# CYCLICITY AND PHONOSTYLISTIC INTERFERENCE

KATARZYNA DZIUBALSKA

*Adam Mickiewicz University, Poznań*

The present paper deals with the application of the principles of cyclic phonology to the theory of interference. In particular, it is an attempt to establish the status of interfering phonostylistic rules in terms of cyclicity principle. This attempt was prompted by a claim made by Rubach (1980) about postcyclic status of interfering rules. The claim was proved valid with reference to slow speech rules. Its verification within the block of rapid speech rules has yet been left undone. In this paper, therefore, we will try to investigate this problem, any possible conclusions being still open to evaluation.

1. In the experiment designed to examine the interference of some phonostylistic nasal assimilation rules from Polish into English, the following Polish rules have been demonstrated to interfere:

(A)[1] 
$$\begin{bmatrix} +\text{coron} \\ +\text{nas} \\ -\text{high} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha\ \text{coron} \\ \beta\ \text{anter} \end{bmatrix} \Big/ \quad V - ([-\text{seg}]) \begin{bmatrix} \alpha\ \text{coron} \\ +\text{cons} \\ \beta\ \text{anter} \end{bmatrix}$$

Examples: *Pan Bóg, on ciągnie, on go uderzył, on ma, konwencja;*

(B)[2] 
$$\begin{bmatrix} +\text{nas} \\ \alpha\ \text{anter} \\ \langle +\text{lab} \rangle \end{bmatrix} \rightarrow \begin{bmatrix} -\text{cons} \\ \alpha\ \text{back} \\ -\text{syll} \end{bmatrix} \Big/ \quad V - ([-\text{seg}]) \begin{bmatrix} +\text{obstr} \\ +\text{contin} \\ \langle +\text{lab} \rangle \end{bmatrix}$$

Examples: *kunszt, szansa, instynkt, precedens; informacja, konwój, nimfa, tam walą;*[3]

---

$$(C)^4 \qquad V \to [+\text{nas}] \Big/ \underline{\quad} \begin{bmatrix} -\text{cons} \\ -\text{syll} \\ +\text{nas} \end{bmatrix} C$$

Rule (C) is the obligatory rule of Vowel Nasalization which reapplies phonostylistically whenever the proper environment is created.

2. The next step is to discuss a possible status of the above rules with reference to cyclicity. First, the representation which constitutes a starting point for the operation of phonostylistic rules has to be established. Do rapid speech rules apply to the so called underlying representation UR, in the same manner as phonological rules do? This does not sound very convincing when we consider the fact of phonostylistic rules applying in completely different circumstances than phonological ones—it is the tempo of speech that determines their application. Thus they are optional from the point of view of the block of phonological processes, which are obligatory. Therefore, the speaker, increasing the tempo of his speech, chooses a given output or, more precisely, applies a given phonostylistic rule to the output (already derived) of slow speech processes.

From what has been said follows that it is the output of all the obligatory phonological rules, the output which occurs in slow, monitored and articulate speech, that feeds phonostylistic rules. The representation consisting of such outputs was called a Generalized Phonetic Representation GPR.

GPR as the input to phonostylistic rules is valid as long as one is consistent in deriving all phonostylistic outputs from it exclusively and in explaining all the possible exceptions and deviations by means of this derivation only. Once we go back to the former, obligatory, derivation GPR's reliability lessens.

2.1. We will take a risk of claiming the postcyclic status of intereferring phonostylistic rules on purely theoretical grounds first.

A second language learner does not internalize the complete morpheme structure of a second language in the process of learning it. He manages to internalize only part of it, e.g. tense or plural markers, inflectional endings, word boundaries. A complete internalization takes place only in specific circumstances i.e. in case of a child acquiring two languages (native one and second one) at a time and in case of a foreign language learner whose conditions of learning are similar to those of a first language acquisition — foreign language is the only medium he can communicate with.

