The Heterogeneity of Procedural Meaning

Abstract

The distinction in Relevance Theory between two kinds of encoded meaning, conceptual and procedural, has evolved so that more and more components of encoded meaning, both linguistic and non-linguistic, are now taken to be procedural (non-conceptual). I trace these developments and assess the extent to which these diverse elements share properties that distinguish them from concept-expressing words. While the notion of procedural encoding has lost some of its original distinctiveness, it may make sense to think of all encoded meaning as procedural (including the meaning of concept-expressing words), but this necessitates the drawing of new clarifying distinctions among kinds of procedural meaning.

Key words: relevance theory, procedural meaning, concepts, meaning modulation, discourse connectives, expressives

1. Introduction

Within Relevance Theory, an important distinction between two kinds of encoded (or conventional) word meaning was initiated by Diane Blakemore in the 1980s: the distinction between words that encode concepts and words that encode procedures. At the time, it looked as if the distinction she had in mind would line up pretty much with the elements of linguistic meaning that contribute to truth-conditional content (the conceptual) and those that do not (the procedural). So it could be seen as a

29 recasting of the truth-conditional/non-truth-conditional semantic distinction in

30 cognitive terms, drawing on the basic distinction in cognitive science between

31 representations (descriptions of the world which are true or false) and computations

32 over representations (including inferential processes that relate representations to

33 one another in different ways, e.g. as premise and conclusion, as contradictory, as

34 collective evidence for another representation):

35

36   On the one hand, there is the essentially *conceptual* theory that deals with the

37   way in which elements of linguistic structure map onto concepts – that is, onto

38   constituents of propositional representations that undergo computations. On the

39   other, there is the essentially *procedural* theory that deals with the way in which

40   elements of linguistic structure map directly onto computations themselves –

41   that is, onto mental processes.

42   (Blakemore 1987: 144)

43

44   This broad alignment of conceptual encoding with mental representations in

45 the language of thought and of procedural encoding with mental processes has been

46 largely maintained in subsequent work on the distinction. However, the notion of

47 procedural meaning has been considerably extended since Blakemore's early work

48 so as to encompass encoded constraints on a range of pragmatic processes; for

49 instance, it has been suggested that pronouns encode procedural meaning which

50 constrains the process of reference assignment, and that morphemes indicating

51 grammatical moods such as the indicative, the imperative, and the subjunctive, and

52 modal particles (e.g. in Japanese), encode procedural meaning that constrains the

53 pragmatic process of identifying the speaker's attitude or degree of commitment to

54 the proposition she has expressed (Wilson & Sperber 1993; Wilson 2011). On this

55 basis, it might look as if the conceptual-procedural distinction more or less meshes

56 with the traditional distinction between the substantive lexicon (open class words

57   such as nouns, verbs and adjectives) and the functional lexicon (closed class words

58   like determiners, pronouns and connectives).

59   However, the notion of procedural (nonconceptual) meaning has also been

60   applied to an array of what might be called 'expressive' communicative devices,

61   including interjections, expletives, manual and facial gestures of certain sorts, and

62   emotional prosody (Wharton 2009, Wilson & Wharton 2006). This is a curious

63   situation as we now have under the banner of 'procedural meaning' some of the

64   deepest components of I-language, such as pronouns and indicators of tense,

65   aspect, and mood, together with communicative devices such as 'oops!', 'dammit!',

66   winking, shrugging, and emotion-indicating tones of voice, which would seem to fall

67   well outside I-language. This is not to say that the claim is wrong but it does call for

68   some closer investigation.

69   The paper consists of two main parts, structured by the distinction between

70   conceptual encoding and procedural encoding. In section 2, I focus on the idea that

71   many words (nouns, verbs, adjectives) encode a concept, raising some problems for

72   this view and presenting some other ways of construing their linguistic meaning and

73   its relation to the concept communicated on an occasion of use. This section is

74   relatively short, as I have discussed my thoughts on this at length elsewhere

75   (Carston 2012, 2013, forthcoming). In the longer section 3, I turn to the more

76   innovative aspect of the relevance-theoretic view of lexical semantics, according to

77   which certain closed-class words and other units of (ostensive) communication

78   encode 'procedural meaning'. As noted, the idea of procedural encoding now

79   encompasses a vast range of items, linguistic and nonlinguistic. I try to assess

80   whether they constitute a single category of meaning in any positive sense, other

81   than just all being 'non-conceptual'. Finally, in section 4, I consider whether there

82   might be a case for treating all encoded meaning as procedural in a broad sense

83   (much broader than Blakemore's initial idea) and then making a range of important

84   distinctions among different kinds of procedural meaning.

85

86

2. Conceptual meaning and concepts/senses expressed

88

89   This section provides an overview of current ideas about the meaning of substantive

90   (open class) words, which are standardly taken to encode or at least express

91   concepts. It is not intended to be comprehensive or to provide detailed argument, but

92   to set out those features of the story that may need to be called on when discussing

93   the main topic, procedural meaning, in the next section. A terminological clarification:

94   I use 'meaning' for the encoded or standing meaning of a word and 'sense' or

95   'concept' for those contents that can be expressed or communicated by the use of

96   the word. In principle, at least, it could be that the sense/concept communicated on

97   some occasion is in fact the (standing) meaning of the word.

98

2.1   The standard relevance-theoretic (RT) account

100

101   According to the RT view of linguistic communication, many substantive words

102   (nouns, verbs, adjectives) encode an unstructured (atomic) concept,[1] which has an

103   externalist semantics (what it denotes in the world) and various kinds of internalist

104   informational connections, of which the key one here is its associated 'encyclopaedic

105   entry', a repository of general knowledge (in the form of conceptual representations)

106   about the object/property/activity in the world it denotes. To take a simple example,

107   the word 'child' encodes an atomic concept CHILD which denotes or refers to a certain

108   category of human beings. It also comes with a stash of general knowledge/beliefs

109   about that category of individuals, perhaps including that they are young, need to be

110   nurtured and looked after by adults, cannot take full responsibility for their own

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[1] Sperber & Wilson (1998) suggest that there are also numerous content words that do not encode a full-fledged concept but what might be called a 'pro-concept', e.g. 'my', 'have', 'near', 'long' (ibid: 185).

111   decisions and behaviour, are still developing physically and psychologically, and so

112   on.

113   Understanding the sense or concept intended by the use of a word on a

114   particular occasion of utterance typically requires some degree of modulation or

115   adjustment of its encoded meaning. As discussed in relevance-theoretic work on

116   'lexical pragmatics', this involves an interaction among the lexically encoded concept,

117   other concepts encoded by the utterance and contextual information, constrained by

118   the hearer's expectation of relevance (Wilson & Carston 2007). The outcome of this

119   process is what is known as an ad hoc concept ('ad hoc' in that it has to be

120   inferentially derived on the particular occasion of use), which is marked with an

121   asterisk (HAPPY*, CHILD*, OPEN*, etc.) to distinguish it from the context-independent

122   lexical concept (HAPPY, CHILD, OPEN, etc.). The pragmatically derived concept may be

123   more specific or more general than the encoded concept; that is, its denotation may

124   be either a proper subset or a superset of the denotation of the linguistically encoded

125   concept, or it may be a combination, both extending the lexical denotation and

126   excluding some part of it. Consider the concepts that might be communicated by the

127   following uses of the word 'child'/'children':

128

129   1.   a.   A father is shouting at his 10-year-old son who has been misbehaving.

