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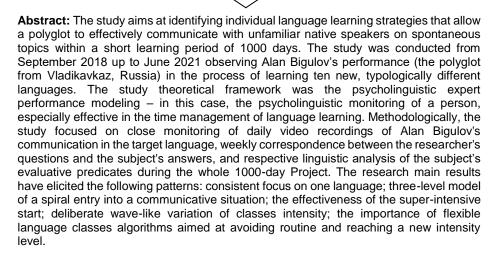
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Waves of intensity in language learning: Polyglot Alan Bigulov's project "10 Languages in 1000 days"

Ondas de intensidade na aprendizagem de línguas: o projeto do poliglota Alan Bigulov "10 línguas em 1000 dias"

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Keywords: polyglottery; language learning strategies; monitoring learning sessions; expert performance modeling; wavelike fluctuations.

Resumo: O estudo visa identificar estratégias individuais de aprendizagem de línguas que permitem que um poliglota se comunique efetivamente com falantes nativos desconhecidos sobre tópicos espontâneos em um curto período de aprendizado de 1000 dias. O estudo foi realizado de setembro de 2018 a junho de 2021 observando a atuação de Alan Bigulov (o poliglota de Vladikavkaz, Rússia) no processo de aprendizado de dez novas línguas tipologicamente diferentes. O referencial teórico do estudo foi a modelagem de desempenho psicolinguístico pericial - neste caso, o acompanhamento psicolinguístico de uma pessoa, especialmente eficaz na gestão do tempo de aprendizagem de línguas. Metodologicamente, o estudo centrou-se no acompanhamento de perto das gravações diárias em vídeo da comunicação de Alan Bigulov na língua-alvo, correspondência semanal entre as perguntas do investigador e as respostas do sujeito, e respetiva análise linguística dos predicados avaliativos do sujeito durante todo o projeto de 1000 dias. Os principais resultados da pesquisa suscitaram os seguintes padrões: foco consistente em um idioma; modelo de três níveis de entrada em espiral em uma situação comunicativa; a eficácia do início superintensivo; variação deliberada em forma de onda da intensidade das aulas; a importância de algoritmos de aulas de idiomas flexíveis visando evitar a rotina e atingir um novo nível de intensidade.

Palavras-chave: poligloteria; estratégias de aprendizagem de línguas; acompanhamento das sessões de aprendizagem; modelagem de desempenho especializada; flutuações ondulatórias.



Introduction

The topic of polyglottery has proved to be especially popular in the last decade.

Polyglottery is understood as an individual multilingualism deliberately acquired in adult age. If previously it was only described by polyglots themselves memoirs (Lomb, 1909–2003); Kurinsky, 1991 [2016]; Gunnemark, 2001 [Gethin & Gunnemark, 1996], today, polyglottery is in the spotlight of linguistic research. Since 2009, a whole series of books and articles devoted to the study of polyglottery under the psycholinguistic and linguodidactic perspective have appeared.

1. Theoretical framework

The theoretical framework of this paper is based on the books: Nikulicheva's (2009) *How to Find Your Own Way to Foreign Languages*: Linguistic and Psychological Strategies of Polyglots; Nikulicheva's (2013) *Speaking, Reading, Writing: Linguistic and Psychological Strategies of Polyglots;* Erard's (2012) Babel no more: the search for the world's most extraordinary language learners and Polese's (2019) *Multilingual learning:* how to become fluent in multiple languages.

Since 2013, several milestone international linguistics conferences on polyglottery have been organized: the International Conference on Multilingual Proficiency: Language, Polyglossia and Polyglottery (New York, 2013), the International Symposium on Language Education, Polyglottery and Geolinguistics (Moscow, 2018), and the Round Table 'The Psycholinguistic Study of Polyglottery' as part of the 19th International Symposium on Psycholinguistics and Communication Theory (Moscow, 2019). The same topic was the focal point at a special meeting of the A. A. Leontiev Center for Intercultural Research at the Institute of Linguistics, Russian Academy of Sciences, on March 1, 2018: https://www.youtube.com/watch?v=OzLO7T6iRp4

The reasons for this interest are obvious: the world community has entered the era of Internet communication, when online contacts are a

commonplace and information retrieval from social other electronic networks and resources instantaneous. Αt the same time, the psycholinguistic analysis continues to develop, it opens new opportunities for applying specific polyglots experience to broad linguodidactic practice. After all, polyglottery, understood as the consciously achieved individual multilingualism, involves a wide range use of individual strategies that can be modeled and applied to foreign language acquisition by ordinary students.

