



Research article

Differences of kindergarten children's linguistic picture of the world: focus on Hungary, Russia, and Laos

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ABSTRACT

Three-to-five-year-old Laotian kindergarten children, native speakers of the Lao language were investigated in order to map the peculiarities of their picture of the world through their word associations. Results were contrasted to a previous comparative study of Hungarian and Russian kindergarteners of the same age aiming at revealing linguistic and cultural differences and similarities in this age group in the three aforementioned countries. Theories and methods of the Moscow School of Psycholinguistics were utilized for the cross-cultural comparison based on a Vygotskian cultural-historical approach, on Leontiev's speech activity theory, on the concept of verbal consciousness (linguistic picture of the world) and on the association experiment. A pedagogical perspective was incorporated through the application of the Conception of Childhood theory and the shoulder-to-shoulder method. Linguistic data gained during the association experiment was analysed by Sketch Engine, an online corpus linguistics research tool. The outcome of the investigation is a unique set of associations that on the one hand proves the overlapping of Lao children's picture of the world with Russian and Hungarian kindergarteners, on the other hand, sheds light on distinctive, culture- and language-specific characteristics of Laotian kindergarten children's verbal consciousness.

1. Introduction

Since its inception in 1966, the Moscow School of Psycholinguistics founded by Alexey Leontiev (Leontiev, 1978, 1993; Ufimtseva, 2014b) has been developing theories and research methods to investigate various aspects of intercultural communication. Based on fundamental psycholinguistic approaches, various theories including the theory of linguistic consciousness and the lacuna theory have been developed aiming at creating the investigational paradigm to study a variety of factors that may promote intercultural understanding (Ufimtseva, 2014a; Sorokin, 1993; Ufimtseva, 2014b; Markovina and Lenart, 2016; Lenart, 2018; Leonard et al., 2019). The present study is an attempt to combine the most effective international approaches to be applied to the investigation of culture-specific images of the world of various language speakers. This research aimed at investigating and cross-culturally comparing Russian, Hungarian, and Lao children's images of the world. Scarce research has been conducted prior to this one in the field of Psycholinguistics in Laos, and this paper is probably a ground-breaking work in investigating the linguistic picture of the world (*verbal or linguistic consciousness*; Tarasov, 1996) of native Lao-speakers. The main research method was the

association experiment (Ufimtseva, 2014a; Lenart, 2017), a fundamental methodological tool of the Moscow School of Psycholinguistics (Leontiev, 1978, 1993; Sorokin, 1993; Ufimtseva, 2014b; Leonard et al., 2019) that relies on word associations to pre-selected stimulus-words. In association experiments respondents freely associate to either written or orally pronounced word-stimuli with the first words that come to their minds when hearing or reading the stimulus words in question.

Association reactions obtained and grouped into association fields are regarded as representations of content of mental images externalised by words of the language. Mental images constitute the culture-specific image of the world. Alexei Leontiev's proposed the term "language consciousness" to psycholinguistically designate the linguistic picture of the world which seems to be equivalent to the psychological term "image of the world" used by the Russian psychology (Ufimtseva, 2014b). Thus, psycholinguistically obtained and interpreted linguistic picture of the world is referred to as "language consciousness".

Results were compared to the outcome of a previous study implemented with Russian and Hungarian respondents of the same age group, with the same stimulus words (Endrody et al., 2019; Lenart et al., 2019).

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Respondents were 4-5-year-old kindergarten children who were asked to freely associate to the following ten stimulus words: *friend, child, family, water, black, toy/game, devil, home/house, foreigner, and angel*. The gained associations were digitalised and analysed with Sketch Engine, an online corpus linguistic research tool (Benko, 2014).

The study was completed with a multi-disciplinary approach incorporating a pedagogical perspective in the basically psycholinguistic research by relying on the concept of childhood as a social construction (James and Prout, 1997), and by the application of the shoulder-to-shoulder method (Griffin et al., 2014).

2. Materials and methods

The underlying method of the current research is the *association experiment* (Ufimtseva, 2014a), a foundational methodological tool of the Moscow School of Psycholinguistics. From the psycholinguistic perspective, word associations are viewed as cognitive structures that serve to conceptualize experience accumulated through human activities in the ethnic culture (Leonard et al., 2019). In the course of the association experiment, respondent were given word-stimuli and requested to say out the first things that come to their mind when they hear the lexemes in questions.

Respondents were 100 kindergarten children from the 4-5-year-old age group, all of them native speakers of the Lao language. Responses were recorded in a written-form questionnaire by the nurses of the kindergarten. All Laotian interviews were conducted in a kindergarten in Nongteng, a smaller but rather high-end district in Vientiane, the capital of Laos, 16 km from the city centre. Sample size was selected in accordance with the previous study (Endrody et al., 2019; Lenart et al., 2019) whereas similarly, 100-100 association tests were completed.

Participants of the survey were selected based on their year of birth: children born in 2015 and 2016 were accepted to take part. In total, 108 potential participants were identified, the research was conducted with those 100 children whose parents first gave informed consent to the survey (see Annexes 1, 2). With regard to general ethical considerations as well as the young age of participants, questionnaires were checked and approved by the Ethical Committee of Leontiev Center for Cross-Cultural Research (Institute of Linguistics, Russian Academy of Science).

Interviews were conducted utilizing the shoulder-to-shoulder method (Griffin et al., 2014), a pedagogical approach that allows children to freely converse, play, and move around during the interview thus creates a friendly atmosphere where the child feels comfortable and can easy open up and talk.

51 percent of participants were 4 years old (year of birth: 2015), while 47 percent 5 years old (year of birth: 2014) children, in two cases year of birth was not registered (Diagram 1). In terms of sexes it can be stated that respondents were composed of 55 percent of girls and 39

percent of boys, while in 6 cases sex was not registered by the interviewers (Diagram 2).

The results were collected into a corpus and uploaded to and analysed by Sketch Engine (Kilgariff et al., 2014), an online corpus linguistic research tool. It needs to be noted that Sketch Engine tags linguistic units of different type: the usual unit of analysis is a lexeme. However, in the written Lao language words are not separated by space from each other, consequently, Sketch Engine often displayed longer units of language than individual lexemes (typically combinations of several words that could either be considered as independent lexemes or needed to be split up into smaller units by the researchers).

Results were compared to a previous research executed in Hungary and Russia (Lenart et al., 2019) along the same methodology, with the same stimulus words, with the same amount (100-100) of respondents.

The kindergartens were affiliated with the Research Institute of Hygiene and Protection of Children's and Teenagers' Health under the Ministry of Health of the Russian Federation. The study complies with all regulations having taken into account the fact that participants were minors, informed consent was obtained from the 4-5-year-old respondents' parents.

