

Lund University, Dept. of Linguistics
Working Papers 35 (1989), 25-40

Report from the IPA Working Group on Suprasegmental Categories

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1. INTRODUCTION

This is a summary report of some of the thoughts and ideas which have appeared during the preparations for the working group on Suprasegmental Categories and The Symbolization of Temporal Events before the IPA 1989 Kiel Convention. The present paper is a slightly revised version of the report presented to the working group before the Convention in Kiel, August 19-21, 1989. The report served as the starting point for the discussions and the decisions taken about the symbolization of suprasegmentals at the Convention. As a first step in my preparations, I, as the coordinator of the group, devised a tentative list of suprasegmental categories to be symbolized within the IPA framework and to be discussed within the working group. The list was meant to be preliminary and is quite likely in need of revision judging from the reactions and comments to the proposed categories. A circular letter accompanying the list of suprasegmental categories was sent to those who had expressed a particular interest in this working group and in the group working on 'the symbolization of temporal events', altogether 50 of the preregistered participants. I encouraged the respondents to react to my letter in any possible way, to suggest other problems to be discussed in the working group than those mentioned in the enclosed, tentative list of suprasegmental categories, and to comment on any issue within the area, theoretical as well as more technical/notational aspects. I also asked for information about recent, written contributions to the discussion of suprasegmental transcription and for other relevant papers.

Although I had to set a very limited time for responding to my letter, I received more or less complete responses from one third of the potential respondents before the deadline. My preliminary, brief summary of these responses appeared in Bruce 1988. The present elaborated summary report is based mainly on these early responses but also encompasses responses to my

circular letter which have reached me after the deadline of the preliminary report as well as the opinions of a few other scholars whom I have had the opportunity of asking directly. Thus the total number of reactions to my questionnaire approaches 25.

Some of the respondents have chosen to be highly selective, focussing on only one or a few of the proposed suprasegmental categories. Most of the respondents have answered more or less completely a great majority of the questions asked in my questionnaire. A number of respondents have even contributed fairly detailed accounts in different forms about suprasegmental transcription. I want to express my sincere thanks to all who have contributed.

The second section of the present report contains a background for the transcription of suprasegmentals within the IPA framework. In the third section the goals and principles for suprasegmental transcription are discussed. The fourth, main section summarizes the responses to the questionnaire and the tentative list of suprasegmental categories and also gives some preliminary suggestions about the possible IPA symbolization of suprasegmentals.

2. BACKGROUND

I think it is widely recognized among phoneticians that suprasegmental features of speech are poorly covered in the IPA framework. The only symbols for suprasegmental categories that seem to have reached more general acceptance are those used for the representation of stress and length, while, for example, the IPA recommendation for (word) tones still seems to lack such general recognition. When it comes to the symbolization of suprasegmental categories beyond the domain of the word, we encounter a vacuum. This means in my judgement that suprasegmentals within the IPA framework are not primarily in need of revision but rather addition.

But before proceeding to a discussion of suprasegmental categories within the IPA framework, it is advisable to ask ourselves, as suggested by G. Baurley (Dessau), why suprasegmentals are so poorly covered in the IPA. Although it is also true that prosodic categories are poorly represented in many orthographic systems, it is obviously not the case that suggestions about the symbolization of suprasegmentals are lacking in the literature. It is even the case that there are fairly well-established conventions for symbolizing certain suprasegmental categories within certain transcription communities, conventions which are, however, not IPA standard. Compare, for example,

the different traditions for symbolizing tones in the treatment of East Asian and African Languages.

One reason for the resistance against incorporating suprasegmental symbols in the IPA may arise from the fact that suprasegmentals are diacritics, and according to one of the principles of the IPA (no. 6) diacritics should be avoided. Moreover, at the time for the latest major revision of the IPA some forty years ago, the focus of interest was not primarily in prosody, and particularly not in utterance prosody, and the possibilities of studying longer stretches of speech at the time were obviously still limited. So there may not have been an immediate need for having symbols for prosodic categories.