The interest of the scientific community has coincided with the growth of international activity of the polyglot community proper, as evidenced by practical conferences and gatherings of polyglots, which have been regularly held in different countries since 2013: Polyglot Conferences in Budapest (2013), Novi Sad (2014), New York (2015), Thessaloniki (2016), Reykjavik (2017) and Ljubljana (2018); Polyglot Gatherings in Berlin (2014–2016) and Bratislava (2017–2019).

A theoretical synthesis of the results is presented in a series of review publications by G. Kazakov in the journal Voprosy Psikholingvistiki (Kazakov, 2013, 2017 and 2018).

2. Methodological framework

Polyglottery in Russia is actively studied in the framework of experimental psycholinguistics. The results are published in the leading Russian psycholinguistic journal Voprosy Psikholingvistiki (Journal of Psycholinguistics) and abroad, for instance, Nikulicheva's papers, (2015) "Modeling the polyglot's linguistic consciousness: the dynamics of conceptual metaphor in the process of language acquisition"; (2016)"Conscious and Unconscious Time-Management in Language Learning: Monitoring Polyglot Alexander Arguelles"; and (2018) "Studying the linguodidactic strategies of polyglots: development of the theory of polyglottery and its practical application".

The general review of research data sources on polyglottery see in (Kazakov 2021). A linguistic analysis of results is presented in a series of review publications by G. Kazakov in the journal Voprosy

128 Nikulicheva, Dina

Psikholingvistiki (Kazakov, 2013; Kazakov, 2017; Kazakov 2018).

Polyglots' monitoring speech behavior in the learning foreign languages process allows us to address a number of important didactic issues, such as: necessary and sufficient lexical, grammatical and temporal input for mastering a foreign language; effective ways of introducing new language information and its anchoring in the short-term and long-term memory; enhancing speech skills individual methods; maintaining motivation methods and resources in the language learning process; ways to maintain a large number of acquired languages in active working condition; and others.

A new step in the psycholinguistic methodology is polyglots' daily monitoring process, while learning a new language, conducted by both an external linguistic observer and the polyglot himself, who daily registers his own progress in several languages at different acquisition stages. The Russian polyglot Alan Bigulov's project, "10 languages in 1000 days" is an excellent example of such research, available at: http://post.alanbigulov.ru/10_yazykov_za_1000_dnei.

The project began on September 11, 2018 and ended on June 6, 2021. A coach in the personal growth field and self-discipline, from Vladikavkaz (Russia), Alan Bigulov set himself the task of applying his best practices to the coaching field, studying the multiple languages intensively and simultaneously learnt.

When starting such a large-scale project, Bigulov already had considerable languages learning experience. The communication language at work and at home for him is Russian, which he considers his native one, though his ancestors' language is Ossetian, which he has been exposed to as a child, but which he never actively practiced. Before his "10 languages" project, Bigulov leaned several European languages: he could already speak English, French and Spanish.

Alan Bugulov and this article author met in 2018 at the polyglot conference in Ljubljana. There, we agreed that I would monitor his 1000-day experiment. He would describe his progress in languages, send videos of his studied languages communication

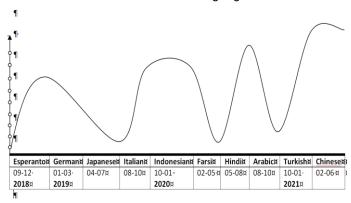
sessions and I would ask leading questions and offer my comments.

3. Results

The main observation concerns the performance wavelike fluctuations throughout the studied period.

evaluative Comparing the predicates semantics taken from Alan's monthly letters about the experiment, I could not fail to notice fluctuations throughout the way he subjectively assessed the communication quality among each of the studied languages. These fluctuations dynamics turned out to be quite significant and had a different "wavy" character from language to language. Of course, there were various external "disturbing factors", such as his own different trainings, parents' illness, writing reports for conferences, a parallel training program for his followers and even his COVID episode. But, in general, the cyclical "ups" and "downs" were quite evident. I can illustrate it with each of the studied languages results (Diagram 1), showing the self-assessment fluctuations.

Diagram 1. Diagram showing self-assessment fluctuations in each of the studied languages.

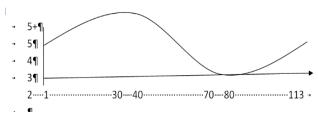


The highest peaks in satisfaction with results were observed in his first language (Esperanto), the fourth language (Italian), the seventh language (Hindi), and languages 9-10 (Turkish and Chinese). One might argue that the success in Esperanto and Italian can be explained in part by prior learning of other Romance languages, Spanish and French. However, the least successful experience of the entire 1000-day period was associated with Farsi – a southwestern subgroup

language, belonging to the Iranian group – typologically, the closest out of all the experiment languages to his almost-native Ossetian language, a northeastern subgroup one, belonging to the same Iranian group.

