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Indexicality by degrees: Deixis, “anadeixis”, and (discourse) anaphora

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1. Introduction

Let me say first of all how greatly indebted I am to Sir John Lyons, as indeed we all are, for his pioneering work on deixis and anaphora (as well as on structural semantics more generally, of course) principally in the seventies and early eighties: the basic insights, in particular, that deixis is the source of reference *per se* (Lyons, 1975), that anaphora is derivative upon deixis, both phylogenetically and ontogenetically (Lyons, 1975, 1977), and as to the intimate relationship, via the notion of (inter)subjectivity, that holds in the languages of the world between modality and deixis (cf. the notion of “modal deixis” that I make use of in my 2001 paper, and which Lyons, 1977: 677 terms “empathetic deixis”). My own work on (discourse) anaphora as well as deixis has been profoundly influenced by John Lyons’s (1979: 102) “nutshell” definition of the relationship between the two discourse-referring procedures, given in (1):

- (1) “...anaphora presupposes that the intensional correlate of the referent should already have its place in the universe-of-discourse. Deixis does not: indeed deixis is one of the principal means open to us of putting the intensional correlates of entities into the universe-of-discourse so that we can refer to them subsequently”. (Lyons, 1979: 102)

I’m quoting here the somewhat later (1979) definitions rather than the ones given in Lyons’s (1977) book (Vol. 2, p. 673), since they make central reference to the “intensional correlates” (i.e. mental representations) of referents and entities, rather than to those entities and referents *per se* (though this qualification is acknowledged in a footnote: note 18, p. 673 in the earlier publication). Following the later quotation is the conclusion: “...and this fact alone would make deixis logically, if not ontogenetically, prior to anaphora.”

Though the fact that the ability to retrieve referents via anaphora is conditional on their having been introduced in some universe-of-discourse (via deixis, though not exclusively so) says nothing about the ontogenetic priority of deixis over anaphora, there is nonetheless a great deal of evidence in favour of this too: Eve Clark (1978) (cited by Diessel, 2006: 471), for example, observes that demonstratives (the prototypical linguistic means of expression of deixis in the world’s languages) are among the first non-content (grammatical) words to be used by young (here English-speaking) children at the two-word stage in the acquisition of their mother tongue. As many scholars have also observed, a full mastery of anaphora is a much later development.

It is significant that Lyons’s later (1979) definitions should make central reference to the “intensional correlates” of the referents involved in deictic as well as

anaphoric reference, and to the “universe-of-discourse” within which these referents are introduced and subsequently maintained. This is so, since contrary to the standard, traditional definition of anaphora, I would claim that discourse anaphors refer, not to, or even via, a co-occurring textual antecedent, but to the result of processing and pragmatically interpreting the surrounding co-text, in conjunction with an appropriate context (which includes of course the speaker’s presumed intentions).¹ It is this which the notion “universe-of-discourse” is designed to represent.

I’ll start this brief paper by attempting to characterise the relationship between deixis and anaphora in terms of a cline or continuum of indexicality (section 2), and will then show how these distinct, but closely related, discourse referring procedures are put to use in texts in order to create discourse (section 3).

2. *Deixis and anaphora: a scalar conception*

Here is a discourse-cognitive definition of the two procedures, in terms of their attention-orienting function. It differs only in emphasis from Lyons’s definitions in (1), bringing the addressee’s role in these procedures to the fore and underscoring the “procedural” character of the two phenomena:

- (2) a “Deixis is a linguistic² means for achieving focusing of the hearer’s attention towards a specific item which is part of the respective (*sic*) deictic space”. (Ehlich, 1982: 325)
- b “Anaphora is a linguistic means for having the hearer continue (sustain) a previously established focus towards a specific item on which he had oriented his attention earlier”. (Ehlich, 1982: 330)

These definitions are framed in terms of what speakers and hearers are actually doing collaboratively in the process of communication, and do not make reference to any relation between co-occurring expression tokens in the co-text (as under the standard (traditional) definition of anaphora in particular).

The view of deixis and discourse anaphora that I subscribe to is that these are complementary discourse-referring procedures (see Lyons’s definitions of their discourse functions given in (1)) which the user exploits in constructing, modifying and accessing the contents of mental models of an unfolding discourse represented in the minds of speaker and addressee (or writer and reader in the written form of language). Basically, deixis and anaphora are procedures for coordinating the speech participants’ attention throughout the flow of text as produced within a given context to which they are both party (see in particular Clark & Bangerter, 2004 on this issue, in terms of the act of referring more generally). These procedures operate as a function of “addressee-centredness” (Jones, 1995: 47) or of the principle of “Recipient Design” (see Bell, 1991 in relation to media discourse).

