A relevance-based analysis of Lakoffian hedges: sort of, a typical *and* technically[*]

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1 Introduction

Expressions listed under 'some hedges and related phenomena' by Lakoff (1972) include not only those which weaken the speaker's commitment to a proposition but also those which intensify her commitment, including a wide range of expressions cutting across parts of speech. They include, for example *sort of, very, really, a true, a regular, a typical, technically, loosely speaking, strictly speaking,* etc. According to Lakoff (1972: 195), hedges are 'words whose job is to make things fuzzier or less fuzzy'. He states that truth and falsity are a matter of degree, and hedges make natural language sentences more/less true or more/less false. The underlying idea is that concepts encoded by natural language have vague boundaries and therefore utterances will very often be neither absolutely true, nor absolutely false, but rather true/false to a certain extent, or true in certain respects and false in other respects (Lakoff 1972: 183). His view is supported by a psychological experiment by Rosch (1971) which shows that people perceive category membership as a matter of degree rather than as an absolute. For example, people perceive robins and sparrows as central members of the category 'bird' while chickens and ducks are perceived as peripheral members. Lakoff (1972: 185) presents the following degrees of truth which correspond to degree of membership in the category 'bird'.

(1)   a.   A robin is a bird   (true)
        b.   A chicken is a bird   (less true than a.)
        c.   A penguin is a bird   (less true than b.)
        d.   A bat is a bird   (false or at least very far from true)
        e.   A cow is a bird   (absolutely false)
        (Lakoff 1972: 185)

What the hedge *sort of* does is take values that are true or close to true (e.g. (1)a) and make them false (e.g. (2)a) while uniformly raising values in the low truth to mid

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truth range (e.g. (1)b-c), leaving the very low truth i.e. false range constant (e.g. (2)d-e).

(2)   a.   A robin is *sort of* a bird   (False — it is a bird, no question about it)
       b.   A chicken is *sort of* a bird (True, or very close to true)
       c.   A penguin is *sort of* a bird   (True, or close to true)
       d.   A bat is *sort of* a bird   (Close to false)
       e.   A cow is *sort of* a bird   (False)
       (Lakoff 1972: 195)

The effect of *sort of* seems to provide strong support for Lakoff's 'fuzzy concept' approach, since, as he says, it is very difficult to see how these effects could be described in a two-valued system, where the proposition expressed is either true or false.

   The wide range of the phenomena Lakoff (1972) calls hedges has inspired many linguists to look into them more closely (Kay (1983), Prince et al, (1983), Brown & Levinson (1978, 1987) etc.). However, I will consider in detail just *sort of, a typical* and *technically* because of the interesting differences in their treatment within Relevance theory. I will first examine the use of *sort of.*

2 *Sort of x* — concept loosening

According to Relevance theory, a concept consists of a label or address in memory at which lexical, logical and encyclopaedic information is stored. Humans are able to construct, entertain and communicate a much wider range of concepts than are encoded by the lexical items in any natural language. It follows, therefore, that the concept that a word encodes and the concept that it communicates on a given occasion of utterance may diverge to varying degrees and in a variety of ways. When there is such a difference, successful recognition by the hearer of the concept intended by the speaker depends on his performing certain inferential processes which take the encoded concept as input; these inferential processes are guided and constrained by the hearer's bid to find an interpretation which is consistent with his expectation of optimal relevance. It seems that the function of the expression *sort of* is to indicate what kind of inferencing should take place for the word it modifies to be interpreted as relevant.

In a recent series of lectures, Wilson (1993-4) talked of the 'loose use' of concepts; my claim is that *sort of* indicates that the word that it modifies is to be interpreted loosely. She gave the example *Our friendship blossomed*; the verb *blossom* gives access to a conceptual address BLOSSOM at which the three types of information mentioned above are stored. On the basis of logical information, the literal use of the concept would lead the hearer to access the logical implication 'our friendship was a member of the plant species' and perhaps a variety of other implications following from standard assumptions about the biological properties of plants. Obviously, this logical implication is not intended by the speaker and a rational hearer will not infer it as part of the interpretation.

There is a discrepancy between the concept encoded by the verb *blossom* and the concept communicated in this utterance. The concept communicated shares some but not all of the information attached to the conceptual address BLOSSOM; it does not include, for instance, the logical information nor most of the encyclopaedic knowledge concerning the biological and material properties of the blossoming of plants. That is, a concept is being loosely used so that it can predicate properties of a state of affairs which does not fall within the range of the lexically encoded concept.