A second language learner. however, learns directly what is presented to him i.e. the surface structure of a second language. He learns the output without having the inner mechanism of generating it. Therefore, the interference of his native language cyclic rules is prevented, as they would have to interact with the rules of a second language cycle which is not "known" to him (not internalized by him).

On the other hand, postcyclic rules of a native language are perfectly free to interfere because they apply to nonderived forms and thus do not require any knowledge of a morpheme structure of a second language (except for word boundary recognition).

Therefore, if we assume that native language interference occurs, or is ordered, after the application of all second language rules, we will be able to explain the lack of Polish rule interference in the word *essential* as opposed to *essence* where interference takes place. In the word *essence* the environment for the application of Polish phonostylistic gliding is met; in *essential*, which is the output of English Palatalization rule changing /s/ → /ʃ/, Polish rule does not interfere. This proves that Polish speaker does not know the morpheme structure of *essential* (is ignorant of its dervation) and lets Polish rule apply only to the output of English rules (GPR).[5]

Having in mind what has been said above, one may posit a simple graphic model of rule application and interference (on the example of Polish and English):
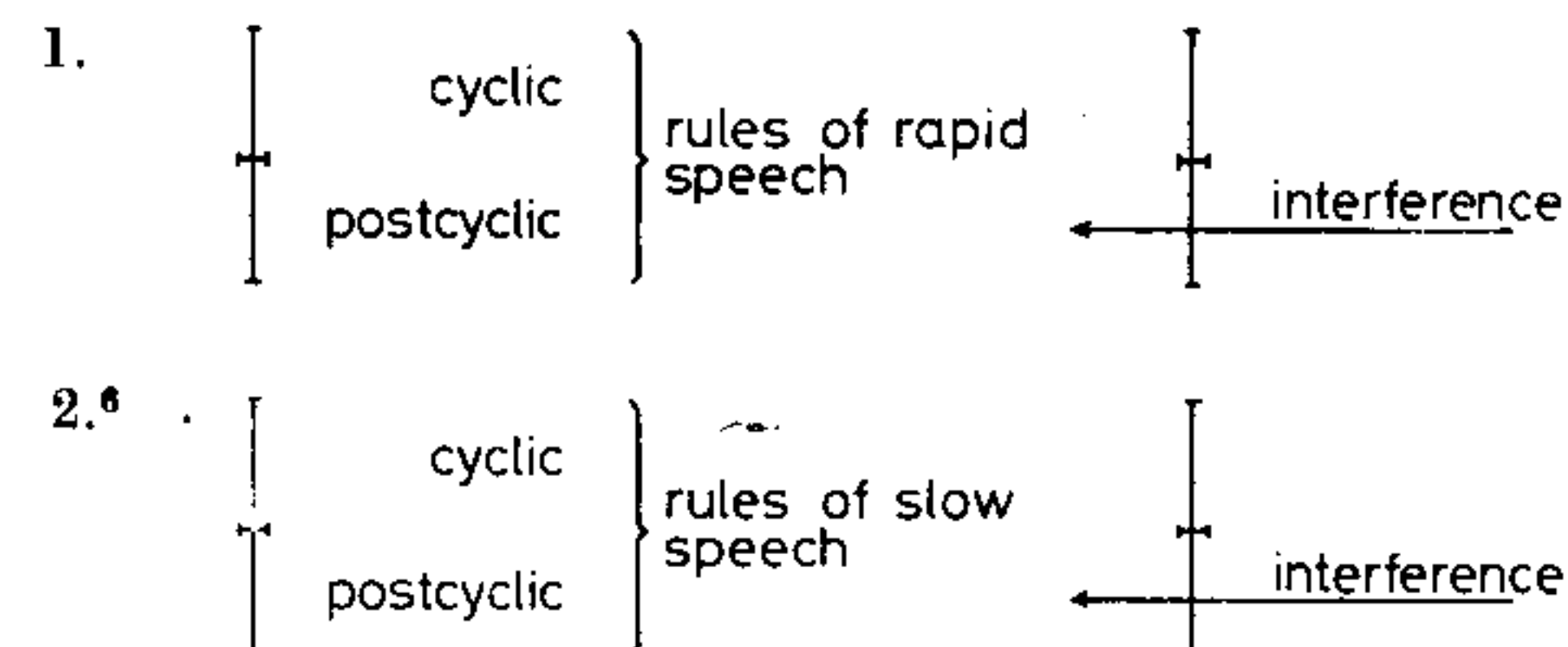


