Research Paper

Insuperable Language Inequalities? A Reflecting Study on Bernstein's Linguistic Codes Theory and its Critique

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Abstract

Kindergarten education is compulsory in Hungary, and the National Basic Programme for Kindergarten Education foresees effective language activities. This is in line with what Bernstein has proposed to address language inequalities. The research question is whether linguistic differences can be observed among kindergarten students in Hungary based on the socio-economic situation of the place of residence. The investigated settlement categories according to Government Decree 105/2015. (IV. 23.), and the Central Statistical Office data were the following: disadvantaged, less disadvantaged and advantaged (N=39). The speech of kindergarteners was examined using three playful tests, which were analyzed applying dimensions and indicators determined by reviewing the literature written by Bernstein, his followers, and critics, and a pilot study. During the analysis, the underperformance of the disadvantaged settlement's children was detected in several scales, sometimes spectacularly (adjectives, word count, sentence coherence in the first test, noun-verb relationship), sometimes only to a lesser extent (the use of conjunctions, extended sentences, personal pronouns). Overall, the results support that Bernstein's theory created two generations ago are still valid today: language inequalities can still be experienced in terms of the settlement disadvantages. The research draws attention to the need to increase the efficiency of mother tongue development in kindergartens.

Keywords: linguistic codes; language disadvantage; residential disadvantages

Introduction

In his theory, Basil Bernstein draws attention to the relationship between the social status of learners and their language use, which results from the acquisition of two different linguistic codes. He argues that those who use a restricted linguistic code start from a disadvantage in their school careers because the education system relies primarily on those who use an elaborated linguistic code (Bernstein, 1971a, 1971b). Bernstein's much-cited work has provided the basis for important research, but few recent studies are known.

As later school achievement is influenced by the level of language development in kindergarten, the research analyses the speech of 5-6 years old kindergarten children based on Bernstein's linguistic code theory. The aim was to investigate whether language differences along the lines of residential disadvantage are compensated by those legal measures introduced in Hungary which correspond to Bernstein's proposed solutions, namely compulsory kindergarten (Act CXC of 2011) and the speech expectations and kindergarten activities described in the National Basic Programme for Kindergarten Education (Government Decree 363/2012 (XII. 17.).

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Bernstein's theory

The theory of linguistic codes was developed in the 1950s by renowned researcher Basil Bernstein, who studied the relationship between language use, social class, and educational inequalities. The theory begins with the characteristics of the working and middle-classes (Jones, 2013), since Bernstein sought to understand the reasons behind social inequality in the UK (Ivinson, 2018). According to Bernstein, social class-related subcultural variations result in various socialization processes (Bernstein, 1971a). Because of the nature of the profession and the presence or lack of education of parents, the two socioeconomic groups may have distinct norms and values, which will affect how families are organized internally. The internal organization of the investigated family classes is distinguished by distinct role structures, according to Bernstein (1996): the middle-class has an open role structure, while the working-class has a closed role structure. There is a noticeable difference between the two, which affects the child's speech and language as well. Bernstein (1996, 1971a, 1971b) asserts that children raised in two different family structures—open and closed role systems—will learn two distinct languages and speech patterns or two distinct linguistic codes.

According to Bernstein's theory, the restricted code occurs in working-class (Hawkins, 1977; Bernstein, 1971a, 1971b; Pap & Pléh, 1972; Andrási & Bíró, 1978; Lawton, 1968; Sugárné, 1986; Bernstein, 1996; Várnagy & Várnagy, 2000; Réger, 2002; Hugyecz & Krepsz, 2011; Jones, 2013; Jánk, 2018; Rétháti, 2021; Pékné, 2022). Most sentences are brief, less structured, frequently unfinished, and contain stressed verb forms, which might make it challenging for the speaker to formulate them correctly. However, the usage of adverbs and adjectives is rigorous and constrained, the conjunctions are basic (and, because, so that), and they are frequently repeated (Bernstein, 1971a; Lawton, 1968; Jones, 2013). It is uncommon to employ impersonal pronouns as subjects. According to Bernstein (1996), the middle-class is linked to an elaborated linguistic code. Since the individual's aim is no longer self-evident, meanings must be enlarged and made apparent in elaborated language, which is distinguished by verbal explicitness, whereas restricted linguistic code results in language with implicit meaning (Jones, 2013). In case of elaborated linguistic code the sentences have a more intricate, diversified, and sophisticated structure. Other traits include abstract meanings and abstract thought. Bernstein assumes that small communities or groups that collaborate and know one another well employ a restricted code because they are familiar with one another and can understand one another's intentions (Bernstein, 1971b; Hawkins, 1977; Ivinson, 2018). He uses married couples or the military as examples, where complex discourse is not required because they understand each other with simple sentences or without words. Therefore, there are situations in which using a restricted linguistic code is appropriate and reasonable, and this does not imply that the one using the code is unable to understand and communicate with the other person (Bernstein, 1971b; Hawkins, 1977). The issue is that a working-class student would only be familiar with the restricted linguistic code, but a middle-class student might be proficient in both the elaborated and restricted linguistic codes. Because the school mainly uses elaborated code, those who use a restricted linguistic code will be at a disadvantage in the classroom (Bernstein, 1971a; Jones, 2013; Ivinson, 2018). *"Thus, between the school and community of the working-class child, there may exist a cultural discontinuity based upon two radically different systems of communication"* (Bernstein, 1971a, p. 111).