Let us now turn to the sort of examples which concerned Lakoff (1972):

(3)   A robin is a bird

(4)   A penguin is a bird

(5)   A penguin is sort of a bird

While (3) is uncontroversial, some people hesitate to affirm (4) since a penguin does not fly and is thus not felt to be a good example of a bird; in Lakoff's terms, it is a peripheral member of the bird category. Hesitancy is greatly reduced when *sort of* is employed, as in (5). It seems that the effect of *sort of* is to loosen or broaden the concept encoded by *bird*, so that it more comfortably encompasses creatures which do not have all the stereotypical properties of birds. In other words, the hedge *sort of* is a device provided by the linguistic system itself to guide the hearer in the sort of pragmatic process he is to carry out in order to arrive at the intended interpretation of a particular word. Viewed in this way, it falls in with a range of other linguistic devices which contribute to relevance by reducing the processing effort required of a hearer in order to arrive at the intended interpretation.

In fact, of course, (4) is true, not to some degree or other, but simply true, as most people will concede when pressed. So this example is a bit different from the *blossom* example above, which is literally false. What happens in example (5) is that some of

the most highly accessible encyclopaedic assumptions attached to the concept encoded by *bird* are dropped, assumptions about flying and, perhaps, typical size and shape, while logical information ('birds are living organisms', for example) is maintained.

However, consider another example:

(6)   Tom is *sort of* a bachelor

The speaker of (6) is not crucially communicating that Tom is an unmarried adult male: indeed, this may not be communicated at all. What is communicated here is that Tom does not have certain stereotypical properties of bachelors, such as, perhaps, taking a free and easy attitude to relationships with women, enjoying going out drinking with male friends, etc. This is more obvious if we replace *Tom* with *the Pope*; strictly speaking, the Pope is a bachelor (unmarried, adult, male) but he lacks a great many of the properties that we associate with a typical bachelor. Experimental subjects would no doubt be quicker to agree to his being 'sort of a bachelor' than to his being 'a bachelor'.

In this sort of case it seems that the definitional (or logical) properties of the concept may, on occasion, be demoted to a peripheral role or dropped altogether:

(7)   Tom has just got married but he is still sort of a bachelor

If this is acceptable (non-contradictory), as I believe it is, it must work a bit differently from the account just given of (6). In fact, a hearer would most likely take it that although Tom is married he still behaves to some extent like a bachelor; that is, he has some of the stereotypical properties of a bachelor. Compare (7) with (8), where the definitional properties of 'bachelor' are maintained and the result is a contradiction.

(8)   Tom has just married but he is a typical bachelor*

(8) seems acceptable only when the whole phrase 'typical bachelor' is interpreted loosely or metaphorically, or it is further modified, say by the adverbial 'in his habits'. I give a more detailed analysis of *a typical* in section 3.

Generalising, the loosening of the concept encoded by *bachelor* as directed by *sort of* seems to render the formerly definitional properties non-definitional, and whether Tom, in the examples, is taken to have these properties or not will be determined by context (including the rest of the linguistic content of the utterance). Further, it seems that whether Tom is understood to have stereotypical bachelor properties depends on whether he is taken to fall within the actual category of bachelors or not. When Tom

is married (as in (7)), the loosened concept seems to involve the stereotypical properties, and when he is taken to be an unmarried man (as, perhaps, in (6)) the loosened concept excludes some stereotypical properties. It seems that the semantics of 'sort of' itself does not dictate exactly what direction the loosening process should take, but that this is determined only in interaction with other aspects of conceptual content and context. So for any concept X encoded by a lexical item, modification by *sort of* leads to the construction in on-line interpretation of a new ad hoc concept X', which may vary across contexts, and is fairly unlikely to acquire any sort of permanent existence in the mental life of the speaker or hearer (Wilson 1993-4, Carston p.c.).

I am assuming that these ad hoc concepts contribute to the proposition expressed by the utterance; this is supported by the intuition that (7) is not contradictory and by Lakoff's intuitions regarding the truth properties of some of his examples:

(2)　　a.　　A robin is sort of a bird　　　　(false)

Here the new concept BIRD either excludes the logical properties or the stereotypical properties attached to the lexically encoded concept BIRD; in either case, a robin does not fall within its extension and the statement is false.

