

## Phonetically Gifted Students – on the Language Aptitude Components

The focal point of the article is to explore the notion of language aptitude from the perspective of phonetically gifted students. The introductory part includes an overview of primary as well as contemporary theories and research findings regarding the concept itself. Having presented the theoretical background, the following sections are devoted to the ongoing discussion concerning the language aptitude components and their mutual dependence. The final section focuses on possible perspectives and implications for further research in the area of foreign language attainment. Additionally, the author's work-in-progress study on phonetically gifted students is delineated.

**Keywords:** language aptitude, phonetically gifted students, language attainment, phonodidactics

### Phonetisch begabte Schüler – über die Komponenten der Sprachbegabung

Der Schwerpunkt dieses Artikels liegt auf der Untersuchung des Begriffs der Sprachbegabung aus der Perspektive phonetisch begabter Schüler. Der einleitende Teil enthält einen Überblick über primäre sowie gegenwärtige Theorien und Forschungsergebnisse in Bezug auf das Sprachbegabung-Konzept. Nach der Darstellung des theoretischen Hintergrunds werden die folgenden Abschnitte der laufenden Diskussion über die Komponente der Sprachbegabung und ihrer gegenseitigen Abhängigkeit gewidmet. Der letzte Teil konzentriert sich auf die möglichen Perspektiven und Implikationen für die weiteren Forschungen im Bereich der Glottodidaktik. Ferner wird auch der Untersuchungsfortgang des Autors von phonetisch begabten Schülern dargestellt.

**Schlüsselwörter:** Sprachbegabung, phonetisch begabte Schüler, Spracherwerb, Phonodidaktik

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### 1. Theoretical background

Considered as one of the most essential factors influencing the success of foreign language attainment in learners, language aptitude has repeatedly been investigated by numerous scholars. Traditional theories imply that the notion comprises four elements: (i) phonetic coding ability, (ii) rote-learning ability, (iii) inductive learning ability, and (iv) grammatical sensitivity. Throughout the years; however, these primary assumptions have frequently been criticized and examined globally<sup>1</sup>. The criticism concerned not only the unclear and vague definition of the phenomenon but also the precise number of its components, as well as methodologies used for its measurement.

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<sup>1</sup> For the purposes of this article only selected research findings will be outlined.

## 2. Defining language aptitude and its components

The author of the language aptitude concept is an American psychologist John B. Carroll. In the primary definition, language aptitude is the learner's individual quality based on their "voluntary effort" (Carroll 1981: 83); independent from any previous foreign language contacts, motivation, or intelligence. The notion is referred to as a variable specific to research in the area of second and foreign language attainment studies, and ought to be associated with linguistic abilities exclusively. Following Doughty's (2014) conclusions, language aptitude may be defined as a cognitive factor determining adult learners' ultimate attainment. In contemporary theories, **linguistic talent** is believed to guarantee opportunities for success in a specific language environment regardless of individual affective factors, such as personality or motivation (Doughty 2019). In the first definition of the concept, language aptitude is referred to as relatively stable quality (Carroll 1973). However, numerous researchers state that aptitude may be modified to some extent (Kormos 2013, Singleton 2017). Doughty (2019: 102) pinpoints that there are two possible ways of developing language aptitude: early exposure to the target language, and intentional training of the talent itself (e.g. memory exercises). According to the author, the current research is still insufficient to thoroughly specify the role of linguistic training in this area. With regard to traditional theories, language aptitude consists of four components (Carroll 1981: 105):

- (i) **phonetic coding ability** – a skill of discerning the particular sounds of the language, making associations between these sounds and their phonetic symbols, memorizing, and then imitating sounds in a foreign language;
- (ii) **rote-learning ability** – an ability to make associations and memorize words and their meanings;
- (iii) **inductive learning ability** – a skill of deducing rules of a given language in a given context;
- (iv) **grammatical sensitivity** – a capacity to recognize grammatical functions of words (or other linguistic forms) in a sentence structure.

In the past decades, scholars would focus solely on the primary definition and components of the concept. However, in contemporary studies of language aptitude, one can find researchers' attempts of certain modifications (Robinson 2012). For instance, grammatical sensitivity (iv) and inductive learning ability (iii) are designated as overall analytical abilities of the learner (Skehan 2002, Biedroń 2017). Robinson (2012) highlights that the correlation between language aptitude components is frequently neglected. The author also pinpoints that scholars tend to evade essential differences in learners' linguistic environments (acquisition and learning concepts). Significant observations regarding mutual relations among the components are also noted by Skehan (2002). The scholar points out that aural processing (i) and linguistic processing (iii and iv) are closely linked, and both impact language attainment processes in children. Language aptitude, however, turns out to predict language success only at the beginning of the

process. The traditional theory of the construct emphasizes the importance of linguistic aptitude during the first encounters with the language, but not in the advanced process of second language acquisition. Furthermore, the primary hypotheses indicate explicit, and not implicit learning, i.e. learning the language in formal instruction rather than the acquisition of pragmatic aspects of the language (Robinson 2001, Skehan 2012, Li 2015). In language aptitude research, the focal points would also be bilingualism and the role of age from the perspective of critical period (and/or sensitive period) hypotheses. Nevertheless, individuals who are born bilinguals are able to acquire two languages simultaneously, whereas successful language attainment in adults is limited by their cognitive skills (Doughty 2019).

