Interpersonal Hypothesis and the GUHA Method

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The *interpersonal hypothesis*, first proposed by Prof. Ferdinand Knobloch, had been subject of experimental investigations already since 1964. After initial testing of its validly, [1] that is, establishing whether 'the independent listeners may be able to distinguish interpersonal tendencies in the musical compositions from various periods to the degree that is beyond coincidence', there has been a number of experiments conducted further. The earliest experiments in 1968, on one hand, attempted to test the original hypothesis on a large group comprising psychologists and psychiatrists and, on the other hand, introduced a new scheme of definitions of the interpersonal tendencies. Instead of the scheme of Timothy Leary [2] adopted earlier, a new scheme of Prof. Knobloch was used with the new scheme removing overlaps in the meaning of certain definitions [3]. A longer period of experiments started in 1969 after Prof. Knobloch's emigration and, outside the ideological pressures, were confined to the field of musicology [4]. Experiments conducted by this writer resulted in gaining an experience in analyzing music from various periods, from the Gregorian chant to the contemporary compositions. Findings in this period of experiments included also the *hypothesis of interrelationship of interpersonal effects and awareness of musical forms* with the musical forms representing models of interpersonal situations which, during the historical development of music, were generalized and became part of the system of musical signs [5]. Close relation to Chomsky's generative grammar, is, in this respect, quite obvious.

The latest experiments are then largely connected with the application of GUHA Method (General Unary Hypotheses Automaton) using the computer processing [6]. It is the method of explorative data analysis with the aim to find a given matrix of data, in a specific senses, 'anything of interest'. The GUHA Method allows to generate hypotheses concerning interrelationship of variables supported by the experimental data. Applying the method to the experiments may then result in discovering a number of regularities. This method was actually used in two experiments; the earlier, initially proposed in 1975 and conducted in the beginning of the 1990s, on the works of Bela Bartók [7] and, subsequently, the later one concerning the Czech music of the 1950s.

References

[1 Knobloch, F., Poštolka, M., Srnec, J.(1964): Musical Experience as Interpersonal Process. *Psychiatry: Journal for the Study of Interpersonal Process*, (27), 4, 259-265.

[2] Leary, T. (1964): *Interpersonal Diagnosis of Personality*. New York, Ronald Press.

[3] Knobloch, F., Juna, J., Junová, H., Koutský, Z. (1968): On an Interpersonal Hypothesis of the Semiotics of Music. *Kybernetika*, (4), 4, 364-381.

[4] In the course of twenty five years a number of papers came out. Some of them were presented at the international conferences as: 1979 Vienna Conference on Semiotics, 1988 Helsinki 2nd Conference on Musical Signification, 1992 Edinburgh 3rd Conference on Musical Signification, 1996 Prague Conference on Dialogue. The others were published in professional magazines such as: International Review for the Aesthetics and Sociology of Music, Semiotica, Europäische Zeitschrift für semiotische Studien, etc. This writer also lectured on the personal hypothesis at the universities in Hamburg and Helsinki, and taught a post-graduate course at the university in Bratislava with the course notes also published there.

[5] Doubravová, J. (1984): Musical Forms as Models of Communication. In *Semiotics Unfolding*, Berlin-New York-Amsterdam: Mouton, pp.1613-1619.

[6] Cf. Hájek, P., Rauch, J. (1993): Inteligentní analýza dat a GUHA. [Intelligent Data Analysis and the GUHA Method.] *Computer Echo* (4), 3, 31-33, or Hájek, P., Havránek, T. (1978): *Mechanizing Hypotheses Formation as Mathematical Foundation for a General Theory*. Universitext Berlin-Heidelberg-New York: Springer.

[7] Doubravová, J., Sochorová, A. (1994): Ověřování interpersonální hypotézy metodou GUHA. [Confirming Interpersonal Hypothesis Using GUHA Method.] *Čs. psychologie*. [Czechoslovak Psychology] (38), 5, 408-419. N. Rameшová cooperated in the second stage of the GUHA experiments. A book *Dialogue and Imagination*/Editio Supraphon-Bärenreiter/ will be published in 1998.