130   Mother: 'You're too hard on him. He's still a child.'

131   b.   Woman (speaking of her middle-aged husband): 'Boris is a child.'

132   c.   'Our priority is to move the women and children to safety.'

133   d.   'My children don't visit much anymore – they are terribly busy and live on the

134   other side of London.'

135

136   The use of 'child' in (1a) seems to be literal, but it is very likely a narrowing of the

137   encoded concept CHILD to something paraphraseable as young person who cannot

138   be held fully responsible for his behaviour and has yet to acquire some social skills

139   (implicating that the boy should not be too strongly reprimanded); this occasion-

140   specific sense may exclude some individuals who fall in the denotation of the

141   encoded concept CHILD, those who always behave well and have precocious social

142   know-how. In (1b), on the other hand, we clearly have a broadening of the encoded

143   concept so that it can include in its denotation a 45-year old man, who has certain

144   qualities that a child typically has.

145   When a lexical concept is decoded, the encyclopaedic information associated

146   with it is activated. Some elements of it are more highly activated than others (as

147   there are multiple sources of spreading activation, including other concepts encoded

148   in the utterance and conceptual representations derived from the wider discourse

149   situation). The most highly activated items of conceptually represented information

150   are accessed and deployed as contextual assumptions in deriving contextual

151   implications, which form an initial interpretive hypothesis about the utterance. Then,

152   via a mechanism of mutual parallel adjustment of explicit utterance content,

153   contextual assumptions and contextual implications, concepts in the decoded

154   meaning string (the logical form of the utterance) are adjusted by backwards

155   inference, so that only implications that are ultimately grounded in the explicature are

156   confirmed. The overall interpretation is accepted provided it meets the addressee's

157   expectation of relevance. So, in the case of (1b) '*Boris is a child*', depending on the

158   wider discourse situation, contextual implications such as Boris doesn't earn his

159   keep, expects others to look after him, is irresponsible, etc. may be inferred, based

160   on assumptions accessed from the encyclopaedic entry for CHILD, which, by

161   backwards inference, lead to a particular ad hoc concept CHILD*. In another utterance

162   situation, different items of encyclopaedic information about children might be more

163   highly activated, making most accessible such implications as that Boris is sweet and

164   innocent, untouched by life experience, naïve, etc. resulting in a distinct ad hoc

165   concept CHILD** in the explicature. And there are many other possibilities.

166   The two uses of 'children' in (1c) and (1d) are interesting in that, although they

167   are clearly related, the sense of the first entails 'not adult', while the second does not,

168   entailing rather a certain relationship with the speaker, that of being her offspring.

169   These are both pretty conventional senses of 'child/children', which is thereby a case

170   of a polysemous word, a lexical vehicle for a family of related senses (Carston 2013,

171   forthcoming). I take it that all substantive words are polysemous or potentially so, and

172   that polysemy is fundamentally a matter of pragmatics (see Falkum 2015) with a

173   subsequent process of conventionalisation (of course, the vast majority of

174   pragmatically derived senses/concepts are ephemeral and so don't become

175   established senses of a word). The polysemy of substantive words plays a central

176   role in the discussion to follow on different construals of a substantive word's

177   standing meaning and will also be considered in section 3 as a property that may

178   distinguish conceptual meaning from procedural meaning.

179   Note that in the RT lexical pragmatic account of word meaning modulation just

180   sketched, all the heavy lifting is done by the encyclopaedic entry of the encoded

181   concept. This is the RT equivalent of what Fodor (2008: 94) talks of as the

182   informational memos stored inside the file whose name or label is the lexical concept

183   (e.g. CHILD, BLUE, TEACH). The role of the atomic concept itself (the address or file

184   name) in this pragmatic process is just to provide a gateway or link, a means of

185   access to the information that is used in constructing the ad hoc concept.

186

187   **2.2 Semantic underspecification views of word meaning**

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189   According to the RT account given above, the encoded or standing meaning of the

190   words discussed is a full-fledged concept, that is, a semantic entity, which can

191   contribute directly to truth-conditional content. As Fodor (1998: 24) puts it,

192   applications of lexical concepts are susceptible of 'semantic evaluation', that is, the

193   concept CAT is correctly applied to Felix the cat but incorrectly applied to Dumbo the

194 elephant; equivalently, 'Felix is a cat' is true while 'Dumbo is a cat' is false. Intuitive

195 though this may be, it is worth pausing here and considering whether *the* lexical

196 concept CHILD is correctly or incorrectly applied in the examples in (1) above, and

197 from there, what exactly that concept is. In previous work, I have argued against the

198 view that there is one particular concept that constitutes the encoded or standing

199 meaning of a word (Carston 2013).

200   According to a range of other views, a word's meaning is semantically

201 underspecified: it does not specify a concept/sense which can contribute directly to

202 truth conditions, but is either too rich or too meagre and has to be transformed in

203 some way before it can contribute a specific semantic content. Recanati (2004) calls

204 these 'wrong format' positions, that is, they are positions on which word meaning *per*

205 *se* is the wrong kind of thing to figure as a component of content. Consideration of

206 the phenomenon of polysemy plays a major role in motivating these accounts, both

207 at the level of theoretical argument (e.g. Bosch 2007, Carston 2013) and of empirical

208 results from testing the processing of polysemous words (e.g. Frisson 2009). I will not

209 reiterate the details of either of these lines of argument and evidence here. Suffice it

210 to say that the 'Underspecification hypothesis' concerning standing word meaning is

211 currently in quite a strong position and meshes well with the kind of pragmatic

212 account of communicated senses/concepts advocated by relevance theory,

213 according to which: '…all words behave *as if* they encoded pro-concepts: that is,

214 whether or not a word encodes a full concept, the concept it is used to convey in a

215 given utterance has to be contextually worked out' (Sperber & Wilson 1998: 185). In

216 other words, the (alleged) lexical concept is never simply decoded and taken to be

217 the concept communicated.

218   There are, however, some difficult issues to be resolved before we could take

219 on either of the two different manifestations of the underspecification view. I look at

220 these in some detail in Carston (forthcoming), so will simply summarise briefly some

221 problems with each view. According to the overly rich (semantic underspecification)

222   position, a standing word meaning consists of information from which a selection has

223   to be made in grasping the concept/sense a speaker intends to convey by her use of

224   a word on any given occasion. Pustejovsky's (1995) 'generative lexicon' is a well-

225   known case in point and, more recently, Vicente (2015) has advocated another such

226   rich view. He suggests that the standing meaning of words used to denote kinds (e.g.

227   'horse', 'leaf', 'gold') should include information about the essence (the intrinsic

228   properties) of the kind and about its superficial perceptible properties (which can be

229   altered). In that way, the now famous case of variable truth conditions for utterances

230   of the sentence 'The leaves are green' can be explained as involving different

231   selections from this information-rich standing meaning of the word 'leaf' making for a

232   different concept/sense expressed on different occasions of use.

233   The obvious question here concerns the grounds for singling out certain

234   elements of our general knowledge about objects in the world and claiming that they

235   constitute *lexical meaning*. This question arises equally for the general knowledge

236   included in Pustejovsky's (1995) 'qualia structures', e.g. for the noun 'book': books

237   come into being via a writing process; the purpose of a book is to be read. On both

238   accounts, there is a degree of arbitrariness in the real world knowledge invoked.