### 3. Phonetically gifted learners: observations and research perspectives

Phonetic coding ability (also: aptitude for oral mimicry, auditory discrimination ability) is an ability to perceive, differentiate, and imitate sound associations of a language (Kenworthy 1987). According to Kenworthy (1987), every learner (except for hearing impaired individuals) possesses a basic skill to distinguish and imitate sounds. The ability is easily noticeable in the context of first language acquisition. In formal instruction context, however, phonetic coding ability (as part of linguistic talent) is a factor that stays (almost completely) out of the control of the teacher. Thus, the language training in the classroom ought to be based on the assumption that every learner has the “basic equipment” (Kenworthy 1987: 7) of aural abilities; and teachers need to provide their students with a variety of exercises to enhance the development of pronunciation skills in phonetically talented as well as less-talented students.

In the area of foreign language acquisition studies, exceptionally intriguing cases are individuals who achieve (near-) native-like proficiency in the target language, but not necessarily in all its aspects. Probably the most commonly discussed example of this kind is the phenomenon of Joseph Conrad. The writer’s English skills differed significantly in efficiency: the mastery of writing skills, but heavy accented speaking abilities. The phenomenon exemplifies how difficult it is for an adult language learner to achieve native-like pronunciation. Some researchers claim that when individuals achieve the highest level of pronunciation in the foreign language (resembling native-speakers’), they have a tendency to lack efficient skills in using grammar or vocabulary (Coppeters 1987, Hyltenstam 1992 in Ioup 2005: 423–424). The aforementioned disparities commence a compelling discussion on the importance of particular language aptitude’s components in the overall process of foreign language attainment in learners, regardless of students’ age, or motivation.

Phonetic abilities have been explored from various perspectives. Most frequently, the studies concern adult learners and the correlates of phonetic abilities with the

overall pronunciation skills in a foreign language (Derwing/Munro 2015). The research in the area of phonetic abilities has also been conducted with regard to musical talent, especially aural and vocal skills (Trofimovich et al. 2015). In Poland, research on internal qualities of phonetically gifted students was conducted by Gonet (2006). Affective factors influencing pronunciation learning in Polish students were investigated by Wrembel (2008). The correlation between musical talent and phonetic abilities was studied by Pastuszek-Lipińska (2008). Nowacka (2010) examined students' beliefs about pronunciation learning in questionnaire studies. The pronunciation learning processes in terms of individual differences have been investigated by Baran-Łuczczak (2008). The notion of language aptitude has been scrutinized by Biedroń (2012). The research findings provide essential insights of the concept from the perspective of its correlation with working memory and intelligence (Biedroń 2017). The analysis of language aptitude as well as one of the tests for its measurement was presented by Rysiewicz (2006). Polish research concerning language aptitude has not been necessarily directed at particular components of the phenomenon, nor their mutual dependence. Similarly, in the research on phonodidactics and overall pronunciation skills in learners, highly developed perception and production of foreign sounds have been most frequently analyzed in terms of factors influencing language success. Rarely, however, phonetic coding ability is juxtaposed or contrasted with other language aptitude components.

#### 4. Research project on phonetically gifted students

The main research question of the project is to find out whether phonetically talented students demonstrate highly developed skills also in other areas of language aptitude. Namely, what kind of dependence exists between (i) phonetic coding ability and (ii) rote-learning as well as (iii, iv) analytical skills of the foreign language learner. The project is a work-in-progress study; currently, in the process of establishing research and control groups. Several university students of English studies were asked to participate in the first part of the research. The task was to submit a sample audio recording with a participant reading a short passage in English. The recordings will be then analyzed on a scale specifically designed for the purposes of the research, and evaluated in terms of pronunciation skills by a group of native speakers of English. The text used in the recordings is a widely recognized text including J. C. Wells' set of lexical items, entitled "Comma gets a cure"<sup>2</sup>. The passage was written by Jill McCullough and Barbara Somerville, and edited by Douglas N. Honorof for the International Dialects of English Archive<sup>3</sup>. The set of words included in the text allows the researcher to investigate English pronunciation of the readers in terms of its various phonemic contexts.