Elaborating on the definitions given in (1) and (2), then, both discourse anaphora and deixis operate at the level of memory organization, enabling the speaker to manage it by guiding the addressee’s processing of the incoming segments of a text. **Deixis** serves prototypically to direct the addressee’s attention focus towards a new

¹ See also Dahl & Hellmann (1995) as well as Récanati (2005: 292), for whom an “antecedent” is “a suitable mental file”.

² I would take issue with Ehlich, however, on the purported restriction of deixis to expression via linguistic means (though this is no doubt a correct characterization as far as anaphora is concerned). After all, deixis may well be realized via a gesture, or prosodically via a high pitch accent (where this is under the control of the speaker, and is not necessarily “imposed” on him/her by the structure of the language being used). See below.

discourse entity —or to a new aspect of an already-existing discourse referent — which is derived by default via the context of utterance, whose centre point is the *hic et nunc* of the speaker’s verbal and non-verbal goal-directed activity (see also Diessel, 2006: 470), but may be transposed (Levinson, 2004:103, 107; Lyons, 1982: 119; see Bühler’s, 1934/1990 notion *Deixis am Phantasma*). Deixis under this conception involves the exploitation of the utterance context (the deictic *ground*, in Hanks’, 1992, 2009 terminology) in order to profile a *figure*: a new referent or a new conception of an existing referent within the discourse memory. See as central examples of situational deixis the uses of accented *that* in (3) (see §2.1) as well as (13) (§3, line 10) below. Deixis is one (very essential) way of “grounding” the discourse to be created by the production of text in some appropriate context: it is context-establishing in that it fixes the basic contextual parameters (space – time – speaker and addressee – source of viewpoint) for the communicative event, setting up the subjective viewpoint or perspective within which that discourse is to be construed and hence constructed. We have to do with deixis every time we need to have recourse (by default) to some key feature of the context of utterance (i.e. an “index”: see Nunberg, 1993; Récanati, 2005) in relation to the very production of the utterance itself, in order to identify the referent intended by the speaker. However, this is only a necessary, not a sufficient condition, since “exophoric” reference may be anaphoric rather than deictic in character: see example (4) in §2.1 below.

A potentially deictic expression or signal type is one whose tokens determine different referents depending on the relevant deictic parameter(s) set via the particular context of utterance at issue. The use of the deictic referring procedure always entails a break in the continuity of the discourse up to that point, owing to the fact that the user needs to have recourse to the circumstances of utterance in order to pick out the intended referent. Deixis may be realised via gestures alone (e.g. a pointing gesture or gaze direction), via a pitch accent in the spoken form, or via the appropriate use of particular types of indexical expressions: 1st or 2nd person pronouns, 3rd-person demonstrative pronouns, adverbs or NPs, for example, or indeed, via a combination of tokens of certain of these types of device.

By contrast, **anaphora** consists in the retrieval via a referentially-dependent indexical expression token from within a given ground of an already existing ‘figure’, **together with** its ‘ground’, the anaphoric predication acting to extend that ground (see Kleiber 1994: Ch. 3) — i.e. to carry it over for the interpretation of the current utterance. So in fact the “figure/ground” relation is an integral part of the operation of these two indexical referring procedures. The occurrence of an anaphor together with the clause in which it occurs as a whole constitutes a signal to **continue** the focus of attention established —or assumed to be established— at the point of use (see the first part of Lyons’s definitions in (1) and Ehlich’s definition in (2b)); in this way, the referents of weakly-accented or unaccented, low-pitched anaphors, which are thus phonologically non-prominent, are presupposed to enjoy a relatively high degree of attention focus for the addressee at the point of use. See (4), (6), (8) and (10) in subsection 2.1 below for canonical examples of (pronominal) anaphora.

Now, canonical (i.e. situational) deixis and discourse anaphora are but special instances on a cline of indexical reference (“pointing in context”), and are by no means mutually exclusive or “absolute” referring procedure types. Given that anaphora is derivative upon deixis, as Lyons (1975; 1979) convincingly argued, we may expect there to be a degree of overlap in between what we might term ‘pure deixis’, on the one hand, and ‘pure anaphora’, on the other. And this is indeed the case, as we will see shortly. I have tried to capture this relationship in the Scale of

indexicality represented in Figure 1.³ See note 4 for the key to the abbreviations of the categories of expression retained here.