239   Certainly, that knowledge does play a role in accounting for the derivation of some

240   common ('default') senses associated with the words, but that is equally well

241   accounted for by the relevance-theoretic pragmatic account on which the key

242   information is not duplicated in the lexicon but maintained as components of the

243   encyclopaedic entry. The pragmatic account is needed anyway for explaining other

244   (non-default) senses/concepts communicated by a word and so provides a unitary

245   account of all cases, while maintaining a clear principled distinction between standing

246   word meaning (an atomic concept) and knowledge about the entities denoted by that

247   encoded concept.

248   On the other underspecification view the standing word meaning is too

249   meagre to play the role of a concept (a semantic content), so in any instance of

250 grasping the sense/concept communicated by a speaker on an occasion of

251 utterance, the addressee must flesh out or enrich the decoded lexical meaning.

252 Prima facie, this seems an attractive position, answering to a strong intuition that the

253 various senses associated with a word must share a common core and any new

254 uses must be constrained by this. However, reflection on the pragmatics of ad hoc

255 concept construction indicates that this is not the case. Cases of narrowing or

256 meaning precisification, such as the much discussed uses of verbs like 'open', 'cut'

257 and 'bear' (Ruhl 1989, Carston 2012, Pritchard forthcoming) might seem to support a

258 schematic meaning view, but there are just as many cases of broadening,

259 narrowing/broadening combinations and metonymic use which typically require the

260 dropping of some component of the alleged skeletal constraining meaning. As Bosch

261 (2007: 7) puts it: 'there are arbitrarily many parameters with respect to which

262 contextual concepts [i.e. occasion-specific senses] can differ from one another.' So

263 any attempt to maintain a thin core lexical meaning requires that it be further

264 attenuated in the face of these acceptable new uses, some of which will become

265 conventionalised, thus adding to the polysemy of the word. In other words, the

266 alleged schematic meaning does not restrict the senses/concepts that can be

267 communicated, but must itself be adjusted in order to accommodate those uses if it is

268 to represent the common core meaning.

269   Furthermore, it is striking in the work of advocates of this view that attempts to

270 articulate any one of these schematic meanings are either inadequate or completely

271 absent. Ruhl (1989) justifies this on the grounds that the schematic meaning is

272 something unconscious and subpersonal: '… concrete meanings [senses] become

273 pragmatic specifications of the abstract meaning, which is the meaning of the word.

274 Such a meaning may seem nearly empty … General abstract meanings elude

275 consciousness' (ibid: 51).

276   Finally, there is the even greater 'idle wheel' problem: even if these abstract

277 non-semantic lexical meanings could be elucidated, it is entirely unclear what role

278   they would play in the account of language meaning and use. On the relevance-

279   based pragmatic account of how ad hoc concepts/senses are contextually

280   constructed in the process of utterance interpretation, the real work is done by the

281   encyclopaedic information associated with a concept (a semantic entity) and there is

282   no further constraining or guiding role to be played by a schematic meaning. Nor

283   does the schema appear to play any role in a child's acquisition of word meaning; in

284   fact, the child's first 'meanings' for a word are the (fully semantic) concepts/senses

285   grasped in communication, so the abstract (non-semantic) meaning could only be

286   acquired subsequently by some process of induction. Even supposing we could give

287   an account of how this is done, what would be missing is an explanation for why it

288   would be done, what purpose it would serve.

289   I have argued in more detail against these two 'underspecification' accounts of

290   word meaning in Carston (forthcoming) and tried there to make a start on developing

291   a quite different account. This requires making a distinction between the kind of

292   lexicon that features in a narrowly construed I-language, with its focus on syntactic

293   computations and constraints, and the lexicon of the broader public language

294   system, which is a repository of communicative devices whose conceptual contents

295   are what the inferential pragmatic system operates on. In the narrow I-lexicon, the

296   words (or roots) listed have no meaning, conceptual or schematic, while in the C-

297   lexicon of the broader communicational language system, words are stored with their

298   polysemy complexes (bundles of senses/concepts that have become conventionally

299   associated with a word and perhaps others that are not yet fully established as stable

300   senses). The account, as I conceive it, is fully compatible with the relevance-theoretic

301   account of lexical adjustment/modulation in utterance understanding without requiring

302   that a word has an encoded meaning which consists of a single concept/sense from

303   which all context-specific uses are derived. Attempting to spell that story out here

304   would take up too much space and is not necessary for the reflections on procedural

305   meaning that take up the next section and are the main focus of this paper.

306   In what follows, I will continue to talk of 'conceptual meaning' or 'conceptual

307   encoding' in order to keep congruent with the way in which the conceptual/procedural

308   meaning distinction is usually discussed. However, I hope it's clear from the

309   discussion just given that the position I am taking on substantive words is not that

310   their lexical meaning is a full-fledged concept, but that they are typically used to

311   express concepts (some of which become conventionally associated with them).

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313

314   **3. Procedural meaning (linguistic and nonlinguistic)**

315

316   **3.1   The ever increasing domain of procedural meaning/encoding**

317

318   In her first major work on procedural meaning, 'Semantic Constraints on Relevance',

319   Blakemore (1987) introduced the idea that there is a class of words, 'discourse

320   connectives', whose function is not to contribute to the propositional content of an

321   utterance but rather to constrain and guide the inferential phase of accessing the

322   intended contextual assumptions and implications (that is, the implicatures of the

323   utterance). These words do not encode concepts but provide a directive or instruction

324   on how the propositional contents that they connect are to be deployed within the

325   inferential process of deriving implicatures, e.g. as a premise in the cases of

326   'moreover' and 'after all', as a conclusion in the case of 'so', as a means of blocking

327   or eliminating some other assumption in the cases of 'but' and 'however'.

328   Blakemore's focus then was on a fairly circumscribed small set of lexical items, which

329   coincided quite closely with those cases of conventional (encoded) meaning which is

330   non-truth-conditional, discussed by Grice under the label 'conventional implicature'

331   (Grice 1989), although it was obviously framed in much more cognitive-scientific

332   terms. Let's call this Stage I in the history of procedural meaning.

333 Blakemore's idea caught on and was subsequently applied to a range of other

334 linguistic elements whose meaning seems to be similarly non-truth-conditional and

335 inference-guiding, for instance, various so-called discourse particles, which function

336 as clues to the speaker's propositional attitude or speech act rather than providing a

337 component of propositional (truth-conditional) content, e.g. 'please', 'huh', and 'alas'

338 in English, or the evidential particles 'yo' and 'kana' in Japanese which indicate a

339 speaker's degree of certainty about the proposition expressed. These elements are

340 all in some sense appended to sentences, not integrated into phrasal structure, but

341 occurring before or after the propositional vehicle. However, it was soon noted that

342 other linguistic devices that *are* fully integrated into the sentential syntax might also

343 be best thought of as encoding procedural meaning. For instance, Wilson & Sperber

344 (1993) discuss the syntactic elements that encode declarative or imperative mood

345 and interrogative word order as illocutionary force indicators that constrain the

346 pragmatic inferential process of determining the speaker's propositional attitude or

347 speech act; e.g. the imperative might indicate the desirability (and potentiality) of the

348 state of affairs described by the proposition expressed and this could be

349 pragmatically interpreted as a case of requesting or ordering (hence as desirable to

350 the speaker) or as a case of advising, warning, or permitting (hence as desirable to

351 the hearer), depending on the context of use.

