinal descriptions which involve delight, surprise, excitement etc.. In the case of *yuk*, the attitude will be one of disgust; in the case of *aha* it will be an attitude of surprise etc.. In the case of *eh* what will be activated is a range of interrogative propositional-attitudes; in the case of *huh*, it will be a range of dissociative attitudes, and so on.

What a hearer does with the attitudinal or speech-act information activated might vary in different situations. In utterances of (24a) and (25a), a hearer might use it to construct a higher-level explicature. Utterances of (26a) and (27a) might also lead to propositional embedding, though it may be that many interjections are primarily geared to suddenly perceived objects and events, and only by extension to propositions.

This kind of account squares nicely with the observation made in the last section that there is something non-representational about interjections. Also, it means we might see some interjections as working in a similar manner to discourse particles— 'please', 'well', 'then', 'now'—with which they share a lack of syntactic integration.

It would also resolve five of the six problems I discussed with the conceptualist account in Section 2: firstly, the approach is clearly non-decompositional; secondly, the result of comprehension may be vague, since a wide range of possible propositional-attitude descriptions may be equally activated, and there may be no way for the hearer to choose among them.

As to the third problem, the precise conceptual structure actually arrived at by the hearer will be different in different contexts, since the particular interpretation is the outcome of several overlapping inferential processes it constrains, rather than simply being decoded. Even in the case of *eh*, one of the best candidates for encoding a particular speech-act—i.e. a request for confirmation—it would be unsatisfactory to propose that this is what is encoded. Consider (34):

(34)   Dentist: I'm going to polish your teeth.

        Patient: *Eh*?

Here, there is no suggestion that the particle functions to request confirmation in the same way as it does in (24a). The patient is simply requesting the dentist to repeat what she has said.

The fifth and sixth problems with the conceptualist account are also solved. The non-truth-conditional status of interjections, which is hard to explain on a fully conceptual account, is to be expected if they encode procedures. And under a procedural account, there is no expectation that *ouch* and 'I feel pain' will be synonymous.

While solving these problems, the procedural account preserves the conceptualist intuition that there is a coded element to interjections, responsible for their language-specific nature, and Goffman's intuition that interjections are more than mere natural display. It also allows us to incorporate aspects of the functional treatment that Goffman proposes by suggesting a plausible way in which the communicative content he describes might actually be communicated: via a combination of procedural encoding and inference.

However, one of the problems I raised with the conceptualist account remains. I claimed that it overlooks the fact that interjections seem to share with para-linguistic or non-linguistic behaviours the property of being partly natural and partly coded. As yet, other than proposing that interjections might work by activating certain attitudinal descriptions, I have said nothing about this partly natural side, nor how it might be reconciled with the coded side. For while we intuitively regard words that encode procedural meaning such as 'so', 'after all', 'however', 'moreover', 'I', 'he' etc. as properly linguistic items, there remains a doubt as to the linguistic status of interjections.

Another issue that I have not yet addressed is the fact that interjections, as we have seen, can constitute utterances in their own right in a unique non-elliptical manner; in such cases the higher-level explicature account proposed above would be problematic, since a higher-level explicature, by definition, takes an embedded proposition as its object.

In fact, the two issues are not unrelated, and a way of resolving both would be to see interjections themselves as working more in the manner of paralinguistic phenomena, which might contribute to the construction of higher-level explicatures when used by a hearer to develop a linguistically-encoded logical form, or might communicate at an implicit level when used alone.

However, so far in the literature on the conceptual-procedural distinction, procedural meaning has only been attributed to linguistic expressions, and the question of whether a procedural account is compatible with paralinguistic status has not been addressed. In the next section I examine in more detail the linguistic status of interjections; in Section 7 I argue that being paralinguistic is not incompatible with encoding procedural information, and develop an account which suggests that there is a possible dissociation between procedural and linguistic meaning.

7   Interjections and language: *are interjections part of language*?

To know a language is to know a certain set of rules or principles: language is a rule-governed system. It is also a creative, combinatorial system with a finite number of elements (words), which can be combined to create novel utterances of arbitrary length. The set of rules a speaker of a language knows constitutes a mentally

represented *grammar*, a *code* pairing phonological and semantic representations of sentences (Chomsky 1986, 1995).

Under a 'code' model of communication, languages are seen as sets of sentences which encode propositional structures, and communication is seen as achieved by coding and decoding. The conceptualist approach is reminiscent of such a model: the interpretation of interjections is seen largely as a coding-decoding process.

Grice (1975, 1989) was the first to propose a viable alternative to this code-based view of communication, and to treat communication as an intelligent, *inferential* activity. To Grice, understanding utterances was a matter of working out the intentions behind them. Relevance theory builds on Gricean foundations: communication is achieved by a speaker giving evidence of an intention to inform the hearer of something, and the hearer inferring this intention. Of course, there is a coded element in linguistic communication, but the linguistically encoded content of an utterance, i.e. the output of the grammar, is merely a starting point for rich inferential comprehension processes guided by expectations of relevance.

Narrowly defined, then, knowing a language is having a mental grammar. However, we may also want to think of 'language' in wider terms. Human production and understanding of language is mediated by the grammar in conjunction with other cognitive systems. The ability to produce and understand language in this wider sense involves the ability to perform various pragmatic processes of interpretation. It also includes the ability to attribute intentions and beliefs to others.

These observations are crucial in any attempt to answer question (3) above. For while interjections undoubtedly contribute to the interpretation of utterances, the same can be said for the range of para- or non-linguistic phenomena discussed at various points in this paper: although interjections may contribute to linguistic

communication, it does not necessarily follow from this that they encode anything linguistic. For an interjection to be regarded as a part of language in the narrow sense discussed above, the rule-governed system must play some role: if interjections are part of language, they must encode *linguistic* information, i.e. that coding must be stipulated in the grammar.

Ameka summarises the conceptualist viewpoint on question (3) thus: "different interjections do have different degrees of integration within the linguistic systems of languages.[…] But the underlying commonality shared by all words which satisfy our characterisation of interjection is that they are linguistic signs" (Ameka 1992: 113). It is clear from the first part of this quote that although they see interjections as part of language, even the conceptualists allow for some borderline cases. Ameka argues there are three respects in which it might be argued interjections are peripheral to language. These provide a convenient framework within which to approach question (3).

The first property of interjections that Ameka singles out is their 'paralinguistic' nature: "there is no doubt that there is an intimate connection between interjections and gestures in general" (Ameka 1992, 112). Wierzbicka describes interjections as 'vocal gestures', which fits Goffman's intuitions that they are paralinguistic, and to a certain extent my own that they are partly natural as well as partly coded.

Wierzbicka does not, however, see this as militating against a semantic analysis, and proposes to capture her intuition by omitting the 'I say' component from her proposed conceptual structure (simplified as in Wierzbicka 1992: 162/163):

(35a)   *Ow*

   I feel pain.

(35b) *I feel pain*

      I say: I feel pain

      I say this because I want to say how I feel.

This would remove interjections from the class of assertions, and leave them free to perform other speech-acts – as expressives, for example. I find this an interesting proposal, and more in line with my own intuitions than other aspects of the conceptualist analysis. It seems to echo Kaplan's descriptive/expressive distinction, in that (35b) describes (conceptualises) a feeling, while (35a) just expresses it.

    Recall examples (26a) and (27a), repeated below:

(26a) *Aha*! You're here.

(26b) The speaker is surprised that I am here.

(27a) *Wow*! You're here.

(27b) The speaker is delighted that I am here.