The literature offers several solutions to this problem. To help children acquire the elaborated language code, various vocabulary-expanding, articulation, and more complex sentence-developing exercises are recommended (Réger, 2002). For instance, Gahagans (1970, as cited in Réger, 2002) suggested various communication games that can help achieve this goal: *"...reporting an event to a conversation partner who is unaware of what happened"* (Réger, 2002, p. 145). Várnagy and Várnagy refer to a similar communication development game called *"news"*: *"In some classes, for instance, a few minutes of free 'news' time was introduced in the mornings, where everyone could share interesting events that happened to them outside of school"* (Várnagy and Várnagy, 2000, p. 25). The aim of these activities is to give children opportunities to experience and practice the forms of communication that are valued in the school environment. Through positive and engaging interactions, these exercises help bridge the symbolic gap between everyday and academic language use, easing the transition and reducing potential tensions (Réger, 2002; Bernstein, 1996).

Critiques

Despite being a well-known, extensively recognized, and largely accepted theory, Bernstein's study and theory have been criticized by several scholars. Numerous authors have criticized the terms' ambiguity, including Denis Lawton, a student of Bernstein, who contends that predictability of the speaker's intention has an

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ambiguous definition despite frequently using it as a defining criterion. *"It is not quite clear what the term means in Bernstein's writings..."* (Lawton, 1968, p. 120).

Other important phrases have also been found to have ambiguous meanings; Jánk (2018) and Wardhaugh (1995) both contend that crucial terms lack a clear definition. Huszár (2015) notes the class concept's lack of clarity in his research. Detractors argue that Bernstein fails to distinguish between the skilled working-class, which possesses a significant education in their specific trade, and the uninformed, casual working-class, which occasionally leads a criminal lifestyle (Huszár, 2015; Réger, 2002).

"In other words, it is reasonable to assume that within the working-class as defined by Bernstein, we can by no means expect uniform language use" (Réger, 2002, p. 103). Additionally, Wardhaugh (1995) contends that Bernstein stereotyped the working-class because he did not gather enough information or conduct a deep enough analysis of their language. The database was criticized as well. The work was perceived to have both theoretical and methodological flaws (Sugárné & Reök, 1985; Cause, 2010) and a limited database (Réger, 2002; Jánk, 2018).

Bernstein's methodology was also questioned since he used certain tests and visuals to study participants in artificial settings, drawing conclusions that would have been different if the subjects had been in a controlled environment (Réger, 2002; Jánk, 2018). A comparable study is mentioned by Hawkins (1977). He claims that some academics have looked at lower-class kids' speech outside of the classroom. These researchers concluded that children's speech and language are just as rich and complicated in informal settings as those of middle-class children. This suggests that although there may be variations because of the school environment, assignments, and expectations, their language proficiency may be the same in casual settings outside of the classroom. Children from lower socioeconomic strata frequently struggle to respond in class and have nothing to say.

The restricted and elaborated linguistic code is also the subject of theoretical criticism by Hawkins (1977). He claims that Bernstein assumes that small communities or groups that collaborate and know one another well employ a restricted code because they are familiar with one another and can comprehend one another's intentions (see the examples about married couples and the military mentioned above). This can also be understood – according to Bernstein's theory – as the antithesis of an elaborated code is one that makes the meaning of the sentences apparent and clear to the individual. Hawkins agrees with this, but he contends that Bernstein goes too far in associating the restricted linguistic code with working-class families and a close-knit community. According to Hawkins, this is untrue because it implies that the speaker of restricted code has a limited vocabulary and poor grammar. In the first meaning, it was merely that people tend to speak more narrowly in a familiar, known setting, but they can also communicate effectively in an unknown one when needed (Hawkins, 1977).

According to Pap (quoted in Réger, 2002), classroom communication is typically one-sided, with the teacher speaking the majority of the time, which prevents children from having the opportunity to speak in whole sentences when they first start school. For this reason, the disadvantage of a restricted linguistic code assumed by Bernstein cannot apply (Réger, 2002). Réger thinks that working-class children are merely delayed, meaning they will eventually catch up to middle-class children, although later (Réger, 2002; Jánk, 2018).

The theory of Bernstein is still widely accepted despite the critiques, and its proponents' later analyses have validated its validity (Cause, 2010). When planning our pilot study and main study, we have integrated the critiques and the considerations by Bernstein's followers into our updated methodology. E.g., we strived to offset the effects of the study situation with regular visits to the kindergartens and diverse instruments during the data collection, we used scales to resolve dichotomization of the two linguistic codes, we break with the classification by working and middle-class.