3. Results

Tables 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 display the frequency lists of the reactions to the ten stimulus words respectively, split into three word classes: nouns, adjectives and verbs. Further word classes (pronouns, conjunction words, modal verbs, etc.) were excluded from the discussion. Results shown in each table were compiled from reactions to only that specific stimulus word marked in the title of the table. In Table 1 for instance, the reaction word *játék* (game) appeared 14 times as an association of the Hungarian stimulus word *barát* (friend) – the same reaction word, *játék* (game) was associated 7 times to the Hungarian stimulus word *gyerek* (child) as shown in Table 2. The first two columns of each table present Hungarian and Russian associations, data from previous research (Endrody et al., 2019; Lenart et al., 2019), meanwhile the third column contains the Lao-language associations, outcome of the research presented in this article.

3.1. Friend (*barát*, *друг*, ຜົນ)

The most frequent Lao noun association to the stimulus word ຜົນ (*friend*) is ຜົນຢູ່ຫ້ອງດຣັບກັນ with 18 occurrences. The literal meaning of ຜົນຢູ່ຫ້ອງດຣັບກັນ is “*friends in the same room*” that can be translated as *classmate*. The association from *friend* to *classmate* or “*friend in the same room*” is transparent as the first lexeme of the two expressions is the same (ຜົນ: *friend*).

All top Lao noun associations of *friend* are connected to persons including family members and classmates – unlike the Hungarian and the

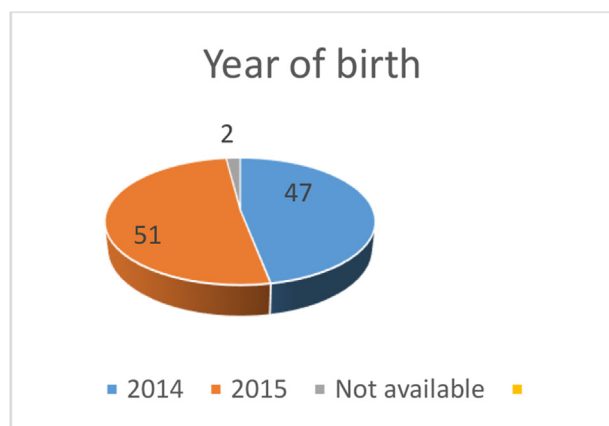


Diagram 1. Year of birth respondents.

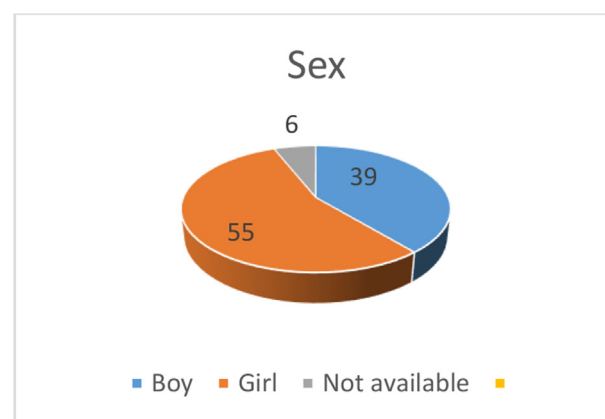


Diagram 2. Sex respondents.

Table 1. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *friend*.

1.	<i>barát</i> (friend)		<i>друг</i> (friend)			<i>ໝູ່</i> (friend)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
<i>játék</i> (game/toy) 14; <i>anyuka</i> (mother) 13; <i>ovi</i> (nursery) 10; <i>udvar</i> (court) 6	<i>kedves</i> (kind/dear) 44; <i>jó</i> (good) 33; <i>aranyos</i> (cute) 5	<i>játszik</i> (play) 130; <i>szeret</i> (like/love) 42; <i>épít</i> (help) 7; <i>ad</i> (give) 6	<i>мальчик</i> (boy) 14; <i>девочка</i> (girl) 12; <i>человек/машина</i> (man/car) 10; <i>подруга</i> (female friend) 6	<i>хороший</i> (good) 35; <i>добрый</i> (kind) 16; <i>красивый</i> (nice) 7	<i>играть</i> (play) 85; <i>любить/дружить</i> (love/be friends) 42; <i>помогать</i> (help) 30; <i>гулять</i> (walk) 16	<i>ໝູ່ຢູ່ຫົວດຽວ</i> (classmate) 18; <i>ພໍ່ແມ່</i> (parents) 6; <i>ອ້າຍນ້ອງ</i> (brother,)5; <i>ເຈົ້າອ້າຍນ້ອງ sister</i> , 2	<i>ສະໜິດ</i> (intimate) 5	<i>ຮັກກັນ</i> (love) 46; <i>ຫລິ້ນ</i> (play) 26; <i>ບໍ່ຕົກກັນ</i> (not fight) 15; <i>ປັນກັນ</i> (share) 12

Table 2. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *child*.

2.	<i>gyerek</i> (child)		<i>ребенок</i> (child)			<i>ເດັກນ້ອຍ</i> (child)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
<i>kisbaba</i> (small baby) 10; <i>baba</i> (baby) 9; <i>játék</i> (toy/game) 7; <i>óvoda/anyuka/fiú/lány</i> (nursery/mother/boy/girl) 6	<i>kicsi</i> (small) 54; <i>nagy</i> (big) 22; <i>jó</i> (good) 20; <i>kedves</i> (kind) 13;	<i>felne</i> (grow up) 35; <i>játszik</i> (play) 28; <i>válaszol</i> (reply) 13; <i>szeret</i> (like/love) 11	<i>мальш</i> (kiddy) 46; <i>человек</i> (man) 18; <i>мама</i> (mom) 17; <i>мальчик</i> (boy) 8	<i>маленький</i> (little) 44; <i>хороший</i> (good) 10; <i>доброй</i> (kind) 6; <i>большой</i> (big) 6	<i>расти/плакать</i> (grow up/cry) 6; <i>любить/родить</i> (love/be born) 5	<i>ນ້ອງ</i> (younger sibling) 22; <i>ເດັກນ້ອຍ</i> (baby) 7; <i>ໝູ່ຢູ່ຫົວດຽວ</i> 8	<i>ນ້ອຍ</i> (small) 76; <i>ຍິ່ງນ້ອຍ</i> (tiny) 21; <i>ຂົດ</i> (naughty) 5; <i>ບໍ່ຮູ້ຫຍັງ/ບໍ່ຮູ້ຈັກຄິດ</i> (know-nothing/does not know how to think) 3	<i>ກິນນົມ</i> (suckle) 12; <i>ຂົດ</i> (cry) 8; <i>ຮັກ</i> (hold) 6

Table 3. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *family*.

3.	család (family)		семья (family)			ຄອບຄົວ (family)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
anya/anyuka (mother) 140; apa/apuka (father) 121; gyerek (child) 35; mama (mom/grandma) 23	kedves (kind) 27; jó (good) 23; nagy (big) 17; i gazi (real) 10	szeret (love) 26; játsszik (play) 12; mond (say) 11; megy (go) 10	мама (mom) 146; папа (daddy) 134; бабушка (grandma) 50; дедушка (grandpa) 40	хорошая (good) 40; добрая (kind) 20; большая (big) 19; дружная (friendly) 17	любить (love) 26; Жить (live) 13; ходить (go) 7; дружить (be friends) 5	ພີ່ແມ່ (parents) 92; ອ້າຍເອ້ອຍນ້ອງ (siblings) 52; ພໍ່ແມ່ (grand-parents) 40; ເອົາອັນ (sister) 15	-	ຢູ່ນຳກັນ (stay, together) 13; ຮັກກັນ (love) 9; ຊ່ວຍ (help) 2

Table 4. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *water*.