352 Other elements at the very heart of verb phrase grammar (e.g. inflections

353 marking tense and aspect, modal verbs) have been analysed as cases of procedural

354 encoding (see Escandell-Vidal et al. (2011a) for details and references). This marks

355 another development too, which is that procedural meaning is no longer confined to

356 attitudes toward, or inferences performed on, propositional contents, but is taken to

357 play a role in the expression of the propositional content itself. A major move in this

358 direction was made by Wilson & Sperber (1993) with their procedural account of the

359 linguistic meaning of pronouns. As often noted, on any occasion of their

360 communicative (deictic) use, the encoded meaning of pronouns like 'I' or 'she'

361 functions merely as a constraint or guide in ascertaining the intended referent and

362 then drops out of the picture; it is the individual concept of the referent (e.g. the

363 concept that uniquely picks out the person speaking in the case of 'I') which is the

364 'semantic value' of the pronoun on that occasion and which enters into the

365 proposition expressed. The idea has been naturally extended to other referential

366 devices which work in a very similar way, e.g. demonstratives (Scott 2011, 2013).

367 This period of extending the application of procedural (nonconceptual) encoding well

368 beyond the initial domain of discourse connectives is Stage II in its history.

369 Although the reach of procedural meaning was considerably increased during

370 this stage (from being only syntactically peripheral to also being syntactically integral,

371 from being only non-truth-conditional to also being truth-conditional), there is a

372 unifying characterisation of the role of all these kinds of procedural encoding: what

373 they all do is constrain and guide pragmatic processes which are essential in deriving

374 the intended interpretation (processes of reference assignment, identification of

375 propositional attitude and/or speech act, and implicature derivation). Given the

376 widely accepted underdetermination of communicated content by linguistically

377 encoded meaning and thus the necessity of pragmatic processes to bridge the gap,

378 procedural meaning can be seen as a natural complement to encoded conceptual

379 meaning in that what it does is 'constrain the inferential phase of comprehension by

380 reducing the hypothesis space that has to be searched in arriving at the intended

381 interpretation' (Wilson & Sperber 1993: 21).

382 Subsequently, however, procedural meaning has been extended considerably

383 more and in two quite different ways. First, it has been applied to a range of

384 expressive devices, including interjections (e.g. 'ouch', 'oops'), expletives (e.g.

385 'damn', 'that bastard Bloggs'), prosody (both linguistic and 'natural') and inherently

386 communicative facial gestures (e.g. smiles, frowns) (Wharton 2003, 2009; Wilson &

387 Wharton 2006; Blakemore 2011). Call that Stage III. Second, it has been suggested

388 that all concept-expressing words (e.g. 'red', 'book', 'love', 'dance') might also encode

389   a procedure that initiates a process of ad hoc concept construction (Wilson 2011).

390   Call this Stage IV. These two developments are considered in sections 3.2 and 3.3

391   respectively. I think they are so substantial as to require some major rethinking about

392   what procedural meaning is and whether there is anything interesting in common

393   between, say, the kind of meaning encoded by the pronoun 'I' and the kind of

394   meaning encoded by the interjection 'ugh'.

395   To end this section, I will mention some of the tests and probes for

396   distinguishing between conceptual and procedural meaning that have been

397   proposed, with a view to considering their adequacy, especially when applied to the

398   expansions of the category of procedural meaning discussed in the next two

399   sections. I simply list them here with a brief discussion of how each applies to the first

400   two stages of the conceptual/procedural meaning distinction. Each heading gives a

401   property that procedural meaning has been suggested to have (and which

402   distinguishes it from conceptual meaning):

403

404   *1. Introspective inaccessibility*

405   The basic idea here is that while we can consciously access the meaning of

406   conceptual words like 'chair', 'bachelor', 'teach', 'murder', 'intelligent', 'nasty', and

407   provide at least a rough paraphrase of them, it is much harder, perhaps impossible,

408   to do this for words with procedural meaning. In discussing discourse connectives

409   like 'however', 'furthermore', 'anyway', and 'well', Wilson & Sperber (1993: 16) point

410   out how difficult it is to describe their meaning and explain this in the following way:

411   'Conceptual representations can be brought to consciousness; procedures cannot.

412   We have direct access neither to grammatical computations nor to the inferential

413   computations used in comprehension.' It has also been suggested that discourse

414   connectives and particles are more difficult to translate into other languages than

415   conceptual words and more difficult for L2 learners to grasp (the latter is certainly

416   attested in the essay-writing of students whose non-native English is excellent except

417   for their use of such elements). These would be natural consequences of being

418   'relatively inaccessible to consciousness and resistant to conceptualisation' (Wilson

419   2011: 11-12).

420   However, this property of inaccessibility to our conscious descriptive

421   capacities does not serve to separate out all the cases of putative procedural

422   meaning discussed so far from cases of conceptual meaning. No-one finds much

423   difficulty in mentally accessing and giving a description of what the pronouns 'I' and

424   'she' mean – in fact, this seems a lot easier than paraphrasing the meaning of the

425   quite common conceptual words 'meaning', 'standard', 'mention', 'direct' (to pick out

426   a few from the book page currently in front of me). I'll return to this property in the

427   next section, on expressives, to which the rather similar property of 'descriptive

428   ineffability' has been ascribed.

429

430   *2. Non-compositionality*

431   Compositionality is usually taken as a fundamental property of language and thought,

432   and in both cases the basic compositional unit is taken to be the lexical concept. It is

433   quite hard to conceive of what compositionality of procedures could amount to, given

434   their characterisation in Stages I and II above as instructions or constraints on

435   inferential pragmatic processes. Occasionally two discourse connectives or particles

436   may occur together in a single utterance, but when they do it seems that they each

437   apply to a distinct component of the discourse and are applied in sequence rather

438   than composing with each other. For instance, in the following, which is slightly odd

439   but could perhaps arise, 'Moreover, anyway, she has four children to look after', the

440   'moreover' procedure indicates that the sentence that follows provides another piece

441   of evidence strengthening some salient conclusion (e.g. She's unlikely to be able to

442   come out for dinner), while the 'anyway' procedure indicates that some consideration

443   previously raised (e.g. 'We don't have her phone number to call and invite her for

444 dinner') is of low relevance compared with the following information (i.e. that she has

445 four children to look after).

446   Discourse connectives and particles fall outside the proposition-conveying

447 sentence; they are prosodically and semantically sealed off from it, like

448 parentheticals, which might seem to be what accounts for their noncompositionality.

449 However, the point is that they don't compose phrasally in the way that concept-

450 expressing words situated parenthetically outside the proposition-conveying

451 sentence do. For instance, when used sententially, as a comment on a proposition,

452 adverbials like 'frankly', 'seriously', 'regrettably', which are arguably conceptual, can

453 be semantically composed into a more complex phrase: 'To put it rather frankly but

454 without malice, he is not up to the job' (Wilson & Sperber 1993: 18). So there seems

455 to be something right about this diagnostic for distinguishing procedural and

456 conceptual meaning, and it carries over to the illocutionary devices claimed above to

457 encode procedural meaning (e.g. 'huh', 'alas', indicative mood and interrogative word

458 order). Again, though, it is less clear that it supports a procedural analysis of

459 pronouns and demonstratives, which seem able to enter into phrasal compositions,

460 e.g. 'we lucky people', 'she alone of all my friends', 'you three lovely ladies who just

461 came in', etc.

