METAPHONOLOGY OF ENGLISH PARONOMASIC PUNS

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ABSTRACT

Phonostatistic differences between English paronomasic (heterophonic) puns on the one hand and malapropisms and running text on the other are shown to be due to speakers' metaphonological control over the former. It is hypothesized that this control results from the action of metalinguistic subcomponent of functional competence, which, together with structural competence, forms human language faculty.

1. INTRODUCTION

Speech play: puns, 'secret languages', tongue-twisters, rhyming, impersonations, etc. are usually regarded as but providers of external evidence in phonology, exclusively used to assess ·plausibility of theoretical claims concerning rules and representations. They are hardly ever linguistically studied in their own right, as exponents of what has been referred to as pragmatic or functional competence. The reasons for this neglect have been variously stated in the pertinent literature: speech play is volatile, variable, literary, deliberate, artificial, nonreferential, hence extralinguistic. The common view of science as necessarily dealing with *serious* subjects has not been irrelevant in "excluding scholarship from this realm where lightness is all" ([4]:5). My aim in this paper is to show that speech play — puns in particular — can no more be treated as a 'mere performance phenomenon' than e.g. code and style switching, simplified registers, 'baby talk', and dozens of other phenomena routinely studied by socio- and psycholinguistics.

2. THE MODEL

For the purposes of this presentation I adopt the following model of human language faculty. Linguistic perfomance is normally driven by two types of competence. One is structural (grammatical) competence à la Chomsky, which provides the necessary substratum of representations and rules on various levels of language structure: phonological, morphological, syntactic, semantic. The other, by and large ignored in the standard generative tradition, is *functional* or *pragmatic* competence, which is responsible for how the knowledge of language structure is actually put to use in a communicative setting. Halliday and Hymes were the first to attempt a coordination of the two — so far disparate — views of language competence in the early 1970's.

Functional competence itself is far from being a compositional monolith. One of the most influential views of the many language functions has been that of Jakobson [6]. Jakobson relates functional modes of language to the components of a communicative situation: expressive function is focused on the speaker, impressive — on the listener, fatic — on the channel, etc. In the context of

this paper, it is the metalingual (henceforth: metalinguistic) function which is of most interest. Functioning metalinguistically speakers/listeners concentrate on the language itself, deliberately inspecting and manipulating it 'from the outside'. This I call *metalinguistic competence*. This is not only involved in scholarly discussions of grammar or philosophy, as most authors would have us believe. It lies at the very foundation of the human ability to play with language, and − in particular − to indulge in punning. More specifically, it is the *metaphonological competence* which is predominantly implicated in paronomasic (heterophonic) punning, which is the subject of this paper.

My hypothesis is the following: if punning (and other types of speech play) crucially involves metaphonological control over and above other types of functional indexing normally encountered in communication, this fact should have statistical ramifications in some phonological aspects of performance so controlled. Thus, if puns are phonologically different from 'ordinary' texts or speech errors − both of which are presumably *not* controlled metalinguistically − the argument that there is a dedicated metalinguistic subcomponent of functional competence would be corroborated. The view of performance as essentially a statistical reflection of competence goes back to Cedergren & Sankoff's [3] approach.

As this presentation is part of a larger project [7], it will be possible to present only some of the relevant results.

3. DATA AND RESULTS

Paronomasic puns (e.g. *Freud* <---- *afraid, sanctuary* <---- *thank you very*) appear in an amazing variety of playful genres: conundrums, knock-knocks, fake book titles, alphabet games, 'daffynitions', fractured French, graffiti. They are put to com-

mercial use in advertisements and to jocular use in conversation. They are ubiquitous. I have collected − from about ninety printed sources − a corpus of 3850 items (types) like those at the top of this paragraph, transcribed them phonemically (American accent, fast/casual speech, stress ignored) and entered them in a computer database for further processing. To allow calculation of segmental identity, puns (intrusions) and sources were segmentwise aligned, Vitz & Winkler [8] style, e.g.

    intrusion: /sæŋkču.əri/.
    source   : /θæŋkjuveri/

This corpus was phonostatistically compared with Fay & Cutler's [5] collection of malapropisms (the type of speech error showing closest structural affinity to puns) and with Carterette & Jones's [2] data on phoneme frequencies in running English speech. The results of this comparison are as follows.

3.1. Overall similarity

Intrusions appear to be significantly more alike their sources, in terms of segmental identity, in puns than in malapropisms, as seen in the following table, which is arranged by proportion of nonidentities to the segmental length of source/ intrusion, the VITZ index:

TABLE 1. Overall segmental identity of sources and intrusions

VITZ	PUNS- %	MALAPROPS %
mean=	33.17	50.13
<=10%	1.5	0.0
<=20%	25.6	0.6
<=30%	21.4	14.8
<=40%	27.2	23.5
<=50%	14.4	30.1
<=60%	4.2	7.1
<=70%	3.1	9.3
<=80%	2.0	8.2
<=90%	0.3	1.1
<=100	0.3	5.5
N=	3850	183

The difference between fre- quency distributions of puns and malapropisms, relative to VITZ, is significant by χ^2 test. There is a mismatch of one phoneme in three in puns, as opposed to one in two in malapropisms, on the average. And this despite the fact that the mean length of malapropisms ex- ceeds that of puns by 1.5 segment (7.1 vs. 5.6), which could favour low-VITZ figures by boosting the denominator of the proportion.