<sup>2</sup> The text can be found in the attachment section.

<sup>3</sup> See: International Dialects of English Archive – <https://www.dialectsarchive.com/>.

So far, several audio recordings have been submitted, some of which will be presented in this article (see sound samples 1–4 on [linguistische-treffen.pl/en/issues/18](http://linguistische-treffen.pl/en/issues/18)). The participants are Polish university students of MA and BA English studies programs. The respondents claim to have been learning English for more than 10 years, or 1–5 years. None of the students have worked or lived in the English-speaking country for more than three months; one student has participated in immersion programs for learning English. All the participants are trained in standard British pronunciation and claim to get exposed to English as often as they can (e.g. by reading, listening, watching materials in the target language). Except for the compulsory phonetic courses during studies, none of the students have attended any extra pronunciation training. However, the students in BA programs are still in their phonetic course; whereas MA students have already finished it. The attached recordings are randomly selected mock samples that have not been proceeded to the next step of the research yet. An additional sample is a recording of an American English native speaker reading the same passage.

## 5. Conclusions and further research

As it can be concluded from the research overview, Polish studies in the area of language aptitude are still in progress, and the collected data is insufficient, especially with regard to phonetically gifted students and their pronunciation abilities. Similar conclusions have been delineated by Biedroń (2017) who states that research concerning language aptitude in Europe lacks innovative attempts, and the notion itself is not a prominent research area, especially in Poland. Wen/Skehan (2011) summarize the foregoing research in the area of language aptitude with the emphasis on the adapted perspectives. From the analysis, one can conclude that scholars focus mainly on the correlation of language aptitude and learners' age, intelligence, or native language skills. Most importantly, however, the authors pinpoint that there is an insufficient amount of studies that explore the language aptitude components (Wen/Skehan 2011: 19, Li 2015, Li 2016).

Compared with multiple individual differences that language learners share, one may presuppose that the linguistic talent is one of the most (if not the most) significant determinants of successful language attainment. The results obtained from the analysis in the project might be useful in specifying the language aptitude concept on the theoretical ground; in particular, the role of phonetic coding ability in the ultimate attainment of a foreign language. Bearing in mind that the shortest biologically determined time frame for the language acquisition seems to be the one responsible for phonological systems, phonetic predispositions of the language learner ought to be the ones thoroughly investigated and analyzed in the process of language attainment and formal instruction context. The findings might also help to delineate didactic implications for the improvement of pronunciation skills not only in the talented but also average foreign language students.

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#### Attachment<sup>4</sup>:

#### COMMA GETS A CURE

*Well, here's a story for you: Sarah Perry was a veterinary nurse who had been working daily at an old zoo in a deserted district of the territory, so she was very happy to start a new job at a superb private practice in North Square near the Duke Street Tower. That area was much nearer for her and more to her liking. Even so, on her first morning, she felt stressed. She ate a bowl of porridge, checked herself in the mirror and washed her face in a hurry. Then she put on a plain yellow dress and a fleece jacket, picked up her kit and headed for work.*

*When she got there, there was a woman with a goose waiting for her. The woman gave Sarah an official letter from the vet. The letter implied that the animal could be suffering from a rare form of foot and mouth disease, which was surprising, because normally you would only expect to see it in a dog or a goat. Sarah was sentimental, so this made her feel sorry for the beautiful bird.*

*Before long, that itchy goose began to strut around the office like a lunatic, which made an unsanitary mess. The goose's owner, Mary Harrison, kept calling, "Comma, Comma," which Sarah thought was an odd choice for a name. Comma was strong and*

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<sup>4</sup> "Comma Gets a Cure" and derivative works may be used freely for any purpose without special permission, provided the present sentence and the following copyright notification accompany the passage in print, if reproduced in print, and in audio format in the case of a sound recording: Copyright 2000 Douglas N. Honorof, Jill McCullough & Barbara Somerville. All rights reserved.

*huge, so it would take some force to trap her, but Sarah had a different idea. First she tried gently stroking the goose's lower back with her palm, then singing a tune to her. Finally, she administered ether. Her efforts were not futile. In no time, the goose began to tire, so Sarah was able to hold onto Comma and give her a relaxing bath. Once Sarah had managed to bathe the goose, she wiped her off with a cloth and laid her on her right side. Then Sarah confirmed the vet's diagnosis. Almost immediately, she remembered an effective treatment that required her to measure out a lot of medicine. Sarah warned that this course of treatment might be expensive — either five or six times the cost of penicillin. I can't imagine paying so much, but Mrs. Harrison — a millionaire lawyer — thought it was a fair price for a cure.*

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