4.	víz (water)		вода (water)			ນ້ຳ (water)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
Duna/tenger (Danube/sea) 7; kéz/Balaton/hal (hand/Balaton/fish) 5	folyékony (liquid) 21; kék (blue) 17; meleg/finom (hot/tasty) 10; hideg (cold) 9	iszik (drink) 29; szeret (like) 9; folyik (flow) 5; fürdik/úszik (bathe/swim) 6;	море (sea) 26; река (river) 11; рука (hand) 8; Жидкость/кран (liquid/tap) 7;	питьевая/прозрачная (drinking/transparent) 6; мокрая/голубая (wet/blue) 17	пить (drink) 68; мыть (wash) 17; купать (bathe) 12; течь/купаться (flow/bathe) 9	ນ້ຳດື່ມ (drinking water) 50; ນ້ຳກິນ (drinking water) 48; ໜອງນ້ຳ/ນ້ຳຝົນ (lake/rain) 4; ປາ/ເປັປ໌ສີ (fish/Pepsi) 3	ນ້ຳອຸ້ນ (warm) 2; ນ້ຳໃຈ (kind-hearted) 1	ກິນ (drink) 99; ອາບນ້ຳ (shower) 56; ວ້າງ (wash) 29; ຕົ້ມ/ ໃຊ້ (boil/use) 24; ຊາວເຄື່ອງ (wash clothes) 17

Table 5. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *black*.

fekete (black)			черный (black)			ສີດຳ (black)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
szín (color) 22; cipő (shoe) 11; ruha (clothes) 9; nadrág (trousers) 7	sötét (dark) 28; fehér (white) 12; kék (blue) 6	szeret (like) 5	цвет (color) 44; краска (paint) 22; машина (car) 21; карандаш (pencil) 13	-	-	ສີດຳ (pencil) 33; ເສື້ອ (T-shirt) 22; ກະດານດຳ/ຕອນ ກາງຄື ນ (blackboard/night) 10	ມືດ (dark) 24; ສີດຳ / ມືດ/ ສີຂາວ/ສີແດງ (pink/purple /white/red) 1	ບໍ່ເຫັນຫຍັງ (can't see) 12; ບໍ່ມີສີອື່ນປັນ (not mix with other colour) 4; ມອດໄລ (light off) 3

Table 6. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *toy/game*.

játék (toy/game)			игрушка (toy)			ຂອງຫຼິ້ນ (game/toy)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
legő (lego) 15; baba (doll) 13; autó (car) 11; vonat (train) 9	jó (good) 6; babás (with dolls) 5	játszik (play) 75; szeret (like) 31; rajzol (draw) 10; legőzik (play lego) 7	кукла (doll) 36; машина (small car) 30; игра (game) 15; машина (car) 13	любимый (favourite) 10; маленький (small) 9; настоящий (real) 6; мягкий (soft) 5	играть (play) 70; любить (like/love) 14	ໂທລະສັບ ([mobile] phone) 19; ເກມ ມັດລິດ (lego) 18; ກາຕູນ (cartoon) 12; ເກມ ມັດລິດ/ເກມ ຫລິ້ນ car racing/playground) 9	ດັບ ລະບົບ (orderly) 18;	ຫລິ້ນ (play) 22; ມ່ວນ ຊື່ນ (enjoy) 8; ບັນ ກັນ (share) 3

Russian results that also consist of objects and places from the child's direct environment such as *játék* (game/toy), *машина* (person/car), *ovi* (nursery), and *udvar* (court).

It is worth mentioning that top Lao noun associations revealed the importance of family members, displayed by such lexical items as: ພໍ່ແມ່ (parents), ອ້າຍນ້ອງ (brother), and ຄື້ອຍນ້ອງ (sister). All of these linguistic items can be considered as independent lexemes in a sense that dictionaries mention those in separate articles (parents, brother, and sister). However, all three lexemes can be further fragmented into multiple parts that can also take the role of individual lexemes. Respectively, ພໍ່ແມ່ (parents) can be split into two parts: ພໍ່ (father) and ແມ່ (mother); ອ້າຍນ້ອງ (brother) can be broken into two lexemes: ອ້າຍ (elder brother) and ນ້ອງ (younger brother); ຄື້ອຍນ້ອງ (sister) can be divided into ຄື້ອຍ (elder sister) and ນ້ອງ (younger sister).

While the Hungarian adjectives associated with the stimulus word *friend* are almost identical and prove that children see friends (and possibly themselves) as basically good creatures/human beings [see Table 1: kedves, добрый (kind/dear); jó, хороший (good); aranyos (cute); and красивый (nice)], Lao children see a friend as ສະໜິດ (intimate). This expression is generally used in two different forms: ຄົນສະໜິດ (intimate person) and ຜູ້ສະໜິດ (intimate friend): both can be translated as “close friends”.

Verb associations of *friend* partially coincide with both the Russian and the Hungarian results as the first two most frequent associations are the same in all three groups: ຮັກກັນ (love) and ຫລິ້ນ (play). Dissimilar lexical items appear as well, including ບໍ່ຕົກັນ (not fight) and ບັນກັນ (share). Lao results display the prominence of the community and of a communitarian perspective not only in the denotative meaning of the reaction words – ຮັກກັນ (love), ບັນກັນ (share), and ບໍ່ຕົກັນ (do not fight) –, but also in the presence of the word/morpheme ກັນ in all three mentioned examples: it can be translated as “together” or “each other”

and fills in the role of a reciprocal pronoun in the Lao expressions. A frequent collocation in the Lao language, widely used in everyday speech is ບັນກັນກັນ that can be translated to “share the food” or “eat together”, and represents an essential concept of the Lao culture of sharing food with each other.

3.2. Child (gyerek, ребенок, ຄັກນ້ອຍ)

The second investigated stimulus word was *child* – noun, adjective, and verb associations are presented in Table 2 below. The Lao translation of the stimulus word is ຄັກນ້ອຍ, a lexeme with a literal meaning “small kid” (more precisely “kid small” as in Lao the adjective generally stands after the noun).

The top noun reaction word to ຄັກນ້ອຍ (child) was ນ້ອງ (younger sibling), a kinship term that can either denote younger sister or younger brother. As second most typical association respondents mentioned was ຄັກນ້ອຍໆ (baby), an expression with the word-for-word meaning “small, small kid” (the repeated adjective refers to its higher intensity in a sense of “very small child”). Similarly to the Hungarian results, *nursery* appears among the top four noun reaction words of *child*. The association is more transparent in the Lao language as *nursery* can be translated as “school for raising children” (ໂຮງຮຽນລູກຊາວໂຮງ), or in its shorter form (ລູກຊາວໂຮງ) (raising children).