2.2. The notion of "derived environment" (cf. Rubach 1981) refers either to the presence of a morpheme boundary or the result of the application of an earlier rule on the same cycle. There seems to be no evidence, however, on the application of Polish phonostylistic nasal assimilation rules to derived environment (see below).

---

GPR     *informacja*
           inf
           imf          (A)
           iɱf          Detail (A)
           iw̃f          (B)

4 Rule (49) in Rubach 1974.

5 The fact that Polish phonostylistic gliding applies to the output of English Palatalization, which is postcyclic, is in itself not relevant for establishing the postcyclic status of a Polish rule.

6 One could mention here the possibility of iterative application of obligatory rules in rapid speech, like that of Polish Vowel Nasalization, whenever a feeding environment is formed.

Since the status of phonostylistic rules has not yet been investigated, we have no data with which to compare our rules so that we could decide about their status on the basis of "block application" principle. The comparison with obligatory (phonological) rules, whose status has already been determined, proves the lack of any interaction or interdependence (in other words the optionality of ordering) between them and the phonostylistic rules concerned. This may be confirmed by examples like the derivation of *kunszcik* (a diminutive of *kunszt*):

|  | *kunszcik* |  |
|---|---|---|
| UR | //—unšt+ik// |  |
|  | unšt+ik |  |
|  | unštç+ik | Anterior Palatalization |
| GPR | unštçik |  |
|  | uw̃š | Phonostylistic Nasal Gliding |
|  | ũw̃š | Vowel Nasalization |

As the above example shows, the application of Anterior Palatalization, which is cyclic, does not have any influence on the application of the last two rules. The ordering of the above rules seems to be dictated by two factors:
— first, it follows our earlier assumption about GPR being the input to phonostylistic rules;
— second, it is consistent with the principle of Strict Cyclicity where it says that rules applying to nonderived forms (here morpheme internally) are postcyclic.

The second statement is reaffirmed by many examples where Polish phonostylistic rules (A), (B) and (C) keep applying morpheme internally or across word boundary:

a. rule(A) — phonostylistic Nasal Assimilation — in words like:

*anglistyka, kongijski, konwencja*

| GPR | konwencja |  |
|---|---|---|
|  | -nv- |  |
|  | -mv- | rule (A) |
|  | -ŋv- | detailed rule (A) |

and across word boundary like in:

*on gimnastykuje się*[7]

| GPR | -n # # gi- |  |
|---|---|---|
|  | n # # g' | Surface Palatalization |
|  | ŋ # # g' | rule (A) |
|  | ŋ' # # g' | detailed (A) |

---

b. rules (B) and (C) — in words like the above *kunszt* or *szansa, instynkt, czynsz, precedens*, and across word boundary in: *pan sam, w ten sposób* etc.
c. all three rules in the order: (A), (B), (C) e.g.

|  | *konferencja* |  | *kanwa* |
|---|---|---|---|
| GPR | konf- |  | kanv- |
|  | komf | (A) | kamv |
|  | koɱf | detailed (A) | kaɱv |
|  | kow̃f | (B) | kaw̃v |
|  | kõw̃f | (C) | k̃aw̃v |

3.5. The last argument for the postcylic status of the discussed rules comes from the observation of borrowings. Obligatory gliding does not apply to borrowings, e.g. *sensacja, konsul, konflikt, cenzura*; phonostylistic gliding, however, covers all cases excluded from the former rule. This cannot be explained unless phonostylistic gliding is postcyclic and thus is allowed to apply morpheme internally, contrary to the obligatory rule.[8]

## REFERENCES

Basbøll, H. 1981. "On the function of boundaries in phonological rules." In Goyvaerts D. L. (ed.). 1981. 245—71.