    A hearer of these utterances might well be led to construct higher-level explicatures such as (26b) and (27b) above. Given Wierzbicka's intuitions, and the framework discussed in Sections 4 and 5, the issue is whether he would also construct the higher-level explicatures in (36ab):

(36a) The speaker is saying that she is surprised that I am here.

(36b) The speaker is saying that she is delighted that I am here.

My intuition is that he would not, any more than he would construct (36a) and (36b) when a speaker says "You're here!" and accompanies it with a surprised facial

expression or a smile. This seems to support Wierzbicka's claim and might be taken as evidence that interjections are indeed paralinguistic. However, Wierzbicka is not dissuaded from her conclusion: "interjections—*like any other linguistic elements*—have their meaning, and…this meaning can be identified and captured in rigorous semantic formulae" (1992: 188—emphasis added, TW).

Wilkins disagrees with Wierzbicka's claim that interjections do not amount to 'saying'. On the contrary, he suggests, native speakers are happy to accept that some interjections are 'said', and presents evidence from his own informal survey to support this. He found that native speakers regarded (37ab) as acceptable, but (37cd) as unacceptable. These latter expressions are, he argues, better reported using the verb 'go' (37ef):

(37a)   "Ouch!", she said.

(37b)   "Wow!", she said.

(37c)   ??"Psst!", she said.

(37d)   ??"Shh!", she said.

(37e)   "Psst", she went.

(37f)   "Shh!", she went.

He concludes that "primary interjections are not merely vocal gestures" and "interjections like *wow* and *ow* do have an 'I say' component in their decomposition, and may be regarded as illocutionary acts" (Wilkins 1992: 147/8). He also claims his survey provides evidence that "interjections that match the typical word phonology of English are regarded by native speakers as words" (Wilkins 1992: 148).

Here Wilkins touches on the second factor Ameka mentions: phonological atypicality. Wilkins' test in (37) suggests that there is a line beyond which items that are sometimes considered interjections (and are included in my original list) are not classified by native speakers as part of language. Vowel-less vocalisations such as *psst* and *shh* are two examples. Other examples from my introductory list include *brrr*, *hmm*, [|] – the dental click usually orthographically realised as *tut-tut* (or *tsk-tsk*), and *ahem*, often referred to as an interjection but in practical terms usually little more than an ostensive throat clear. *Oops* also fails to fit standard English phonotactics (English words do not begin with [ʏ][14]). Similarly *ugh* differs from *yuk* in that the former ends in a velar fricative [ξ] that is not linguistically productive in English.

Essentially, Wilkins' argument is that since phonologically atypical interjections cannot be reported using the verb 'say', they are not part of language. However, the situation is more complicated than he suggests, and the argument is not convincing. Not only can we use the reporting verb 'say' with many expressions which are clearly not words of the speaker's grammar, in metalinguistic uses such as direct quotation, but 'go' is a perfectly acceptable verb with which to report linguistic utterances (38abc):

(38a) And so the kid would say, "Blah blah blah?" [tentative voice with rising intonation] and his father would say "Blah blah blah" [in a strong blustery voice], and they would go on like that.[15]

(38b) She looked at me and said "moi, je deteste les dentistes".

(38c) So he comes into the pub and he goes "where's that money you owe me?". "What?", she goes, "I don't owe you anything".

Furthermore, a combination of the conceptual approach and Wilkins' claim that phonologically atypical interjections are not words would lead to considerable problems in accounting for the borderline expressions that Ameka alludes to. I don't think I am alone in having *yugh* [φ=≅ξ] as well as *yuk* [φ≅κ] and *ugh* [≅ξ] in my interjectional repertoire. Under Wilkins' account, *yuk* is part of language proper and communicates via its precise encoded conceptual structure: to suggest it does so solely because of this, however, leaves no account of *yugh*, which must surely communicate in a similar manner.

The third and final issue in deciding whether or not interjections are part of language is their syntax-independence and non-productivity. Interjections are, as it is often put, 'thrown' (interjected) into utterances. They exist on the edges of utterances, always separated off from the main clause and rarely integrated into intonational units. They do not inflect or combine with other morphemes to change word-class, and often stand alone as utterances in their own right, seemingly without linguistic structure. If the crucial factor in deciding the linguistic status of interjections is whether or not the information they putatively encode is stipulated by the grammar, the fact that interjections operate independently of syntactic structure suggests they operate independently of the mental grammar.

In my introduction I stated that for the sake of argument I would assume that interjections represented a unified class. It should be clear by now, however, that this is not the case. As a further complication, consider (39ab):

(39a)   At the Annual Dentist's Convention Mrs. Pulley *wow*ed the audience with her encyclopaedic knowledge of gold teeth.

(39b)   That is without doubt the *yuck*iest mouthwash I've ever tasted.

Wow and *yuk* are, of course, not secondary interjections: the linguistically productive expressions *to wow* and *yucky* (and *yummy*) are derived from the interjections rather than the other way round. This phenomenon complicates the picture even further, and the harder one looks, the more complicated it becomes.

   Consider the utterances containing *eh* and *huh* in (24a) and (25a): although we cannot argue that these expressions are syntactically integrated, there is a sense in which they have to be 'thrown in' in a certain position to perform the functions they do. With regard to phonology, recall Ameka's quote that "[interjections] always constitute an intonation unit by themselves" (1992: 108). However, despite the comma in (40), *oh* could be the nucleus, or alternatively the pre-head of a larger intonational unit encompassing the whole phrase.

(40)   Lily: That dentist's a complete sadist.

        Jack: *Oh*, I don't know. (As in 'she isn't really'.)

They are such a disparate, non-unified group of expressions that the question whether 'interjections' are part of language may be impossible to answer satisfactorily; an adequate account of interjections should reflect this heterogeneity. It should also reflect the evidence I presented in this section, which suggests that many interjections are indeed paralinguistic.

   As mentioned in Section 6, the question remains whether, having argued against a conceptual and for a procedural approach, the procedural approach might be maintained in spite of this uncertain linguistic status. In the next section I focus on

this *natural* side of interjections, and then suggest a way it might be reconciled with the *coded* side.

8 Interjections and meaning: *the 'showing'/'saying' continuum*

An inferential model of communication provides more than just an account of *linguistic* communication. The inferential comprehension processes which take linguistic utterances as their input do so not because linguistic utterances are the only form of communicative stimulus, but because linguistic stimuli are one of a whole range of stimuli used in any form of intentional communication. This wide range of stimuli, I argue, are best analysed in terms of 'showing' and 'saying'[16]. In the next sub-section I provide some examples, and characterise these two notions in theoretical terms.

8.1 Showing and saying

Thanks to Grice's influential work, it is now widely accepted that verbal comprehension exploits the human ability to attribute thoughts, intentions and beliefs to one another: the ability to entertain representations of other representations—*metarepresentations*. This metarepresentational ability forms part of the wider meta-psychological ability known in the literature as *Theory of Mind* or *Mindreading*.

In an inferential framework, an act of overt communication—what Sperber and Wilson call *ostensive-inferential* communication (1986/1995: 63)—is achieved by a speaker providing evidence of her intention to inform the hearer of something. It follows, then, that in any act carried out with the intention of providing evidence of an

intention to inform—any *ostensive* act—there are two layers of information to be retrieved. The first, basic layer is the information being 'pointed out', the second layer is the information that the first layer has been pointed out intentionally.

Consider two examples of showing. In the first, Jack arrives home from the market. He knows that Lily will be wondering what he has bought for dinner, so he puts his hand in his shopping bag and pulls out a live lobster, which he holds up for Lily to see. In the second, Jack has spent the day shopping for clothes. Lily arrives home from work and shouts upstairs asking him what he has bought. He comes downstairs wearing an expensive-looking new jacket, and twirls in front of her ostentatiously.