In general, the wavelike fluctuations in the 1000-day performance by Alan Bigulov resembled the polyglot's emotional state dynamics process, while learning a single language. Take as an example a Hebrew hundred-day study by the famous American polyglot Alexander Arguelles (Nikulecheva, 2015, 142-143). The monitoring revealed an emotional sinusoid three-part rhythm. The first language learning period (days 1-39) was characterized by a stable emotional uplift. The second (days 40-78) displayed a rapid decline and the third period (days 79-113) was characterized by a repeated, albeit modest rise (Diagram 2):

Diagram 2. Diagram showing fluctuations: Nikulecheva's (2015) study on Arguelles acquiring Hebrew.



Source: Nikulicheva (2015).

The factors that influenced the changing efficiency in the case of Alexander Arguelles turned out to be associated with the language learning routine. On the contrary, when Arguelles consciously changed his activities pattern, he experienced an emotional upswing and a resulting increased pace for acquiring new language material.

Monitoring Alan Bigulov's linguodidactic behavior during each of the 100 days from his 1000-day experiment suggests a similar explanation. Alan's reports about his progress with his first language (Esperanto) were highly positive. At the end of the 100-days course, he wrote to me: "In Esperanto, in passive acquisition, I reached C1 level, now I am watching a course in Astrophysics. In active – fluency is on B2

level" (Bigulov's letter, 2019, Jan. 21). Moving on to the second language, he wrote [...]:

In the German language, progress is 5 times slower than it was with Esperanto although the intensity of the study was unchanged. The language makes great demands on the management of motivation, especially against the background of the illness of both parents (Bigulov's letter, 2019, Jan. 21).

In May 2019, Bigulov reported:

I study languages every day without a break for an average of 5 hours, and on March 30, 2019, I started learning Japanese, which I am currently focusing on. At the same time, I continue to study the German language. I continue to practice English, Esperanto, Spanish and French. I have also mastered the basic level of the Ossetian language and now I am looking for materials for further studies in it (Bigulov's letter, 2019, May 13).

In his further letters, the Japanese language was no longer mentioned. And on my direct question about the results, he answered: "In the Japanese hundred days, I was deeply disappointed by the almost complete lack of progress in the language, despite the daily classes. It was an *anti-breakthrough*" (Bigulov's letter, 2021, Jun. 1).

This was definitely a kind of crisis, exacerbated by his parents' poor health, time dispersal and effort on many other projects.

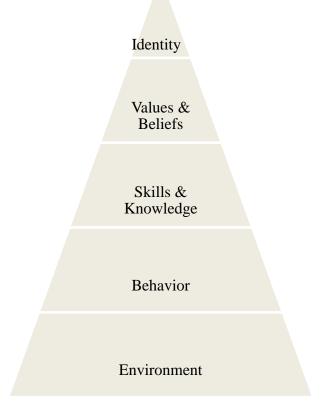
The real breakthrough took place during the hundred days with Italian, when Bigulov completely moved away from the standard classes, based on textbooks and conversational courses: Focused on one language, he created his own "Polyglot Conversational Course". In fact, he consistently followed the technique "Speak from yourself". that was described in Nikulicheva's (2013) book, *Speaking, reading, writing*: Linguistic and psychological strategies of polyglots.

This method essence is: Communication is focused on a relevant content for a specific language learner. The student discusses typical actions in typical places, as well as goals and values relevant to him or her. At the same time, attention is purposefully drawn to the interconnection among certain grammatical structures and certain cognitive representations, which characterize different levels of personal verbalization:

130 Nikulicheva, Dina

environment, actions, capabilities, values and identity (Diagram 3).

Diagram 3. Different levels of personal verbalization (Dilts, 1990).



Source: Dilts (1990).

Bigulov describes his Italian classes in his letter as: "The sub-threshold exercise series - that you developed - worked very well. The idea of a sequential passage through the Identity Pyramid made it possible to quickly start speaking on important topics - about myself" (Bigulov's letter, 2019, Sept. 3).

With the teacher's and Italian native speakers' help, Bigulov compiled 7-8 dialogues about himself for each of the five personal verbalization levels (40 dialogs in general). Below, one dialog example (adapted) from the level "Actions, behavior":

Cosa pensi di fare nel fine settimana? [What are you going to do this weekend?]

