The *Journal of Chinese Linguistics* vol.50, no.2 (June 2022): 545–560 © 2022 by the Journal of Chinese Linguistics. ISSN 0091-3723/ On the biological basis of prosody: A response to Duanmu's rhythmic analysis. By Shengli Feng. All rights reserved.

#### INSIGHT

# Materials ON THE BIOLOGICAL BASIS OF PROSODY: A RESPONSE TO DUANMU'S RHYTHMIC ANALYSIS

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#### 1. WHAT IS RHYTHM: DUANMU'S ANALYSIS

Rhythm is a fundamental notion in music, poetry, as well as the prosodic systems of human language. Though there have been rich discussions about what rhythm is and how it functions, it has taken until now to arrive at a general and precise definition of rhythm as in Duanmu (2022), which states as follows:

### (1) Definition of rhythm

- a. Rhythm is the repetition of a unit of alternation.
- b. A unit of alternation consists of two non-identical parts A and B.

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## 论生理韵律/节律: 对端木三先生有关节奏分析的再思考 **冯胜利**

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#### 摘要

本文针对端木三的节奏分析,论证了人类语言的生理重复系统。基于 冯胜利、施春宏(2021)的节律分析,本文提出节奏不仅是一个单位的 交替重复,更是一种根植于人类生理上的感知(主要是听觉)现象。因 此,自然现象中的机械重复(如潮汐的涨落往复、钟表的"嘀嘀"之声) 必须与人类语言基于生理机制的重复(如诗歌的节奏、鼓点节拍等)区 分开来。文章认为: 音乐节奏的生理试验(如 Teie 2016 有关胎儿/婴儿 音律节拍习得的试验研究)可证本文"生物节律"的理论,而古代节律 学家(如沈约[441-513 CE]的"前有浮声、后须切响;一简之内,音韵 尽殊;两句之中,轻重悉异")也可从诗歌和韵文节律的发明上,证实 本文"相对凸显"为节律基本单位的理论假说。文章最后指出:本文 提出的"生理韵律"理论,一方面与乔姆斯基的语言能力(即大脑运算 系统的基因禀赋)的假说相行不悖,另一方面也向乔姆斯基"生理句法" 理论提出挑战:如果人类语言交替单元的重复系统(衍生出相对凸显原 则) 乃为生物心跳规律所赋予,则人类语言的生理机能就不仅限于"合 并 merge" (大脑机能),同时也包括"相对凸显 relative prominence" (心跳机能)。据此,人类语言句子的语法性(grammaticality)将不单由 句法部门所决定, 也必取决于韵律部门的生成机制。

关键词

自然-节奏 生理节奏 轻重交替 重复 心跳机制