Both examples are cases of ostensive-inferential communication as characterised above. What makes them cases of showing is that the evidence provided for the first layer of information is relatively direct. In the first example, the basic layer that Jack is pointing out is that they are having lobster for dinner: the evidence he provides for this is the lobster itself. In the second, the basic layer he is pointing out is that he has bought a new jacket: the evidence he provides for this is the jacket itself. Notice, however, there is still inferential work to be done. Lily must still infer that the lobster Jack is holding up is one they are going to have for dinner, rather than one he intends to release back into the wild. She must still infer that it is the *jacket* he is wearing that Jack intends to draw her attention to, rather than his trousers, or his shoes.

In cases of saying, by contrast, the evidence provided for this first, basic layer of information is indirect, and cannot be derived without reference to the second layer. Consider two adaptations of the examples. Jack arrives home from the market and shouts "Lobster for dinner!". Here the evidence Jack provides is a coded signal—a linguistically encoded form. Lily cannot 'work out' Jack's intentions from his actions: she must know the code. However, knowing the code is not all there is to interpreting

Jack's meaning. Jack's utterance is fragmentary, so Lily must decode the linguistic form of the utterance and develop it inferentially to derive the basic explicature or proposition expressed—what Jack *says*. In the second example, Lily asks Jack what he has bought from the shops and he replies "I've bought a new jacket". Again, the evidence provided is a linguistically encoded form, and though we would not want to call his utterance fragmentary, minimal inferential work is still required to develop it into the truth-conditional proposition Jack intends to communicate.

When Lily sees or hears that they are having lobster for dinner, or that Jack has bought an expensive new jacket, she might utter "*wow*!". In terms of the account I have outlined, she communicates delight with an element of procedural encoding which, by activating certain attitudinal concepts, points him in the direction of the appropriate conceptual representation: this coded element takes it beyond mere showing. To a certain extent, however, the evidence she provides for the first layer of information is relatively direct: it therefore falls short of saying.

To reconcile the natural and the coded side of interjections, I propose that they might be seen as falling at various points along a *continuum* of communicative behaviours, ranging from those in which relatively direct evidence of the basic layer of information is provided—showing, to those where all the evidence provided is indirect—saying.

8.2 Varieties of showing

In his famous paper 'Meaning' (1957), one of Grice's aims was to draw a clear line between 'showing' and 'saying', or as he termed it "'deliberately and openly letting someone know' and 'telling'" (1957/1989: 218). His main concern was to characterise

non-natural or *conventional* meaning[17]—'*what is meant by X*' or '*what A meant by X*'— in terms of intentions and the recognition of intentions. Crucial to the line Grice drew was a further type of intention. In cases of non-natural meaning, the communicator must intend the recognition of their informative intention to play at least some role in the audience deriving the first, basic layer of information.

Consider (41ab) below (adapted from Grice (1957/1989: 218):

(41a) Feeling unwell, Mary deliberately and openly lets her mother see how pale she is, so she will notice and help.[18]

(41b) Mary says to her mother "Mum, I don't feel well. Please help".

In (41a) Mary's mother can see how pale Mary is, and might be said to draw her own conclusions irrespective of any intentions Mary may have: being pale is a natural sign that someone is unwell. In this example, then, the basic layer is derivable without reference to the second, and consequently (41a) is not a case of Gricean non-natural meaning. In (41b), on the other hand, Mary provides indirect evidence of her intention—a coded signal. In doing so she intends the recognition of her intention to convey the first, basic layer of information to play a crucial role in the recovery of that information. Linguistic utterances are paradigm examples of non-natural meaning.

Was Grice right to draw this line? Given his main aim—to characterise non-natural or conventional meaning—it is hard to criticise him. Grice saw his notion of 'speaker's meaning' as a point from which he might begin an exploration of semantic notions such as 'word meaning' and 'sentence meaning'. The aim of relevance theory, however, is to offer an account of human communication generally. So is the situation described in (41a) a case of ostensive-inferential communication? In other

words, irrespective of the fact that the basic layer of information is derivable without reference to the second, does Mary provide evidence of an intention to inform? This question breaks down into two. Firstly, does Mary have an informative intention? Secondly, does she, by her behaviour, provide evidence of it?

The answer to both questions is yes. Mary certainly has an informative intention: she intends to inform her mother she is unwell and wants (as in 'desires')[19] help. And it surely follows from the fact that Mary has shown her mother she is unwell "deliberately and openly" that she intends her mother to notice her intention. You can't *accidentally* or *covertly* do something "deliberately and openly" (or *half*-intend something, for that matter). By being 'open', Mary provides evidence of her informative intention, and makes it perfectly clear to both of them that she intends to do so.

This can be illustrated more clearly if we compare (41a) to two other cases: one in which Mary has *no* informative intention at all; and another in which she has an informative intention, but chooses for some reason not to reveal it. In the first case, Mary's mother is looking at Mary while she is asleep and notices she is pale. Here Mary is not *intentionally* communicating anything to her mother, who draws her own conclusions. In the second case, Mary shows her mother she is pale, but pretends to be asleep while she does so. Here, Mary is not acting openly—perhaps she thinks that by making her mother think that she has drawn her own conclusions she might increase her chances of getting a day off school. In this case, Mary communicates with her mother intentionally, but covertly.

It is also worth noticing that in (41a), irrespective of the fact that Mary's mother can see for herself that her daughter is pale and unwell, she certainly still has to infer that she wants help, in the same way that although Lily can see the lobster, she must

infer it is one they are going to have for dinner. And if Mary's mother *does* in fact infer that Mary wants help, I think we would be loathe to say that the inference is entirely down to her having drawn her own conclusions, and not, to some extent at least, the result of inferring intentions Mary had. For in general, someone who is "deliberately and openly letting someone know" something creates the expectation in their audience that they have done so for a reason. They might therefore be said to be communicating ostensively or overtly irrespective of whether or not the evidence they provide for the first, basic layer is direct or indirect. The important thing is that evidence is provided of an intention to inform, and not whether in the absence of such an intention, an audience might have been able to draw their own conclusions.

In terms of Grice's distinction, for reasons discussed above, (41a) is a case of natural meaning regardless of Mary's intentions. In fact, for Grice, it was only cases of *non*-natural meaning which were those "cases which are related to communication" (1982/1989: 291). Cases of natural meaning were simply instances of what Davies (1996: 116) calls mere "causal co-variation between two kinds of states of affairs", which indicate "whether or not anyone takes them in that way, and whether or not anyone intends them to be taken in that way". Grice does seem to have overlooked the possibility that natural signs, or spontaneous behaviours might be recruited for use in cases that qualify as instances of intentional communication. One reason for this might be that Grice thought of 'meaning' in terms of the communication of reliably determinate sets of propositions. What is communicated in cases such as (41a) is often quite vague, and communicated quite weakly.

But a theory of human communication should not exclude cases such as (41a). As argued above, in deliberately and openly letting her mother know, Mary intends her informative intention to be recognised. In terms of the distinctions raised in this paper,

both would count as cases of ostensive-inferential communication: (41a) as a case far at the showing end of the continuum; (41b) as a case of saying.

The result is that the relevance theory distinction between ostensive-inferential communication and other cases of information transmission cross-cuts Grice's famous distinction between natural and non-natural meaning. Thus, when Lily allows Jack to see her spontaneous shiver, intending to deliberately and openly show him she is cold, or allows him to see her spontaneous smile, intending to deliberately and openly show him she is happy, these are cases of ostensive-inferential communication. For Grice, such cases would have to be classified as examples of natural meaning, and would only be regarded as 'communicative' (in the sense of non-natural meaning) if the behaviours themselves were recognised as *deliberate*, rather than spontaneous.