Kindergarten education in Hungary

In the following section, we briefly introduce the context of the research. The middle of the 20th century saw the emergence of Bernstein's theory that language and social strata are related. Based on his research, he suggested the following as solution in reducing language inequalities: *"Housing conditions must be improved, social services extended, and pre-school education developed"* (Bernstein, 1971, p.118). Hungary has acknowledged the need of early childhood education, and numerous legislation and rules have been passed over time to support compulsory kindergarten education. A law requiring parents of children aged 3-6 to send their children to kindergarten where one existed was passed in Hungary as early as 1891 (1891: Act XV of 1891 on Kindergarten Education). According to research by Havas (2004), just 51% of kindergarten-aged children went to kindergarten in 1970; by 1999, that number had risen to 92%. Act CXC of 2011 mandated that kindergarten

instruction be provided for at least four hours starting at age three (Hegedűs, 2019; Molnár et al., 2015; Török, 2015). In addition to this, the implementation of mother tongue and intellectual growth and education are listed as general tasks in Hungary's National Basic Programme of Kindergarten Education (Government Decree 363/2012 (XII. 17.)). Priority tasks include the development of the mother language, sustaining communication, promoting speech, listening to the kid, and responding to inquiries. The legal conditions are therefore in line with Bernstein's decades-old proposals. The present research aims to examine whether there are positive changes in the everyday lives of children.

Research question and hypothesis

The research question is whether linguistic differences can be observed among kindergarten students in Hungary based on the socio-economic situation of the place of residence. According to the research hypothesis, which is based on Bernstein's work, the implementation of the previously introduced laws and adherence to the National Basic Programme of Kindergarten Education have lessened the influence of the social environment on the language development of underprivileged kindergarten children.

Research design and Methods

We visited kindergartens in disadvantaged, less disadvantaged and advantaged settlements based on the settlement's socio-economic characteristics. The settlements were chosen based on two criteria. First, the Government Decree 105/2015 (IV.23.) on the classification of beneficiary settlements, and the criteria for classification was used to evaluate the list of settlements in Hajdú-Bihar County. Second, we examined the percentage of disadvantaged kindergartens using Hungarian Central Statistical Office (HCSO) data with a settlement focus.

Three settlements were chosen according to Government Decree 105/2015 (23.IV.) and the data of the HCSO (2014c):

1. Socially, economically and infrastructurally disadvantaged settlements with significant unemployment rate, where the proportion of disadvantaged kindergarten children is above 80.1% (hereinafter referred to as D - disadvantaged);
2. Socially, economically and infrastructurally less disadvantaged settlement where the proportion of disadvantaged kindergarten children are between 20,1% and 65,0% (hereafter referred to as LD - less disadvantaged);
3. Advantaged settlement with a share of disadvantaged kindergarten children between 0,0% and 5,0% (hereinafter referred to as A - advantaged).

Kindergarten in each of the chosen settlements served as the site for study. The goal was examining six years old children, as they were about to enter school and we wanted to investigate what sort of language foundation they have after at least three years in kindergarten. 39 children (12 D; 12 LD; 15 A) participated in the study during the second half of the 2023–2024 school year. Two children were excluded from the analysis because they had special educational needs (autistic symptoms and hearing impairment). Since we selected kindergarten students from the oldest age groups in kindergarten, we investigated mainly six-year-olds (three children were five-year-olds).

The study's aim was to test Bernstein's theory using a method we developed, which was based on the work of Bernstein, his followers, and his critics, and to compare the speech patterns of children from different types of settlements. A limitation of our research is that although nearly forty children were involved into the research, our results are not generalizable due to non-probability sampling (Babbie, 2001). However, we do provide a valuable insight into the language use among kindergarten children and its social fault lines at the settlement level.

Methods

Nine kindergarten students from a disadvantaged settlement participated in a pilot study before the investigation was done to improve the tests and questions; however, they were not part of the final data collection. Three speech tests were administered to kindergarten students in the aforementioned settlements. We aimed to reflect on the criticisms of Bernstein, in this instance the test situation's rigidity and one-sidedness by regular visits and employing diverse tests (Réger, 2002; Cause, 2010). 1) We were interested in the response to a single question for the first test: *"What did you do yesterday afternoon?"* The question was adapted from previous research by

Pap and Pléh (1972), who inquired about Sunday in their study. This time we wanted to ask the students about a more recent experience, so our question was about the previous afternoon. 2) Telling the rules of a popular game, hide-and-seek, was the second task. The question *"to what extent is the child able to detach himself from a specific game situation"* (Pap & Pléh, 1972, p. 213) served as the basis for the investigation. 3) Image description, or the narration of pictures, was the third and most important test. According to Hawkins' (1977) research, 300 kids' speech was recorded using three distinct sets of picture cards. The first set of images was also described by Bernstein (1971a; 1971b). *"The children were given a series of four pictures which told a story and they were invited to tell the story. The first picture showed some boys playing football; in the second the ball goes through the window of a house; the third shows a woman looking out of the window and a man making an ominous gesture, and in the fourth the children are moving away"* (Bernstein, 1971a, p. 138; 1971b, p. 50; Jones, 2013; Ivinson, 2018). Based on Bernstein's original pictures, we created a series of images, using our own drawing and coloring, and showed them to the selected children. Considering the features of Bernstein's restricted and elaborated code we examined the speech of kindergarten students in large groups in three tests that included dimensions and related indicators.

Table 1. Main features of Bernstein's restricted and elaborated code that support the study approach

Perspective	Elaborated linguistic code	Restricted linguistic code
The listener's awareness of the circumstances or situation	Not required; the message is clear without it.	Essential since it cannot be comprehended without prior knowledge
Qualities	Compound statements that contain a variety of relative and subordinate clauses	Brief, grammatically sound statements that are frequently broken and incomplete
	Impersonal pronouns (someone, thing) are frequently used.	Seldom are impersonal pronouns used as subjects.
	Adjectives are frequently used,	Limited number of adjectives
	Different conjunctions	Simple conjunctions that are frequently used again.