But the lack of IPA symbols for suprasegmentals probably has to be sought elsewhere, in the very nature of suprasegmentals. It seems to be the case, as pointed out by A. Iivonen (Helsinki), that the difficulties in succeeding in notation are greater for suprasegmentals than for segmental transcription. The lack of consensus appears to be greater, which may be due to difficulties in identifying the relevant suprasegmental features, difficulties in differentiating between prosodic details in the total expression, and also insufficient knowledge about the prosodic reference frame or the total variation range of the prosodic parameters.

While vowels and consonants (segmentals) in all languages are primarily characterized by their distinctive function, this is only marginally typical of prosodic features. Unlike segmentals, prosodic properties may have a number of different functions, among them for example important functions like weighting (foregrounding/backgrounding) and grouping (coherence/boundary signalling) as well as other discourse functions traditionally not considered linguistic. This multitude of functions obviously makes the identification of the relevant suprasegmental categories more difficult. Due to the intensified study of prosody during the last decades, definite progress has been made in our understanding of prosodic phenomena, but a complete understanding of prosody is, admittedly, still lacking.

Among the problems encountered in the study of prosody we can identify the following major one (cf. Rischel 1987 for a more complete treatment). The phonetic correlates of prosodic categories are usually not straightforward. This is due to several factors. Articulatory correlates are not as transparent as for segmentals in general. Prosodic features defined in terms of a particular linguistic function often do not have simple physical correlates. A particular physical dimension, e.g. *F₀* (pitch), may contain contributions

from several linguistic categories such as stress/accent, focus/emphasis/contrast, junctures, and phrase and utterance intonation as well as from paralinguistic categories like attitude/emotions and discourse categories, which may explain the complexity in the transcription and analysis of intonation (cf. further Grønnum Thorsen 1987).

Despite these and other difficulties inherent in the analysis and transcription of prosody, there is today a definite pressure and need for adding a number of suprasegmental diacritics to the existing set of IPA symbols. A great majority of those who have responded to my circular letter, although not everyone, seem to agree explicitly or implicitly that suprasegmentals within the IPA framework are in need of addition rather than merely revision.

3. GOALS AND PRINCIPLES

The focus of interest for the working group on Suprasegmental Categories – like the other groups working on *The phonetic theory that the symbols represent* – should primarily be on theoretical considerations. A main issue would therefore be to come up with a set of categories to be symbolized within the IPA framework, although a concomitant goal will necessarily be to suggest particular diacritic symbols for these categories.

Assuming with J.C. Catford (Ann Arbor) that the primary purpose of the IPA is to provide symbols and diacritics for the notation of primarily phonetic – and *not* phonological – entities, the kind of suprasegmental notation we are aiming at will be diacritic symbols for suprasegmental categories added to a segmental, phonetic transcription. The proposed phonetic notation must, however, be related to the needs of phonology, so that phonological surface contrasts in the languages of the world can be symbolized. This means that it should be our concern here to aim at the possible symbolization within the IPA of all (or most) of the suprasegmental categories of the world's languages. Several respondents want to emphasize the phonological as well as the phonetic use of transcription for suprasegmentals. The proposed set of suprasegmental symbols is probably also suitable for use added to an orthographic text, a combination encountered for example in discourse studies of prosody.

It should also be noted, as was done in Grønnum Thorsen 1987 and by A. Iivonen (Helsinki), that it is usually not possible or meaningful to create a transcription which is completely independent of some linguistic interpretation. This means that a suprasegmental transcription somehow has to be

model-based and based on at least some knowledge of the language to be transcribed.

One issue addressed in my circular letter concerned the question of the level of abstraction on which symbolization should take place for suprasegmental categories like stress and prominence relations as well as boundary signals, which seem to have a complex cueing with several phonetic correlates. The actual composition of correlates making up the cueing appears to vary for different languages and even dialects. I interpreted this as meaning that, for example, the category stress has a language-independent status only at a relatively high level of abstraction, which seems to be accepted for the use of stress marks in transcription.

Although there were few reactions to the question of the level of abstraction, most of them were in agreement with my interpretation. An alternative interpretation of the category stress (not to be equated with accent) with a more straightforward relation between stress and the phonetic correlate – initiatory power (air stream mechanism) – is advocated by J.C. Catford (Ann Arbor).