462

463 *3. Rigidity*

464 Escandell-Vidal & Leonetti (2011) provide another diagnostic for whether some

465 component of meaning is conceptual or procedural, based on the 'rigidity' of

466 procedural meaning as opposed to the flexibility of conceptual meaning. They show

467 that when there is a mismatch between an element of procedural meaning, on the

468 one hand, and a contextual assumption or an element of conceptual meaning, on the

469 other hand, it is procedural meaning that always prevails, such that the context must

470 accommodate (by adding an assumption) or the conceptual meaning is 'coerced' into

471 compliance with the procedural meaning. For instance, they discuss a clash between

472   a conceptual predicate 'to be silly', which is stative, and the procedural instruction

473   encoded by progressive aspect, 'be + -ing', which indicates that the event is to be

474   viewed as an incomplete action in progress at the time of utterance, as in 'John is

475   being silly'. It is the former that gives way to the latter, so that the property or state of

476   being silly is represented as an action in progress, hence a dynamic situation; there

477   is no possibility of reinterpreting the procedural 'be + -ing' as stative. They provide a

478   range of other examples which demonstrate the rigidity of the meaning of tense and

479   grammatical aspect morphemes in the face of mismatches with conceptual meaning,

480   which inevitably adjusts to conform to their procedural meaning. Somewhat similarly,

481   discourse connectives force the retrieval of contextual assumptions that may be at

482   odds with other strongly manifest assumptions, e.g. 'Max was a millionaire but he

483   had a lot of money'; in this case, we find no contrast between the two conjuncts as

484   we assume that anyone who is a millionaire has a lot of money, but the presence of

485   'but' forces us to search for a context in which these two facts could be at odds with

486   each other, perhaps a context in which millionaires are deemed poor relative to some

487   other group (trillionaires), and/or we might pragmatically adjust the conceptual

488   content of 'a lot of money' so it does contrast with being a millionaire.

489   Again, it's worth bearing in mind that all the cases of putative procedural

490   meaning that Escandell-Vidal & Leonetti consider fall within stages I and II of the

491   history of procedural meaning, so it remains to be seen how well this criterion stands

492   up to the later extensions of the notion to expressives (e.g. interjections and

493   expletives) and to typical conceptual words.

494   The next two proposed characteristics of procedural meaning are doubtless

495   consequences of this general property of inflexibility, but I'll separate them out here,

496   so as to draw on them individually in the following subsections of the paper.

497

498   *4. Non-susceptibility to nonliteral use*

499　For my purpose here, I distinguish two broad families of nonliteral use, the one

500　typified by metaphorical use (which is essentially a descriptive use of language,

501　geared to conveying an observation about the world or our experience of it) and the

502　other typified by irony (which is metapresentational, echoing a thought or utterance

503　and expressing a dissociative attitude to it). It seems reasonably clear that discourse

504　connectives, illocutionary force indicators (the syntactic moods, particles like 'huh',

505　'please', and evidential markers like 'yo' and 'kana'), tense and aspect morphemes,

506　and determiners ('a', 'the') cannot be used metaphorically nor modulated more

507　generally (narrowed or broadened) as concepts can be; they are not denotational

508　and so don't come with associated encyclopaedic information which plays the key

509　role in metaphor understanding and meaning modulation quite generally. Similarly,

510　although these procedure-encoding words might occur within a representation that is

511　being treated ironically, they themselves are not the target of the ironical attitude, e.g.

512　when mockingly echoing someone's earlier utterance of 'Moreover, the conditions

513　are perfect for viewing the comet' after it turns out to be a very cloudy night making it

514　impossible to see anything in the sky, the irony is directed just at the sentential

515　content of the utterance.

516　　　　Again one might wonder about pronouns, whether they are all incapable of

517　being used metaphorically; consider, for instance, the use of 'she' to refer to one's

518　car, or 'we' to refer to oneself and one's laptop (e.g. patting the laptop and saying

519　'We are not doing any more work today') might be some kind of metaphorical

520　extension. Equally, ironical uses of pronouns may be possible, although they are

521　perhaps better thought of as components of the closely related phenomenon of

522　parody, e.g. 'We are proud of our achievements; we have made Britain strong; we

523　…', echoing Mrs Thatcher's use of the royal 'we', or 'She still sounds like a man to

524　me', said of a transgender woman and dissociatively echoing others' use of the

525　pronoun 'she'. Whether expressives can be used metaphorically or ironically is

526　discussed in the next section.

527

528   *5. Not polysemous*

529   The phenomenon of polysemy is ubiquitous for concept-expressing words (nouns,

530   verbs, adjectives); they are all, potentially at least, associated with families of related

531   concepts. As discussed in section 2, polysemy is the conventionalisation of

532   senses/concepts that were originally derived by online pragmatic processes of

533   concept adjustment (meaning modulation). It is quite hard to conceive of procedural

534   meaning as being modulated in any comparable sense; that is, used to convey a

535   procedure, a constraint on pragmatic processing, which is more specific or more

536   general than the one it encodes. It should follow, then, that words that encode

537   procedural meaning are not polysemous (or 'polyprocedural'), that is, are not

538   associated with a family of related uses. Whether this is, in fact, the case is

539   somewhat hard to assess: the word 'but' and its counterpart in other languages has

540   often been claimed to have two or more related uses (Blakemore 1989, 2002); the

541   array of (related) speech acts associated with the imperative mood (order, request,

542   advice, permission) could be thought of as a case of polysemy, and so also for the

543   other mood indicators. Whatever is the right way to think about these multiple related

544   uses and how they arise, it seems safe to say that the words being discussed here

545   as procedural are much less susceptible to developing new uses than the standard

546   concept-expressing words.

547

548   I draw two conclusions from this brief survey of diagnostics for procedural meaning.

549   First, it looks unlikely that there is any watertight test for telling whether some

550   element of encoded meaning is conceptual or procedural. The most we can hope for

551   is trending evidence: if it can't be pragmatically adjusted in online comprehension,

552   there's a high likelihood that it is procedural; if when in conflict with some clearly

553   conceptual component it forces an adjustment to that component, it's probably

554   procedural; if it's difficult to translate and otherwise competent non-native speakers

555 tend to get it wrong, then it may well be procedural, and so on. Second, it is striking

556 how variable the profiles of the various expressions proposed during Stage II of the

557 history of procedural meaning are with regard to this list of properties or diagnostics;

558 pronouns, in particular, seem to be out on their own. This heterogeneity of (alleged)

559 cases of procedural meaning becomes all the more evident in the following sections.

560

561 ## 3.2   Expressives and procedural meaning/encoding

562

563 The topic of expressives and the distinction between expressive meaning and

564 descriptive meaning was brought to prominence by Kaplan's important formal

565 semantic work on expressions such as 'ouch', 'oops' and 'That bastard Bloggs'

566 (Kaplan 1997). I will sidestep a lot of interesting issues here in order to focus as

567 squarely as possible on the work within relevance theory that maintains that a

568 substantial subset of expressives encode procedural meaning. These include

569 interjections and certain facial signals (Wharton 2003, 2009), tones of voice and

570 other kinds of emotional prosody (Wharton & Wilson 2006), expletives, diminutives

571 and NP epithets like 'the bastard', 'the poppet' (Blakemore 2011, 2015).[2] One of the

572 issues I will set aside is the extent to which the cases included here count as properly

573 linguistic or not: some clearly do (e.g. the various NPs cited above), others clearly do

574 not (e.g. facial signals and other expressive vocal and bodily signals), and the status

575 of others is somewhat unclear (e.g. interjections; see Wharton (2003)).

576   For a serviceable working conception of 'expressive' meaning, we can follow

577 Potts (2007) in characterising it as a dimension of meaning that is distinct from the

578 dimension of descriptive truth-conditional meaning in that it does not impact on the

579 truth/falsity of an utterance and is not put forth for the endorsement or denial of an

---

[2] As Blakemore points out, there are a range of other communicative devices that seem to fall under the label 'expressive' which do not involve procedural meaning. In this regard, she discusses the expressive effects of certain kinds of repetition (e.g. 'My childhood days are gone, gone') (Blakemore 2011) and the special properties of the socio-politically charged case of slurs (Blakemore 2015).