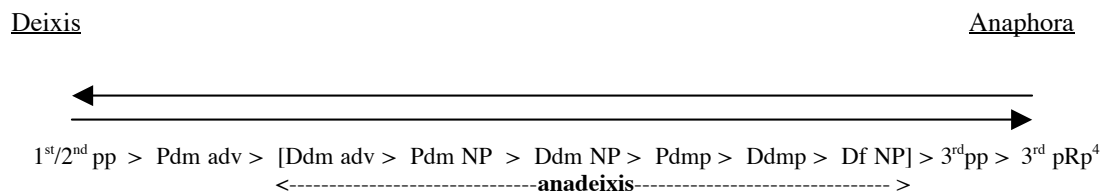


Figure 1: Scale of anaphoricity and deicticity coded by certain categories of indexical expressions (Cornish 2007: Fig. 1, p. 149)

In between the two polar types of indexicals (1st and 2nd person personal pronouns at the ‘Deixis’ pole, and 3rd person reflexive pronouns at the ‘Anaphora’ one), we find a range of expression types (mainly demonstrative-based) which may be called “*anadeictic*” (see Ehlich, 1982: 333-4 for this term). The use of one of these expression types involves partly anaphoric, and partly deictic reference. An example would be the “reminder” use (also termed “recognitional” in the literature) of distal demonstrative determiners in English: *Do you remember **that** time we got rained out camping in Spain last summer?* (example (9) in §2.1 below). Here, there is a deictic aspect to the reference of the demonstrative NP, in that the speaker is clearly orienting the addressee’s attention toward an incident within the shared representation of the holiday in question in long-term, episodic memory; but at the same time, there is an anaphoric dimension, since the use of the NP presupposes the prior existence of the shared representation within the addressee’s memory (this is the purpose of the reduced restrictive relative clause embedded within the demonstrative NP). It is in no sense an attempt to **construct** such a memory representation, a situation which a canonical deictic reference would realize. But this reference is nonetheless more clearly deictic than anaphoric, since the addressee’s attention cannot be assumed already to be focused upon the intended referent here.

Figure 1, then, is an attempt to range various categories of indexical expressions on a Scale of indexicality in terms of their relative degrees of inherent deicticity and anaphoricity (see also Consten, 2003 for a similar view⁵, as well as Diessel’s, 1999: 113 comparable — though much reduced in relation to Fig. 1 above — scale presented as Figure 6, which he conceives in terms of a cline of grammaticalization). I have represented the indexical expression types retained in terms of their category type, and not in terms of the actual forms involved.

The parallel unbroken lines ending in arrows pointing towards each pole are intended to indicate that deixis and anaphora are not mutually exclusive, ‘absolute’ indexical categories, but that the majority of the various indexical expression types which may realise them share both properties, albeit to differing degrees. After all, several types of indexical expression may have either a deictic or an anaphoric function in a given context —e.g. distal demonstrative adverbs (for instance, *then*,

³ I follow Levinson (2004: 97) and Nunberg (1993) in using the term “indexicality” to denote the use of context-bound or context-pointing expressions generally (whether that use is strictly deictic, anaphoric, or context-bound in some other way), and “deixis” to refer to the use of expressions with in-built indexical functioning.

⁴ Key to the abbreviations used in Figure 2: ‘1st/2nd/3rd pp’: “first/second/third person pronoun”; ‘P’: “proximal”; ‘D’: “distal”; ‘dm’: “demonstrative”; ‘adv’: “adverb”; ‘NP’: “noun phrase”; ‘p’: “pronoun”; ‘Df’: “definite”; ‘R’: “reflexive”.

⁵ However, as will be apparent, I do not share Consten’s claim in this chapter that there is no essential or useful distinction to be made between ‘deixis’ and ‘anaphora’. See also below on this issue.

there), 3rd person demonstrative pronouns and determiners, and definite NPs (see also Levinson, 2004: 111); and in their anaphoric use, demonstrative-based expressions may have a partly-deictic, partly-anaphoric (i.e. “anadeictic”, see Ehlich, 1982:333-4) function in referring contextually. See also Diessel (1999: 96-100) and Lyons (1977: 676). In addition to example (9), already mentioned in this respect, a good (attested) example is the use of the proximal demonstrative NP *all these beach bars and restaurants* in text (11) (lines 16-17) below. The prototypical instance of anadeixis lies in the anaphoric use of demonstratives (pronouns and NPs), whereby they direct the addressee’s attention to some referent already evoked in the surrounding discourse, but which is less than fully topical at the point where the retrieval is made; or where there is “competition” between more than one referent of a given type; or where a macro-topical discourse referent has just been introduced and needs to be firmly installed in the addressee’s short-term memory span. Diessel (1999) calls the expression types realising this use “anaphoric demonstratives” (see also Kleiber, 1990 for discussion of the French equivalents). See as illustration the distal demonstrative NP (*in that time* in extract (13) (§3, line 8). High pitch and heavy stress placed on a token of a given expression type (e.g. a 3rd person pronoun) move it one position higher towards the ‘Deixis’ pole on the scale.⁶