Source: self-edited using Réger (2002), Lawton (1968), and Bernstein (1971a)

The *"What did you do yesterday afternoon?"* questions

Children might engage in a more casual discussion by asking, *"What did you do yesterday afternoon?"*. The kindergarteners were given the chance to share anything they could think of from the previous day. The data was gathered on days when the children's preceding day was consistently a weekday. The first test served as a familiarization exercise as well since we believed that talking beforehand would make the second test go more smoothly. In response to the aforementioned critique, we made an effort to establish a less traditional, school-like setting.

Table 2. Measures and indicators for the study of the query *"What did you do yesterday afternoon?"*

Speech	Dimensions	Variables and indicators	Attributes
	Structure of speech	Conciseness	- coherent speech - fragmented (by questions) - blended

Source: self-editing

Explaining the rules of the hide-and-seek game

An important dimension of the hide-and-seek test is independence (abstraction), whether the child can detach himself from the play situation or "stay in" the game (Pap & Pléh, 1972). Two indicators were assigned: the number of personal pronouns and/or indefinite pronouns. We also examined speech structure in the telling of the hide-and-seek game rule, whether fragmented (by questions) or coherent (self-speaking) sentences are typical. Interestingly, we also recorded the number of words used, as we were curious to see if there was a difference in the length of the explanation of the rule.

Table 3. Dimensions and indicators for the analysis of the Hide and Seek question

Hide and seek	Dimensions	Indicators/variables	Attributes
	1. Independence	Personal pronouns	number of pieces, example
		Impersonal pronouns	number of pieces, example
	2. Speech	Conciseness	- coherent speech - fragmented (by questions) - blended
		Word count	number of items

Source: self-editing

Image description

The primary focus of our research is the third test. Our goal was to investigate children's speech from several angles. We felt it was necessary to provide the image sequence as a starting point in our study since Bernstein (1971) had discussed it and even provided examples to demonstrate it.

(1) Restricted linguistic code: *"They're playing football and he kicks it and it goes through there it breaks the window and they're looking at it and he comes out and shouts at them because they've broken it so they run away and then she looks out and she tells them off"* (Bernstein, 1971a, p. 138; Bernstein, 1971b, p. 50; Réger, 2002, p. 95).

(2) Elaborated linguistic code: *"Three boys are playing football, and one boy kicks the ball and it goes through the window the ball breaks the window and the boys are looking at it and a man comes out and shouts at them because they've broken the window so they run away and then that lady looks out of her window and she tells the boys off"* (Bernstein, 1971a, p. 138; Bernstein, 1971b, p. 50; Réger, 2002, p. 95).

The two examples are used to define the parameters of image description. The characters in example 1, which exemplifies the restricted linguistic code, are unknown; we don't know who is playing football, who is going out or who is watching, or where they are. The personal pronouns they and there are used as subjects and locatives, respectively. Suffixes and repeated conjunctions are common in simple phrases, which emphasize verb usage, have very few nouns, and lack adjectives. One can find a string of clauses with no subject. The second example, which exemplifies the elaborated linguistic code, on the other hand, is understandable to everyone because the speaker has given a person to the actions, we can determine who did what, he narrates a story in full sentences, and there are a significant number of nouns in addition to verbs. There are more sentence components than predicates.

In the sections that follow, we will examine our research participants' speech in the image description test using the specified dimensions while considering the two instances. Two indicators are used to quantify situational attachment, the first dimension. First, as the sole reference to acts can be construed as an expression of situational attachment, we were interested in the number of actors who were left out (Pap & Pléh, 1972). Our second indicator consists of words that indicate situational boundedness. We examined the frequency of pronouns, the use of the phrases *"here"* and *"there"* and adverbs, including locative adverbs. We thought it crucial to set parameters for our second indicator.

When it came to pronouns, we deemed the criterion satisfied if the actor, or subject, had already been mentioned in the speech before being substituted by a pronoun. According to our thesis, it is unacceptable to use a pronoun in place of a character or subject that is not mentioned at all because doing so would render the speech incomprehensible to someone who is unfamiliar with the images. Word kinds, which show the precise quantity of verbs, nouns, adjectives, and conjunctions, make up the second dimension. In some instances, it was necessary to pose a supporting question, so the words that followed were noted separately: before/after question(s). Sentence structure, or the range of sentence components, or the degree to which our participants employed extended and infinitive phrases, was examined in our third dimension. In this way, we also looked at speech coherence and/or fragmentation.

Table 4. Measurements and markers for the investigation of image reading

Image reading	Dimension	Indicator	Attributes
	1. Situational dependency	- pronouns - locative nouns (here, there) that replace the noun	number of items
		- missing actors	number of items
	2. Parts of speech	- number of verbs	number of items
		- number of nouns	number of items
		- number of adjectives	number of items
		- conjunctions	varieties
	3. Syntactic structure of a sentence	Extended sentences	S + P + O + M
		Simple sentences	S + P
		Conciseness	- coherent speech - fragmented (by questions) - blended

Source: self-editing

Scales

In response to criticism of Bernstein's too-dichotomous classifications, a score system was created (Cause, 2010), which used three- or four-point scales along each dimension and indicator to score performance on each activity. The ratings on the scale went from poorest to strongest in order. For instance, the parts of speech are our second dimension in the image reading test. We examined how all children used adjectives since Bernstein (1971a) claims that *"Rigid and limited use of adjectives and adverbs"* (Bernstein, 1971a, p. 31).