However, this idea is not supported by another of Lakoff's intuitions, that regarding (2d), repeated here:

(2)　　d.　　A bat is sort of a bird　　　　(pretty close to false)

There are two ways to go here; either my analysis of the loosening effects of 'sort of' needs some tightening up so that it can only affect encyclopaedic properties of the lexical concept it operates on, or we must question Lakoff's judgement of this case. I am inclined to the latter. In some contexts, I think, the new BIRD' concept constructed would allow bats to fall within its extension. Such a case might be the following:

(9)　　A bat is strictly speaking a mammal but it is also sort of a bird.

The general point is that ad hoc concept construction, even when linguistically directed, as it is when *sort of* is used, is a highly context-sensitive process so that there may be quite a range of distinct concepts formed in different contexts, all taking the lexical concept BIRD as their point of departure.

I turn now to another of Lakoff's cases, the adjective *typical*; its semantics and the sort of pragmatic process it prompts the hearer to perform are importantly different from those we have discussed in this section.

3 *A typical x* — concept narrowing

Let us consider the following:

(10)   Tom is *a typical* bachelor

The speaker of (10) is not only communicating that Tom is an unmarried adult male, but also, more crucially, that Tom has stereotypical properties of bachelors, such as leading a carefree life etc. The logical implication, i.e., that of being an unmarried adult male, is of low relevance in (10). However, (10) cannot be conjoined with a proposition that contradicts Tom's categorial bachelorhood as seen in (11), although that was possible with *sort of* (see (7)).

(11)   Tom has just got married but he is *a typical* bachelor*

Some further modification is necessary in order for (11) to be acceptable (see (12) whose second conjunct means that he behaves like a typical bachelor), or the whole predicate *a typical bachelor* has to be taken loosely or metaphorically.

(12)   Tom has just got married but he is *a typical* bachelor in his habits

In contrast with *sort of* which loosens a concept in that it drops the defining properties of the following word it modifies, *a typical* does not affect the defining properties i.e. the logical content of the concept encoded by the following word *bachelor*. So we cannot use *a typical bachelor* with the conjunct which asserts Tom's marital status while we can use *sort of bachelor* in the same situation.

Sort of in (9) (repeated below) leads the hearer to focus on some stereotypical properties of birds such as having wings and being able to fly.

(9)   A bat is *sort of* a bird though it is strictly speaking a mammal

Likewise, *a typical* in *a typical bird* in (13) leads the hearer to focus on stereotypical properties.

(13)   A robin is *a typical* bird

In Lakoff's terms, it leads the hearer to focus on the bird prototype: a feathered creature with two legs, a beak, two wings, which flies. However, the difference is that *sort of x* directs the building of a new concept X' which does not include the defining properties of X, while the new concept built from *a typical x* does. This characteristic of *a typical*, that it leaves the analytic content of the concept it modifies untouched, is better demonstrated in (14) where it is contrasted with (9):

(14)   A bat is a *typical* bird, though it is strictly speaking a mammal*

The defining properties of the concept BIRD are maintained when it is modified by TYPICAL and they are not, of course, true of a bat which belongs to the mammal class.

   In the previous section I argued that *sort of* loosens a concept, dropping the defining properties of the concept. *A typical* in (10) is used, crucially, to communicate the presence of certain stereotypical properties of bachelors, but in this case the pragmatic adjustment made to the lexical concept is not one of loosening it.

   Here I would like to turn to the Relevance theory idea of 'concept narrowing' (Wilson 1993-4) and argue that *a typical* in (10) enforces a narrowing (or strengthening) of the concept encoded by the word it modifies. There are people of whom it is true to say that they are bachelors: since they are unmarried adult males they belong to the bachelor category. However, on any given occasion of utterance, the people of whom it is relevant to say that they are bachelors are only a subset of the bachelor category. For example, there are not many contexts in which it would be relevant to say (15), though it is a true statement since the Pope is an unmarried adult male:

(15)   The Pope is a bachelor (?)
       (from Wilson (1993-4))

   Wilson (1993-4) argues that in some contexts, a concept, such as BACHELOR, which applies to a particular set of entities in the world, is narrowed in use so that it picks out a relevant proper subset of those entities. In this case, the Pope does not belong to the narrower range and therefore the utterance in (15) is unacceptable (i.e. irrelevant). Like 'concept loosening' this 'concept narrowing' is not semantic but pragmatic, which enables us to maintain the assumption that concepts such as BACHELOR can be defined.

