

ATTITUDINAL SEMANTICS OF PROSODY AND ITS METALANGUAGE

YURI DUBOVSKY, GALINA YERMOLENKO

English Phonetics Dept.
Pyatigorsk State Institute of Foreign Languages
Pyatigorsk, USSR 357533

ABSTRACT

Alongside the theoretical discussion of terminology and metataxonomy problems dealing with speech prosody an approach towards setting up a correlation between a semantic label, attitude and its prosody is presented.

Prosodic features differentiating the labels that denote "friendly attitude" in English are described on the basis of the lexico-semantic and semantico-prosodic experimental data. Different degrees of descriptive power of verbal metalanguage units under study are revealed.

INTRODUCTION

Semantic description of speech prosody involves the problem of an adequate linguistic terminology and metalanguage. As it is put in /I/, a great deal of difficulties ascribed to intonation are, in fact, difficulties of inadequate metalinguistic description.

A metalanguage system is regarded as possessing a hierarchic field structure the elements of which are in hyponymic relations. It comprises a core, or a relatively closed class of generic notions (terminology) and a periphery, or a relatively open class of specific notions (metataxonomy, nomenclature).

As far as terminology is concerned, it is submitted to a formal claim made to any terminological language: terms should be neutral and monosemantic at least within the limits of a certain metalinguistic system.

Metataxonomy with labels as descriptive units has been devoted very poor attention to in contrast to terminology. There is a considerable disagreement between linguists as to what labels should be: nonverbal or verbal, artificial signs or linguistic ones, etc. The trouble is that lexical labels are not pure terms, they are borrowed from the popular speech. For this reason the majority of them are rather polysemantic than unequivocal, as terms should be. Their heavy dependence upon specific contexts creates a good deal of ambiguity and misunderstanding. Polysemy and synonymy do

not seem to be the only variables that affect the choice of lexical labels, metaphorical use and evaluative colouring being the rest.

However, there is no need to reject common words as labels since any natural language possesses the metalinguistic function, i.e. it is capable of describing itself rather sufficiently. Besides, specific nonverbal metalanguages do not hold good for broad scientific descriptions.

Metalinguistic units, either verbal or nonverbal, reflect two planes of description: the plane of expression and that of content, the descriptive categories being partly terms, partly labels.

The plane of expression in speech prosody can be rendered with both verbal and nonverbal descriptive units. The latter are symbolic-graphic means - prosodic transcriptions and representations. A verbal metalanguage is made up with the terminology of basic prosodic notions, i.e. units, components, structures, etc. and the metataxonomy of their specific types.

The plane of content in speech prosody is described with verbal terms and labels. Terms are used to refer to the communicative types of utterances, registers of speech, phonostyles etc., as related to the communicative and stylistic meanings of speech prosody. Semantic labels are, for the most part, of attitudinal character. They are made use of to describe the pragmatic types of utterances, of emotional and attitudinal connotations referring to the pragmatic and attitudinal aspects of speech prosody.

Any metataxonomy could be likewise characterized by a hierarchic organisation. In the attitudinal metataxonomy, for example, semantic labels fall into clusters headed by labels of a more general meaning. Related to terms as notions of higher generality labels are regarded to be specific names referring to prosodically and paralinguistically expressed emotions and attitudes.

This class of label proves to be the least systematized though the attitudinal function of intonation has been the subject of intensive study over a number of years. It may account for the fact that attitudinal labels denote psychological states