Table 5. A scoring scale example - The usage of adjectives

Not used	Only after the question	At least 1 adjective is mentioned	More than one adjective is mentioned.
0 points	1 point	2 points	3 points

Source: self-editing

Because there were so many signs, each dimension was evaluated using multiple scales, allowing speech to be judged on many dimensions. We developed nine scales:

1. *"What did you do yesterday afternoon?"* – 1 scale: coherence of speech
2. Explaining the rules of the hide-and-seek game – 3 scales: for pronouns, speech coherence, and word count
3. The image description – 5 scales: situation dependency, noun-verb usage, adjective usage, conjunction usage, and phrase fragments

Results

Answers to the question *"What did you do yesterday afternoon?"*

In case of the question What did you do yesterday afternoon? we examined speech fragmentation and coherence. Kindergarteners from advantaged (hereafter A) and disadvantaged (hereafter D) settlements differed from one another. The D group's communication was more conversational and disjointed, and we felt that in order to get longer answers, we needed to ask questions. For instance. E.g. *"What did you do yesterday afternoon? /I played. /What did you play?/ /Hide and seek /(she tells me about hide and seek-second test) /And what else did you play?/ I drew/ What did you draw?/ A car./ Would you like a car? (gives a nod). /What type of car would you like? /Black/ Do you have a car at home? (shakes his head no)"*. Incoherent speech was detected in the vocal material of only two children in this locality. In contrast, the reverse was true for children in the A settlement: coherent speech was most common, while fragmented speech was least common. In the less disadvantaged (hereafter LD) settlements, like the kindergarten children in the D settlements, the order of speech patterns was fragmented, mixed, followed by coherent. The A group was therefore characterized by coherent speech, while in the other two kindergartens we found more fragmented speech, aided by questions.

Explaining the rules of the hide-and-seek game

In explaining the rules of the hide-and-seek game, we first looked at the nature of pronouns. We can say that in all kindergarten groups, both personal and impersonal pronouns were used to a greater or lesser extent. We averaged the scores obtained (1 point - only personal pronouns; 2 points - mixed but more personal; 3 points - mixed but more impersonal; 4 points - use of impersonal pronouns). The A and LD groups have very similar mean scores: 3.18 and 3.14 respectively in favor of LD. The D group was slightly behind with an average score of 2.27. It is crucial to note that all scores were found in every group. For example, children from the D settlement adeptly described the game's rules using only impersonal pronouns, while only the majority used other, more personal pronouns in a logical manner. The opposite was likewise true for the other two groups, who explained the rule using -impersonal pronouns.

When describing the game, there is no discernible change in the coherence of speech. Except for four, nearly all of the kids were able to describe the rule intelligibly; they received three or four points depending on whether they included a supporting query (such as *"And then?"*). The quantity of words utilized, however, varies greatly. In addition to describing the rule, some kids counted to ten or even more. In these cases, the numbers weren't regarded as words unless they indicated the number ten as the game's starting point, for instance. The results of our word count average are as follows: D: 11.72; LD: 18.36; A: 24.92. One can explain anything succinctly, directly, or extensively, frequently with needless asides, but in this instance, it was thought to be significant to see how accurately and thoroughly kids described the game's rules.

Overall, the kindergarteners in the D settlement did worse than the other two groups in the second test, both in terms of word count and pronoun usage. We examined the situational nature of speech, noun-verb connections, adjective usage, conjunctive forms, and sentence structure in the selected settlements during the image reading test.

Image description

The actors stated and the terms used to describe the situation were utilized to analyze situational dependency. The mention of actors (children, uncles, aunts, and their synonyms) did not differ much. Across all groups, auntie (grandmother, wife etc.) was consistently omitted or not stated (10 out of 39), but uncle (dad, elderly man, etc.) was the most often mentioned character (33). It was intriguing to observe that, despite being the most frequently seen in the photos, not many children mentioned the boys playing ball (19). As a result, the action of playing football, ball, or games was always brought up, regardless of the topic being discussed. Adverbs and/or pronouns were also widely used. We were able to create a four-point scale through scoring. The majority of scores fell between two and three points: characters showed up but were incomplete, it's unclear who played football, and there are activities but no boys. Only five children's speech—two from A villages and three from LD settlements—were ranked in the 4-point range. Most of the D group's scores fall between 1 and 2.

We went to a section of speech after situational reliance. The noun-verb relationship—the degree to which children employ the verb in connection to the quantity of nouns—was the first thing we examined. We established a three-point rating system, where three points represent a healthy noun-verb relationship, and one point is assigned for excessive verb use that hinders speech comprehension. Those who scored in between were given two points.

Most of the kids in the D group received a score of 1, followed by two, and two more received a score of 3. Two kids in the LD group received one point, whereas most of the kids—six in total—scored three. All but one of the kindergarteners in A were ranked on the 3-point scale.