Because of examples like (15), some people (e.g. prototype theorists) have argued that the concept BACHELOR cannot have the necessary and sufficient conditions UNMARRIED, ADULT, MALE. However, according to Wilson (1993-4), the concept BACHELOR does have those defining conditions and the reason that we hesitate to say (15) is not because it is not true, but because it is not 'relevant': i.e. in most contexts it does not satisfy the criterion of consistency with the principle of relevance. The lexical concept encoded by *bachelor* would give rise to unwanted contextual implications, such as leading a certain sort of carefree, irresponsible life, which are not true of the Pope. So while (15) is semantically fine, it will very often be pragmatically anomalous and speakers, observing the principle of relevance, will not utter it, except in special circumstances.

What modification by *a typical* does in (10) (repeated below) is narrow down the set of people picked out, from all bachelors to just those bachelors who have stereotypical properties.

(10)   Tom is *a typical* bachelor

In other words, *a typical x* forms a new concept X' which picks out a subset of the set picked out by the concept encoded by x. Tom belongs to this narrowed range of bachelors who have stereotypical properties. Obviously, the Pope does not belong to this range encoded by the new concept BACHELOR' and therefore predicating *a typical bachelor* of the Pope would make a false statement.

'Concept narrowing' is semantically motivated, in this case, by the concept encoded by the hedge *a typical.* It is, however, important to note that the processes of concept narrowing and loosening are generally pragmatic processes driven by optimal relevance considerations; what the hedges *typical* and *sort of* do is make explicit to the hearer which of these processes to carry out and what sort of properties to focus on.

My claim in this section is that *a typical* causes a narrowing of the concept encoded by the word it modifies, so that the subject is claimed to belong to the narrower range: i.e. the range of individuals who have stereotypical as well as defining properties of bachelors.

In these two sections I have looked at cases where the hedging expression either loosens or narrows the concept encoded by the word it modifies; I move on in the next section to consider a hedge that functions differently from either of these. Now, while the Pope cannot be said to be *a typical bachelor* he can be said to be *technically a bachelor;* I turn now to the use of *technically* which seems to have the effect of commenting on the use of a particular linguistic expression.

4 *Technically* — metarepresentational comment

Let us consider the following:

(16)   Tom is *technically* a bachelor

Technically in (16) directs the hearer to concentrate on the defining properties of bachelorhood, that is, on 'unmarried adult male'. In many contexts it seems to implicate the absence of stereotypical properties of bachelors, so we may be tempted to analyse *technically* in (16) as having a semantics which narrows the range of bachelors to those who are categorically so but who do not have stereotypical properties of bachelors: i.e. it picks out a proper subset of the full set of bachelors which the lexical concept BACHELOR refers to.

However, let us consider the following context. Tom is legally married but has led the life of an ordinary (stereotypical) bachelor for many years. Finally, his divorce is established and his friend utters (16). In this context, Tom does belong to the set of bachelors who have stereotypical bachelor properties. However, the point of the utterance in (16) is that he now has the defining properties of a bachelor, which he had not had before. That is, *technically* does not in itself narrow or loosen the range of the concept which it modifies. Here it is relevant enough to talk about Tom simply belonging to the class of bachelors and there are no implications concerning the presence or absence of stereotypical bachelor properties.

The implications of not having stereotypical properties of bachelorhood which are derived in some contexts are not due to the semantics of *technically* but rather to an interaction of that semantics with pragmatic factors. Because of the focus on certain defining properties given by *technically*, the absence of the usual associations with bachelorhood is often communicated. As is the case for some uses of *sort of*, this negation of the stereotypical properties of bachelorhood is a pragmatic matter rather than a semantic one. There must be some point in using *technically* and that point will often, though not always, be to suggest atypicality.

There are two points to note about the use of *technically* in (16). First, it is a case of a sentence adverbial which modifies an implicit illocutionary verb of speaking, as the paraphrase in (17) indicates; I shall pursue this point a little later. Second, it is to be distinguished from the predicate adverbial use shown in (18)-(19); notice that in these examples *technically* falls within the noun phrases 'a good computer-programmer' and 'an accomplished musician' while *technically* in (16) does not.