In all three investigated countries the most characteristic adjective associated with a child proved to be kicsi/маленький/ນ້ອຍ (small). In the case of Lao respondents the association is more evident as ຄັກນ້ອຍ (child) literally means “small child”. Similarly to ຄັກນ້ອຍ (child), the second most frequent Lao association was ຍັງນ້ອຍໆ (“still small small”, meaning “still very small”). A rich variety of synonyms of ນ້ອຍ (small) were collected as reaction words including ມ້ອຍໆ (“small small”),

Table 7. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *devil*.

ördög (devil)			чорт (devil)			ປີສາດ (devil)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
szarv (horn) 28; gyerek (kid) 7; ruha (clothes) 6; vasvilla/szem (pitchfork/eye) 5	piros (red) 36; fekete (black) 28; rossz (bad) 19; gonosz (mean) 18	viselkedik (behave) 7; akar/válaszol/mond (want/reply/say) 5	человек (man) 14; слово (word) 13	черный (black) 14; плохой (bad) 12; злой (evil) 8	слышать (hear) 5	ຜີ (ghost) 39; ແລ ບ (nails) 19; ຕາ (eye) 8; ຄຂ ວ (teeth) 6	ຍາວ (long) 34; ດຳ (black) 22; ຜູ້ ນາກ ຍາວ (scary) 15; ສູງ/ແດງ(tall/red) 8;	ຈັບ catch 3; ແລ ນ (run) 2; ຕາ / ກິນ (fight/eat) 1

Table 8. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *home*.

8. <i>otthon (home)</i>			дом (house/home)			ບ້ານ (home)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
<i>ház (house) 41;</i> <i>játék (toy/game) 24;</i> <i>ágy (bed) 17;</i> <i>szoba (room) 16</i>	<i>jó (good) 34;</i> <i>nagy (big) 28;</i> <i>emeletes (storeyed) 12;</i> <i>sárga (yellow) 9</i>	<i>lakik (live) 32;</i> <i>szeret (love) 19;</i> <i>játszik (play) 17;</i> <i>alszik (sleep) 9</i>	<i>кирпич (brick) 33;</i> <i>этаж (floor) 32;</i> <i>человек (man) 26;</i> <i>крыша (roof) 16;</i>	<i>большой (big) 33;</i> <i>белый (white) 22;</i> <i>высокий (high) 19;</i> <i>красивый (nice) 11</i>	<i>Жить (live) 77;</i> <i>построить (build) 10;</i> <i>делал (did) 7</i>	<i>ເຮືອນ (house) 32;</i> ບ້ານ ຂອງ <i>ຂ້ອຍ/ພໍ່ແມ່</i> <i>(my village/parents) 19;</i> <i>ຫ້ອງ ກັກກັນ /ເຮືອນຄົວ (kitchen) 3;</i> <i>ຫ້ອງ ນອນ (bedroom) 3;</i> <i>ຫ້ອງ ຄົວ (kitchen) 2</i>	<i>ເຮືອນ ໄມ້</i> <i>(wooden house) 11;</i> <i>ເຮືອນ ກ໌</i> <i>(cement house) 6</i>	<i>ບ້ອນຄູ່ (live) 7;</i> ນອນ <i>(sleep) 4;</i> ກິນ <i>(eat) 3</i>

Table 9. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *foreigner*.

9. <i>külföldi (foreigner)</i>			иностранец (foreigner)			ຄົນຕ່າງປະເທດ (foreigner)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
<i>külföld/ember</i> <i>(abroad/man) 15;</i> <i>ország (country) 12;</i> <i>nyelv (language) 8;</i> <i>haj/ruha/bőr</i> <i>(hair/clothes/skin) 5</i>	<i>barna/másik/magyar</i> <i>(brown/other/</i> <i>Hungarian) 9;</i> <i>fekete/kedves</i> <i>(black/kind) 5</i>	<i>beszél (speak) 32;</i> <i>él (live) 17;</i> <i>lakik (live) 13;</i> <i>válaszol (reply) 10</i>	<i>человек/люди (man) 19;</i> <i>страна (country) 15;</i> <i>язык (language) 12;</i> <i>город (town) 8</i>	<i>другой</i> <i>(different) 16</i>	<i>говорить (speak) 16;</i> <i>Жить (live) 14;</i> <i>приехать (arrive) 5</i>	<i>ຜູ້ຮັງ (fo-reigner) 24;</i> <i>ຜົມ (hair) 18;</i> ດັງ <i>(nose) 16;</i> <i>ຕາ (eyes) 14;</i> ຫນວນ <i>(beard) 20</i>	<i>ສູງ (tall) 40;</i> ກາງ <i>(red) 21;</i> <i>ຂາວ (white) 20;</i> ໃຫຍ່ <i>(big) 14</i>	<i>ຂີ່ຍົນ (take airplane) 7;</i> <i>ຈັບມື/ເຮັດຈັກ (hold hands –/</i> <i>speak 3;</i> ຖ່າຍຮູບ <i>(take photos) 2;</i> <i>ຈຸບ,ຂີ່ລົດ ຖີບ (kiss/ride</i> <i>bicycle) 1</i>

Table 10. Most frequent word associations (nouns, adjectives, verbs) of the stimulus word *angel*.

10.	angyal (angel)		ангел (angel)			ເທວະດາ (angel)		
NOUN	ADJ	VERB	NOUN	ADJ	VERB	NOUN	ADJ	VERB
szárny (wing); ruha (clothes) 45; Jézuska (little Jesus) 12; fej/ajándék (head/gift) 8	kedves (kind) 28; fehér (white) 26; szép (nice) 19; jó (good) 13	repül (fly) 24; lát (see) 11; hoz (bring) 9; segít (help) 6	человек (man) 31; крыло (wing) 21; небо (sky) 15 крылышко (little wing) 10	белый (white) 26; хороший (good) 7; добрый/розовый (kind/pink) 6; черный/маленький (black/little) 5	летать (fly) 31; Жить (live) 7	ທ້ອງຟ້າ (sky) 55; ປີກ (wings) 5; ສະຫວັນ (Heaven) 4	ເຫວ ອົງ (yellow) 5; ສູງ/ໃຈດີ (high /kind) 3	ເບິ່ງ (look) 12; ບິນ (fly) 5; ບໍ່ ເຮັດວຽກ/ເອົາ (not work / takes) 4; ລັກ (steals) 3

ອາຍ ນ້ອຍ (of young age), ນ້ອງນ້ອຍ (small younger sibling), and ຄົນຍັງອ່ອນ (person still young/weak).