The difference was evident when counting adjectives. Additionally, we awarded points for using adjectives in response to a prompt. More than half of the kindergarteners in the A settlement used at least one adjective in their speech; all but three of them used the terms *"angry," "upset,"* or *"old"* following a question. On the other hand, only three D kindergarteners utilized an adjective—two on their own and one following a question. Six kids used adjectives in LD, which was in the middle.

Examining the conjunctions was more challenging. The discourse before and after the enabling question made classification difficult, and the scale's lack of distinct *"categories"* made it difficult to use. Lastly, we were able to develop four scales, however with a few restrictions. Due to the prevalence of juxtapositional (including relative) conjunctions, most of them, irrespective of the settlement, were positioned in the second scale. The D group's preference and frequency of using *"oszt"* (dialect form of the word *"and"*) as a conjunctive was evident in the first test and continued into the second and third. Lastly, we concentrated on using both basic

and long sentences. Here, we additionally looked at potential post-question expansions apart from self-references because we had to ask multiple support questions.

As a result, we established the fragment, mixed, compound, and compound grades, to which we allocated the quantity of expansions and adverbial phrases. One point was awarded in our study to participants whose speech was fragmented and assisted by questions, and who only employed one expansion aside from the adverbial phrase. Coherent sentences with a single extension and sentences with many extensions after questions are both included in the *"mixed"* (2 point) category.

Coherent sentences with more than two extensions received the highest scores (4 points), while those who utilized two extensions independently without questioning received three points. The results show that D kindergarteners received second and third scale points, while only members of the LD and A groups received four points. Two kids from the D group and one from the LD group each received one point. Over 50% of the kids in the A group (9) received a score of 3, demonstrating independent use of two extensions in coherent speech.

Aggregated analysis of the three tests

We developed nine distinct scales for kids to score to evaluate the three tests collectively. At the conclusion of the analyses, the scores were simply totaled. At the conclusion of each assignment, each child was given a total score.

Figure 1. Aggregated results of the three tests (total scores per participants)
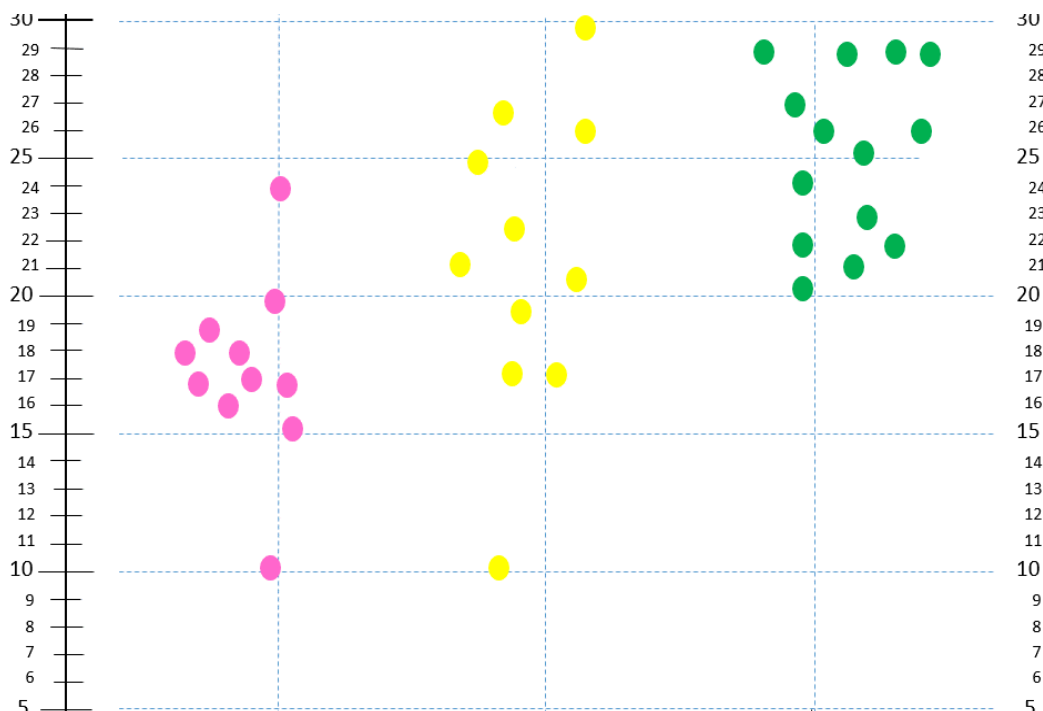
Source: own editing. Pink: Disadvantaged; yellow: Less disadvantaged; green: Advantaged settlements

The total number of points earned following the three tests is now displayed in Figure 1. The D and A appear to diverge, as seen in the illustration. Additionally, we calculated the average of the total scores: D=17,36; LD=21,54; A=25,14.

Discussion

In our study, we examined linguistic variations among sizable cohorts of kindergartens based on residential disadvantages. Our goal was to find out if the compulsory kindergarten education, the speech-related expectations and requirements outlined in The National Basic Programme for Kindergarten Education can make up for the linguistic differences brought on by the disadvantages of place of residence.