(affects, feelings). Therefore, the choice of label was habitually associated with a classification of emotions which seems more to be the province of psychology and physiology rather than linguistics. Any success in developing the attitudinal metataxonomy is hardly possible until definite suprasegmental features conveying some kind of attitude or emotion are pinned down with a specific label. Thus, the elaboration of the metataxonomy of attitudinal prosody is highly dependent upon a set of variables: the notational system (ordinary words), meaning-relations between words (polysemy, synonymy), the essential nature of denoted referents (on the one hand, complex overlapping psychophysiological processes, on the other - suprasegmental phenomena). From the afore said one might see that semantic labels perform two functions: i) convey certain attitudinal meanings; ii) point to suprasegmental means responsible for their communication. Accordingly, the study of labels could be carried out in two large spheres both involving semantic equivalence of different types. The first sphere embraces all kinds of semantic correlations between: a) attitudes and emotions proper as between notions with their semantic volumes standing in logical relations of overlapping, inclusion, complementation and contiguity; b) attitudes and labels as between notions and lexical units; c) labels themselves as between lexical meanings (synonymy, antonymy, hyponymy). Psychologically attitudinal labels render general emotional colour, specific attitudes and the degree of emotional intensity. These components could interact and be reflected in labels' meanings in different ways. As notions attitudes differ in several qualitative and quantitative features characterizing their psychological and physiological nature: intensity, direction, duration, way of outward expression, source and cause of origin, etc. Intensity seems to be the most prominent feature of any affect. The information about the degrees of intensity is reflected in labels' meanings. It, thus, makes up a semantic component and could refer to either the whole meaning, or to a part of it (a single lexico-semantic variant), or even to another semantic component. Intensity could also be associated with referential properties (denotational intensity), with emotional evaluation (connotative intensity) or with both simultaneously. Since the denotational meaning of the attitudinal labels is confined to the notions of affects and feelings one might talk about the denotational (emotional) intensity reflected in their semantic structure. Intensity as a semantic feature could be revealed through the analysis of labels' dictionary explanations. This approach is possible due to the markers of intensity

available in the entries. The analysis is aimed to reveal intensity-differences between labels in order to relate the data obtained to the results of prosodic analysis. The second set of questions is connected with maintaining a three-member correlation: a semantic label - attitude - suprasegmental means. In the frame of this correlation a semantic label refers to a bundle of distinctive prosodic features and paralinguistic phenomena carrying some kind of attitudinal meaning. This approach to the description of the attitudinal prosody seems to be more preferable as compared with the previously used technique when separate intonation patterns and pitch movements signalling emotions were explained by a great deal of ambiguous lexical means. The hypothesis that definite suprasegmentals are fixed to specific labels has already been proposed and tested. However, the experimental evidence was concerned mainly with the auditory impressions and perceptive correlates of the attitudinal labels. The acoustic aspect of this relationship still remains undiscussed.

METHOD

In the present study our concern was a group of semantic labels referring to the prosodically manifested friendly attitude. The grouping was done on the basis of thesauruses and explanatory dictionaries. After some hesitation the total number of labels was confined to 8. The group is characterized by the field structure. At the same time it might as well be called a synonymic series. The core of it is made up by synonymous adverbs amiably, amicably, in a friendly way with the attitudinal meaning in question as a basic one. The periphery is constituted by quasisynonymous adverbs intimately, cordially, heartily, warmly, warm-heartedly with the friendly attitude being secondary or attendant. The label in a friendly way was taken as a dominant of the series. The textual material for investigation was taken from fiction (125 samples). The samples were microsituations (of 3-5 sentences) intended to express various nuances of the friendly attitude. In these microsituations test phrases were embedded as response remarks. Test sentences (166 in total) were selected to be as colourless as possible with respect to lexics and grammatic structure. Tape-recordings of the microsituations were obtained from 3 male and 3 female native speakers (professional teachers) who simulated 8 variants of the friendly attitude corresponding to 8 labels discussed. The auditory analysis was arranged in 3 series. In the first series 5 trained listeners were to assess whether the tape-recordings sounded natural and had any

connection with the friendly attitude. The satisfactory examples were chosen (140 in total) to be later subjected to the instrumental analysis. In the 2-nd series 10 linguistically naive native speakers were presented the tape-recordings of the satisfactory test phrases isolated from the contexts in advance. The hearers identified the attitudinal variants with most appropriate and accurate descriptive terms while the tape-recordings were played. To do the task the informants were provided with lists of 17 labels (8 test labels and 9 additional ones). They were also permitted to resort to any other descriptive categories they wished. Listening was repeated as the informants wished. Some time later the hearers were played the whole microsituation recorded to do the same task. This was thought reasonable to indicate the effects of contexts on attitude recognition. In the 3-rd series 6 informants (Russian teachers of English) who had training in phonetics made prosodic transcriptions of the recorded test phrases. They made use of the set up type of symbolic-graphic marking to describe prosodic features. The instrumental analysis dealt with the acoustic correlates of prosodic features, which were interpreted as it is suggested in /2/.