(17)   *Technically speaking*, Tom is a bachelor

(18)   Tom is a *technically* good computer-programmer

(19)   Tom is a *technically* accomplished musician

In (18) and (19) the speaker is making a statement about the technical aspect of the computer-programming and musicianship as opposed to, say, qualities of inspiration, creativity, expressiveness etc. In some contexts, the speaker might implicate the absence of inspiration or creativity in Tom's performance. However, in a context in which these other qualities are not at issue but his technical skill is, there may be nothing implicated about Tom's inspiration or creativity; it may be independently evident to both speaker and hearer that Tom is good in these other respects. In this predicate adverbial use, it is clear that *technically* contributes to the proposition expressed (the truth-conditional content of the utterance).
    The sentence adverbial *technically (speaking)* can be understood in a similar way:

(20)   *Technically*, the pianist's performance was perfect
        (Bertuccelli-Papi 1992, 123)

Here the adverbial is used to focus on skill and dexterity; its semantics appears to be the same as the predicate use and different from the sentence use that I am primarily concerned with here (as exemplified in (16)). For this 'skill' meaning of *technically* Bertuccelli-Papi (1992) has suggested a relevance-based analysis. She considers *technically* in (20) to be a domain adverb which contributes to the proposition expressed and gives access to encyclopaedic information concerning technical skill in a particular domain.
    I am interested in *technically* in its sentence-adverbial use whose paraphrase is given in (17). It is often argued that this use of *technically* does not make a contribution to the proposition expressed. For example, Kay (1983) argues that *technically* is a hedge which makes a metalinguistic comment on the proposition. The paraphrase *technically speaking* seems to support this view that it is commenting on the use of a certain linguistic expression or concept.
    Further, other sentence adverbs such as *frankly* and *seriously* which can also be paraphrased as in *frankly/seriously speaking* are claimed to fall outside of the proposition expressed by an utterance. For example, in her Relevance-based analyses of *frankly* and *seriously*, Ifantidou-Trouki (1993) argues that they do not fall within the proposition expressed but contribute to higher-level explicatures in which they modify the speaker's verb of saying, i.e. 'I say frankly/seriously ...'. Along the same line, we might be able to argue that *technically* contributes to the higher-level

explicature in which it modifies the speaker's saying. And in this way the metalinguistic comment might be explicated.

However, if *technically* contributes to a higher-level explicature, and not to the proposition expressed (truth-conditional content), the utterance in (21) should be perceived as contradictory, as the speaker would be saying 'P but not P' at the level of the proposition expressed. But, of course, (21) is not a contradictory remark. There are many more examples which show that *technically* makes a contribution to the truth-conditional content of an utterance. Consider (22)-(24):

(21)   Tom is *technically* a bachelor but in reality he is not

(22)   *Technically,* he is innocent but, morally, he is guilty

(23)   *Technically,* we can do it but, in practice, we cannot

(24)   *Technically,* R. Nixon was a Quaker but, in reality, he was not

This complies with Wilson & Sperber's observation that 'in some cases a sentence adverbial does seem to contribute to the truth-conditions of the utterance which conveys it' (Wilson & Sperber 1990: 106). They discuss the example (25)b., saying that it should be perceived as contradictory if the sentence adverbials *on the record* and *off the record* do not contribute to truth-conditional content; yet intuitively it is not.

(25)   a.   Peter: What can I tell our readers about your private life?
        b.   Mary: *On the record*, I'm happily married; *off the record*, I'm about to divorce
        (Wilson & Sperber 1990: 106)

Likewise, if *technically* in (21)-(24) makes no contribution to the proposition expressed, then these examples should be understood as contradictory and yet they are not. This shows that the term in question does contribute to the truth-conditions of the utterance.

In order to be able to say a little more about the sort of contribution *technically* makes I need to introduce another relevance-theoretic concept: the notion of 'representation by resemblance'. Wilson & Sperber (1989) characterise 'representation by resemblance' as the exploitation of resemblances either between linguistic expressions i.e. linguistic forms, or between concepts/contents. A clear case of 'linguistic form resemblance' is the case of 'mention' in which a word is not used to

refer to a particular entity in the world but to represent itself; the resemblance here is one of full identity. But words may resemble each other phonetically or structurally without being fully identical, a fact which is often exploited in parodies and which may account for certain slips of the tongue. Resemblance in content, on the other hand, involves two representations sharing some of their logical and contextual implications (Sperber & Wilson 1986).