The HCSO data on the percentage of disadvantaged kindergarten children and the settlement categories as per Government Decree 105/2015 (23.IV.) were used to gather data in three settlement types: disadvantaged

(D), less disadvantaged (LD), and advantaged (A) settlements. 39 kindergarteners participated in three entertaining tests designed to examine their speech. A set of scales was created by assigning scores to the children's speech after each test was examined using dimensions and indicators derived from linguistic code theory. Prior to the establishment of measurement tools, dimensions, indicators, and scales, extensive and meticulous work was done, adapting the work of Bernstein and his supporters and detractors as well as conducting pilot fieldwork to consider the needs of kindergarteners nowadays.

Results show that the kindergarten group in the D settlement received the lowest number of points. The three kindergartens' explanations of the hide-and-seek rule for coherent speech did not differ much. The highest scorers, irrespective of the settlement, scored in the second scale, whereas the highest scorers were from the LD and A groups. There were no notable variations in situational reliance either. The other results, however, reflect the underperformance of the D group compared to the other two, mostly A groups, sometimes spectacularly (adjectives, word count, sentence context in the first test, noun-verb relationship) and sometimes only to a lesser extent (conjunctions, expanded sentences, use of personal pronouns). The scores obtained were summed and the results are illustrated in Figure 5: the D and A groups are shown as two well-separated point clouds, with the differences in favor of the latter group.

Conclusions

Our hypothesis, based on Bernstein's work, that the implementation of the previously introduced laws and adherence to the National Basic Programme of Kindergarten Education have lessened the influence of the social environment on the language development of underprivileged kindergarten children, was rejected. In fact, the opposite is true: there are still large inequalities in the language use of kindergarteners in Hungary.

Since we studied kindergarteners, we cannot draw conclusions about what these linguistic differences will cause in school performance in the future. However, based on previous studies, we can assume that the differences recognized in linguistic codes are important factors in the inequalities experienced in school, which has been demonstrated in numerous studies (Fischer et al., 2024; Passaretta et al., 2022).

Overall, our findings support the validity of the 1950s-developed theory and its features in the chosen kindergartens. Language differences are permanent. The research draws attention to the need to increase the efficiency of mother tongue development in kindergarten.

Based on our results and on the ideas mentioned above, we suggest creating a fun task bank for native language development that teachers can utilize on a regular basis while dealing with students ages three to six. Children may find it simpler to integrate after they start formal schooling if these activities help them adjust to the communication system that the school represents.

Limitations and reducing bias

Our study's use of non-probability sampling is one of its limitations, despite our best efforts to choose the settlements and their kindergartens using the legal and HCSO classifications. We intend to increase the sample size and carry out more assessments of the kindergartens' educational programs as part of an ongoing study. Another limitation is that our thesis does not address individual-level characteristics because we only have a broad understanding of the social backgrounds of kindergarteners in various settlement types; as a result, we lack accurate information on sensitive subjects like the home education and parental background of specific children. Future research could also focus on family functioning at the individual level.

As interviewers in the data collecting process, we made an effort to create age-appropriate activities and utilize a restricted linguistic code to minimize the impact of disparities in test comprehension on the results. To verify the validity and dependability of the tests, pilot data collection was carried out. To ensure that there was no bias in the analysis, the scale system mentioned above was used consistently and repeatedly. Additionally, in an attempt to maintain objectivity in the study, the subjects were given random and anonymous identities throughout scaling.

References

2011. évi CXC. törvény a nemzeti köznevelésről [Act CXC of 2011 on National Public Education] (2011). https://net.jogtar.hu/jogszabaly?docid=a1100190.tv

363/2012. (XII. 17.) Korm. rendelet az Óvodai nevelés országos alapprogramjáról [Government Decree on the National Basic Programme for Kindergarten Education]. (2012). https://net.jogtar.hu/jogszabaly?docid=a1200363.kor

105/2015. (IV. 23.) Korm. rendelet a kedvezményezett települések besorolásáról és a besorolás feltételrendszeréről [Government Decree on the classification of beneficiary settlements and the criteria for classification]. (2015). https://net.jogtar.hu/jogszabaly?docid=a1500105.kor

Andrási, K., & Bíró, Z. (1978). Nyelv és hátrányos helyzet [Language and disadvantaged status]. *Korunk, 10*(1), 826–830.

Babbie, E. (2001). *A társadalomtudományi kutatás gyakorlata* [The basics of social research]. Balassi Kiadó.

Bernstein, B. (1971a). *Class, Codes and Control. Theoretical Studies towards a Sociology of Language.* Routledge & Kegan Paul Ltd.

Bernstein, B. (1971b). Társadalmi osztály, nyelv és szocializáció [Social class, language and socialization]. *Valóság, 14*(11), 47–57.

Bernstein, B. (1996). Nyelvi szocializáció és oktathatóság [Language socialization and educability]. In Cs. Meleg (Eds.), *Iskola és társadalom I. [School and society I.]* (pp. 131–150). JPTE Tanárképző Intézet Pedagógia Tanszéke.

Cause, L. (2010). Bernstein's code theory and the educational researcher. *Asian Social Science, 6*(5), 3–9.