Counter to the Russian and Hungarian results – that suggest kindergarteners respect coeval children very positively, describing them with adjectives of mostly positive meaning – Lao children see their fellow kindergarteners (and themselves) as ຂີ້ຕົ້ (naughty), ບໍ່ຮູ້ຫຍັງ (doesn't know anything) and ບໍ່ຮູ້ຈັກຄິດ (doesn't know how to think). Furthermore, a linguistic evidence of a more negative vision of Lao children is the frequent presence of lexemes beginning with ຂີ້ (a morpheme with no lexical meaning but with a negative connotation) including ຂີ້ຕົ້ (naughty), ຂີ້ເທົ່ (cry), and ຂີ້ໃສ່ຈີງ (pooh in the pants).

A child's most typical activities based on the results of the association experiment are ກິນນົມ (suckle), ຂີ້ເທົ່ (cry), and ຊັມ (hold). In the Russian respondent group плакать (cry) also appears as the most frequent verb association, the remaining two Lao activities are not mentioned in noteworthy number by Hungarian and Russian kindergarteners. ກິນນົມ (suckle) means “drink milk” that might be a peculiar feature of small kids as the adult population does not typically consume milk or dairy products. According to the concordance lists ຊັມ (hold) often appears together with ກິນນົມ (suckle) as mothers typically hold (embrace) their children while breastfeeding them.

Further culture-specific synonyms of a child were revealed in the research such as ຕົນໄຕອ່ອນ (soft body) and ຜູ້ເກີດໃໝ່ (newborn).

3.3. Family (család, семья, ຄອບຄົວ)

Table 3 displays the top associations of family in the three investigated cultures. Noun associations comprise exclusively such words denoting members of the family including mother, father, parents, grandmother, siblings, and child. Hungarian and Russian results are almost

identical in the noun category where it can be stated that mother proves to be the core element of Russian and Hungarian children's linguistic picture of the world, followed by father and grandmother. Female family members in the Russian and Hungarian associations always precede male ones (i.e. mother precedes father and grandmother goes before grandfather). Lao results display a more balanced picture, as in the Lao language a combination of father (ຜີ) and mother (ແມ່) is generally used as an independent lexical item ຜີແມ່ (literal meaning: father-mother) with the denotation “parents”. Similarly, the second most typical association ອ້າຍເອົາຍື່ນນ້ອງ (siblings) is composed of ອ້າຍ (elder brother) ເອົາຍື່ນ (elder sister) and ນ້ອງ (younger brother or sister); the third most frequent result is ຜີດູ່ ແມ່ດູ່ (grandparents), a lexical unit that can be split into ຜີດູ່ (grandfather) and ແມ່ດູ່ (grandmother). In one case however it can be observed that female members are prioritised: sister (ເອົາຍື່ນນ້ອງ) is the fourth most frequent Lao noun association (literal meaning: “elder sister and younger sister”).

Meanwhile Russian and Hungarian kindergarteners described a family with adjectives of positive meaning (good, kind, friendly, real), no adjectives were identified in the Lao results.

In the verb category, respondents in all three groups, typically associate family with the verb love (first place in Hungary and Russia, second place in Laos). A noteworthy fact is that the results love (ຮັກກັນ) and stay together (ຢູ່ນຳກັນ) syntactically both comprise the reciprocal pronoun ກັນ (each other) that reflects a collectivistic character of the Lao culture embedded in language. Taking into account that the third most frequent Lao verb association is ຊ່ວຍ (help) that is semantically (not syntactically) a reciprocal verb, it can be stated that Lao verb associations strongly confirm a more collectivistic feature of the linguistic picture of the word of Lao kindergarteners when compared to Hungary and Russia.

Table 11. Top-15 most frequent nouns and verbs, cumulated results.

	Hungarian (HU100)		Russian (RU100)		Lao (LAO 100)	
	word	freq.	word	freq.	word	freq.
1.	anya (mother)	125	мама (mom)	158	ຜີແມ່ (parents)	169
2.	játszani (play)	117	папа (daddy)	136	ນ້ຳກິນ (drinking water)	134
3.	apa (father)	109	человек (man)	103	ອາໄສຢູ່ນຳກັນ (live together)	104
4.	gyerek (child)	73	дом (house/home)	75	ນ້ຳອາບ (water for shower)	90
5.	otthon (home)	54	играть (play)	69	ອ້າຍເອົາຍື່ນນ້ອງ (siblings)	74
6.	játék (they)	53	малыш (kid)	54	ມີສາຍພົວພັນ (relatives)	74
7.	szeret (loves)	52	друг (friend)	47	ຮັກກັນ (love)	58
8.	szárny (wing)	34	люблю (I love)	47	ຂອງຫຼິ້ນ (toy)	56
9.	felnőtt (adult)	32	семья (family)	44	ຄອບຄົວ (family)	52
10.	víz (water)	30	цвет (color)	44	ມີພໍ່ແມ່ລູກຫລານຢູ່ນຳກັນ (family)	50
11.	ruha (clothes)	29	Живет (lives)	43	ຊ່ວຍເຫຼືອກັນ (help)	48
12.	lakik (lives)	26	бабушка (grandmother)	41	ຢູ່ເທິງຝັ່ງ (sky)	43
13.	barát (friend)	26	пить (drink)	40	ຢູ່ນຳກັນ (stay together)	42
14.	ördög (devil)	25	игрушки (toys)	39	ນ້ຳໃຊ້ (water)	38
15.	beszél (talk)	25	ребенок (child)	37	ຄົນເກີດໃໝ່ (baby)	34

3.4. Water (víz, вода, ນ້ຳ)

Noun associations to the stimulus word *water* (víz, вода, ນ້ຳ) displayed in Table 4 clearly reflect the dissimilar geological surroundings of respondents in the reflective countries: Hungarian children associate to Hungarian proper names such as *Duna* (the *Danube* River), *Balaton* (Lake *Balaton*); Russians evoke *more* (sea) and *peka* (river); while Lao children mention ຫນອງນ້ຳ (lake).

On the one hand, the fact that geographical/geological aspects are mirrored in the responses of all three groups reflects a similar associative field of the three investigated cultures, on the other hand associations depict the particular characteristics of the children's native land. As Laos is a landlocked country and Laotians have very limited chance to travel abroad, it may be presumed that respondents do not often mention or evoke the *sea*, meanwhile Russians and Hungarians often associate to *sea* (in Russia this can be supposed to be connected to the geographical attributes of the country; for Hungarians – although the country does not have a sea – traveling abroad became accessible for the population in the last three decades).

Similarly, Lao kindergarteners' frequent noun association is ນ້ຳຝົນ (rain) that can easily be linked to the tropical weather of the country and the heavy presence of rain for six month each year, in the rainy season. Another culturally motivated item is ປາ (fish) – a lexeme that similarly to ນ້ຳຝົນ (rain) does not appear in the Hungarian and Russian results. The underlying reason is supposedly the fact that the dominant protein source of Laotians is fish (in contrast with Hungary where fish is consumed in relatively small proportion).