Punning intrusions are also more alike their sources in terms of featural similarity. Using an ad hoc system of 14 distinctive features (SYLL, CONS, SONO, CONT, VOIC, LABI, APIC, CORO, HIGH, MID, LOW, BACK, ROUN, GLID) I calcula- ted frequency distributions of puns and malapropisms relative to DF difference. The results are presented in TABLE 2. Thus, for example, the proportion of cases where the two corresponding pho- nemes of the source and of the intrusion differ by only one DF equals 36.1% in puns, and 24.1% in malapropisms.

TABLE 2. Overall featural simi- larity of sources and intrusions

DF DIFF.	PUNS %	MALAPROPS %
1	36.1	24.1
2	34.4	30.7
3	17.4	27.0
4	8.4	12.3
5	3.3	3.4
6	0.4	2.4
C vs. C	44.7	61.7
V vs. V	55.3	38.3
N=	4620	381

Similarly, at the first posi- tion of segmental nonidentity, counting from the left, puns ex- hibit more featural similarity than malapropisms. Failing to append pertinent tabulation for reasons of brevity, let me add that in about 50% of puns the first diverging segments differ by

one or two features, with the figure for malapropisms being 32%.

Another interesting effect transpiring from TABLE 2 is the relative preponderance of vocalic oppositions in puns, as opposed to malapropisms. Relative to the latter value, which is close to that of a running English text (C=58.7%, V=41.3% according to [2]), the figures for puns are almost completely reversed: pun- sters apparently prefer to alter a vowel than a consonant in the source.

3.2. Lefward and Rightward Seg- mental Identity

Another significant point of difference between puns and mala- propisms is the amount of segment- al identity counted from both ends sources/intrusions. As is seen in DIAGRAM 1, puns behave like a near-perfect mirror-image reflec- tion of malapropisms in this re- spect. In puns, sources/intru- sions are more alike at the end than at the beginning, which means that punsters are more apt to change word-onset segments, where- as victims of malapropisms tend to mess up the offsets, keeping the onsets constant (which is also significantly the case in tip-of- the-tongue states; cf.[1]).

DIAGRAM 1.
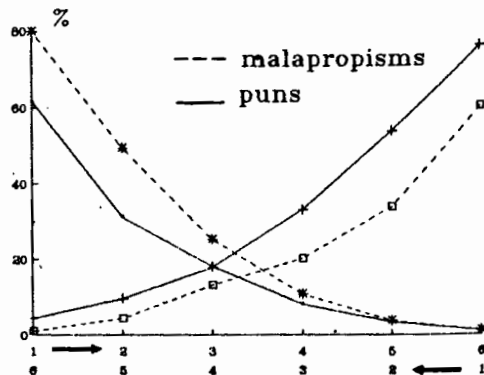
Segmental identity from extrem- ities of sources/intrusions

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3.3. Phoneme Frequencies

Finally, puns differ from malapropisms and running texts in terms of phoneme frequencies, relative both to static distributions in sources/intrusions and to distributions of phoneme ousting, i.e. those cases where a phoneme is changed in transition from source to intrusion.

Thus, in malapropisms the phoneme frequency distributions of sources and intrusions are not significantly different from each other (χ^2=15.5 at 33 df, about 1200 phonemes), while in puns they are (χ^2=391 at 44 df, about 20,000 phonemes). Similarly, there is a significant discrepancy between the phoneme frequency distributions of intrusions in puns on the one hand and both malapropisms and text data ([2], about 48,000 phonemes) on the other.

Similar results are obtained in calculating frequency distributions of phonemes which oust (substitute) or are ousted. Malapropisms do not differ significantly from Carterette & Jones's [2] data in this respect, but puns do: both ousted and ousting distributions differ from those of running text, and from each other. Further interesting effects in grouped data are that: (1)stops are more frequent as ousting sounds in puns, (2)sonorants in puns are more stable (less amenable to ousting) than they are in malapropisms, (3)as are consonants as a class.

3. CONCLUSIONS

If puns are phonostatistically different from both malapropisms and running text, we can reductively infer that the differences are due to the additional factor of metaphonological control exercised by a subcomponent of speakers' functional competence over the performance mechanisms. Such control is absent from 'ordinary' speech encoding in a communicative situation where referential functions of language pre-

dominate. Puns, and – by extension – speech play of all kinds, are thus shown to be respectable areas of language study, properly belonging to – *sensu largo* – linguistic competence.

4. REFERENCES

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