Wilson (p.c.) has suggested that terms such as *so-called* and *so-to-speak* and the sentence adverbials *technically/strictly speaking* might indicate that 'resemblance in form' is exploited, communicating that a linguistic expression/form is spoken/used in accordance with some particular criterion. For example, in (26)-(27) below the word *violin* does not refer to a particular entity in the world but merely represents a linguistic form, i.e. a word of English, which is a technical word for a *fiddle*. This is shown in (28) which is the paraphrase of (27). As mentioned above, this kind of self-referential use of words/expressions is called 'mention', as opposed to 'use' where a word/expression is used to pick out an entity in the world (Wilson & Sperber 1989: 100).

(26)   A fiddle is a violin

(27)   *Technically (speaking)*, a fiddle is a violin

(28)   'Violin' is a technical word for a fiddle

The linguistic form given by the word *violin* in (26)-(27) represents an identical linguistic form which is given by the word of English *violin*, a technical version of *fiddle*. On the other hand, what the linguistic form given by the word *fiddle* represents is the concept FIDDLE with its conceptual information including being a musical instrument, creating a beautiful sound etc. *Technically (speaking)* which has scope over the expression that a fiddle is a violin seems to indicate that 'resemblance in form' is exploited in that expression.

A slightly different way of viewing the situation is to say that *technically* tells us that the proposition expressed is from the view-point of some technical criterion. So we might be able to argue that *technically* in its sentence adverbial use indicates that the expression involves the Relevance-notion 'resemblance in form' and/or it is uttered from a particular technical perspective.

Let us now consider another example:

(29)   A bug is *technically (speaking)* an insect
         (adapted from Kay 1983, 134)

(30)   'Insect' is a technical word for a bug

(29) can be paraphrased as in (30) which shows that the word *insect* in (29) is not used to pick out a particular entity in the world but represents (mentions) an identical linguistic form which is given by the word of English *insect*. The word *bug* in (29), on the other hand, is used to communicate the concept BUG giving access to conceptual information such as being an animal, being tiny, irritating, etc. Again, *technically* (*speaking*) seems to indicate that 'resemblance of form' is involved in the use of the word *insect* and that it is uttered from the perspective of some domain of technical expertise.

   Can the same argument be applied to *technically* in (16) (repeated below)?

(16)   Tom is *technically* a bachelor

In this example, *Tom* is used, in the basic way, not to refer to a word of English *Tom* but to refer to a particular person called *Tom* in the world; that is, this is not a case of representation by 'resemblance in form'. How about the word *bachelor*? The use of *bachelor* here seems to focus the hearer on its conceptual content rather than its linguistic form; there is no paraphrase for (16) of the sort 'x is a technical word for y'. However, due to the use of *technically*, only a sub-set of the conceptual content seems to be communicated, i.e. the defining properties: unmarried, adult, male, are strongly communicated to the hearer. This does not seem, then, to be a case which involves resemblance of form.

   The resemblance involved here is one of content, that is, resemblance between the full set of conceptual information attached to BACHELOR, on the one hand, and the defining properties of BACHELOR, which the use of *technically* focuses on. Because of this focus on defining properties, the concept BACHELOR in (16) might not share all the logical and contextual implications of the unmodified concept BACHELOR. However, they definitely share at least some of those implications, i.e. the defining properties, and therefore we can observe 'resemblance in content' here.

   According to Kay (1983: 134), *technically* has a meaning something like 'as stipulated by those persons in whom society has vested the right to so stipulate'. In some contexts, the intended sense of the word might be, as Kay (1983) suggests, attributed to certain experts. For example, *technically* or *technically speaking* might indicate that the word *insect* instead of *bug* is used because that is what experts would say when talking about the same entity which can be referred to by the common word *bug*. However, what the use of *technically* focuses on in (16), i.e. the defining properties of Tom's being an unmarried adult male, is not what some experts stipulate but what any competent speaker of the language understands. So the particular

defining criterion associated with the use of *technically* is not necessarily the experts' one.