In the circular letter I also expressed the possibility that the increasing number of discourse studies and studies of spontaneous speech may also call for an extension of symbols for suprasegmental categories that are not met in read speech and monologue and are not traditionally linguistic.

To facilitate the work within the group on Suprasegmental Categories at the Kiel Convention – especially for the choice of suitable symbols – I have tried to formulate (reformulate) a few working principles and guidelines, which may be followed, revised, replaced or rejected. Some of them are very general and may apply not only to suprasegmental transcription. A particular guideline may even contradict another one, but may still be helpful in the practical work with the symbolization of suprasegmental categories.

– It is recommendable to use as simple and transparent symbols as possible.
This will by all likelihood facilitate the spread and common usage of the symbols. It does not necessarily mean, however, that iconic symbols are always to be preferred over more abstract ones.

– It may be better to favor already established conventions/symbols for suprasegmental transcription over completely new inventions.
This means that the particular set of symbols has already been tested and probably found useful.

– It is advisable to avoid ambiguity in the use of a particular symbol.

This recommendation may, however, not be valid in cases where a specific symbol has two different, well-established meanings in two unrelated languages and where the risk of confusion in the actual use is anyway minimal.

– We should avoid entirely ad hoc or language-specific symbols and instead favor more general symbols and a system facilitating notation in agreement with language-independent/universal usage.

– For a certain area of suprasegmentals defined by function, a number of symbols (or system of symbols) may be provided, the more specific interpretation of which has to be left to the particular users to determine.

The range of variation appears to be so great in different languages, according to different interpretations and for different purposes, that it seems impossible to ascribe to each symbol an explicit, well-defined meaning [proposed by C.-C. Elert (Umeå)].

4. SUPRASEGMENTAL CATEGORIES; QUESTIONS AND SUGGESTIONS

My tentative list of suprasegmental categories referred to in the introduction was divided up into two sections: one on lexical prosody and another on utterance prosody. The list also contained specific questions connected to each category to be responded to and discussed. The lexical prosody section contained the following categories: mora – syllable, length, stress, (word) tones, (word) accents, and other properties of lexical prosody (e.g. Danish *stød*). In the utterance prosody section were proposed the following categories: prominence relations (e.g. focus, contrast), grouping relations (boundary signals, junctures), pauses, intonation, phonation types, and other suprasegmental features (e.g. loudness, speech tempo). In the present paper these suprasegmental categories will be grouped according to a different prosodic structuring and will instead be treated under the following headings: Timing and boundaries, Stress and prominence, Tone and intonation, Word accentuation and Other suprasegmentals.

Furthermore, the proposed suprasegmental categories are presented together with the specific questions as they occurred in my questionnaire. For the convenience of the reader the current (up to the present revision) IPA notation (if any) is also given. Each section further contains a summary of the

suggestions by the 24 respondents together with my interpretation of the proposals with respect to the need for IPA symbolization.

4.1 Timing and boundaries

– mora, syllable etc: What is the need to be able to express grouping of segments into rhythmical units in a transcription? What kind of symbolization should be used?

current IPA symbolization: none

suggestions:

Less than two thirds of the respondents (14) gave their opinions. A great majority of the reactions were in favor of the possibility of marking syllable boundary, at least in a more phonologically oriented transcription. Few found it convenient to also have a special marking of mora boundaries. The low dot [.] is the most popular among the suggested symbols for marking syllable boundaries, but the hyphen [-] also has several proponents. The dollar sign [\$] has been mentioned too.

The possibility of marking a rhythmical boundary like foot or stress group is also suggested by some authors. The proposed symbol is either the slash [/] or the pipe [|].

My suggestion is to include into the IPA the possibility of marking syllable boundary by the well-established use of the low dot [.] , as the hyphen is suggested also for marking pause (see further pauses below). On the other hand, a special symbol for marking mora boundaries may not be necessary. Instead, the occurrence of more than one mora may be indicated by doubling consonants or vowels, a possibility already offered by the current IPA principles. The possible demarcation of a rhythmical group (foot, stress group or other) should also be allowed. My suggestion is to use the slash [/] instead of the pipe, as the latter is likely to be used as a symbol for click sounds.