As already pointed out, the rationale for the hierarchy lies in the degree of inherent “deicticity” of each individual indexical category retained. The two poles are occupied, respectively, by 1st and 2nd person personal pronouns, which are primary deictics and may not function anaphorically (contrary to what is stated in Martin, 1992: 127-8 for English *I/me/my*, at least) and by 3rd person reflexive pronouns, which (at least when unstressed in English) function only anaphorically within a highly constrained clause-bound context. 1st and 2nd person pronouns are inherently deictic in that their use by a speaker quasi-automatically selects the current speaker and the current intended addressee, respectively (though an accompanying gesture may be required for the use of the 2nd person pronoun, at least when it is used initially to select the speaker’s chosen addressee(s)). The equivalent French expression types are termed “symboles indexicaux transparents” by Kleiber (1994). So the referring potential of these two expression types is more highly constrained than their 3rd person demonstrative counterparts (demonstrative adverbs, pronouns and determiners) — which are named “symboles indexicaux opaques” in Kleiber (1994).

On the Scale in Fig. 1, the demonstrative adverbs (e.g. *now/then, here/there*) are placed at a higher position than the NPs (since they are potentially strongly “token-reflexive” items, like the 1st and 2nd person pronouns). See Himmelmann (1996: 245-6, n. 12) for cross-linguistic evidence that demonstrative determiners and pronouns are often historically derived from demonstrative adverbs, which are more basic expression types. The lexical NPs on the Scale are placed above the corresponding pronouns. All demonstrative-based categories are placed above the definite NP category: I have placed definite NPs at the lower limit of the “anadeictic” span in Figure 1, since though they are not always indexical in function,⁷ they may yet occur deictically as well as anaphorically. Their inherent degree of deicticity is thus lower

⁶ High pitch and heavy stress may be viewed as kinds of vocal gestures. As such they constitute the indexical, deictic part of such expression types.

⁷ They may refer independently in terms of their lexical content when this is sufficient to uniquely identify their referent (see the NP *the proprietor of La Voile Rouge beach restaurant* in example (11) (line 1) in section 3 further on): note that this is an introductory, not a subsequent (anaphoric or anadeictic) reference. Thus the definite article should not be characterized as “inherently” deictic, as is the case in Martin (1992: 116): cf. his term “deictic *the*”. See also the term ‘deictics’ construed as a linguistic category (in place of the more traditional term “demonstratives”) adopted by Lapaire & Rotgé (1991).

than the demonstrative-based categories retained (unlike these, for example, they cannot be used to realise “discourse deixis”), but higher than (unstressed) 3rd person pronouns, which are normally restricted to the anaphoric function. See also De Mulder (2007: 176-182) on the differential “deicticity” of the French equivalents of English demonstrative vs. definite full NPs (*ce N* vs. *le N*, respectively).

The demonstrative-based expression types ranged in between the two polar categories on the Scale are ordered in terms of the proximal (marked) vs. distal (unmarked) distinction which they carry morphologically in English —the marked counterpart bearing a higher degree of deicticity than its unmarked one (cf. Lyons, 1975 and the point made by Levinson, 2004:121, n. 4, in relation to the privative opposition between *this* and *that*).

2.1 “(Sub)fields” for the operation of indexical reference

Arguably, it is a mistake to consider, as is often stated, that deixis necessarily involves reference outside the text, to something which is part of or is in some way connected with the context of utterance,⁸ while anaphora is *ipso facto* a reference to a segment of the co-text. For in both cases, it is the **conceptualisation** or **mental, psychological representation** of the referents which is at stake, whether these referents have been made available initially via the external situation or via the preceding (or indeed, succeeding) co-text (cf. Lyons’s qualification involving the “intensional correlates” of the referents concerned, in his definitions in (1)). At all events, there exist different “(sub)fields” or domains of reference⁹ on which **both** the deictic **and** the anaphoric procedures may operate:

- **The utterance situation**

Canonical (‘situational’) deixis:

(3) A to B: Hey, look at *that*! (uttered with a pointing gesture towards a strange bird perched on the branch of a tree near the interlocutors).

Anaphora (more accurately, “exophora”):

(4) [A and B turn a corner on the pavement, and suddenly find themselves face to face with a rather large dog]
A to B: Do you think *it*’s friendly? (Cornish, 1999: 112, ex. 4.1).

- **The co-text**

Textual deixis:

(5) A: Our rhododendrons are in blossom right now.
B: Oh really? How do you spell *that*, by the way?

Anaphora:

(6) B: ...I know *it*’s got three “d”’s.

- **The discourse** already created or anticipated

⁸ This is often the conception assumed by those linguists who take an essentially co-textual view of anaphora. Cf. for example Mitkov (2002: 20-21).