The strongest Lao noun associations of the stimulus word *water* with remarkably high frequency proved to be ນ້ຳດື່ມ and ນ້ຳກິນ: both lexemes can be translated into *drinking water*. The literal translation of both is “*water-drink*”, with the minor difference that although the verb ດື່ມ and ກິນ both denote the activity of drinking, ດື່ມ is a more colloquial form. Moreover, the verb ກິນ (drink) may also means *eating*, depending on the context.

In all three cultures investigated, *drink* (iszik, numb, ກິນ) is the most frequent verb association from the stimulus word *water*. Another typical activity associated with *water* is connected to cleaning the body with water: the lexemes applied have dissimilar connotative (or partly denotative) meaning as *fürdik* in the Hungarian prevalently refers to taking a bath (to may also denote however taking a shower); купать in the Russian also more often refers to taking a bath, while the Lao verb ອາບນ້ຳ means to take a shower – as bathtubs are generally not part of a Laotian household.

A salient presence thus importance of the notion of *water* can be grasped when analysing the Lao data. This is reflected partly in the outstanding quantity of reactions to the stimulus word *water*, furthermore in the strong presence of water in the overall data (ນ້ຳກິນ [drinking water] is the second most frequent expression of the whole linguistic data gained in this survey), as well as in the multiple synonyms applied by Lao speakers the activity of washing: ລ້າງ (wash, e.g. hand, car); ລ້າງ (wash, e.g. clothes); ອາບ (wash: e.g. take a shower). Furthermore, results revealed the peculiar, culture-specific adjective ນ້ຳໃຈ with a word-for-word meaning “*water-heart*” that can be translated as *kind-hearted*.

3.5. Black (fekete, чёрный, ສີດຳ)

The only one adjective of the ten stimulus words was *black* (fekete, чёрный, and ສີດຳ respectively). All of the nine further stimuli were selected from the word class of nouns. Associations to this stimulus (Table 5) resulted in a relatively low amount of mentions, including zero adjectives in the Russian group. Hungarian and Laotian kindergarteners typically associate *black* with *dark* (sötét in Hungarian and ມຸດ in Lao), furthermore associate to other colour names (fehér [white] and kék [blue] in Hungary; ປົວ [pink], ມ້ວງ [purple], ຂາວ [white], and ສດງ [red] in Laos).

Hungarian children proved to like *black* as the only verb associated with *black* colour was *szeret* (like). While Russian respondents did not mention any verbs, while Lao kindergarteners revealed ຈັດ (see), ບິນ (mix), and ມອດ (turn off) in the following contexts: ບໍ່ເຫັນ ຫຍັງ (can't see anything); ບໍ່ມີ ສີ ອື່ນ ບິນ (is not mixed with any other colour); and ມອດ ໂລ (turn the light off).

The most typical noun association in Hungary and Russia – and presumably in Laos as well – proved to be colour (szín, цвет, and ສີ respectively). The Lao reaction word ສີ (colour) is not displayed in Table 5 because the Sketch Engine software tagged ສີດຳ (black colour) as one lexical item. In Hungary further noun reactions are generally connected to clothes including cipő (shoe), ruha (clothes), and nadrág (trousers). Russian children seemed to be more focused on toys surrounding them with such reaction words as: краска (paint) and машина (car). Lao kindergarteners associate to ສີດຳ (pencil), ສີ້ອ (T-shirt), ກະດາດ (blackboard) and ຕອນກາງຄືນ (night).

3.6. Toy (játék, игрушка, ຂອງຫຼິ້ນ)

Kindergarteners in all three investigated cultures associated the verb *play* (játzik, играть, ຫຼິ້ນ) with the stimulus word *toy/game* (Table 6). A morphological resemblance and similar sounding of the noun and the verb can be observed and can partly explain the strong connection in all cases. The second most frequent verb association is also nearly identical from the semantical perspective: the Hungarian *szeret* (like), the Russian любить (like/love), and the Lao ມ່ວນຊື່ນ (enjoy, all refer to the joyful, gay activity of playing. Lao children's results highlighted the importance of *sharing* (ບັນຈຸ) their toys – a similar result to that of the stimulus word *friend* (ໝູ່) whereas sharing also appeared exclusively among the Laotian results (nota bene: Hungarian children associated to *ad* [give] – a verb consisting of a similar sememe of unconditionally offering something to the other – in a noteworthy number too).

A remarkable difference between the first two groups (Hungary, Russia) and Lao responses can be spotted in the noun reaction words. While Hungarian and Russian children typically mentioned toys of physically tangible objects including baba/кукла (doll), auto/машина/машинка (car), and vonat (train), Lao kindergarteners often referred to ໂທລະສັບ (mobile phone), and ກາຕູນ (cartoon) – tools of modern technology. Lego (legó, ຕາມຕາວ ລີໂກ) was strongly present in the Hungarian and Lao results and could also be grasped in the Russian reaction words – although this does not appear in Table 6. Unlike many European languages, where the brand name *lego* became a common name, in Lao language the expression ຕາມຕາວ ລີໂກ stands for *lego* with the literal meaning of (game of) *connecting vehicles/items together*.

It must be noted that identifying the appropriate equivalents in the analysed three languages was challenging in several cases including the stimulus word *toy/game*. In the Hungarian language, *játék* denotes both *game* as an abstract activity and *toy*, a tangible object that children play with, however in the Russian and Lao languages the two concepts are signified by different words (игра and игрушка; ກຸມ and ຂອງຫຼິ້ນ respectively) (phenomenon of the Lacuna Paradox, see: Lenart, 2018). In compliance with the respondent group's age and phase of linguistic development, *toy* as a more concrete and more easily comprehensible word was chosen for Russian and Lao equivalents (игра and ຂອງຫຼິ້ນ). As Lao children in some cases did not properly reply to ຂອງຫຼິ້ນ (toy), in several cases the moderators mentioned ກຸມ (game) as well in order to clarify the content of the stimulus words.

Hungarian and Russian adjectives connected to *toy/game* mainly represent positive feelings connected to the activity of playing including jó (good), любимый (favourite), настоящий (real), and мягкий (soft). By contrast, Lao children evoke the adjective ຕັບລະບົບ (orderly, something that is put in order) that refers to their obligation to put toys in order after playing.

3.7. Devil (ördög, ເຢັມ, ປີສາດ)

Associations to the stimulus word *devil* (ördög, ເຢັມ, ປີສາດ) included most typically colour terms in the adjective category (Table 7). *Black* appeared in all three respondent groups as the first or second most frequent adjective to describe a devil (number one in Russia, number two in Hungary and Laos); *red* also proved to be a core characteristics of *devil* in Hungary (most frequently evoked adjective) and in Laos (fourth on the frequency list, always co-occurring with *eye* [າງ] in the form of ຕາແດງ, [red-eyed]).