RESULTS

The detailed lexico-semantic analysis has shown that friendly attitude is present in the dictionary explanations of all labels discussed. The one exception to this observation occurs in the label warm-heartedly. There is only one explanatory dictionary /3/ where the attitudinal meaning was found to be directly mentioned in the entry of this label. In the rest of the dictionaries it is implied by the near-synonyms cordially and heartily. Observations of the other implicit markers of the attitudinal intensity exhibited differences between the labels in this respect. Attitudinal intensity was the greatest in the core of the group and the least - in the periphery of it. One can talk about the many-sided nature of the attitudinal intensity displayed by the labels: general (in a friendly way), specifying (amiably, amicably), derivative (intimately), additional or attendant (cordially, heartily, warmly, warm-heartedly). The analysis made it possible to distinguish 3 degrees of friendly attitude intensity exhibited by the labels under consideration: high (in a friendly way, amiably, amicably), moderate (intimately) and low (cordially, heartily, warmly, warm-heartedly). As far as emotional intensity of friendly attitude is concerned significantly different results were obtained.

Heartily and warmly available in the entries of the other labels can be regarded as indirect markers of high emotional intensity, either general (for warm-heartedly), or related to friendly attitude (for cordially). In this sense, labels heartily and warmly perform the function of internal intensives. External intensives have not been revealed in the dictionary explanations of the 'core' labels and in intimately. This testifies to the moderate nature, with regard to emotional intensity, of the attitude in question displayed by them. We also failed to detect internal intensives concerning friendly attitude in the explanations of these labels. Some of the internal intensives found out for the 'core' labels characterize positive evaluation rather than friendly attitude. In contrast, internal intensives revealed for the 'periphery' group contribute to increasing the degree of emotional intensity. As a result 3 degrees of emotional intensity pertinent to friendly attitude were stated: high (heartily, warmly, cordially), moderate (intimately, warm-heartedly) and low (in a friendly way, amiably, amicably). We can easily deduce from what is said above: attitudinal intensity of the meaning 'friendliness to smb.' is reciprocal to its emotional intensity. In listening experiments involving isolated test phrases label identification was greatest for heartily (90% accuracy) and somewhat less for in a friendly way, cordially (the percentage of correct identifications ranged from 70 to 60% of the instances). These were closely followed by intimately, amiably (60-50% of cases). For amicably, warmly, warm-heartedly identifications were considerably reduced (the recognition score was no higher than 10%). With warm-heartedly identifications were completely random. As far as labels amicably and warm-heartedly are concerned, their poor identification may be accounted for several reasons. First, it is probably caused by either too specific (amicably) or too amorphous (warm-heartedly) lexical meanings they possess. Second, this may be due to the absence of descriptive power, devoid of any specification with respect to suprasegmental means. If the latter is true, these labels are useless as descriptive terms. However, more research is needed to confirm their descriptive inability. Frequency of use could give rather valuable additional data as to the descriptive status of labels. There is a tendency for easily identifiable labels to be frequently used as descriptive terms of other attitudinal variants, while the reverse is true for hardly recognizable labels. However, there is no regular interdependence between correct identifications

and frequent use. On the whole, labels of more general meaning of friendliness tend to be frequently used to refer to other attitudinal variants (in a friendly way, intimately, cordially). This is not true for easily recognizable heartily. The matter is that heartily is very often used to label general emotional colour. That is why listeners often ascribe descriptive terms emphatically or impatiently to this attitudinal variant.