– length : How many degrees of length do we have the need to express?

current IPA symbolization:

[x:] = long, [x'] = half-long, [x̣] = extra-short, unmarked = short

suggestions:

Two thirds of the respondents (16) commented on length. There appears to be a high degree of convergence in the opinions. For distinctive purposes the current IPA symbolization is found to be sufficient, as no language distinguishes more than three degrees of length. In a narrow phonetic transcription the possibility of allowing the length mark and the half-length mark to be combined as necessary is suggested by about half of those who responded.

Other suggestions include the possibility of using a raised segment symbol for denoting an extra-short segment, and the alternative length marking by doubling consonants or vowels.

The comments suggest that the current IPA symbols for length are adequate and enough, but that the combination of the length marks for symbolizing different degrees of length should be allowed, i.e. [ˈ] [ˑ] [r̄] [ː] [ˑː] etc. depending on the needs.

– **grouping relations:** What different types of boundary signals – initial/terminal junctures – do we need to cover? What is your view on the issue of level of abstraction (see furthermore my text above)?

– **pauses:** What different types of pauses should we be able to symbolize?

current IPA symbolization: none

suggestions:

The categories 'grouping relations' and 'pauses' are clearly related and will be treated together here. Less than half of the respondents (10) had comments on grouping relations, while two thirds (16) responded to the category pauses. These categories are also related to rhythmical units discussed under the heading *syllable/mora*.

Most of the remarks on grouping are in favor of the symbolization of at least two kinds of prosodic groups, one rhythmically based – foot or the like – (as discussed above) and one type of tonally defined group – tone unit/tone group. The often used symbols for these boundaries are [/] and [//] respectively. Some of the proponents of prosodic groups recognize more than two kinds of prosodic groups. The possible symbolization of the distinction between phrase and utterance boundaries is also advocated.

There is an apparent convergence of opinion concerning the need for symbolization of pause, particularly pause length. Three different pause lengths are suggested by a majority of those who responded. Others vote for two pause lengths or a scale of pauses. A number of different symbols for the notation of pause length are suggested, including the following: [- -- ---], [, ,, ,,,], [/ // ///], [.]. All have in common that one and the same symbol is used iteratively.

Another suggestion is to distinguish between a real pause and break/rest signalled mainly through segment lengthening or break in the intonation contour but without physical silence. The kind of pause such as breath, continuity, hesitation and also so-called filled pauses are among the discussed candidates for symbolization.

My suggestion for symbolization of grouping relations and pausing is that we should be able to symbolize apart from the minor, rhythmically based group [/] (as suggested above) also a major, maybe primarily tonally based group [//]. If more prosodic group boundaries are needed, the iteration of the slash symbol is a possibility.

For the symbolization of pause length (three different lengths or maybe more) it may be natural to choose the hyphen [-], which also has some tradition, as the slash and the low dot have already been suggested for the notation of prosodic group boundaries and syllable boundaries respectively. Symbols for prosodic group boundaries and pauses can then, of course, be used separately or in combination.

4.2 Stress and prominence

Stress and prominence relations will be treated together here, as they have often been jointly commented on in the responses.

– **stress;** i.e. division into stressed/unstressed syllables (and implicit division into feet): What is the need for distinguishing more than two degrees of stress? What is your view on the issue of level of abstraction?

– **prominence relations;** i.e. weighting at utterance level: Do we need to express one or more types of extra prominence – focus, contrast, emphasis? What is your view on the issue of level of abstraction?

current IPA symbolization:

[ˈX] = strong (primary) stress, [ˌX] = medium (secondary) stress,
unstressed = unmarked

suggestions:

More than two thirds (17) of the respondents gave their reactions to stress and prominence relations. An overwhelming majority of these found the current IPA marking of prominence levels to be adequate but insufficient. At least an additional degree of stress at the utterance level was advocated, for which the double stress mark [ˈˈX] seems to be the highly preferred symbol. At the same time they want to emphasize that this is a phonetic issue and that the relation to semantic/syntactic categories (focus, contrast etc.) is problematic. Several authors further suggested the possibility of repeating the stress mark for additional degrees of prominence [ˈˈˈX], [ˈˈˈˈX] etc.