These two cases might also be compared to cases in which some form of *accidental* information transmission or *covert* intentional communication is taking place. Consider a case where Jack simply happens to see Lily shivering or smiling, perhaps across a room, or when Lily doesn't that know he is there. Crucially, here it is Lily's *smile* or her *shiver* that is showing Jack something, rather than Lily herself (or a combination of the two). Consider another case, in which Lily wants her intention to inform Jack she is cold, or inform him she is happy, to be concealed—perhaps she feels that for some reason it would be inappropriate to be overt. Neither of these are cases of ostensive-inferential communication, since in the first there is no informative intention, and although in the second there is, evidence of that intention is withheld. Of course, we should not overlook that fact that natural signs and behaviours (facial expressions in particular) often *betray* our internal state in this way. It does not, however, follow from this that they can never be used to communicate ostensively.

Since they are cases in which a communicator exploits the fact that they are 'doing' something, rather than 'being' something, those involving the recruitment of natural signs such as smiling and shivering are slightly further along the continuum than cases such as the example in (41a). Of course, it might still be argued that since the evidence provided is direct, the basic layer in all three cases is derivable without reference to Lily's intentions. But as with (41a), Jack still has to infer the intentions behind the fact that she has drawn attention to her shiver or her smile, and the fact that Lily has drawn attention to her behaviour encourages him to find out what those intentions are. Why is she showing him she is cold? Perhaps she wants him to turn the heating on, or wants to borrow his coat. In interpreting her smile, Jack still has to infer why she is happy. Yes, she is 'happy that *something*', but what is the object of her emotional attitude?

The next group of cases along the continuum are those in which the evidence for the basic layer is still direct, but does not rely on spontaneous natural behaviours. Cases that fall into this category are those from Section 8.1. As discussed, when Jack holds up the live lobster, or twirls ostentatiously in his new jacket, Lily must still infer his intentions. Parallel to these cases are those which involve pointing. Generally, when someone points to something, the audience must still infer exactly what the communicator is pointing at, though the degree to which the audience must attend to the intentions of the communicator will ultimately depend on the salience of the thing being pointed at.

At the next stage along the continuum are cases in which spontaneous behaviours are stylised or exaggerated, or normally spontaneous behaviours are produced entirely deliberately. Jack and Lily are sitting in a pavement café in London in spring. The sun disappears behind an ominous-looking cloud. She knows he feels the cold a lot less

than her (or at least pretends to), but it is suddenly very cold, and she is keen to go inside. Lily hunches up her shoulders, crosses her arms and sets her teeth chattering deliberately. She utters the vocalisation intimately linked with the shiver-response—*brrr*. By her behaviour, Lily draws attention to her intention to inform Jack that she is very cold and, more precisely, that she wants to go inside. We finally come to those cases that Grice himself characterised as non-verbal, non-natural meaning, for by her behaviour Lily *means* "I'm cold and I want to go inside":

"For consider now, say, frowning. If I frown spontaneously, in the normal course of events, someone looking at me may well treat the frown as a natural sign of displeasure. But if I frown deliberately (to convey my displeasure), an onlooker may be expected, provided he recognises my intention, *still* to conclude that I am displeased. Ought we not to say, since it could not be expected to make any difference to the onlooker's reaction whether he regards my frown as spontaneous or as intended to be informative, that my frown (deliberate) does not mean$_{NN}$ anything? I think this difficulty can be met; for though in general a deliberate frown may have the same effect (with respect to inducing belief in my displeasure) as a spontaneous frown, it can be expected to have the same effect only *provided* the audience takes it as intended to convey displeasure. That is, if we take away the recognition of intention, leaving the other circumstances (including the recognition of the frown as deliberate), the belief-producing tendency of the frown must be regarded as being impaired or destroyed" (1957/89: 219).

This is surely right. In fact, the point can be made even more strongly, for natural signs that are deliberately (as opposed to spontaneously) produced are no longer restricted to conveying the meaning they carry naturally. What is meant (non-naturally) in such cases cannot be interpreted without recourse to the intentions of the communicator. A good example of this is the fake smile, which is more often than not used to convey that someone is *not* happy. When used to convey pleasure, fake smiles are rarely convincing (just look at your own photo-album).

At the point on the continuum where the basic layer cannot be derived without recourse to the intentions of the communicator, we reach the border between showing and saying, and quasi-linguistic cases with an element of coding such as interjections. In fact, historically, many interjections have arisen as exaggerations, stylisations or developments of entirely natural responses. In this respect, the continuum takes on a diachronic significance. In *The Expression of the Emotions in Man and Animals* (1872)[20] Darwin considers whether "the sounds which are produced under various states of mind determine the shape of the mouth, or whether its shape is not determined by independent causes, and the sound thus modified" (96). In describing the natural human expression of surprise he notes: "Certainly a deep sound of a prolonged *Oh!* may be heard from a whole crowd of people immediately after witnessing an astonishing spectacle" (97). He goes on: "If, together with surprise, pain be felt, there is a tendency to contract all the muscles of the body, including those of the face, and the lips will then be drawn back; and this will perhaps account for the sound becoming higher and assuming the character of *Ah!* or *Ach!*" (97). Despite the fact that interjections that express pain are language specific— English *ouch*, French *aïe*, Spanish *ay*, Finnish *auts*—they do all begin with the same mid-front vowel that Darwin describes as being naturally expressive of pain. Darwin's observations of how

humans naturally express surprise and astonishment (and wonder) suggest that certainly *oh* arises out of a natural behaviour. And he notes other natural expressions of surprise: "the dropping of the jaw and open mouth of a man stupefied by amazement" (284); the fact that "when thus affected, our mouths are generally opened, yet the lips are often a little protruded" (285). Given these observations, *aha* and *wow* might also be viewed as developments of natural behaviours.

When discussing the natural expression of disgust, Darwin says: "With respect to the face, moderate disgust is exhibited in various ways…by blowing out of the protruded lips; or by a sound as of clearing the throat. Such guttural sounds are written *ach* or *ugh*…" (256). The interjection *yuk*, then, is closely related to the natural expression of disgust.

This goes some way to explaining why interjections, although not entirely involuntary reactions, *feel* so instinctive both to speaker and hearer. Standing alone in the kitchen, we do not utter 'I feel pain' if the kitchen knife slips, we utter *ouch*. If you hear a spontaneous utterance of *ouch*, the evidence for that first layer of information, that the speaker is in pain, is direct in a way that 'I feel pain' is not.

8.3   Varieties of saying

Philosophers and linguists have attempted to characterise 'saying' in different ways (Grice 1989, Bach 1994, Wilson and Sperber 2000). Since the aim here is to set 'saying' within the wider context of 'showing', I will abstract away from much of this valuable discussion and simply use 'saying' in the sense where *saying that P* is equivalent to expressing a proposition P with a certain truth-conditional content. Notice that construed in this way the content of *what is said* goes significantly beyond

the linguistically encoded meaning of the sentence uttered. In fact, in most cases the linguistically encoded element in an utterance radically underdetermines the truth-conditional content (see Carston (2002)). Thus, in interpreting what has been said, the hearer will be required to do at least some inferential work. Furthermore, the balance between how much decoding and how much inference is required will not always be the same.

Compare three ways that Lily might reply to Jack's question "Do you like the gift?":

(42a)   (smiling happily) I think it's wonderful. I like it very much and I feel absolutely delighted.

(42b)   (smiling happily) I do.

(42c)   (smiling happily) I've always wanted an electric toothbrush.