Fischer, I., Schober, P. S., & Nagengast, B. (2024). Stimulation beliefs, parental reading involvement, and social inequalities in children's language development. *Journal of Family Research, 36*, 283–304. https://doi.org/10.20377/jfr-996

Havas, G. (2004). Halmozottan hátrányos gyermekek – és az óvoda [Cumulative disadvantege children – and kindergarten]. *Iskolakultúra, 4*(4), 3–16

Hawkins, P. (1977). Language and Social Class. *SET, 77*(1), 3–16.

Hegedűs, R. (2019). Hátrányos helyzetű gyermekek az óvodában [Disadvantaged children in kindergarten]. In S. Pálfi (Eds.), *Koragyermekkori nevelés, család és közösségek* (pp. 85–113). Didakt Kiadó. Debreceni Egyetem Gyermeknevelési és Gyógypedagógia Kar.

Hugyecz, E., & Krepsz, V. (2011). Szociolingvisztikai vizsgálat óvodások körében (esettanulmány) [A sociolinguistic study among kindergartens (case study)]. *Alkalmazott Nyelvészeti Közlemények, 6*(1), 59–72

Hungarian Central Statistical Office (HCSO) (2024a). *Az óvodások és nappali oktatásban résztvevők aránya vármegye és régió szerint* [Kindergarten and full-time student enrollment percentages by county and region]. https://www.ksh.hu/stadat_files/okt/hu/okt0033.html

Hungarian Central Statistical Office (HCSO) (2024b). *Óvodai nevelés* [Kindergarten education]. https://www.ksh.hu/stadat_files/okt/hu/okt0007.html

Hungarian Central Statistical Office (HCSO) (2024c). *Hátrányos helyzetű óvodások aránya* [Rate of disadvantaged kindergarteners]. https://www.ksh.hu/interaktiv/terkepek/mo/oktat.html?mapid=ZOI017

Huszár, Á. (2015). Nyelvi szocializáció és az iskola [Language socialization and school]. In A. Varga (Eds.), *A nevelésszociológia alapjai [Basics of sociology of education].* Pécsi Tudományegyetem.

Ivinson, G. (2018). Re-imagining Bernstein's restricted codes. *European Educational Research Journal, 17*(4), 539–554. https://doi.org/10.1177/1474904117745274

Jánk, I. (2018). Nyelvi hátrány és diszkrimináció az iskolában. A nyelvi szocializáció jelentősége a tanuló értékelésében [Language handicap and discrimination and school. The importance of language socialisation in learner assessment]. *Szociológiai Szemle, 27*(3), 27–47.

Jones, P. E. (2013). Bernstein's 'codes' and the linguistics of 'deficit'. *Language and Education, 27*(2), 161–179.

Lawton, D. (1968). *Social class, language and education.* Routledge.

Molnár, B., Pálfi, S., Szerepi, S., & Vargáné Nagy, A. (2015). Kisgyermekkori nevelés Magyarországon [Early childhood education in Hungary]. *Educatio, 15*(3), 121–128.

Pap, M., & Pléh, C. (1972). Nyelvhasználat és társadalmi helyzet. Szociolingvisztikai vizsgálat hatéves fővárosi gyerekek körében [Language use and social status. Sociolinguistic study of six-year-old children in the capital]. *Szociológia, 1*(2), 201–234.

Passaretta, G., Skopek, J., & Van Huizen, T. (2022). Is Social Inequality in School-Age Achievement Generated before or during Schooling? A European Perspective. *European Sociological Review, 38*(6), 849–865. https://doi.org/10.1093/esr/jcac005

Pékné Sinkó, Cs. (2022). A nyelvi képességek és a családi háttér kapcsolata [The relationship between language skills and family background]. *Danubius Noster, 10*(4), 93–105. https://doi.org/10.55072/DN.2022.4.93

Réger, Z. (2002). *Utak a nyelvhez. Nyelvi szocializáció – nyelvi hátrány [Routes to language. Language socialization – language handicap]*. Soros Alapítvány és MTA Nyelvtudományi Intézet.

Rétháti, Cs. (2021). Hátrányos helyzetű gyermekek nyelvi fejlettsége [Disadvanted children and language development]. *Különleges Bánásmód, 7*(2), 77–88. https://doi.otg/10.18458/KB.2021.2.77

Sugárné Kádár, J., & Reök, G. (1985). A szociokulturálisan hátrányos és az átlagos szociális helyzetű 4-6 éves gyermekek beszédkészségének jellemzői [Characteristics of speech skills in socioculturally disadvantaged and average socially advantaged children aged 4-6]. In J. Sugárné Kádár (Eds.), *Beszéd és kommunikáció az óvodás- és kisiskoláskorban Fejlődéslélektani tanulmányok [Speech and communication in kindergarten and primary school age. Developmental psychology studies]*. Akadémiai Kiadó.

Sugárné Kádár, J. (1986). *A beszédfejlődés útjai – beszédfejlesztés az óvodában [Pathways of speech development – speech developmetn in kindergarten]*. Tankönyvkiadó.

Török, B. (2015). *Változások az óvodarendszerben: Véleménykutatások eredményei, 2014/15.* Oktatáskutató és Fejlesztő Intézet. [Changes in the kindergarten system: Results of opinion polls, 2014/15].

Wardhaugh, R. (1995). Bernstein és a „kódok" [Bernstein and the „codes"]. In R. Wardhaugh (Eds.), *Szociolingvisztika* (pp. 294–299). Osiris.