Among other suggestions we find those who in a narrow phonetic transcription recommend that the phonetic type of realization of stress and prominence – in terms of pitch, duration, intensity, vowel quality etc. – should be symbolized. A differentiation of secondary stress into [ˌX] and [ˌˌX] has also been suggested when necessary (e.g. Danish compounds).

It is my suggestion that the double stress mark [ˈˈX] is adopted for the notation of extra strong stress (of whatever kind). The possibility of differentiating different degrees/types of extra strong stress at the utterance level by the repetition of the stress symbol [ˈ] should also be provided, but the exact usage can be determined by the specific needs.

4.3 Tone and intonation

– **(word) tones** (e.g. East Asian, African): How many tone distinctions should we be able to cover? Is the recommendation in *The principles of the IPA* (§§ 32-35) in need of revision?

current IPA symbolization:

Iconic use of the symbols – horizontal and oblique accents – in the following manner:

high	[ˉX]	low	[ˊX]	mid = unmarked
high rise	[ˆX]	low rise	[ˊˊX]	
high fall	[ˆˊX]	low fall	[ˊˊˊX]	
rise-fall	[ˆˆX]	fall-rise	[ˊˊˊˊX]	

The symbols may be placed either over or under the vowels or at the beginning of syllables. In narrow tone marking the marks [ˉ ˊ] are used for indicating lowering and raising of tones.

suggestions:

Two thirds of the respondents (16) presented their ideas about tone marking. Opinions were divided, so that half of these found the IPA principles (§§ 32-35) to be largely okay with only minor revision, while the other half argued for a revision of the current IPA system. The minor revision then proposed concerns the use of symbols for lowering and raising of tones. Those who argue for a more complete revision all find the current IPA system to be insufficient, as it is not capable of covering up to 5 tone levels and 10 tone distinctions that are found in some languages of the world. Another reaction heard is that the current IPA system looks attractive and transparent, but it is apparently not used.

Among the 'revisionists' there are proponents for the Africanist, more abstract way of marking tones ([ˉX] = high, [ˊX] = low, [ˊˊX] = mid, [ˊˊˊX] = extra high, [ˊˊˊˊX] = extra low, [ˆX] = falling, [ˆˊX] = rising etc.), where contour tones are treated as combinations of level tones, as well as for the East Asian tradition, i.e. Chao's (1930) system of tone letters, where tones – levels or contours – are represented iconically in relation to a vertical reference line, e.g. ˥ = high, ˩ = low, ˨˨˨ = low rising, ˥˥˥ = high falling, and where five levels are also represented.

Other issues discussed include the possibility of marking Downstep in tone languages and the question of numerical notation of tone values in a scale from 1 to 5.

My interpretation of the discussion of tones is that the IPA system is insufficient to cover the tone distinctions occurring in the languages of the world and therefore has to be revised. There are two very well-established systems and traditions for transcription of tone, the African and the East Asian traditions, obviously capable of tone notation. My suggestion is that both be adopted as alternative systems within the IPA framework.

The symbolization of Downstep should also be provided, for which the raised exclamation mark [!] has a certain tradition and may be recommended. The possibility of having a numerical notation of tones with 1 as the lowest and 5 as the highest level – the equivalent of Chao's iconic system – should also be considered.

– **intonation:** What kinds of local and global features of intonation should we be able to symbolize? Is a more direct symbolization (indication of highs/low, rises/falls) to be preferred or is an indirect symbolization through prominences, junctures etc. enough?

current IPA symbolization: Except for tones (see above) there are no specific symbols for the notation of intonation.

suggestions:

Almost two thirds of the respondents (15) commented on intonation. About half of these express the need for both a more abstract, phonological and a more impressionistic, phonetic way of transcribing intonation. But apart from that there appears to be a diversity of opinions both on the level of abstraction and on the way of symbolizing intonation.