Further evoked adjectives partly refer to strongly negative characteristics such as *bad* (rossz, плохой); *mean* or *evil* (gonosz, злой); and *scary* or *terrible* (cámbra, ужасно). Interestingly, Laotian children describe *devil* in an outstandingly high proportion (34 occurrences) with the adjective *long*. The concordance lists confirm that *long* predominantly stands in front of nouns forming syntagms as ລົງມືຍາວ (long nail, 19 occurrences, out of those 1 occurrence of ມືລົງຍາວ [long toe nail]); ຄໍ້າຍາວ (long teeth, 6 occurrences); ຜົມຍາວ (long hair, 4 occurrences); ຄຂນຍາວ (long arms and long tongue, 1 occurrence each).

Based on the noun reaction words to the stimulus word *devil* it can be observed that Russian kindergarteners generally imagine a *devil* as a similar creature to a human being, a *person* (человек), Hungarians associate to an animal (szarv, [horn]), while Laotians compare a devil to a ghost or spirit (ຜີ). Verb reactions to *devil* refer to *speaking* (válaszol [reply]), and *mond* [say]) in the Hungarian; and *hearing* (слышать) in the Russian respondent group, meanwhile in Laos the devil is seen as a creature that *catches children and eats them* (ຈັບແລ້ວກິນອາຫານ).

3.8. Home (otthon, дом, ບ້ານ)

In the course of the selection of the Hungarian, Russian and Lao equivalents of the concept of *home* (Table 8), dissimilarities were observed in the three languages (Lacuna Paradox, see: Lenart, 2018). In the Hungarian language *otthon* (home) is both semantically and in its linguistic form and sound different from *ház* (house). The Russian, word дом means *house* and *home* in parallel, and the two word forms resemble morphologically and in their sounding as well. The Lao word ບ້ານ can mean *home* or *village* too and the two meanings are in strong interference with each other, meanwhile *house* is most typically verbalized as ຄຳຮັບ. Consequently, house (*ház*, ຄຳຮັບ) appeared as the most frequent association in the Hungarian and the Lao group while it was not present in noteworthy number in the Russian results.

In connection with the stimulus word *otthon* (home) Hungarian children associated mainly to items and objects surrounding them in their homes such as *játék* (toy/game), *ágy* (bed), and *szoba* (room), meanwhile Russians evoked constituents of a house including the reaction words кирпич (brick), этаж (floor), человек (man) and крыша (roof). Laotian reactions suggest more affective ties to their homes (ບ້ານ) symbolised by noun the reactions words ຄຳຮັບ (house), ບ້ານຂອງຂ້ອຍ (my village), ພໍ່ແມ່ (parents), ຫ້ອງແຈ້ງກິນ (kitchen), ຄຳຮັບຄົວ (kitchen), ຫ້ອງນອນ (bedroom), and ຫ້ອງຄົວ (kitchen). Prevalence of eating as a core characteristic of a *home* is reflected on the one hand in the linguistic fact that there are three Laotian equivalents of the English noun *kitchen*, on the other hand in the presence of all three lexemes among the top reactions (the literal translations of the three mentioned lexemes are: cooking room (ຫ້ອງແຈ້ງກິນ), house to prepare food (ຄຳຮັບຄົວ), and room to prepare food (ຫ້ອງຄົວ).

While a generally positive picture of the word emerges from the Hungarian and Russian results of the association experiment, characterised by such adjectives as *jó* (good), and *красивый* (nice), the Laotian top reactions are lack of positive (or negative) connotation. Notwithstanding the fact that the Lao stimulus word was ບ້ານ (home) Lao respondents mainly mention features of a house (ຄຳຮັບ) including ພື້ນ (wooden), ກໍ (cement) referring the material the house was built of. Both Hungarian and Russian kindergarteners see their homes (or houses) as of

a considerable size verbalized by *nagy* (big), *большой* (big), and *высокий* (high).

The verb reaction *live* (lakik, Жить, ບ້ອນຢູ່) reveals congruence in the three investigated languages by taking the first place in the frequency list in verb associations. Sleeping (ນອນ) and eating (ກິນ) proved to be the most relevant activities connected to *home* in Laos – the former also appeared among the Hungarian top four associations.

3.9. Foreigner (külföldi, иностранец, ອົງຕ່າງປະເທດ)

As opposed to the Hungarian and the Russian results (Table 9), Lao children evoked a considerably higher number of adjectives when describing a *foreigner* (ອົງຕ່າງປະເທດ). Ninety-five occurrences were counted in the top four adjectives mentioned by the Laotian respondents, referring either to the size (ສູງ [tall]), ໃຫຍ່ [big] or to the colour (ແດງ [red], ຂາວ [white]) of a foreigner. Size turned to be a central point of reference: understandably, as Lao people are in average noticeably smaller in height and weight when compared to a typical foreigner, especially when contrasted to Europeans and Americans.

Colour terms were associated, mainly in connection with skin colour (ຂາວ [white] with 20 occurrences and ຕົວ [black] with 8 mentions – this latter is not appearing in Table 9 as it is only the fifth most frequent adjective associated). *Red* (ແດງ) colour turned out to be the second most common characteristic of a foreigner, appearing in such syntagms as: ຕາແດງ (red eye), ຜົມແດງ (red hair), and ຫນ້າແດງ (red face).

Hungarian results include the colour terms *brown* (barna) and *black* (fekete), moreover describe a foreigner as a *kind* (kedves) person. Both Russian and Hungarian respondents see a foreigner as different from them, expressed by the word forms *other* (мáсик, другой). Hungarians also associate from *foreigner* to the adjective *Hungarian* as an antonym of the adjective *foreigner* (külföldi can mean *foreigner* and *foreign* in the Hungarian language).

Among noun associations of *foreigner*, Hungarian and Lao respondents often mention parts of the body including *hair* (haj, ຜົມ), *skin* (bőr), *nose* (őg), *eyes* (аг), and *beard* (шнород), while Russian reactions words do not contain these lexemes in remarkable frequency. Hungarian and Russian noun reaction words are more abstract in a sense that besides the physical description of a foreigner, respondents associate to *country* (ország, страна), *language* (nyelv, язык), *abroad* (külföld), and *town* (город). The strongest association in the Laotian respondent group is ຝີ, a loan word from the Thai language, a synonym of *foreigner* that means *French* according to the origin (etymology) of the word (probably due to the fact that the first missionaries arrived to Thailand from France).

The verb category – similarly to nouns – revealed discrepancy between the European (Hungarian and Muscovite-Russian respectively) results and the Laotian outcome of the association experiment. While in Hungary and in Russia the most representative actions of a foreigner as found in the research consist of actions connected to *speaking* (beszél, говорить [speak] and living [lakik, Жить]), the Lao results – besides mentioning *speaking* (ຄວັງ) – give a more colourful description of foreigners. Lao children associate to the following actions: ຂົ່ມ (take an airplane), ຈັບມື (hold each other's hands), ຖ່າຍຮູບ (take photos), ຈຸບ (kiss), and ຂີ່ວີດຖີບ (ride a bicycle).