580   interlocutor. It has some quite other kind of purpose and impact, which can be

581   roughly thought of as the expression or communication of an emotive attitude to

582   some component of the context (a person, object, action or situation). This is rough,

583   but will do for the current purpose of looking at the attribution of procedural meaning

584   to these sorts of expressions.

585   In her discussion of linguistic expressives (expletives and NP epithets),

586   Blakemore (2011) suggests that: 'Like discourse markers, these expressions

587   correspond to procedures for interpretation. However, in contrast with discourse

588   markers, they activate procedures for retrieving representations of emotional states.'

589   So this is a different role for procedural meaning from that of the Stage II

590   characterisation of it as 'facilitating the identification of the speaker's meaning by

591   narrowing the search space for pragmatic inferential comprehension', where this was

592   a matter of recovering the intended propositional content (explicatures and

593   implicatures). Rather, what is going on here is the activation or triggering of

594   something non-propositional, something with a distinctively emotive evaluative

595   content.

596   The big move for the notion of procedural meaning/encoding is its application

597   beyond the clearly linguistic to other kinds of codes, natural and conventional, as

598   developed by Tim Wharton. For the case of interjections (e.g. 'ugh', 'wow', 'oops',

599   'aha'), Wharton (2003) argues against accounts that have offered rich conceptual

600   analyses (e.g. Wierzbicka 1992) and in favour of encoded procedures which '…

601   activate various attitudinal concepts or types of concepts. Under such an account

602   *wow* would not encode a concept that a hearer translates as 'X is delighted'. Instead,

603   *wow* activates a range of attitudinal descriptions which involve delight, surprise,

604   excitement etc. In the case of *yuk*, the attitude will be one of disgust; in the case of

605   *aha* it will be an attitude of surprise, etc.' (ibid: 60). Of course, the attitudinal and

606   emotional descriptions triggered by the interjection will be modulated by other

607   components of the ostensive stimulus, including decoded concepts (e.g. 'Wow, I'm

608 crazy about your new dress'), other expressive devices (emotional prosody, facial

609 expressions), and the wider context. In Wharton's view, most interjections are best

610 viewed as originating from something akin to Goffman's (1981) 'response cries', that

611 is, spontaneous natural expressions of feeling, that have become coded devices

612 available for ostensive communication.

613   As he notes, this marks a departure from the way in which procedural

614 meaning/ encoding had often been characterised up to that point, especially with

615 regard to the Stage I discussion of discourse connectives as 'computational

616 instructions to the hearer'. He suggests a broader construal of procedural meaning

617 'as simply *activating* certain types of representations, or contextual assumptions, or

618 expectations about cognitive effects. Thus, a pronoun might activate a certain class

619 of candidate referents from which the hearer must choose ... mood indicators [can

620 be seen] as activating certain propositional-attitude descriptions' (ibid: 59). And the

621 procedural meaning of discourse connectives can be viewed along the same lines:

622 'For what discourse connectives, mood indicators and pronouns have in common is

623 that rather than *translating* into the constituents of conceptual representations they

624 *activate* something. What is actually activated may be computational deductive rules,

625 or contextual assumptions, or simply expectations about cognitive effects.' (ibid: 60).

626 This broader construal of procedural meaning as activating or triggering kinds of

627 representations or computations provides a unitary characterisation of all the cases

628 discussed so far (discourse connectives and particles, illocutionary indicating

629 devices, pronouns and interjections), but at the cost of losing the sharp distinction

630 between conceptual and procedural encoding in Blakemore's original work.

631   There is a final step in this incorporation of a range of expressives into the

632 class of procedural encoding and that is the inclusion of certain natural facial

633 gestures like smiling, frowning, shrugging, and (perhaps) nose-wrinkling and lip-

634 curling, and certain natural prosodic gestures like affective tones of voice. These are

635 components of what Wharton calls natural codes, that is, they are 'signals', natural

636 behaviours which have evolved for the purpose of conveying information to others.[3]

637 These too fall under the characterisation of procedural encoding as activating or

638 triggering mental states of one sort or another; in these cases, it seems that, as with

639 interjections, what is activated is a representation of something non-propositional (not

640 evaluable as true or false), an attitudinal or emotional state. Wilson & Wharton (2006)

641 further elaborate on this way of thinking about communicative devices that encode

642 procedural meaning: 'such expressions might be described as encoding meta-

643 procedures, which manage the accessibility or activation levels of the regular

644 relevance-oriented procedures for perception, memory retrieval or inference …' (ibid:

645 1570-71).

646   The question that needs to be revisited at this stage concerns the distinction

647 between procedural encoding and conceptual encoding. It might seem that this

648 broader construal of procedural meaning is so inclusive that it draws in concept-

649 expressing words, in that they too can be thought of as encoding (meta)procedures,

650 procedures which activate a cluster of related concepts (with their encyclopaedic

651 entries), thereby giving the pragmatic system a strong steer towards the speaker's

652 intended meaning. However, this is not the intended idea and a distinction is

653 retained. Wharton (2009) maintains that a word with conceptual meaning activates a

654 concept via *translational* encoding while procedural meaning activates concepts via

655 *non-translational* encoding (ibid: 60). Wilson (2011) makes the distinction in a

656 somewhat similar way, saying that conceptual expressions (e.g. 'dog', 'jump',

657 'happy') 'are systematically linked to concepts, which are constituents of a *language*

658 *of thought*' while procedural expressions 'are systematically linked to *states of*

659 *language users*' (ibid: 10). Both are assuming that concept-expressing words like

660 'dog', 'jump', and 'happy' encode a single concept (a constituent of the language of

---

[3] Wharton (2003, 2009) makes an important distinction between these natural coded 'signals', which have evolved for the purpose of conveying information, and natural signs from which information may be derived but which have not evolved for that purpose and do not encode that information (e.g. shivering).

661 thought) as their standing lexical meaning. As noted at the end of section 2, I've tried

662 to argue for a different position on concept-expressing words (Carston 2013,

663 forthcoming), a view whose implications for the conceptual/procedural distinction I'll

664 briefly consider in the conclusion (section 4).

665   The heterogeneity of communicative devices (linguistic and nonlinguistic)

666 claimed to encode procedural meaning is greatly increased by the inclusion of the

667 expressive items discussed in this section: it now runs from 'but' and 'she' through to

668 'yuk', a smile and an angry tone of voice.

669   Let's briefly run through some of the diagnostics for distinguishing procedural

670 meaning from conceptual meaning given in the previous section, to see how the

671 expressives fare and whether they line up in this respect with any of the procedural

672 expressions previously discussed. Potts (2007) and Blakemore (2011) have ascribed

673 the property of *descriptive ineffability* to expressives: speakers are unable to

674 satisfactorily paraphrase expressive content using descriptive (conceptual) terms.