The suggestions range from a more direct symbolization, e.g. the iconic, interlinear system with dashes and dots à la Armstrong & Ward 1931 or the use of a continuous line à la Pike 1945, to somewhat more abstract, stylized systems where only essential pitch events are symbolized à la Kingdon 1958 or Halliday 1967. Among more recent proposals we find the system developed by Canepari 1983 with a limited number of dashes and dots and another one by Hirst & Di Cristo (ms.) characterized by the emphasis on tonal turning points indicated by different kinds of arrows. A few respondents find an indirect symbolization of intonation through prominences, tones, word accents, junctures etc. to be sufficient in a phonologically oriented notation.

Among other comments in the discussion of the notation of intonation we note the view that the same set of symbols could be used for transcribing both (word) tones and (utterance) intonation, for example the current IPA symbols for tones.

My interpretation of the situation is that there exists an apparent need for a direct way of symbolizing intonation in a phonetic transcription. However, the opinions diverge regarding the exact way of transcribing intonation. For a

phonological transcription of intonation the symbolization is very much dependent on the language and the analysis. Therefore, I am inclined to agree with J.C. Catford that perhaps the best thing is to let the IPA Principles just state the problem and exemplify techniques.

4.4 Word accentuation

Word accents and Other properties of lexical prosody are treated together here for practical reasons.

– **(word) accents** (e.g. Scandinavian, Serbo-Croatian, Japanese):
What accent distinctions should be symbolized?

– **other properties of lexical prosody** (e.g. Danish *stød*):
Suggestions?

current IPA symbolization:

Swedish and Norwegian word accents – accent marks before the syllable:

accent I	[ˈx]	
accent II	[˘x] or [ˆx]	
≥ 3 syllable accent II word	[˘x] e.g.	[˘xx˘xx]
Danish <i>stød</i>	[xˀ]	
(symbol after the actual element)		

suggestions:

About half of the respondents (9 for word accents and 5 for other lexical properties) commented on these categories. It seems to be hard to extract anything more general from these remarks than that the respondents are not in strong defense of the current IPA system for marking word accents. For the Scandinavian word accents some combination of the above stress and tone symbols seems to be the most preferred solution. Some criticism of the current, untransparent symbols for the 'compound' tone [˘] and [ˆ] is raised. For Serbo-Croatian or other word accent languages no more specific suggestion has occurred in the responses to my questionnaire. For Japanese the situation appears to be simpler with just an accent mark needed [ˀ] to be placed above the last high mora.

For Danish *stød* there seems to be definite support for the traditional symbol [x']. There have been no particular suggestions for other categories of lexical prosody.

My own proposal for Swedish and Norwegian word accents is to use a system which takes into account the tight connection between stress/prominence levels (with a differentiation of strong and extra strong stress) and the word accents. The system should allow us to indicate the word accent(s) within the framework of the IPA stress notation system. The symbol [˘x] as a symbol for the second element of the 'compound tone' does not seem to be necessary and can be substituted by the secondary stress mark [˘]. A combination of stress marks and the well-established acute and grave accent marks seems to be preferable.

accent I (strong stress)	[ˈx] or [ˈx̂] (optionally)
accent I (extra strong stress)	[ˈːx] or [ˈːx̂] - " -
accent II (strong stress)	[˘x̂]
accent II (extra strong stress)	[˘ːx̂]
secondary stress	[˘x]
(e.g. compounds)	as e.g. in [˘x̂ x ˘x x]

4.5 Other suprasegmentals

My questionnaire also contained the category 'phonation types'. But as this category will be dealt with in another working group, I leave out a summary of the respondents' comments in the present report.

- other suprasegmental features (e.g. vowel harmony, nasalization - probably treated in working groups on vowels and consonants respectively - loudness, speech tempo): Suggestions?

current IPA symbolization: none

suggestions:

About half of the respondents (11) gave their responses to this diverse category. Most of the remarks concern the symbolization of speech tempo and loudness in a phonetic transcription.

A recurrent suggestion among around half of those who responded is that we should be able to indicate marked changes in tempo and loudness, for example beginning and end marks in the transcription by means of brackets

with subscript or superscript notation. A further suggestion is that the degree of distinctness could be marked in the same way.