What Lily encodes in (42a) is an incomplete logical form that Jack will decode and develop inferentially into a fully propositional form. In (42b) what she encodes is very fragmentary indeed, and Jack is left to do considerably more inferential work to identify the explicit content of her utterance. In (42c) what she encodes is a conceptual representation that Jack must not only develop into an explicature, but complement with an implicature to derive an answer to his question. An inferential model of communication predicts that the communicative process will be flexible in this way, and that the interpretation of utterances will depend to differing degrees on inferences about the intentions of the communicator. Within saying itself, then, there appear to be a variety of cases, in which coding and inference play differing roles. As discussed in Section 5, in relevance-theoretic terms the more decoding involved in

interpreting an utterance, the more explicit the communicated content of the utterance. One sense, then, in which there are varieties of saying is that there are degrees of explicitness.

However, there is another sense in which there are varieties of saying. While they are clearly properly linguistic, certain words appear to carry an extra element of 'showing', where the evidence provided for the first layer of information is more direct. Onomatopoeic language is an obvious example—'clink', 'clank', 'splash', 'sizzle'. In fact, iconic language generally: stylised imitations of non-human sounds—*buzz*, *miaow*, *moo*, *oink*; also, stylised imitations of human sounds—*ha ha*, *tee hee*, *boo hoo*, *boo*, *hiccup*. In these last examples, an element of coding separates clear instances of showing[21], such as laughing or crying, from clear instances of saying, such as 'I am amused' or 'I am crying'. The link here between sound and meaning is not entirely non-natural or arbitrary.

On this link between sound and meaning, Grice observed that: "Any link will do…and the looser the links creatures are in a position to use, the greater the freedom they will have as communicators, since they will be less and less restricted by the need to rely on prior natural connections" (1989: 296). In such stylised imitations, and in onomatopoeic expressions generally, the link between sound and meaning is not *as* loose as in most other words. The fact that some of the above stylised imitations are linguistically productive suggests there are varieties of saying in a slightly different sense to the relevance-theoretic notion of degrees of explicitness. This is illustrated in (43abc):

(43a)   The bacon was *sizzling* in the pan.

(43b)   The cows were *mooing*.

(43c)   He *hiccuped* loudly.

This is not to suggest that there are degrees of coding, or to attempt to blur the distinction between coded and non-coded. What it suggests is that there might be different types of coding. In the above examples there is an iconic element, and the hearer is given more direct evidence of the first layer of meaning.[22] Since many interjections are exaggerations or developments of natural expressions of emotion, as was shown in the previous section, they might also be regarded as stylised imitations, and iconic in some way; although for reasons discussed in Section 7, and in contrast with the examples in (43abc), they are not linguistic.

In fact, even some of those vocalisations which I have been treating as interjections, but which cannot be shown to be derived from natural expressions of emotion, are iconic to some extent. *Shh* does not convey emotion: but it could be argued that its voiceless quality, together with the fact that it can be uttered continuously, make it a particularly suitable sound—but not *word*—for urging someone to be quiet.

More evidence that these expressions exist along a continuum, which may reflect some kind of historical progression (again suggesting there is a diachronic element to the continuum) is that there appears to be a gradual increase in stylisation/codification among them. Historically, the accumulation of individual exaggerations or stylisations might lead to the stabilisation in a population of what began as an innovation, and may offer an account of the diachronic development of interjections. This reflects the parallel drawn by Goffman (1981) between interjections and *ritualised* behaviours, in the ethological sense of that term. Consider *shh*, *shush* and 'hush'; consider the progression noted earlier from *ugh* to *yugh* to *yuk* to 'yucky'. Similar progressions can

be seen from [ostensive throat clear] to *ahem* to the highly stylised [≅∀η≅∀η≅μ], or from [dental click dental click] to *tsk tsk* to *tut tut* to 'he *tutted* loudly'. Right down at 'word'-level there appears to be a continuum from natural sounds to fully grammaticalised words.

8.4   The *showing/saying* continuum

But what of the relationship between showing and saying? While it can be demonstrated that there are varieties of showing and varieties of saying, what reason is there to suggest that we are dealing with a single continuum as opposed to two unrelated continua?

The principal reason falls out as a direct result of breaking with the Gricean view that a clear dividing line can be drawn between showing and saying. Once we accept that such a line should not be drawn, we are forced to reconsider our notion of 'saying'. Saying, after all, *is* a form of 'deliberately and openly letting someone know'; a linguistic utterance is just one of many ways that a communicator can *show* something, and give rise to a range of precise or vague cognitive effects in their audience. In short, saying *is* a form of showing, and it is therefore impossible to conceive of showing and saying as two separate, unrelated continua.

As a first approximation, then, we might represent the continuum as in fig. 1, where saying is in a sub-set relation to showing. Represented in this way, the continuum of cases might be viewed as concentric rings within the larger circle.[23]

fig. 1 here

If saying is a type of showing, we would predict considerable interaction between the two. In fact, in most acts of communication, the communicative stimulus itself is a composite of different behaviours: linguistic, para-linguistic and extra-linguistic. It is important to realise, therefore, that the continuum simply illustrates the degree to which, in an act of ostensive communication, evidence provided for the first, basic layer of information might be direct or indirect. It should not be interpreted as an attempt to prescribe fixed positions that behaviours occupy. For example, if Jack wants to 'show' Lily that he has a sore throat, he might do so by 'saying' *anything at all* in a hoarse tone of voice.

This is one example of the interaction between showing and saying. In other examples a linguistic utterance might be augmented by an extra layer of showing (-but-not-saying)[24]. Consider an utterance of 'I'm tired' said while yawning, or an utterance of 'He went [ostensive throat clear]'. Earlier I discussed examples where this extra layer of showing (-but-not-saying) is evident at word-level: onomatopoeia, stylised imitations etc..

In other cases, I find myself wanting to say it is the saying that is augmenting the showing (-but-not-saying), rather than the other way round. When Jack holds up the lobster he might say "Baked with garlic butter!", or while twirling in his jacket he might say "Pure silk!". Here the showing (-but-not-saying) is augmented by an element of linguistic encoding.

It would be incoherent to suggest something similar to this happens at 'word'-level too, since the individual items referred to would not be 'words' at all. But if there is a continuum from natural sounds to fully grammaticalised words, this would predict there are sounds which are essentially used to show, but have an extra layer of

encoding which puts them on the borderline of saying: interjections seem to fit this description.

8.5 Natural codes

Recall that the distinction between ostensive-inferential communication and other forms of information transmission crosscuts Grice's distinction between natural and non-natural meaning. For Grice, shivers and spontaneous smiles were natural signs of being cold and being happy; the meaning these behaviours carry is parallel to cases such as *smoke meaning fire* or *black clouds meaning rain*. In the account being put forward here, shivers and spontaneous smiles are natural signs, but they can be recruited for use in ostensive-inferential communication nonetheless.

There is one more point I would like to raise which has a bearing on the analysis of interjections I am developing. Consider again shivers and spontaneous smiles. While they are both natural signs, there seems to me to be a difference between communicating you are cold by deliberately and openly allowing someone to see that you are shivering, and communicating that you are happy by deliberately and openly allowing someone to see that you are smiling. The 'meaning' carried by shivers seems somehow to have more in common with cases of natural meaning such as those just mentioned, or *spots mean measles* or *a pale complexion means someone is unwell* than that carried by smiles. To illustrate this difference, and how *it* might be characterised in theoretical terms, it is worth exploring an interesting point of contact between natural meaning in the Gricean sense, and the ethological literature on non-human animal communication.