675 This property is somewhat similar to, but weaker than, the property of *introspective*

676 *inaccessibility* discussed in the previous section, so any element that has this latter

677 property (e.g. discourse connectives and particles) will have the former property;

678 pronouns seem to have neither, as it is pretty easy to describe their meaning in

679 conceptual terms. Most theorists seem to agree that expressives like 'blimmin heck',

680 'crikey', 'that bastard X' are descriptively ineffable (see Potts 2007, Geurts 2007,

681 Blakemore 2011, Drożdżowicz forthcoming) and Wharton's (2003) critique of

682 attempts to provide adequate conceptual meanings for interjections would indicate

683 that they too have this property. As for affective facial expressions and tones of

684 voice, Wilson & Wharton (2006) point out that they tend to create 'diffuse impressions

685 … involving marginal alterations in the strength or salience of a wide array of

686 conclusions rather than providing strong support for a single, determinate conclusion'

687 (ibid: 1566), indicating that they too are unlikely to be satisfactorily captured in

688 descriptive (conceptual) terms. The problem with this diagnostic, though, as with

689 'introspective inaccessibility', is that it applies to plenty of concept-expressing words

690 too; as Geurts (2007: 210) puts it: '…"descriptive ineffability" is not the prerogative of

691 expressives. As a matter of fact, it is all over the lexicon, as witness such disparate

692 items as *the, at, because, languid, green, pretty,* and so forth.'[4]

693   Consider next the property of non-compositionality with regard to the

694 expressives under discussion. It seems to me to do pretty well – not only is

695 expressive content largely independent of descriptive content so unable to compose

696 with it (see Potts 2007), but expressive items do not compose with each other in

697 anything like the phrasal manner of descriptive/conceptual content. They are, of

698 course, highly interactive: the expressive content of an utterance of 'wow' or 'you

699 bastard' will be modulated by an accompanying facial expression (a smile, an

700 eyebrow raise) and/or an affective tone of voice (affectionate, dismissive), but this is

701 more a matter of blending into a single emotive attitude than of composing meaning

702 constituents into more complex structures.

703   Whether expressives evince the kind of rigidity, overruling

704 descriptive/conceptual content, that Escandell-Vidal & Leonetti (2011) attribute to

705 procedural meaning (as discussed in the previous section) is an interesting question.

706 It does seem that tones of voice and natural signals like smiles and frowns hold sway

707 when they are at odds with the conceptual content of an utterance, e.g. 'I'm not angry

708 – don't imagine you have that sort of power over me' delivered in a tone of voice that

709 indicates fury bordering on hysteria, or 'Yuck, that smells delicious' where the

710 interjection seems to force an ironical or otherwise dissociative interpretation of the

711 conceptual content of 'delicious'. As for the possibility of using expressives non-

712 literally, at least some seem amenable to metaphorical use, e.g. 'Ouch' as a

713 response to some minor bad news (e.g. a parking fine), involving a transfer from the

---

[4] See Drożdżowicz (forthcoming) for a nuanced discussion of the notion of descriptive ineffability, in which she argues against its utility as a criterion for distinguishing different types of meaning, such as expressive vs descriptive or procedural vs conceptual.

714 domain of physical discomfort to psychological annoyance; 'That bastard computer

715 has crashed again', involving a personifying use of the epithet 'bastard'. However, it

716 is difficult to imagine a metaphorical use of most expletives ('Damn!', 'Bugger!') or of

717 facial expressions (smiles, frowns), or tones of voice.

718   Ironical, echoic and other non-serious uses are certainly possible for many

719 interjections, and for NP epithets, e.g. ironical uses of 'wow', 'oops', 'yuck', are easy

720 to concoct (an exercise for the reader) and 'I see that bastard Boris has rescued you

721 again' could be understood as irony directed at the addressee's earlier use of the

722 epithet 'bastard' with regard to Boris or perhaps at her generally negative

723 complaining attitude toward Boris. With regard to the diagnostic of non-polysemy,

724 Geurts (2007) maintains that at least some expressive terms have multiple related

725 contents/use, discussing in particular the NP epithet 'bastard'. By and large, though,

726 the kind of wide-spread ever-evolving polysemy that is typical of concept-expressing

727 words does not seem to be in evidence across the broad class of expressives.

728   Again we have a very mixed profile of properties for the various

729 communicative devices now included under the 'procedural encoding' umbrella and it

730 is worth considering whether this now much broader, more abstract construal of

731 procedural meaning is providing any interesting insight into the many different kinds

732 of cases it subsumes, beyond merely indicating that they are all different, in one way

733 or another, from conceptual encoding. In the next section, we move to Stage IV in the

734 history of procedural meaning, the final stage, where it is proposed that all concept-

735 encoding words also encode procedural meaning.

736

737 **3.3   Concept-expressing words and procedural meaning**

738

739 In a major assessment of the conceptual-procedural distinction ('past, present and

740 future'), Deirdre Wilson (2011) has given increased significance to the role of

741 procedural meaning in lexical semantics and has, in effect, suggested that all words

742 encode a procedural component of meaning while some (the open classes) also

743 encode a concept. She attributes to Dan Sperber the idea that all words with a

744 conceptual meaning may also encode 'an instruction to inferentially construct an ad

745 hoc concept using the encoded conceptual content as a starting point'. She endorses

746 this suggestion and elaborates it as follows:

747

748 'On this approach, most words would encode some procedural content. Some would

749 also encode conceptual content, whereas others (e.g. *however*) would not. Among

750 words with both procedural and conceptual content, some (e.g. *giraffe*) would

751 automatically trigger a procedure for constructing an ad hoc concept on the basis of

752 the encoded concept, whereas others (e.g. *unless*) might encode a more specific

753 procedure of the type familiar from Blakemore's work.'(ibid: 17)

754

755   She goes on to mention some advantages of this account over the standard

756 RT position according to which most substantive words encode just a concept. One

757 is that it would make sense of the recurrent claim, arising from work in lexical

758 pragmatics, that words function as 'pointers to' or 'pieces of evidence about' the

759 speaker's meaning. Another is that it would dissolve a certain tension in the RT

760 account of metaphorical and other nonliteral uses of words. The account has always

761 rejected the Gricean treatment of nonliteral uses in terms of a flouting of a maxim of

762 truthfulness and has maintained that it is not the case that the literal meaning (the

763 encoded concept) is always the first to be considered as the correct interpretation

764 and is only discarded in favour of another interpretation if it doesn't meet certain

765 pragmatic standards (of informativeness, relevance, etc). However, the worry is that,

766 given that the relevance-based comprehension heuristic explicitly licenses hearers to

767 follow a path of least effort in accessing and testing interpretations for relevance,[5] it

768 seems natural to suppose that the encoded concept, which is made instantly

769 available by the word form, would be tried first and only pragmatically adjusted if it

770 didn't meet the required standards of relevance. The suggested move to incorporate

771 into the meaning of content words a procedural component which requires that a

772 relevance-driven process of concept construction is undertaken ensures that,

773 although the encoded concept is activated by the word uttered, it is not necessarily

774 the first one to be composed into the interpretation. Rather, the concept expressed

775 by a loose or metaphorical use of a word can be the first one that a hearer following

776 this procedure recovers and tests for relevance.

777   This new conception of the meaning of open-class words as both conceptual

778 and procedural raises a number of questions. First, it is difficult to see why a word

779 that encodes a concept (a semantic entity with a 'linguistically specified denotation')

780 would also encode a procedure that makes it obligatory for a hearer to build an ad

781 hoc concept from the encoded one, especially when the encoded concept can, on

782 occasion, be the concept communicated (Sperber & Wilson 1998). Second, the

783 procedure involved would be identical across all words which are taken to encode a

784 concept, that is, the words 'giraffe', 'milk', 'run', 'speak', 'raw', 'red', and every other

785 open-class word would come with the same component of procedural meaning,

786 namely, 'Construct an ad hoc concept based on the encoded concept', which seems

787 odd since, by and large, the lexical meanings of words are distinct from each other

788 and this goes as much for procedural meaning as for conceptual meaning, e.g. the

789 procedural meaning of the pronouns 'he', 'she', 'we', 'they' is plainly distinct for each

790 one, and linguists working on the procedural meaning of such closely related

791 discourse connectives as 'but', 'however', 'nevertheless' and 'although' have put a lot

---

[5] In brief, the relevance-based comprehension heuristic says: (a) Follow a path of least effort in constructing an interpretation of the utterance; (b) Stop when your expectations of relevance are satisfied. For more detail, see Wilson & Sperber 2004, 2012.