- (1) Cosa hai intenzione di fare nel fine settimana? [What do you have the intention to do, this weekend]?
- (2) Ho intenzione di trascorrere del tempo con la mia famiglia, di guardare tutti insieme un

bel film. [I'm going to spend time with my family, watching a good movie together].

- (3) Nel fine settimana penso di lavorare, e poi di andare al bar con gli amici. [l'm going to work on the weekend, and then l'm going to a cafe with friends].
- (4) Ma cosa ti piace fare di più nel fine settimana? [What is your favorite thing to do on the weekend]?
- (5) Nel fine settimana mi piace/amo guardare film e leggere libri. [On weekends, I like to watch movies or read books].
- (6) Anche io amo restare a casa e giocare al PC. [I also like to sit at home and play on the computer].
- (7) Ma ciò che mi piace fare di più nel fine settimana e fare le pulizie. [But most of all on weekends I like to clean the house].
- (8) Io invece odio fare le pulizie, soprattutto nel fine settimana. [I hate cleaning, especially on weekends].
- (9) Nel fine settimana amo non far nulla, solo riposare (non far nulla = oziare). [On weekends, I like to do nothing, just relax (to do nothing = to laze around)].
- (10) Anche io amo rilassarmi, ma non in casa. [I also like to relax, but not at home] (Bigulov's letter, 2019, Oct. 12).

Bigulov writes about his intermediate results:

30 days after the start, I found two native speakers, a boy and a girl, and arranged a Skype meeting. They did not know me before and did not know my level of language proficiency and did not prepare for the meeting in any way. As a result, I was able to communicate with each of them for almost an hour, conducting a lively dialogue. They were very surprised when they found out that I have only been studying Italian for a month. The speed of mastering Italian, according to my observations, exceeds experience with Esperanto. Undoubtedly, acquaintance with other Romance languages (French and Spanish) and others (English, Esperanto), considerable time of study (in 50 days - 340 hours) and concentration on one language significantly contributed to mastering the language at such fast pace (Bigulov's letter, 2019, Aug. 29).

In the second part of the Italian hundred days, Bigulov used social networks to participate in Interviews, and answered more than 200 questions from his interlocutors:

> I didn't notice any signs of a language barrier when communicating with native speakers (previously, the language barrier was quite obvious). My hypothesis is that a structured work scheme for the course minimizes the chances of developing a language barrier. I willingly switch to Italian. I do not feel embarrassed even if I make mistakes and lack of vocabulary. So, just the other day, I talked with the teacher of the Indonesian language, who speaks English and Italian, and I preferred to communicate with her in Italian, and explained to her in detail all the nuances and features of the upcoming classes. I have never seen such rapid progress in learning languages, especially in mastering speaking skills (Bigulov's letter, 2019, Oct. 11).

The effectiveness of the developed methodology was further confirmed by a hundred days with the Indonesian language (October 2019 - January 2020). At the end of the course, Bigulov used a new work form for the first time: he conducted an experiment, creating a super-intensive language immersion online: he arranged 14 one-hour conversations with 14 different native speakers in one day (from 4 a.m. to 10 p.m.). He found his interlocutors on the Website Italki.com.

Inspired by the results, Bigulov returned to multitasking: he organized his own training "Language with joy. Polyglot Conversational Course" (Bigulov,) which coincided with the hundred-day Farsi learning (February-May 2020). As a result, he failed to achieve the desired outcome at the end of the 100 days: "I never managed to get to the conversational level," he wrote (Bigulov's letter, 2020, Jul. 3).

The negative experience with Farsi was taken into account during his Hundred Days with Hindi, which turned out to be the next "breakthrough":

1. He_stopped practicing other languages, focusing only on Hindi; minimized possible distractions

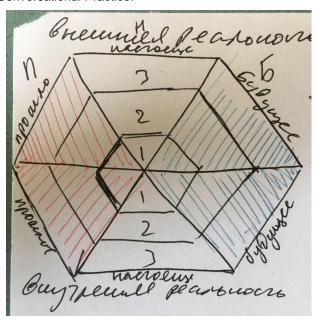
and third-party interactions. On average, he studied Hindi for 5 hours a day;

He revised his system of dialogues.Bigulov wrote:

"I noticed how bored I was in my own classes that became quite mechanistic." So, he decided to [...] "reconstruct a completely natural *linguistic situation* that would serve the brain as a *trigger to assimilate grammatical structures and vocabulary*" (Bigulov's letter, 2020, Jul. 3).