Label identification of test phrases pronounced within the context was, to some extent, negligible. This finding is in agreement with the results of label identification experiments done by D. Crystal /1/. Easily identifiable labels tend to have high recognition scores in both cases (in a friendly way, amiably, cordially, heartily). Amicably and warm-heartedly proved to have similar identification (10-15% of correct instances). The exception could be made for warmly. The influence of context was rather strong in this case; correct identification rose to 40%.

These observations suggest that labels could be used as terms out of context. However, the statement requires experimental confirmation since attitudinal variants rarely were ascribed a single label. Analysing the prosodic features of the attitudinal variants under study we have obtained a) constantly overlapping, b) variationally overlapping characteristics and c) distinctive features by which a certain label differs markedly from the rest. The latter two are briefly outlined below.

Amiably - b) no instances of high initial fundamental frequency (F_0) levels, few instances of mid-narrow F_0 ranges in pre-heads, relatively low F_0 peak values; absence of medium-zone mean syllable duration; low minimum-zone intensity of unstressed syllables;

c) low decreased-zone intensity of unstressed syllables.

Amicably - b) relatively high mean values of mid-wide F_0 range in terminal tones, few instances of mid-narrow F_0 range in the utterance;

c) high mid-narrow F_0 range average values in terminal tones.

Friendly - b) moderate reccurrency of wide F_0 range in the utterance; high upper limit of high-wide and full F_0 registers in terminal tones and heads;

c) low F_0 medium range mean values in terminal tones; low minimum-zone average intensity of unstressed syllables, high medium-zone average intensity of unstressed syllables in preheads.

Intimately - b) frequent wide F_0 range in the prosodic structure; low medium-zone intensity of stressed syllables;

c) high mean values of mid-wide F_0 range in terminal tones and heads, low F_0 minimum values of nuclear syllable followed by a post-nuclear syllable; high de-

creased-zone mean syllable duration. Cordially - b) high frequency of mid-narrow and mid-wide F_0 registers in prosodic structures; low decreased- and medium-zone intensity of unstressed syllables; c) low mean values of mid-narrow F_0 range in pre-heads.

Heartily - b) instances of extra-high F_0 final level, no cases of mid-narrow and mid-wide F_0 registers in pre-heads; increased upper limits of wide F_0 register in prosodic structures, increased F_0 peak values; high F_0 minimum values; high minimum-zone mean intensity values of unstressed syllables;

c) increased upper limits of high-wide F_0 register in terminal tones; high F_0 peak values in nuclear syllables; high decreased-zone mean syllable duration.

Warmly - b) no instances of mid-wide and narrow F_0 range in terminal tones, no instances of narrow and mid-wide F_0 range in prosodic structures as compared to the 'core' labels and labels heartily, warm-heartedly; relatively high mean values of mid-narrow and wide F_0 range, particularly in comparison to other 'periphery' labels;

c) high minimum-zone shortest duration.

Warm-heartedly - b) mid-high, low, extra-high and mid-low (in decreasing rank of frequency) F_0 initial levels; high average values of minimum-zone intensity of unstressed syllables;

c) high-narrow F_0 range mean values in pre-heads.

As the results of the experiment show the most marked and functionally loaded are heartily, in a friendly way, intimately. They are most readily identified by the listeners too. The fact that certain prosodic structures are associated with a certain label makes it possible to speak about such labels as having a strong degree of descriptive power. On the contrary, labels with only some distinctive prosodic features 'attached' to them are of very little metalinguistic help (amicably, warmly, warm-heartedly) or of no use at all (such as 'amicably').

REFERENCES

/1/ D. Crystal, "Prosodic Systems and Intonation in English", London: Cambridge Univer. Press, 1969.

/2/ Ю.А. Дубовский, "Анализ интонации устного текста и его составляющих", Минск, 1978.

/3/ Longman Dictionary of Contemporary English, Longman Group Ltd., Harlow, 1978.