792   of effort into pinpointing the fine differences in the inferential procedures they encode

793   or activate (see Blakemore 2000, 2002).

794   More important, it is entirely unnecessary on the relevance-theoretic account

795   of utterance interpretation to issue instructions to the pragmatic system to construct

796   ad hoc concepts. The goal of utterance interpretation is to recover a speaker's

797   meaning, that is, the thought or thoughts she intends to communicate, where

798   thoughts are structured arrays of concepts. On the account suggested, the words at

799   issue encode concepts, so it is already evident that these words are contributors of

800   concepts to the interpretation. The general relevance-based comprehension heuristic

801   takes care of the rest, that is, it ensures that the concepts recovered as speaker-

802   meant are those that contribute to an optimally relevant interpretation, which may

803   entail that the concept encoded is pragmatically adjusted (narrowed, broadened, or

804   both), as discussed in section 2.1. So, the idea that, in addition to all this, every

805   open-class word comes with (or triggers) an instruction to build an ad hoc concept

806   seems otiose.[6]

807   Furthermore, there is a way of capturing the desirable aspects of the proposal

808   while avoiding these problems and that is to construe the meaning of concept-

809   expressing words along the lines I discussed in section 2, that is, as not encoding a

810   particular concept (a potential component of a thought or truth-conditional content),

811   but something more minimal, something essentially non-semantic ('wrong format' in

812   Recanati's (2004) terms), which merely makes the occasion-specific communicated

813   concept accessible to the addressee. In Carston (2013) I discussed the hypothesis

814   that so-called 'content' words have a semantically underspecified schematic lexical

815   meaning, that is, they encode a concept schema or blueprint which constrains the

816   concept they can be used to communicate. However, as discussed in section 2.2

817   above, there is a range of problems with this idea: it seems nigh impossible to spell

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[6] See Curco (2011) for independent arguments against treating ad hoc concept construction as a matter of procedural encoding.

818   out what these 'thin meanings' amount to; given the pragmatic processes that

819   underpin the formation of families of senses, schematic meanings don't seem to play

820   any role in comprehension; they are forced to become more and more attenuated in

821   response to new uses/senses of the word. So it may be that we need to move to an

822   apparently even more extreme position according to which lexical 'meaning' consists

823   in nothing more than a pointer, a connection or gateway to a space of conceptual

824   information from which the addressee is to access or construct the relevant

825   (intended) concept. As the work in lexical pragmatics indicates, all we want from the

826   stable substantive lexicon is a means of interfacing with the conceptual system so as

827   to access thoughts that bear an appropriately close relationship with those the

828   speaker has in mind. On such an account, each word comes with its own distinct

829   pointer or interfacing component, which constrains the general pragmatic process of

830   accessing or constructing a concept, a process which is wholly motivated by the goal

831   of the pragmatic system which is to deliver speaker meaning. As the lexical 'meaning'

832   is not conceptual (not semantic), but is merely a means of locating an area of

833   conceptual space (which may include a cluster of concepts comprising the polysemy

834   complex associated with a word), concept construction is an obligatory pragmatic

835   process.

836   This sort of account, assuming it can be properly worked out, is not prey to the

837   problems I mentioned above for the concept-plus-procedure account: it does not

838   entail an obligatory process that is, paradoxically, sometimes unnecessary (when the

839   encoded concept is the concept communicated), it doesn't entail a component of

840   lexical meaning that is the same for thousands of words (that is, the instruction to

841   build an ad hoc concept) and it doesn't formulate within the lexical semantics of a

842   language a process (concept construction) that is entirely a matter of pragmatics.

843   Furthermore, the advantages that Wilson discusses for the concept-plus-procedure

844   account, are equally carried by this alternative 'gateway' account: it makes perfect

845   sense of the idea that all words are merely pointers to, or evidence for, a speaker's

846   meaning, and, since there is no encoded concept, it allows for any one of a range of

847   concepts to be the first one accessed or constructed, as determined by

848   considerations of relevance.

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850

851   **4.   Final remarks: Is all encoded meaning procedural (in a sense)?**

852

853   In discussing the processes involved in utterance interpretation, relevance theorists

854   have long made one major distinction, that between linguistic decoding and

855   pragmatic inference, both of which are inevitably involved in linguistic communication

856   (that is, comprehending an utterance is never simply a matter of linguistic decoding).

857   The conceptual/procedural distinction has been conceived as two kinds of linguistic

858   meaning, two different sorts of information that can be linguistically encoded, but

859   perhaps all linguistic encoding is fundamentally procedural in a certain sense, a

860   much broader sense than that originally envisaged. Building on the discussions in

861   Wharton (2009), Blakemore (2011) and Wilson (2011), we might wonder whether

862   what happens when, as addressees, we 'decode' any component of an ostensive

863   stimulus (whether linguistic or non-linguistic) is the triggering or activating of certain

864   information structures (for want of a better term) in our minds: these may be

865   conceptual, inferential ('procedural', in the original Stage I sense), attitudinal or

866   affective (perhaps even sensori-perceptual). In the case of interjections, expletives

867   and expressive prosody, what is activated is information about attitudinal and

868   emotional states, while what is activated in the case of discourse connectives is

869   information about how to inferentially relate propositional representations formed in

870   understanding the utterance. As for the case of substantive words (typical nouns,

871   verbs, and adjectives), which have been standardly assumed in RT to encode a

872   single lexical concept, perhaps they too are procedural in this broadened sense. It's

873   not that they encode an instruction to construct or access an ad hoc concept, but that

874 they activate or trigger a polysemy complex, a bundle of related concepts (perhaps

875 not all conventionalised to the same degree), with their accompanying encyclopaedic

876 information. From there on the standard RT pragmatic account kicks in, 'homing in'

877 on the specific concept intended, possibly involving an adjustment/modulation of one

878 of the activated concepts in the polysemy cluster.

879   This would really amount to a reconstrual of what 'decoding' is, one that

880 applies to all basic units of communicative codes (linguistic and nonlinguistic). When,

881 as addressees, we identify a word or some other conventional unit of communication,

882 some information structure (conceptual, computational or affective/attitudinal) is

883 triggered or activated in our minds as part of that identification process. Within this

884 very broad unifying construal of procedural meaning as having a triggering/activating

885 role, there would obviously be important distinctions to be made and subcategories to

886 be investigated, so the focus would shift from trying to understand the

887 conceptual/procedural distinction to trying to understand different categories of

888 procedural meaning.

889

890

899   **Dedication:** This paper is a meagre token of affection and esteem for my friend

900   and colleague, Diane Blakemore, whose sensitivity to linguistic and contextual

901   nuance coupled with analytical and theoretical rigour has inspired and illuminated

902   me over several decades. Diane is also one of the most widely read people I know

903   and has a fund of brilliant and lively examples of every conceivable use of

904   language, from air-blueing expletives to highly poetic metaphors. Looking forward

905   to more!

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909   **References**

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