⁹ See in this respect Bühler’s (1934/1990) notion of *Zeigfeld* (‘pointing field’), with a variety of “sub-fields”.

Discourse deixis:

(7) A: Listen to *this*: a man went into a butcher's shop one day wanting to buy a whole sheep, and...

Anaphora:

(8) A: ...Would you believe *it*?

- **Shared long-term memory**Anadeixis:

(9) A: Do you remember *that time we got rained out camping in Spain last summer*?

Anaphora:

(10) B: I do indeed. *It* was the worst holiday we had in years!

If we compare the **anaphoric** (“**exophoric**”) functioning of the pronoun *it* in (4) with the **deictic** use of *that* in (3), the essential difference is that the intended referent's existence as well as saliency is presupposed in the former case, but asserted as such in the second (see Cornish 1999: Ch.4 for discussion of **exophora**). Unlike Mitkov (2002: 10), I would not characterise the use of the pronoun *it* in (4) as “deictic”, simply because the intended referent is situated outside the co-text, in the utterance situation, and has not been previously mentioned. The discourse-cognitive account of anaphora as well as the characterisation above distinguishes anaphora from deixis partly in terms of the status of the intended referent in the participants' mental models of the discourse: already the object of an attention focus in the case of an anaphoric reference, but not yet so in that of a deictic one. In fact, in the deictic case, the referent is not yet even present in the discourse representation at all. See Lyons's definitions in (1) and Ehlich's definitions (2a) and (2b) in this regard.

As far as **textual deixis** is concerned, the “(sub)field” is evidently the co-text: see example (5). The reference here is deictic and not anaphoric in character, since the speaker is not retrieving the referent of the textual antecedent (‘the speaker's rhododendrons’), but is specifically directing his or her addressee's attention towards the head lexeme's form *qua* form within that antecedent(-trigger) (*rhododendrons*). Textual deixis is not an instance of “exophora”, as Diessel (1999: 101) claims it is, but, as its very name indicates, involves orienting the addressee's attention towards a relevant feature of the co-text. After all, when we refer (and predicate) in natural language use, we are focussing upon the **referents** of our referring expressions, not, under normal circumstances, on their phonetic or graphical form. Note also that, as under Lyons's characterizations of the referents evoked via both deixis and anaphora, this linguistic unit will be both introduced and retrieved in terms of its intensional correlate – its mental representation within the universe-of-discourse.

With **discourse deixis**, on the other hand, it is the surrounding discourse which has just been constructed (or which is on the point of being constructed, in the case of example (7)), which is operated upon by the addressee to appropriate the intended referent. The effect of the use of the proximal demonstrative pronoun in (7) is to open a discourse slot or space which is flagged as shortly to be filled by the story about to be recounted. See also the use of the distal pronoun *that* in text (11) (§3, line 11) below. As for (strict) **anadeixis**, we have already mentioned the example of recognitional deixis illustrated in (9) above, so I won't go into it again here.

In all four types of domain, the deictic uses illustrated in examples (3), (5), (7) and (9) act to direct the addressee's attention focus towards a new object of reference, thereby creating a shared joint attention focus span. All the anaphoric uses illustrated in (4), (6), (8) and (10), on the other hand, presuppose an already-established attention focus on some entity (a physical object in (4), a particular linguistic unit *qua* form as used in the co-text in (6), a story in (8), and an episode within a holiday in (10)). These uses correspond, then, to the definitions of the discourse purposes of deixis and anaphora given in items (1) and (2) at the beginning of this paper. In the case of the discourse-deictic use of anticipatory *this* in (7), it is clearly not "anaphoric" (or rather, "cataphoric", as Bühler, 1934/1990 claims of a similar example), since no previous attention focus has yet been established at the point of use, and there is no presupposition involved, as in cases of genuine cataphora, that the referent is in fact thematic, even though it will not actually have been made available at the point of use: rather, it is a signal to the addressee to anticipate the imminence of a significant "filler" for a new discourse space or "slot" that is being expressed by proximal *this* here. The forward reference is rhematic, and not thematic. *This* and not *that* is used, since the 'story' about to be told is clearly known only to the speaker at this point.

Clearly, then, **both** deixis **and** anaphora may operate on the context of utterance (situated "outside" the text, then), on the co-text, on the surrounding discourse, or on shared long-term memory representations (see examples (9) and (10)). In fact, this is only true in terms of the **immediate** sources of the indexical reference involved: for in all cases, deixis as well as anaphora operate in terms of the discourse representations of the relevant (sub)field. But the nature of each type of referring procedure is clearly distinct. These pairs of examples show that we cannot distinguish anaphora and deixis solely in terms of the type of field (or subfield) on which each is said to operate, in contradistinction to what Bühler (1934/1990) claims.