My suggestion is to recommend the possibility of marking changes in tempo and loudness in a phonetic transcription through the use of a parenthesis notation like the one suggested by F. Nolan (Cambridge):

$$\left\{_{\text{Fast}} \text{XXXX} \left\{_{\text{Loud}} \text{XXX} \right\}_{\text{L}} \text{XXX} \right\}_{\text{F}}$$

5. CONCLUSION

The discussion on suprasegmental categories before the IPA 1989 Kiel Convention summarized above indicates that there is a fair degree of agreement on lexical prosody categories, most of which are well-established within the IPA framework. A possible exception is the symbolization of (word) tones, but even here there are conventions which are strong candidates for being accepted within the IPA. There is - not surprisingly - more difference of opinion over the utterance prosody categories, but for most of them - prominence, grouping, pauses, speech tempo and loudness - the convergence of opinions is high enough for finding straightforward and acceptable conventions for symbolization. For intonation, however, the situation is not as simple. There exist several competing proposals, each of which appears to be adequate. On the basis of the reasoning up to now it seems hard to choose one system over the other. It appears to be one of the real challenges for the working group on suprasegmental categories to find an acceptable solution for IPA symbolization of intonation.

6. REFERENCES

- Armstrong, L.E. & I.C. Ward. 1931. *Handbook of English intonation*. Cambridge: Heffer.
- Bruce, G. 1988. '2.3 Suprasegmental categories' and '2.4 The symbolization of temporal events'. *Journal of the International Phonetic Association* 18, 75-76.
- Canepari, L. 1983. *Phonetic notation - La notazione fonetica*. Venice: Libreria Editrice Cafoscarina.
- Chao, Y.R. 1930. 'A system of tone-letters'. *Le Maître Phonétique* 30, 24-27.
- Grønnum Thorsen, N. 1987. 'Suprasegmental transcription'. *ARIPUC* 21, 1-27. Copenhagen.
- Halliday, M.A.K. 1967. *Intonation and grammar in British English*. The Hague: Mouton.

- Hirst, D. & A. Di Cristo. ms. *Proposals for an international transcription system for intonation*. Institut de Phonétique d'Aix.
- Kingdon, R. 1958. *Groundwork of English intonation*. London: Longmans
- Pike, K.L. 1945. *The intonation of American English*. Ann Arbor: University of Michigan Press.
- Rischel, J. 1987. 'Some reflections on levels of prosodic representation and prosodic categories'. *Nordic Prosody V*, eds. K. Gregersen & H. Basbøll, 3-30. Odense University Press.
- The principles of the International Phonetic Association*. 1949. London.

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Working Papers 35 (1989), 41-52

A Systemic Model for Ellipsis

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Abstract

Brief background information on systemic theory is given first, followed by a model incorporating the theory and a discussion of the problems and drawbacks as well as the advantages of using the model. Some examples from the London-Lund corpus of conversational English are also included to illustrate how the model might function.

INTRODUCTION

The following is a preliminary attempt to describe ellipsis by means of a systemic approach. In order to help the reader who may not be familiar with systemic theory there follows a very brief outline of the theory (with the emphasis on brief) as far as it is relevant to the model for ellipsis.

The basic idea of a systemic theory is one of choice. Language is treated as an activity rather than an abstract entity and a systemic theory is based on choice between mutually exclusive possibilities. Whenever a speaker makes an utterance he makes a choice from a finite set of possibilities depending on the situation he finds himself in, what it is that he wants to communicate, relationship to the listener etc. The choices are not random, they are, rather, part of a system with entry conditions which then lead on to further choices. There are many systems within language and they operate at all levels of linguistic use. The idea of language as a set of systems was introduced first by Firth in the 1950's:

Various systems are to be found in speech activity and when stated must adequately account for such activity. Science should not impose systems on languages, it should look for systems in speech activity, and, having found them, state the facts in a suitable language. (Firth 1957:144)

and has since been further developed by others, mainly Halliday (See e.g. *Categories of the theory of grammar* 1961, and more recently *An Introduction to Functional Grammar* 1985, which is a basic introduction to the theory behind systemic linguistics as a whole.)

Systemic theory is, essentially, socio-orientated. Language is seen as a social activity in a specific social context and therefore most of the work