The properties on which *technically* focuses the hearer might be the logical properties of the encoded concept as in the case of the word *bachelor*, i.e. an unmarried, adult, male. Or they might be part of the encyclopaedic information of the encoded concept as in the case of the word *mammal* (and, probably, natural kind terms quite generally). The logical entry of the concept MAMMAL would be 'animal of a certain kind', and the encyclopaedic entry would include such defining information as animals which feed their young with milk from the breast. For example:

(31)   A bat is *technically* a mammal

In this example, the expression *technically a mammal* is used to communicate the concept MAMMAL with the focus on the essential (biological) properties of a mammal rather than other properties associated with mammals such as living on land, walking, etc. all of which are stereotypic encyclopaedic properties of the concept MAMMAL. In (31) what is encoded by the word *mammal* and what is communicated by it are not identical; rather, they share some conceptual content (have some set of implications in common). So we can say that the Relevance notion 'resemblance in content' is involved in (31).

Schematically, we have, so far, cases such as the following, where (ling. form/content) is meant to indicate that 'resemblance in form/content' is exploited:

(32)   a.   X is *technically* Y (ling. form) e.g. (27), (29)
        b.   X is *technically* Y (ling. content) e.g. (16), (31)

(32)a-b can be contrasted with utterances such as (33)a-b in which there is no 'resemblance in content/form' involved.

(33)   a.   My favourite musical instrument is a violin
        b.   Tom enjoys being a bachelor

Summing up, either 'resemblance in form' or 'resemblance in content' is exploited in the expression that *technically (speaking)* modifies, i.e. has scope over. Therefore, it appears that *technically* makes a meta-representational comment in such a way that 'representation by resemblance' is involved in the expression and that it is uttered in accordance with a certain defining criterion, which often belongs to a particular domain of expertise.

Now I said that sentence adverbs such as *frankly* and *seriously* modify the implicit illocutionary verb *speaking*. But would we want to argue that 'representation by resemblance' is involved in the expression they modify? Consider:

(34)   A fiddle is, *frankly/seriously*, a violin

(35)   Tom is, *frankly/seriously*, a bachelor

(36)   A bat is, *frankly/seriously*, a mammal

(34) might be uttered, for example, in a context in which the hearer is insisting that a fiddle is a guitar. Here *violin* is not used to represent a word of English, another linguistic form, so 'resemblance in form' is not involved. *Violin* is used to communicate the concept VIOLIN. In (35) the speaker is not communicating a subset of properties associated with bachelors, such as just the defining criteria of bachelors. She is communicating the conceptual content of the concept BACHELOR, i.e. properties of bachelors in general and there is no involvement of 'resemblance in content'. (36) might be uttered in, for example, a context in which the hearer is insisting that a bat is a bird as it flies in the air. In this case, the full conceptual information of the word *mammal* is not communicated, as the speaker and the hearer know that a bat can fly and so a common association of mammals as walking animals is not communicated. What is involved here is 'resemblance in content'. However, this has nothing to do with the adverbial but is determined by contextual factors.

(34)-(36) show that it is not always the case that the implicit illocutionary verb of *speaking* that sentence-adverbs modify indicates the exploitation of 'resemblance in form/content'. This is supported by the fact that *frankly* and *seriously* could be used as sentence modifiers in the utterances (33)a-b. which do not involve 'resemblance in form/content', while *technically* cannot. Finally, it is clear that the relationship that *technically* has to the verb of *saying* and the relationship that *frankly/seriously* have are quite different, as their positions relative to *that* in the following examples show:

(37)   I say/assert/suggest *frankly* that P

(38)   I say/assert/suggest that *technically* (speaking) P
        (examples due to Robyn Carston)

That is, *frankly* modifies a speech act verb which contributes to a higher-level explicature while *technically* modifies the proposition expressed. Therefore I would like to maintain the claim that *technically* in its sentence adverbial use indicates that

'representation by resemblance' is involved in the expression it modifies, and it metarepresentationally comments that the expression is used in accordance with some technical criterion.

What is happening in cases of 'resemblance in form' is that *technically* indicates that the expression (or part of the expression) it modifies involves the 'mention' of a word, communicating that it is used from some technical point of view. As is clear from the paraphrases (28) and (30), this use of *technically* undoubtedly contributes to the proposition expressed.

On the other hand, in 'resemblance in content' cases *technically* sets a point of view, something like 'given a certain defining criterion', indicating that the expression it modifies does not describe a state of affairs but represents some similar representation. *Technically* changes the status of the representation to an attributive interpretive one (i.e. the attribution is to some technical or defining criterion). Following Ifantidou (1994: 213), I claim, therefore, that it contributes to the truth-conditions of the utterance though it does not touch the proposition expressed.