Now, since there is no criterial distinction to be drawn in terms of domain of operation, and since there is a high degree of overlap between the two procedures, a number of linguists have argued on this basis that there is no essential or useful distinction to be made, theoretically speaking, between deixis and anaphora at all (see e.g. Consten, 2003). But it seems clear from all we have seen so far that there is, in fact.

Figure 2 attempts to characterise the implicational relationships holding amongst the four distinguishable modes of indexical reference, as based on the analysis above:

**canonical deixis > discourse/text deixis > (strict) anadeixis > canonical
discourse anaphora**

Figure 2: Scale of indexical referring procedures

3. Distribution of indexicals bearing deictic and/or anaphoric functions within texts

Having established what is common to, as well as what distinguishes, deixis and anaphora and how these context-bound referring procedures operate, we end by looking at how they are put to use in discourse. Let's look first at a fairly simple, short attested written text, a newspaper article which appeared in the British national

newspaper *The Guardian* (3 May, 2000, p. 6). The article is reproduced in full as (11):¹⁰

(11) **St Tropez clean-up hits stars' hangout**

Jon Henley in Paris

- i. The proprietor of La Voile Rouge beach restaurant lodged a formal appeal yesterday against the decision by St Tropez town council to shut down one of *the resort's* most celebrated institutions, a favourite holiday haunt of such stars as Sylvester Stallone and Mick Jagger.
5. ii. *The restaurant*, built illegally on Pampelonne beach in the heady days of 1968 and \emptyset tolerated ever since, has been caught by a council campaign to clean up St Tropez's increasingly shabby image.
- iii. *La Voile Rouge's* owner, Paul Tomaselli, 61, said *he* was challenging the legitimacy of *the decision*. 'The committee that rules on *such things* was
10. supposed to be elected by proportional representation. In fact, *it* was appointed by simple majority vote; *that's* illegal, and therefore all *the committee's* decisions are null and void.'
- iv. But *the council*, fed up with complaints about *the restaurant's* loud music and the helicopters ferrying celebrities to and from a nearby helipad, is
15. unlikely to let *the matter* rest.
- v. 'The courts will decide \emptyset , but in theory *all these beach bars and restaurants* should be bulldozed,' a spokesman said. '*They* are ugly, noisy, not terribly safe, and completely illegal. *They* have had a good run, but it is time to call it a day.'
20. vi. *Mr Tomaselli's* lawyer, Jean-Pierre Magnificat, said removing beach restaurants from St Tropez would be 'like banning waltzes in Vienna or beer in Munich'. (*The Guardian*, 3 May, 2000, p. 6: Example (2) in Cornish, 2008: 1001)

This is a typical journalistic text. It attempts to achieve a balance between two opposing positions (the writer "standing back" from the dispute at issue, not ostensibly taking one side or the other) — but at the same time to create a sense of controversy and hence reader interest. The discourse structure reflects these two concerns, in terms of a 'Parallel Contrast' rhetorical structure: after a statement of the conflict in the first paragraph and a second one outlining the nature of the problem and its history, each subsequent paragraph apart from the fifth alternates between a representation of the position of the two main protagonists in the conflict — St Tropez town council, and the owner of *La Voile Rouge* beach restaurant (or his lawyer).

(12) below represents informally the discourse structure of text (11). This shows that, although there are 6 textual paragraphs, they are not all equivalent in status in terms of the discourse that may be assigned to the text. This consists of only 4 major units, with a subsidiary unit "embedded" within each of units 1 and 3 (these embeddings are notated "iconically" via indentation). The segments in boldface (formulated via nominalisations of verb-based forms) in this representation are

¹⁰ Line numbers are given every five lines, and the paragraphs are each marked with a lower-case Roman numeral; the indexical expressions other than grammatically-determined ones (e.g. relative pronouns) are in italics.

intended to characterise the macro- as well as micro-discourse act(s) being performed by the discourse unit at issue, with the segments in normal typeface indicating the essential content of these macro- or micro-acts.