In order to clarify which instances of information transmission in the animal world are to be regarded as communication, and which are not, Hauser (1996: 9-10) distinguishes between two ethological notions: *signals* and *signs*.[25] *Signals* are those behaviours that have been designed, in the evolutionary sense, to convey information. The dances of bees and the alarm calls of vervet monkeys are signals: their primary evolutionary function is to convey information. Whilst they may be highly informative, *signs*, on the other hand, do not have a signalling function. Hauser (1996:10) provides two examples. In the first, he conjectures that forest monkeys might use the presence of chimpanzee nests to avoid chimpanzees, and hence predation. However, the evolutionary function of chimpanzee nests is not to inform forest monkeys of the presence of predators. In the second, as a result of regular travels across dusty soils, predatory species such as lions and pythons might leave traces of their presence. Certain prey species might learn that particular traces are associated with danger whereas other traces are not. The traces, however, cannot be said to have a signalling function.

It is tempting to view the notion of a sign (in this ethological sense) and Gricean natural meaning as entirely parallel: the nests indicate the presence of chimpanzees whether or not the forest monkeys take them that way; the tracks of lions and pythons indicate danger to certain prey species (if they are noticed). We can equally imagine these signs being interpreted by a human naturalist in the field, along the lines of *those black clouds mean rain*. However, it would be mistaken to draw such a parallel. The dances of bees and the calls of vervet monkeys are *also* cases of natural meaning according to the Gricean picture. The Gricean natural/non-natural distinction does not fully accommodate the distinction between signals and signs.

However, the ethological signal-sign distinction does capture the distinction alluded to above between smiles and shivers. Smiling, after all, evolved as a signalling activity (Van Hooff 1972, Fridlund 1994, Ekman 1999): its primary evolutionary function is to carry meaning. The primary function of the shiver response, on the other hand, is to generate heat by rapid muscle movement. In ethological terms, smiles are signals, and shivers are signs.

In the ethological literature, non-human animal communication systems are often referred to as codes[26]. Parallel to this, the evolutionary link between *signal* and *message* in behaviours such as smiles suggests they too are best analysed as coded behaviours. I propose to call these *natural codes*. One difference, then, between the interpretation of smiles and shivers would be that the cognitive processes responsible for the interpretation of smiles would not be the same as the all-purpose inferential processes responsible for the interpretation of shivers, and other *signs*. The interpretation of smiles and other spontaneous expressions of emotion will be automatic and sub-conscious, more typical of the immediate coding-decoding responses so typical of non-human animal communication. Some support for this is provided by the fact that both non-human primates and humans have neural mechanisms dedicated to both recognising faces and processing facial expressions (Gazzaniga & Smiley 1991).

The work of Paul Ekman (1989, 1992, 1994, 1999) suggests there are a whole range of spontaneous facial expressions that have evolved in humans to reflect a signaller's internal state; "these expressions have been selected and refined over the course of evolution for their role in social communication" (Ekman 1999: 51). Even those who criticise Ekman's claim that these expressions reflect the existence of underlying basic, universal human emotions, which are to some degree at least

biologically-inherited (Fridlund 1994, Russell 1994), still emphasise that many facial expressions are communicative displays. Fridlund in particular discusses evidence of 'audience-effects' in human smiling (Kraut & Johnson 1979). Thus, smiles and other spontaneous expressions of emotion differ crucially from facial reflexes such as eye-blinks or sneezes, or other non-communicative behaviours such as shivers: their primary evolutionary function is to signal.

Exactly what kind of information smiles and spontaneous expressions of emotion might encode has, as far as I know, not been discussed in cognitive terms[27]: "there is no evidence about precisely what type of information is conveyed when, during an on-going social interaction, one person sees a facial expression of emotion on another person's face" (Ekman 1989: 159). One possibility that seems to me certainly worthy of consideration is that the encoding might be procedural, particularly given the broader characterisation of procedural meaning—as 'activation' (as opposed to 'translation')—I offered earlier. On the face of it, these behaviours have little in common with the kind of linguistic items the procedural account was originally devised to explain. However, if they are coded behaviours, then the coded stimulus provided certainly functions to constrain inference by reducing the search space that the inferential processes work in. The tentative proposal, then, is that there are a whole range of communicative stimuli which encode procedural information, ranging from fully linguistic items such as connectives, pronouns, articles and discourse particles, to expressions on the borderline of language such as interjections, to extra-linguistic behaviours such as certain facial expressions. To offer a solution to the problem described in the Ekman quote above, the type of information conveyed when one person sees another person's spontaneous facial expression is attitudinal, or emotional. How is the information conveyed? These expressions are *coded* signals.

They encode procedural information, which automatically and subconsciously activates attitudinal or emotional types of concepts, pointing in the direction of the appropriate conceptual representations.[28] The fact that some natural signs are actually coded signals, which can be employed in ostensive communication, would have to be reflected on the continuum somehow. On *fig. 1* they would be on a line somewhere between (4) Gricean non-verbal non-natural meaning and (5) interjections.

As well as a range of possible applications this proposal has for analyses of other paralinguistic behaviours, such as gestures and aspects of intonation, it has particularly interesting implications for the central issue in this paper: the analysis of interjections.

We might summarise the argument as follows. The conceptualists argue that interjections encode concepts and are therefore part of language. My response has been to argue that this simple view is false: interjections might not encode concepts, but they might still be part of language. With this in mind, I argued that interjections are better seen as encoding procedures, though it was left open whether this idea could be reconciled with the paralinguistic/natural side of interjections. However, certain spontaneous human behaviours, among those behaviours which Grice regarded as natural signs, have a signalling function, and this evolutionary link between signal and message suggests they are better analysed as coded behaviours. In other words, *natural* need not preclude *coded*. I have suggested above that the information encoded in these natural codes is procedural information. If this is right, then there is a double dissociation between linguistic meaning and procedural meaning: linguistic meaning need not be procedural—it can, in fact usually does, involve the encoding of conceptual representations; procedural meaning need not be linguistic—it can be encoded by facial expressions, tone of voice and perhaps even gestures. The position

reached now, then, is yes, interjections do encode procedures, *but it does not automatically follow that they are part of language*. The procedural account offered in Section 6 *is* compatible with the observations in this section that interjections are partly natural, and those in Section 7, which suggest they are not part of language.

9   Conclusion

I began by asking three questions. I can now summarise my answers.

What do interjections communicate? Interjections communicate attitudinal information, relating to the emotional or mental state of the speaker. In some instances the attitude might be genuinely propositional: say, an attitude of questioning or regret, or an emotional attitude directed at embedded propositional content. However, sometimes the emotional attitude is expressed not toward an embedded proposition, but toward a percept or object which is the cause of a feeling or sensation. In some instances, what is expressed is merely a feeling or sensation with no propositional content. In these latter cases, what is communicated is extremely vague: in relevance-theoretic terms it will involve only a marginal increase in the *manifestness* of a wide range of assumptions, where an assumption is *manifest* to an individual if it is capable of being inferred. Such vagueness is captured by the procedural account proposed earlier: the greater the range of attitudinal concepts activated by the procedure, the greater the vagueness.

How do interjections communicate? Interjections are partly natural and partly coded. They fall at various points along a continuum between showing and saying. The continuum captures the partly natural, partly coded nature of interjections,

together with their heterogeneity and marginal linguistic status. Seeing interjections in this way, we should not be surprised that the attitudes they communicate are not always propositional. Nor should we be surprised that they are too nebulous to be paraphrased in fixed conceptual terms: they are partly natural responses.