All sorts of speaker attitudes can be expressed to an interpretively represented assumption: i.e. from no endorsement to full endorsement, or from total disapproval to total approval. For example, in (22) (repeated below), the speaker might hesitate to say that he is innocent (i.e. disapproval) while she accepts that he is innocent from the technical (i.e. legal) point of view.

(22)   *Technically*, he is innocent but, morally, he is guilty

In (16) and (31) (repeated below), on the other hand, the speaker might be happy to say that Tom is a bachelor and that a bat is a mammal but accepts that this is so from the technical (legal/ biological) point of view.

(16)   Tom is *technically* a bachelor

(31)   A bat is *technically* a mammal

Sentence adverbials such as *morally, in practice, in reality, on the record, off the record,* etc. might also set a certain point of view, from which the speaker might be happy to endorse the propositions they modify, indicating that the expression is attributively (interpretively) represented. My claim then is the following: the semantics of *technically* in its use as a sentence modifier encodes that 'representation by resemblance' is involved in the proposition it modifies, which is being attributed to a particular technical viewpoint.

The focus on a certain defining criterion by *technically* might communicate the speaker's dissociation from the full range of implications carried by a word/utterance or a concept/ proposition. For example, *technically* in (16) may dissociate the speaker from some of the standard implications that might be communicated by the word *bachelor*.

However, in other contexts, the defining properties of Tom's being an unmarried man are put forward without suspending any of the stereotypical properties: e.g. recall the case where the divorce is finally established for Tom who, though officially married, had led a bachelor-like life for many years. In this example, Tom's stereotypical bachelor properties are contextual assumptions and the speaker is not communicating any doubt about them. Further, if (31) (repeated below) is uttered to the hearer who incorrectly insists that a bat is a bird, the use of *technically* here helps to communicate the speaker's high commitment by resorting to its defining criterion.

(31)   A bat is *technically* a mammal

I have said that in (16) some of the implications standardly associated with bachelors may be weakened and we can observe that the speaker's low commitment to such implications is communicated (typical of cases of hedging). Likewise, in the predicate adverbial cases such as (19) (repeated below), the speaker might communicate that Tom lacks professional or some other qualities of musicianship though he has technical virtuosity.

(19)   Tom is a *technically* accomplished musician

So in both the sentence and predicate adverbial uses *technically* may communicate the speaker's low commitment to, or doubts about, some property which is made accessible by the rest of her utterance; that is, both uses may, though need not, give rise to hedging effects.

5 Last remarks on *sort of, typical* and *technically*

I have analysed the use of the alleged hedges *sort of, a typical* and *technically* and shown that they function in various ways to fill the gap between what is encoded by words/utterances and what is communicated by them: *sort of* loosens the concept encoded by the following word, directing the hearer to widen its application in some way; *a typical,* on the other hand, narrows the concept encoded by the following word, focusing on its stereotypical encyclopaedic properties while maintaining its logical content; the sentence adverbial *technically* indicates that the expression it modifies involves representation by resemblance.

Clearly, both *sort of* and *a typical* make a contribution to the proposition expressed since they change the concepts encoded by the words they modify (widening or narrowing them). *Technically*, in its sentence-adverbial use, changes the status of the representation to an interpretive one and in that way affects the truth-conditions of an utterance.

Even without any of these modifying terms being used, as in (39), Tom can be interpreted as being, in effect, 'sort of a bachelor', 'a typical bachelor', 'technically a bachelor':

(39)   Tom is a bachelor

If Tom, though married, leads the care-free life of a bachelor, (39) might be uttered instead of (6) (where *sort of* is used) involving a contextually determined loose use of *bachelor*. Or, Tom's girlfriend might utter (39) instead of (10) (where *a typical bachelor* is used) in an angry tone of voice as Tom does not want to have a committed relationship with her. And instead of (16) (where *technically a bachelor* is used), (39) might be uttered of Tom who has a stable family life but is not legally married. However, when one of the expressions, *sort of, a typical* or *technically*, is used the hearer is given explicit information regarding the speaker's intended interpretation. In the absence of highly accessible contextual assumptions which make the intended 'bachelor' concept obvious, the use of these words contributes to relevance by reducing the inferential effort the hearer must expend in arriving at the intended interpretation.

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