(12) Discourse structure of text (11)

Unit Discourse function

1. (Para (i)): **Introduction of dual macro-topic:** St Tropez town council's decision to close down *La Voile Rouge* beach restaurant, and the owner's formal appeal against it.
 - 1a. (Para (ii)): **Continuation of macro-topic outline:** explanation of origin of the problem, and **justification** of the council's decision.
2. (Para (iii)): **Presentation of restaurant owner's position:** the reason for his opposition to the decision (on a technical, legal point, rendering the ruling "null and void").
3. (Para (iv)): **Presentation of council's position on the beach restaurant** (loud music, frequent helicopter trips, neighbours' complaints).
 - 3a. (Para (v)): **Council spokesman's further explanations**, on beach restaurants in general.
4. (Para (vi)): **Coda: Rejection by lawyer representing restaurant owner of this negative view of beach restaurants** (they are an accepted part of the culture of St Tropez). (Item (3) in Cornish, 2008: 1001-2)

The only **deictic** occurrences in this text appear in line 2 (the primary deictic-signalling temporal expression *yesterday*) and in the direct speech segments quoted: the distal demonstrative pronoun *that* in line 11 as used by the restaurant owner, Paul Tomaselli (this may be analyzed as an instance of "discourse deixis": see Lyons, 1977, Webber, 1991, Himmelmann, 1996 and Diessel, 1999), and the universally quantified proximal demonstrative NP *all these beach bars and restaurants*, quoted directly from the council spokesman in lines 16-17 – an instance of what Ehlich (1982) terms "anadeixis". This anadeictic reference, designating beach bars and restaurants of the *La Voile Rouge* type in general, has a macro-discourse function in that it serves precisely to extrapolate from this particular case to the more global issue of beach bars and restaurants, and in so doing to herald a shift to the Coda (which evokes the issue in more general socio-cultural terms), so bringing the discourse to a close.

Note here that it would have been possible to use the distal demonstrative determiner *those* in place of *these*. Indeed, there is no spatial relevance implied by such a use here. In terms of the more interactive conception invoked by Laury (1997) and Östman (1995) for the equivalent Finnish expression types, and by Cheshire (1996) and Glover (2000) in the context of English conversational data (see also Toupin, 1998 and, for its neurolinguistic correlates, Kemmerer, 1999), we might analyse this use as realising a polemical value in context, on the part of the Council spokesman: the proximal expression would have the force here of implying that the conception of the referent intended has not yet been "negotiated" discursively, is not part of the "common ground": after all, the Council's view of such bars and restaurants is thoroughly negative, and clearly the spokesman cannot expect his opponent in this dispute to share that view. The use of *these* here places the referent within the speaker's subjective sphere, a sphere presupposed not to be shared with his interlocutors; the latter interactive value would be what the use of the distal determiners *that/those* would have implied. See also Fillmore (1997).

In terms of the **anaphoric** functioning of the majority of indexical expressions in this text, it is clear that the ones most frequently used to sustain reference to the major topic entities evoked are definite full NPs and not pronouns. This is partly due

to the journalistic genre of the text, which favours the use of full NPs generally, and partly to the fact that a number of these anaphoric references tend to have an important strategic, ‘signposting’ function within the text as a whole — cf. also Francis’ (1986) notion “anaphoric nouns” in this connection. That is, they signal the start of a new central discourse unit (or a dependent subunit) – cf. Fox (1987) in relation to repeated proper nouns in particular – and serve to ‘ground’ the content of that unit or subunit. See as illustration the occurrences of the (repeated) proper noun *la Voile Rouge* (line 8) heading unit 2, the reduced definite NPs *the restaurant* (line 5) introducing sub-unit 1a and *the council* (line 13) at the head of unit 3, with the reduced, repeated proper name *Mr. Tomaselli* (line 20) flagging unit 4.

3rd person pronouns or zero anaphors are not intrinsically capable of fulfilling this “announcing” or signposting function — though they may well occur initially in **subunits**. The tacit instruction associated with the occurrence of tokens of these expression types is to continue the psychological focus of the current textual unit. Indeed, the only overt pronouns which occur (*he, it, that* in paragraph (iii), *they* (twice) in paragraph (v)) refer to entities introduced **within** the units or subunits in which they appear.

All these discourse-structuring, functionally-determined occurrences of tokens of the expression types concerned correspond to the predictions that may be derived from the Scale of indexicality presented in Fig. 1 above.

To finish, let’s briefly examine a short extract involving a return pop to a referent evoked prior to a (background) interruption. Example (13) is an extract from an eye-witness account of the tsunami wave disaster of December 2004 as it affected the coast of Thailand:

(13) (...) I noticed small kids and tourists walking to where the water had receded, curious as to why the water had gone.

Then I saw *it* - I noticed people craning their necks and looking out on the horizon. You could see a wall of water about three or four

5. stories (*sic*) high.

I felt like I was watching a movie, it was completely surreal.

It wasn’t moving very quickly, *it* took between four and five minutes until I saw *it* hit and in *that time* slowly people started to realise what was happening.