In fact, there is good reason to suppose that some interjections are derived from natural expressions of emotion. However, the element of stylisation or coding takes them beyond pure showing. This stylisation is also present in some aspects of language proper, at the saying end of the continuum. Other interjections are not 'natural' in this sense, but may also be iconic—e.g. *shh*: these also fall between showing and saying. With all interjections, the evidence provided for the first layer of information is more direct than with saying, but less direct than with entirely natural behaviours.

I have argued that the coded element of interjections is procedural, and that what is activated by the use of an interjection might be used by the hearer in a variety of different ways. When combined with a sentence, it may function in a similar way to other paralinguistic phenomena, by encouraging the construction of higher-level explicatures. Some of these paralinguistic behaviours may themselves contain a coded element (certain facial expressions, gestures), which may also be seen as encoding procedural information.

In an utterance which consists of *just* an interjection, and expresses no explicit proposition, a hearer can only use the procedural information to derive implicatures: what the attitude is, what it is to, what the emotional/mental state of the speaker is. In this respect, interjections pattern with paralinguistic and non-verbal behaviours generally; for while these might help a hearer construct higher-level explicatures

when interpreting a linguistic utterance, they cannot communicate in the same way when used alone as an ostensive stimulus.

Non-verbal communication is typically weak and vague; an adequate theory of human communication should accommodate these vaguer aspects. I showed earlier how an inferential model of the kind proposed in relevance theory predicted a certain amount of looseness in the communicative process: "The type of co-ordination aimed at in most verbal exchanges is best compared to the co-ordination between people taking a stroll together rather than to that between people marching in step…" (Sperber and Wilson 1998: 199).

If this is the case in *verbal* exchanges, the most precise form of human communication, then there is likely to be even greater looseness in non-verbal communication: it has been a recurring theme of this paper that language is not the only means by which humans make clear their intention to communicate. Given the kind of attitudes that interjections communicate, it seems clear that this intention is not always reducible to an intention to communicate simply a single proposition and propositional attitude.

To account for vague communication, including the communication of impressions, emotions, attitudes, feelings and sensations, Sperber and Wilson propose that the informative intention might be better characterised as an intention to modify a hearer's *cognitive environment*: this includes "not only all the facts that he is aware of, but also all the facts he is capable of becoming aware of, in his physical environment" (1995: 39).

Consider the following example. Jack and Lily have returned by ferry to the Greek island on which they first met. They disembark. Having scanned the quayside, he smiles at her; then he looks back ostensively to the quayside again, urging her to look

too. She gazes along the quayside. What is Jack drawing her attention to? Is it the *taverna* at the water's edge, the octopus drying in the breeze, the ragged cats sniffing the nets, the bougainvillea in the *kastro*, the brilliant light? Is it one, many or *all* of these things?

Lily does not turn to Jack and say "What do you mean?". She acknowledges him and smiles back, because she understands him. The sights, sounds and smells of her *physical* environment interact with her knowledge and her memories to alter her *cognitive* environment, provoking further thoughts, memories and feelings similar to his own. This is all that Jack intended: to convey an impression. Sometimes showing is preferable to saying. On other occasions, when the intention might be to communicate something equally intangible, and equally hard to convey with words—emotions, feelings, sensations—it might be preferable to use a behaviour that falls somewhere between the two.

Are interjections part of language? Since there is a continuum involving different combinations of natural and coded information, we would expect expressions to move along it. In historical terms, when an interjection moves far enough along the continuum it may become relatively productive ('to wow', 'yucky'), and some of its uses may be properly linguistic (verbs, adjectives etc.). When used as an interjection, though, given its similarities to paralinguistic phenomena, it seems to retain its independence from the mental grammar.

The answer, then, is no, interjections are not part of language; but the continuum does offer a framework within which they might be seen as on the edge of language, integrated to a greater or lesser extent: to use Goffman's expression—*semiwords*. This conclusion is further supported by aphasiological evidence of a dissociation between interjections and language proper. Goodglass (1993) demonstrates that interjections

such as *ouch* remain within the repertoire of certain grave aphasics. If one can have interjections, but not language, it is hard to see how the former can be viewed as part of the latter.

In neurological terms, there is other evidence of a dissociation between language and interjections: use of interjections is associated with phylogenetically ancient limbic sub-cortical circuitry linked with emotion, as opposed to the more recent cortical structures implicated in the production of language proper. As well as confirming the link between emotions and interjections, touched on at various times in this paper, we might also consider the extent to which this suggests that the showing/saying continuum might be viewed from a diachronic, as well as a synchronic perspective, i.e. as an evolutionary time-line, as well a snapshot of human communicative behaviours (Wharton 2000). Recent work on the evolution of metarepresentation by Dan Sperber (2000), the evolution of social intelligence by Byrne and Whiten (1988) and Cosmides (1989), and the evolution of language by Dunbar (1998) and Donald (1998) suggests that it is indeed the case that showing came *before* saying.

From a diachronic perspective, then, the showing/saying continuum may have evolutionary implications. From a synchronic point of view, it may lead to a better characterisation of some of the vaguer elements of human communication, of which the use of interjections is but one example.

fig. 1

The showing/saying continuum

(1)
(2)
(3)
(4)
(5)
(6)
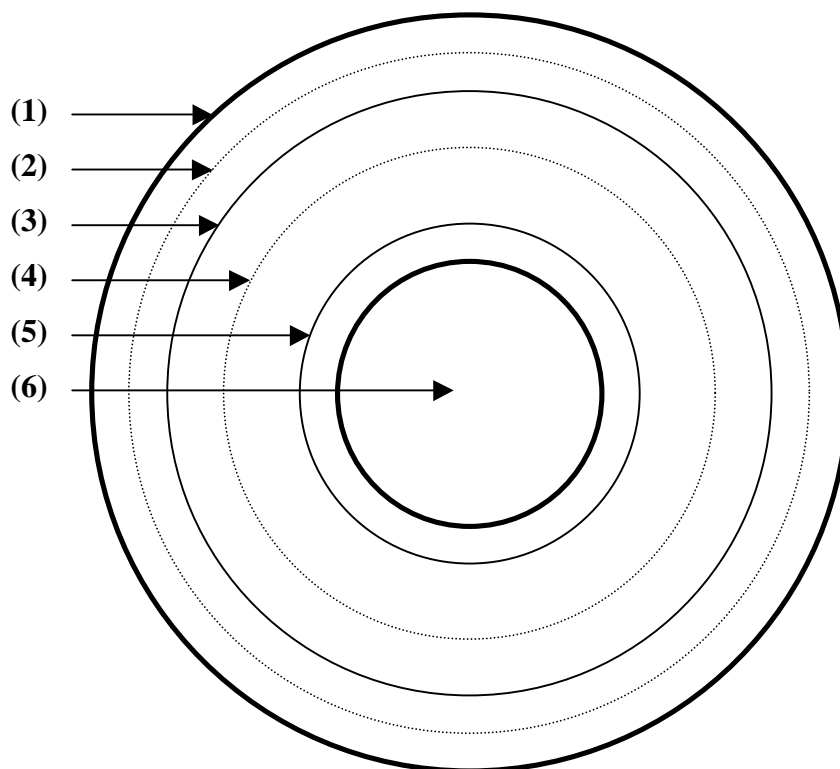
<u>Key</u>

(1)   'Showing'

(2)   Natural signs used ostensively

(3)   Less direct showing (i.e. pointing)

(4)   Gricean non-verbal non-natural meaning

(5)   Interjections

(6)   'Saying': within which there are degrees of explicitness

Endnotes

[1] Of course, a great deal depends on how you interpret the word 'semantic' here. Wierzbicka (2000), for example, discusses the 'semantics' of human facial expression, which suggests she has a somewhat broader conception of the notion than the one adopted in this paper, where 'semantics' is taken to be the study of *linguistic* meaning. Despite these terminological differences, however, I think that on the strength of the quotes from Ameka and Wierzbicka on p. 39 and p. 41 above respectively, I am justified in taking it that according to the conceptualist view interjections are part of language.

