

Identification of Use of Vocal Circle as a Biological Tool

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Abstract

In this work, effort has made to identify images related to the sounds made by animals and birds using a Vocal Circle Technique. This technique has already been used successfully, to derive sounds of Indus Valley Scripts and Oracle Bone script. Thus establishing the existence of healthy relationship between- (1) image, (2) image identifier / differentiator and (3) sound generated by movement of tongue delineating image differentiator. In different vernaculars, an image is related to different varieties of sounds, based on the image differentiator selected in the vernacular.

Keywords: Vocal Circle Technique, Image-Sound Relationship, Animal and Bird Sounds, Image Identification, Image Differentiation, Phonetic Representation, Sound Symbolism.

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INTRODUCTION

Vocal circle of sounds was first envisaged by Alexander Melville Bell (1819-1905). But it was yet to be completed. In 2019, it was published in a complete format [1]. In this work, the vocal circle technique, which was tested successfully, to understand human languages [1] is used to understand sounds of animals and birds as well. The reflex relationship has been established between (a) tongue movement, (b) related sounds, and (c) defining contours (image differentiators) of the related image. Thus, every image can be expressed in terms of sounds. Every number generated in human civilization has got related sound(s) and tongue contours reflexly delineate the defining contours/image differentiators of the image of that number as we pronounce that number in any vernacular language. Physics of sound generation remains same no matter, be it bird or animal or natural systems.

Aim: To use the Vocal Circle Technique¹ to generate images from sounds of Animal and Birds.

METHODS

Sounds of Animals selected are-

Cow: M-O, M-oO

Horse: N-A-Y-Y-Y-H

Donkey: H-E-HA, EE-YO-R

Cat: M-E-Aa-Oo

Sounds of Birds selected are-

Crow: Ka-Ka, K-R-Aa

Owl: H-Oo-H-Oo

Cuckoo: G-Oo-K-O,

Hen: K-L-Aa-K, B-K

REVIEW OF LITERATURE












































The vocal circle technique was used on Indus valley civilization (IVC) script successfully proving most of sounds generated from defining contours of the script images matches with old ancient localized Sindhi, Persian and Yi (Nuosu) lexicon. For example, the derived sounds for Indus valley Civilization (IVC) scripts-LEB¹ (Lips) in later day-old Persian; LANEB¹(Horizontal handle of Wooden Vessel), LANTHU¹(loincloth), LANB [1] (Wood used for making vessel) are closer to later day highly localized old Sindhi lexicon except NRMEB¹(a person/a Human), which is closer to Yi (Nuosu) word. It is conceivable, that there must have been interaction between Indus valley Civilization inhabitants and Yi language speakers at some stage. Some old Indus valley Civilization sounds are also there in Dravidian lexicon too. It could have been transmitted there later by the arivors (Ganaka people), who were versatile nomadic / wandering scholars of Indus Valley Civilization during pre-Sanskrit

days. Whereas, derived Oracle bone script sounds are akin to sounds of old Beijing and old Nanjing dialects.

Thus, a healthy relationship has been established between-(a) Defining contours (image identifiers) of Human script images, (b) related sounds and (c) resultant matching reflex tongue contours in Humans. An image is associated with different sounds in

different vernaculars, depending on different image identifiers selected (Forms the symbol/Alphabet) and reflexly matched with different tongue movements for sound production. Each sound is generated by a set tongue contour matching structurally the image identifier (Any important part of an image). In this work, the Vocal Circle technique is applied on sounds of animals and birds and the related images are derived.

OBSERVATIONS: Using Table-5¹(Representation of UNMIXED sounds using Bulges and depressions)

S. No	Organism	Sound	Analysis	Image
1	Cow	M-O, M-Oo	Ma  + O  Ma  + Oo 	Ma- Some person with outstretched arms/ Head-Neck-Shoulder (Human), O-Motion, Oo-relatively increased movement
2	Horse	N-A-Y-Y-Y-H	Na  + A  + Ha 	Na- Head + Torso (erect pose), A-Motion, Ha-Looking down
3	Donkey	H-E-HA, EE-YO-R	Ha  + E  + Ha  E  + O  + R 	Ha-Looking down, E-Looking down, but slight raised above, Ra-(Pose to initiate run)
4	Cat	M-E-Aa-Oo	Ma  + E  + Aa  + Oo 	Ma- Some person with outstretched arms / Head-Neck-Shoulder (Human), E-Looking down, Aa-Head-Body (steadying to pose erect), Oo-Moving
5	Crow	Ka-Ka, K-R-Aa	Ka  + Ka  , Ka  + Ra   + Aa 	Ka-Movement, Ra (Pose to initiate run), Aa-Head-Body (steadying to pose erect)
6	Owl	H-Oo-H-Oo	Ha  + Oo 	Ha-Animal with head turned down, Oo-Moving
7	Cuckoo	G-Oo-K-O	Ga  + Oo  + Ka  + O 	Ga-Some animal looking at owl sitting above, Oo-relatively increased movement + Ka-moving on ground on all limb, O-slowng the motion
8	Hen	K-L-Aa-K, B-K	Ka  + La  + Ka  , Ba  + Ka 	Ka-Movement, La-Forward looking (slightly upwards) Ba-Some person with outstretched arms, Ka-Movement
9	Human	Man	Ma  + Aa  + Na 	Ma- Some person with outstretched arms/ Head-Neck-Shoulder (Human), Aa-Head-Body (steadying to pose erect), Na-Head + Torso (Erect)
10	Human	Cat	Ka  + Aa  + Ta 	Ka-Movement/Head-body of quadruped, Aa-Erect, Ta-Tail
11	Human	Run	Ra  + Aa  + Na 	Ra-Head forward (pre-run pose), Aa-Erect, but in motion, Na- Head + Torso (post run-erect pose)

DISCUSSIONS

The above table confirms there is a relationship existing between (1) image and (2) related sounds. In cases of animals and birds, if more the repertoire of circumstance related sounds are studied, more related images can be derived and understand those living beings. More research needs to be done to explore this relationship.

CONCLUSION

In this work, the vocal circle technique [1], which was used successfully in deriving the sounds of Indus valley civilization script and also that of Oracle bone script is used to derive the images conveyed

through the sounds made by animals and birds. Further studies needs to be conducted to understand this approach. Therefore, the VOCAL CIRCLE technique can be used as a biological tool to understand animals and birds.

Abbreviations:

IVC-Indus valley Civilization / Sindhu Ghati Sabhyata

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