Jolanta Góral-Półrola,
Jąkanie. Analiza procesu komunikacji słownej. Stuttering. Analysis of verbal communication. IMPULS Publishers, Kraków. Hardback 232 pages, PL ISBN 978-83-7850-997-4

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The monograph „Stuttering, Analysis of Verbal Communication„ by Jolanta Góral-Półrola, presents a new, interdisciplinary approach to speech fluency disorders using cognitive linguistics, humanistic psychology and process neuropsychology, enabling us to discuss stuttering from more than one perspective. This in-depth study on the borderline subject of neurologopedia, pragmalinguistics (the study of the use of illocution in a language) and neuropsychology (microgenetic theory) is interesting from both a theoretical and practical point of view.

The reader will find a thorough analysis of the most modern approaches used to study brain activity (especially regarding microgenetic theory) as well as the results of the author's research. The research's neurological and neuropsychological basis, as well as its microgenetic theory approach, strongly support the monograph, and provide tools for understanding the origins of stuttering and formulating sound conclusions. This type of approach to a better understanding of stuttering based on the author's research is the first of its kind worldwide. This monograph is very useful for both didactics and people who stutter.

The author challenges herself to answer key primary questions: What is the pattern of conversation with person who stutters? What kind of strategies are used by a person who speaks fluently compared to those used by a person who stutters? How do they interact when they communicate? Do people who stutter prefer a particular interpersonal communication style and does the communicative style of a person who stutters relate to how they evaluate their own stuttering?

It should be emphasized that the conversation (discourse) with a person who stutters has not been evaluated in detail despite the fact that stuttering is particularly common during conversation, as well as in dialogue (not in monologue) and in a spontaneous speech. Until now, the studies on this topic were based on individual descriptions of their own communication skills using different measurements and questionnaires, which did not always yield realistic results.

The basis of this interdisciplinary monograph is based on a change of research methods of the speech therapist working with speech hesitancy, from the theoretical approach characteristic to specialist literature to a dialogue approach

(questions and answers) specific to verbal language. This change in methods is significant. The author collected a vast amount of research material based on couple of hundred conversations with people who stutter. She analyzed the conversations using precise linguistic and communicative indicators in order to gain a better knowledge of stuttering itself as well as people who stutter.

The monograph consists of seven related chapters. It begins with a discussion about conversation, in which it is analyzed in depth, including the role of speech in the communication process and the microgenetic model of communication (Pąchalska, Kaczmarek, Kropotov 2014). Because this model is very significant to communication, an analysis of communication styles resulted in a verbal activity and types of speech behaviors being classified as the most reliable, measurable and objective factors. Furthermore, Chapter 1 also concerns barriers to successful communication, including linguistic, psychological and social factors. Chapter 2 is devoted to a more in-depth examination of stuttering. In it, the author describes various approaches to this disorder (stuttering as a disorder of the phonological system, speech neurosis, speech fluency disorders and psychosomatic disorders) and examines how therapy can be used with stuttering behaviors. In addition, the author's model of this disorder was examined. The characteristics of stuttering were also analyzed in the context of speech disorders and barriers in communication. In the context of the established paradigm of the brain process, a microgenetic approach to symptom manifestation was discussed.

The author's own studies were presented in the empirical section of the book (Chapters 3, 4 and 5). These studies aimed to address the following questions: „What is the conversational pattern is used by a person who stutters? Which communication style do people who stutter prefer? Is this style related to the disorder, specifically regarding a person's self-assessment of their stuttering? The research specifically focused on an analysis of transcripts from standard conversations with 120 people. The conversations were conducted either on a random topic or specifically about stuttering. The conversation transcript consisted of 171,606 words, including 115,911 pronounced by stuttering people and 55,695 by their partners. Analysis considered the severity of speech hesitancy in people who stutter, communicative input, type of speech behaviors, and the essence of the dialogues along with their structure. The interpersonal communication style preferred by people who stutter was identified using the Interpersonal Communication Scale (Tarkowski, Humeniuk 2010), and self-assessment of stuttering, including its biological (physiological), linguistic, psychological and social factors, using the Stuttering Self-Assessment Scale (Góral-Półrola, Tarkowski 2012a).

The results were presented in chapters regarding: (1) conversation about any topic and focused on the stuttering of a person with speech hesitancy with a partner and (2) the interpersonal communication style preferred by the stuttering person and a self-assessment of their stuttering.

During both conversations, severity of speech disfluency was high (above 12%) and there was a wide range of results. The difference in severity of speech disfluency during conversations on any topic and those focused on stuttering

was not statistically significant. However, the severity of speech disfluency was higher for conversations about stuttering. In both groups, there was no relationship among age, sex and severity of speech influence.

The conversation input of people who stutter was two times higher compared to their partners (verification of the hypothesis regarding the average value in the evaluated groups proved that there are no significant differences between the communication input of the examined adults during conversation on any topic and one focused on stuttering). During conversation on any topic and the one focused on stuttering, sex was not related to the communication input, whereas it was observed that the input of people who stutter increases with age.

The greater the verbal activity, the less severe the speech disfluency. Furthermore, it was found that the hierarchy and frequency of speech behaviors used by people who stutter was almost identical during conversation on any topic and the one focused on stuttering. In both conversation topics, informing was the main speech behavior. The partners of people who stutter used questions most often.

According to the Interpersonal Communication Scale, people who stutter most demonstrated assertive verbal behaviors, submissive behaviors were less common, and aggressive verbal behaviors were the least common. Differences in communication behaviors in the context of age were not statistically significant. There were also no relationships between communication style and the age of the studied group. Assertive behaviors (measured with points) correlated negatively with submissive and aggressive behavior. Similar negative correlation was observed for submissive and aggressive behaviors. In both cases, correlations were statistically significant (p<0.001).

The results according to the Stuttering Self-Assessment Scale were also evaluated. The study participants examined believed that the biological causes of stuttering are most burdening, followed by psychological, social and linguistic factors. In women, stuttering affects self-esteem more than in men. This difference is statistically significant. The relationship between the age of stuttering people and self-esteem was also analyzed. It was found that stuttering has less of an effect on self-esteem as people age (the differences are statistically significant and inverse to age).

In the context of the relationship between the interpersonal communication style and the self-esteem of people who stutter, it was found that: (1) the correlation between general stuttering self-assessment and assertive communication style was statistically significant and inverse; (2) the correlation between stuttering self-assessment and submissive communication style was statistically significant and positive and (3) no statistically significant correlation between stuttering self-assessment and aggressive communication style measured in points was observed.

In Chapter 5, the study results were discussed in the context of the most recent findings in Poland and worldwide. Chapter 6 examines stuttering analyzed as a process according to the new paradigm of brain activity. The results of stud-

ies conducted on speech disfluency were interpreted in the context of the microgenetic theory of symptoms (Pąchalska 2008). It is also worth noting that microgenetic theory was applied for the first time to explain speech disfluency in stuttering. The most significant conclusion of the monograph includes the innovative microgenetic model of stuttering: "from genes to behavior."

In summary, the author of the monograph approached stuttering in the context of verbal communication of people who suffer from this disorder, to determine the correlation between stuttering and interpersonal communication: first, whether and how stuttering impacts communication behaviors of people who stutter, and second, how communication conditions affect the symptoms. The monograph aims to determine if people who stutter present any specific profile of communication behaviors.

The process approach to stuttering, especially including microgenetic theory, helped to address these key questions.