[2] See Wierzbicka, A (1996: 253-257) for her response to Fodor.

[3] Fodor's discussion (287-290) revolves around a definition presented in Miller (1978: 285).

[4] Fodor maintains this view in chapter 3 of his recent (1998) book: *Concepts: where cognitive science went wrong*. "There are practically no defensible examples of definitions; for all the examples we've got, practically all words (/concepts) are undefinable. And of course, if a word (/concept) doesn't have a definition, then its definition can't be its meaning" (1998: 45).

[5] As mentioned in *fn.* 2, Wierzbicka (2000) has recently extended the Natural Semantic Metalanguage approach to an analysis of human facial expression. In this paper, she argues against the "Ekmanian paradigm" (2000: 147) – the view that, broadly speaking, human facial expressions reflect the existence of underlying, basic universal emotions – in favour of a "new direction". Her analysis begins by outlining ten assumptions fundamental to the new approach. Among these: (a) "We need to distinguish the 'semantics of human faces' from the 'psychology of human faces'.";(b) "Facial expressions can convey meanings comparable to the meanings of verbal utterances." (2000: 150). Essentially, the proposal is to "adopt a semiotic and experiential rather than a neuro-physiological perspective". "Human faces", she goes on, " send messages, and these messages must be decodable" (2000: 177-178). Whilst I disagree that for humans to communicate using facial expressions there *has* to be a code involved, I do agree with Wierzbicka that there might be a coded element in *some* human facial expressions; I develop this idea in Section 8.5. This coded element, however, is surely not the same as the coded element typical of most linguistically encoded meaning (i.e. *conceptual* meaning—see Section 6), and should be set within an inferential framework to reflect not only the observation that humans are capable of non-coded non-verbal communication, but also that human communication *generally* is an intelligent, intention-driven activity. On the relationship between facial expressions and words I am more sympathetic with those views put forward by Ekman (1994: 270). (I address this—and the issue of *natural codes*—in more detail in Wharton (forthcoming).)

[6] An anonymous referee points out that the non-embeddability of interjections (and 'expressive elements and constructions' generally) is also central to Banfield's (1982) account of represented speech and thought (essentially, *style indirecte libre*).

(Although it should be noted that Banfield is concerned with constraints on embedding in 'that' clauses (1982: 30-32).)

[7] See Iten (2000) for an overview; see Kaplan (1977) for his original account of indexicals in terms of 'character' and 'content'.

[8] This is not to say that all conceptual meaning is truth-conditional meaning. This issue is addressed more directly in Section 5 below. For further discussion see Wilson and Sperber (1993).

[9] Both this use and Goffman's 'warning' example are "pragmatically determined variants" (150n.) according to Wilkins. He says nothing of the use in (18).

[10] Though, as Goffman points out, it might if I were helping out at the local playgroup.

[11] I address the question of whether the hearer might or might not form the higher-level explicature 'the speaker is *saying* that he is surprised I am here' in Section 6 (the same applies to (27ab)).

[12] A dentist might chastise her sloppy assistant by saying 'I am disgusted that this mouthwash is foul', but would not communicate this by uttering (28a).

[13] In the case of the pronouns, the *output* of the procedure does provide a constituent. The constituent itself, however, is not encoded in the linguistic meaning of the pronoun.

[14] I abstract away from a number of dialects in which the word 'up' begins with /Y/.

[15] Clark and Gerrig (1990: 780), quoted in Wilson (2000).

[16] As an anonymous referee points out, a distinction between 'saying' and 'showing' plays a central role in Wittgenstein's exploration of language and its function in the *Tractatus Logico-Philosophicus*. As far as I can tell, Wittgenstein's notions of

'showing' and 'saying' are somewhat different in character to the ones introduced in this paper.

[17] I am (perhaps) over simplifying here; Grice, of course, did not regard *non-natural* and *conventional* meaning as co-extensive: "[S]ome things which can mean$_{NN}$ something… are not conventional in any ordinary sense" (1957/1989: 215). Since this does not bear on my arguments concerning 'showing' and 'saying', I will abstract away from it.

[18] The original wording in Grice's example is "Feeling faint, a child lets its mother see how pale it is (hoping that she may draw her own conclusions and help)". I mention this because I would rather let the reader know 'deliberately and openly' that my 'adaptation' is precisely that. There are two key changes from the original, neither of which, to my mind, affect the arguments to come, but simplify the point I am trying to make. The first change is the omission of the phrase 'draw her own conclusions'. I don't think that if the child is acting 'deliberately and openly' (see the next paragraph in Grice 1957/1989) in showing her mother that she is pale, then the mother *is* 'drawing her own conclusions' any more (*cf*. the case of accidental information transmission mentioned below). The second change is the omission of the word 'hoping'. I made this change to avoid having to get into any deep philosophical discussions about whether 'hoping' necessarily involves 'intending': it certainly doesn't always – you can hope for something without intending it; however, you can equally 'hope' *and* 'intend' something. That is, you can hope that *P*, and intend that *P* too.

[19] You can see somebody's pale complexion and infer something along the lines of "*what that person wants is a doctor*" without their having any intentions, or wanting (in the agentive sense) anything at all. In such an example 'wanting' is more akin to

'requiring' than 'desiring'. My thanks go to Neil Smith for pointing this to my attention.

[20] All quotes are from the 1998 edition (edited by Paul Ekman—see bibliography).

[21] Technically, 'showing-*but-not-saying*': see *fn.* 22.

[22] I am grateful to the anonymous referee who pointed out some interesting data relevant to this topic. Cuxac (1999) describes the way in which deaf children raised by non-signing parents spontaneously develop 'iconic' signs, which are then used to communicate by both the children and the parents. In Wharton (forthcoming) I suggest there is a link between the 'showing'/'saying' continuum introduced here, and other *continua* of communicative behaviours (which include 'iconic' behaviours). One such is Adam Kendon's (1988) analysis of 'gesture', which he sees as existing on a continuum from *gesticulation*—the spontaneous movements that accompany speech, through *pantomimes* and *emblems*—culturally-regulated gestures, to signing proper.

[23] I do not mean to suggest by the concentric rings that there are any *more* sub-set relations in the diagram.

[24] 'Showing-but-not-saying' is cumbersome, but it's important to stress that this extra layer is a layer of showing beyond the notion of saying-as-showing.

[25] Hauser draws a further distinction between 'signs' and '*cues*'. The latter are communicative phenomena such as sexual ornaments and warning colours, which are permanently 'on'. The distinction has no bearing on the discussion in hand.

[26] See Bradbury & Vehrencamp (1998: 456-457)

[27] Wierzbicka claims that her Natural Semantic Metalanguage represents "universal conceptual building blocks" (2000: 152), but since she is seeking to sever the relationship between the 'semantics' and 'psychology' of human facial expression (see *fn.* 5), I am not sure she regards her approach as 'cognitive' in the sense in which

I use the word here. (i.e. The theory of utterance interpretation in which I base my account—relevance theory—is 'cognitive' in the sense that it is built on general (not specifically communicative) cognitive principles of information processing, themselves *rooted* in modern cognitive science and psychology. Severing the relationship as Wierzbicka recommends would thus be unthinkable.)

[28] In Wharton (forthcoming) I look at these *natural codes* in more detail, and discuss more fully the proposed point of contact between Grice's natural/non-natural meaning distinction, the ethological literature on animal communication and the psychological literature on the spontaneous human expression of emotion.

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