10. People were saying “Oh God, what is *that*?” I thought I was dreaming.

After a few seconds *the wave* hit \emptyset and \emptyset smashed against the beach. (...) (Extract from “Eyewitness: Panic in Patong”, *BBC News on the Web*, 27.12.04)

In this extract from an originally oral narrative monologue, it is a lexical NP (*the wave*) and not a pronoun (*it*), which is used in line 12 to refer to the tsunami wave, introduced (in part at least) in the main-line part of the narrative preceding the brief background segment in lines 8-11. This is not due to the lack of salience in context of the intended referent (which is indeed the macro-topic at this point in the discourse). It is due in part to a purely discourse-structural factor: the fact that the introduction of ‘the tsunami wave’ by the narrator in lines 3-8 has been interrupted by his reference to the incredulous reactions of the people around him at the time (*People were saying ‘Oh God, what is THAT?’*). This is a direct-speech report, which as such momentarily shifts the locutionary source —as well as of the point of view being expressed. Note

furthermore the tense difference here (preterit for the reporting segment and simple present for the reported speech segment).

Now, in returning to the main line of narration of the sequence of events after it, there is a need to “reset the cursor” to what is to be the macro-topic and the narration of its development. Notice that the tsunami wave has not yet been characterised as a ‘wave’: for the narrator uses a (mixed) metaphor in describing it in lines 4-5 (“a **wall** of water about three or four **storeys** high” — my emphasis). This need to reset the cursor is further strengthened by the fact that the direct-speech quotation just given in line 10 has stressed the difficulty the bystanders faced at the time in characterizing (categorizing, more properly) what they were witnessing: this is highlighted precisely by their use of the stressed distal demonstrative pronoun *THAT* (clearly a situational-deictic occurrence) within an interrogative construction. In discourse terms, this reference will not yet have been ratified by the hearer or reader at this point in the text (or so the narrator assumes) — a state of affairs which calls for a lexically explicit, characterising expression type rather than a purely pronominal reference in line 12 — namely, *the wave*. By hypothesis, this is an anadeictic use here. See Semino (1995) for discussion of deictic shifts of voice and *persona* in poetic discourse, in particular.

4. Conclusions

First of all, although deixis and anaphora are not mutually exclusive context-bound referring procedures, as we have seen, this does not mean that there is no essential difference between the two uses (*contra* Consten, 2003); or, to take just two of the indexical referring types distinguished in this paper, between discourse deixis and discourse anaphora (*contra* Lakoff, 1974; Piwek et al., 2008). As we have seen, there is a continuum of indexicality along which particular sub-types of indexical referring procedures may be ranged (see Fig. 2). This confirms Lyons’s (1975) claim as to the priority of deixis over anaphora, given that (a subset of) the resources available for the independent expression of deixis are put to use in the realisation of anaphora. Indeed, although certain indexical expression types are restricted to one type of use only (notably, those located at the extreme ends of the Scale in Fig. 1), the majority may sustain various types of use in context. To this extent, these use types should not be confused with the category type of expression concerned, *hors usage*, i.e. *en langue*.

In terms of discourse, indexical expressions used deictically, anaphorically or anadeictically can make distinctive contributions to the structure of the discourse that may be associated with a given text in conjunction with an appropriate context. We saw this first in text (11), where the demonstrative-based expression *all these beach bars and restaurants* in lines 16-17 heralds, anadeictically, the extrapolation from the specific beach restaurant at issue in the previous units to the more general, subsuming issue that is to form the theme of the final discourse unit (the ‘Coda’ of the text). Similarly, the major discourse units are marked out and “announced” via reduced definite NPs and repeated proper names: again, these expressions are doing more than simply continuing the previous focus of attention. We may characterise them as functioning anadeictically (like the definite NP *the wave* in extract (13) (line 12)).

Finally, should the transitional “pivot” linking the two poles of pure deixis and pure anaphora be located at *textual deixis*, as Lyons (1975, 1977) argues? In my view, such a choice (rather than, say, *discourse deixis*, which Lyons, derivatively, calls “impure textual deixis”) is no doubt a reflection of the (then standard) view stemming from Bühler (1934) that deixis involves reference to the ‘external’ world of objects,

while anaphora involves text-internal reference (whether oriented backwards or forwards within the co-text). But if anaphora involves maintaining a previously-established attention focus (as in Ehlich's definition in (2b)), then what is at issue is reference within the universe-of-discourse (where the intensional correlates of the intended referents lie) rather than direct reference to the co-text. In any case, as we saw in §2.1, even the referent of a textual-deixis occurrence will be introduced and retrieved as a function of its intensional correlate within the universe-of-discourse, and not directly *qua* segment of co-text. This general position is what I have argued for in a number of publications (see in particular Cornish, to appear). To this extent, it is rather *discourse deixis* (or even more generally speaking, "anadeixis", which would subsume both discourse deixis and text deixis) that is the true point of transition between the two polar context-bound referring procedures.

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