It's interesting to notice that Alan Bigulov, like Alexander Arguelles in the process of learning Hebrew, faced the phenomenon of routinization. Learning Italian, Bigulov for the first time arranged communication practice in accordance with the levels of the Identity Pyramid. Such process gave him the feeling of novelty and breakthrough. But building dialogues according to the same pattern, being repeated 3 times with 3 other languages within several months, created the opposite effect - of artificiality and boredom. And here the most valuable quality of a polyglot was manifested - the ability to flexibly change the practice algorithms, in order to achieve a new intensity level. Now Bigulov began to build dialogues according to his own conversational model. This is how he illustrated the new model "Three-Level Spiral Entry into Conversational Practice", first mentioned in his letter (2020, Jul. 10), not published yet.

Diagram 4. Three-Level Spiral Entry into Conversational Practice.



132 Nikulicheva, Dina

Source: Bigulov's letter (2020, Jul. 10).

4. Discussion

This experimentally derived communication model is still waiting to be properly studied and linguistically described. But in general it looks like this effective model of structuring speech practice takes the form of a *spiral*, *expanding in space and time*:

From the center – LEVEL 1 – "Who Am I?" and "What am I?" (Internal reality, 1st person) through "Who are you", and "What are you?" (2nd person) to: "What is my world?" and "What is your world?" (External reality, 3rd person).

And further to LEVEL 2 – "What do I do in my life?" and "What am I doing just now?", and "What happens/ is happening in the world around me?" and "What are you doing and what happens in the world around you?"

And then to LEVEL 3 - (Internal and External reality) – "In what Circumstances, Where and When it was?" (Past), or, "Where and When will it perhaps happen?" (Future), "How would you like it to happen? Why? For what reason?" etc. What is essential for Bigulov (letter, 2020, Jul. 3) is that: "Each level needs its own lexical and grammatical support. And the logic of entering colloquial practice sets a certain sequence of passing through these levels of reality, and as a consequence - the sequence of mastering grammatical structures and vocabulary".

Another innovation that helped to overcome the effect of routinization, for Alan, was the idea of consciously *varying the intensity within the hundred days period*. Alan Bigulov was prompted to do this both by the experience of monitoring Alexander Arguelles [Nikulicheva, 2015], and by taking into account the inevitable fluctuations in intensity that occurred during the first half of his 1000-day experiment. As a result, having started Hindi, he "deliberately distributed periods of different intensity throughout the 100 days"[...]:

- 1) low intensity of classes;
- 2) intensity increases;
- 3) recession;
- 4) reaching the super-intensive peak;
- 5) lowering intensity drastically;

6) final super-intensive (Bigulov's letter, 2020, Jul. 3).

The example of a closing interview can be seen at https://youtu.be/IOTQqFNScNU This is a one-hour interview with an Indian blogger on motivation strategies, coaching and language learning. Analyzing the entire path traveled, Alan wrote in his letter:

"Conscious management of the intensity of classes in the course of learning a language was one of the most important discoveries that a thousand days experiment taught me." (Bigulov's letter, 2020, Jul. 3)

Alan's third most important discovery during the thousand-day period, which helped to reach a new peak in efficiency after the decline in the Arabic hundred-day period, (partly due to COVID infection) was to maximize the potential of the initial stage of language learning. He started his last two hundred day periods with 5 days of the Turkish and 10 days of the Chinese super-intensive. This brought him to the conclusion that the length of entering into speaking practice can be significantly reduced by starting with a super-intensive entry period and he described it himself:

On the 4th day of the Super-intensive start, I was already able to conduct a conversation in Turkish for 30 minutes, to the utter amazement of native speakers, as they expected to meet a student with elementary level, as I warned them in my message. I have never achieved such a quick result before, even in Esperanto. Many native speakers refused to believe that I had only been studying Turkish for a few days (Bigulov's letter, 2021, Jul. 7).

Bellow, the link to a film about the Turkish super-intensive: https://youtu.be/qE7AC7g8E0c

5. Conclusions

This paper will not dwell on the Chinese period, which introduces a number of innovations, due to this language peculiarities. But, in general, the Chinese period confirms the main principles discovered during the experiment:

1. consistent focus on one language;

- 2. a three-level model of a spiral entry into a communicative situation:
- the effectiveness of the super-intensive start;
- 4. deliberate wave-like variation of classes intensity;
- 5. the flexible changes importance in the algorithm of classes in order to avoid routine and reach an intensity new level.

In the future, this article author plans, in cooperation with Alan Bigulov a thoroughly study, describing the whole 1000-days process, stage-by-stage.

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133

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