Brame, M. K. 1974. "The cycle in phonology: stress in Palestinian, Maltese and Spanish." *Linguistic Inquiry 5*. 39—60.

Chiarello, L. et al. (eds). 1979. *Proceedings of the Fifth Annual Meeting of the Berkeley Linguistic Society*. Berkeley: Berkeley Linguistic Society.

Dziubalska, K. 1983. *Cyclic and postcyclic status of phonological rules in rapid speech and language interference*. Unpublished M. A. thesis, Adam Mickiewicz University, Poznań.

Feinstein, M. H. and Vago, R. M. 1981. "Non-evidence for the segmental cycle in Klamath." In Goyvaerts, D. L. (ed.). 1981. 119—47.

Fisiak, J. 1975. "The contrastive analysis of phonological systems." *Kwartalnik Neofilologiczny 3*. 341—52.

Fisiak, J. (ed.). 1980. *Theoretical Issues in Contrastive Linguistics*. Amsterdam: John Benjamins B. V.

Fujimura, O. (ed.). 1973. *Three dimensions in phonological theory*. Tokyo: TEC.

Goyvaerts, D. L. (ed.). 1981. *Phonology in the 1980's*. Ghent: E. Story Scientia.

Górska, E. 1982. "Formal and functional restrictions on the productivity of word formation rules." *Nordic Journal of Linguistics 5*. 77—89.

Gussmann, E. 1975. "How do phonological rules compare?" *PSiCL 3*. 113—23. also in Fisiak, J. (ed.). 1980. 225—37.

Halle, M. 1978. "Formal vs. functional considerations in phonology." Bloomington: Indiana University Linguistics Club.

---

[7] The order of Surface Palatalization, which is postcyclic, and rule (A) is irrelevant — the output will not change.

[8] This claim, however, being a very strong one, still needs confirmation in more detailed studies.

Janda, R. D. 1979. "Double cross in phonology: why word boundary often acts like a consonant." In Chiarello, L. et al. (eds). 1979.

Kenstowicz, M. and Kisseberth, Ch. 1979. *Generative Phonology. Description and Theory*. New York: Academic Press.

Kiparsky, P. 1968. "How abstract is phonology?" In Fujimura, O. (ed.). 1973. 5—56.

Kiparsky, P. 1973. "Abstractness, opacity and global rules" In Fujimura, O. (ed.). 1973. 57—86.

Lightner, T. M. 1981. "New explorations into derivational morphology." In Goyvaerts, D. L. (ed.). 1981. 93—101.

Rubach, J. 1974. *Variability of Consonants in English and Polish*. Unpublished Ph. D. dissertation, University of Warsaw.

Rubach, J. 1977. "Contrastive phonostylistics." *PSiCL 6*. 63—72. Also in Fisiak, J. (ed.). 1980. 263—75.

Rubach, J. 1980. "Rule ordering in phonological interference." Conference on Contrastive Projects. Charzykowy 1980.

Rubach, J. 1981. *Cyclic phonology and palatalization in Polish and English*. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.

Rubach, J. 1982. *Analysis of phonological structures*. Warszawa: PWN.

Stockwell, R. and Macaulay, R. (eds). 1972. *Linguistic change and generative theory*. Bloomington: Indiana University Press.

Zwicky, A. 1969. "Note on a phonological hierarchy in English." In Stockwell et al. (eds). 1972. 275—301.

Zwicky, A. 1972. "On casual speech." *CLS 8*. 607 - 15.