3.10. Angel (angyal, ангел, ລາວະດາ)

Congruent word associations of the stimulus word *angel* (angyal, ангел, ລາວະດາ) (see: Table 10) in all three analysed countries were noticeable from the following typical reaction words: *fly* (repül, летать, ບິນ) and *wing* (szárny, крыло, крылышко, ບິກ). Partly similar, partly discrepant colour terms were evoked in the three cultures: Hungarians mentioned *fehér* (white), Russians associated to *white* (белый), pink (розовый), and *black* (черный), Laotians uttered *yellow* (ສີເຫວຢອງ) – a colour that often appears in Laos near sacred places, shrines, and statues of Buddha.

Besides common associations such as *fly* and *wing*, numerous further lexemes referred to the perception of kindergarten children, imagining an angel living above the Earth including *sky* (небо, ທ້ອງຟ້າ), *Heaven* (ສະຫວັນ) and *high* (ສູງ). *Jézuska* (little *Jesus*) in the Hungarian and *Heaven* (ສະຫວັນ) in the Lao results may display the religious aspect of the conception of the notion of an angel.

Hungarian and Russian results suggest a generally positive perception of angel expressed by such reaction words as *kedves* (kind), *szép* (nice), *jó* (good), *segít* (help), *xopouuñ* (good), and *добрый* (kind). Lao associations show a more complex picture, incorporating the following obtained linguistic data: ຕື້ງຄົນບໍ່ດີ (looking for bad people), ຕື້ງຄົນຂີ້ດີ (looking for naughty people), ນັ່ງຕື້ງຄົນມາລາກໄກ່ແມ່ (sitting and looking for people who steal mom's chicken), and ຕື້ງຄົນຕາຍ (an angel is a dead person).

Dissimilarly to Hungarian and Russian kindergarteners, Lao children's reactions are often connected to money verbalized in such expressions as ມີເງິນ (has money), ຖືກລາກ (winning the lottery), and ຕື້ງຄົນ (a colour term that can be translated as yellow or golden).

3.11. Cumulated results

Table 11 displays the first 15 most frequent noun and verb associations of the complete data set obtained in the course of the association experiment. Undoubtedly, the central element of the linguistic picture of the world of kindergarteners is *family* and members of the family. The Hungarian results show evidence that children mainly associate to members of the nuclear family (only *mother* [anya] and *father* [apa] appear in the top results); meanwhile in Russia apart from parents, *grandmother* (бабушка) is present on the list of the top-15 strongest associations; and Lao results confirm the prevalence of the concept of the nuclear family by mentioning siblings (ອ້າຍ [elder brother], ອ້ອຍ [elder sister], ນ້ອງ [younger brother or sister]), *grandchildren* ລາວ, as well as further relatives, family relations (ສາຍພວນ [kapsolatok]). Interesting to note and underlines the importance of *family* in the Lao verbal consciousness, that in the Lao language *family* can be expressed in different ways: besides ຄອບຄົວ (family), ມີແມ່ແມ່, ກາຕາວນຢູ່ນັ້ນກັນ also appeared in this study that has the literal translation “father, mother, kids, grandchildren stay together”.

Reference to *water* or *drinking* was identified one time in the Hungarian (víz [water]) and another one time (пьём [drinks]) in the Russian top associations. Lao results however confirm a more substantial role of *water* in the lexicon used by kindergarten children – and presumably in the Lao culture in general. As Table 11 displays, *water* is present in the list in three different forms: ນ້ຳກິນ (drinking water, 2nd most frequent reaction), ນ້ຳອາບ (water for shower, 4th most frequent association), and ນ້ຳໃຊ້ (clean water for multiple purposes). Besides the apparently significant role of *water* in all three data sets, it must be noted that presumably the ten stimulus words applied in the research are over-represented in the results.

The cumulated results re-confirmed strong community-orientation mirrored in the Laotian linguistic picture of the world and expressed by all four Lao verbs in Table 11 including ອາໄວ້ຢູ່ນັ້ນກັນ (live together) ຮັກກັນ (love) ຊ່ວຍເຫຼືອກັນ (help), and ຢູ່ນັ້ນກັນ (stay together). All of the four expressions contain the reciprocal pronoun ກັນ (each other).

4. Discussion and conclusions

Valuable linguistic data was gained in the course of the association experiment conducted with Lao kindergarten children that was contrasted to previously obtained results from a Hungarian-Russian study. Reactions to the ten selected stimulus words resulted in the below main observations.

Lao associations suggest that *family* is a core element of Lao children's linguistic picture of the world with seemingly stronger weight than in the Hungarian and Russian groups. Family members are more frequently referred to and a wider array of the extended family appears in the Lao data including *grandparents* and *grandchildren*. Hungarian results imply

the presence of a nuclear family, while the Russian results proved to be in between the Hungarian data referring to a nuclear and the Lao data displaying traits of an extended family model. From the syntactic perspective, Lao expressions are often compound groups of words that can take the role of a lexeme one by one as well as altogether (similarly to compound words in the Hungarian language) including ພໍ່ແມ່ (parents, literally: “father-mother”), ພໍ່ດູ່ແມ່ດູ່ (grandparents, literally: “grandfather-grandmother”), or ອ້າຍເຈົ້າອ້ອຍນ້ອງ (siblings, literally: “elder brother, elder sister, and younger sibling”).

It should be noted that the lexemes including ອ້າຍ (elder brother), ອ້ອຍ (elder sister), ນ້ອງ (younger brother or younger sister) are over-represented when compared to the Hungarian and Russian results, partly due to the fact that these kinship terms are used in Lao language in the role of personal pronouns: interlocutors generally address each other with these terms. Furthermore, the male grammatical gender is more frequent in these occurrences that can be an implication of the fact that in the Lao language the male forms can also be applied in a wider sense: ອ້າຍນ້ອງ (elder brother-younger brother) for example, can be used for addressing Lao citizens in the meaning of “fellow countrymen” or “compatriot”.

The research confirmed previous observations of Hungarian and Russian kindergarteners (Lenart et al., 2019) stating that children regard themselves as a smaller version of adults. The most frequent adjectives as associations to the stimulus word *child* (gyerek, ребенок, ຕົວນ້ອຍ) in all three investigated countries was *small* (kicsi/маленький/ນ້ອຍ) – in the Lao language the association is more evident as the lexeme *child* (ຕົວນ້ອຍ) can be translated as “small kid”. A variety of synonyms of *small* (small) were collected including ນ້ອຍໆ (“small small”), ອາຍ, ນ້ອຍ (of young age), ນ້ອງນ້ອຍ (small younger sibling), and ຄົນທີ່ຍັງອ່ອນ (person still young).

Among the linguistic data collected on the activities of a child, ກິນນົມ appeared with the meaning *suckle*. The verb literally means “drinks milk”, proving the fact that in Laos, milk and dairy products are not generally consumed by the adult population, thus the expression “drinks milk” seems to be an appropriate distinctive description of the mentioned activity. Here it is important to note that the Lao equivalent of *milk* is ນົມນົມ, with a word-for-word meaning: “breast-water”.

Another similarity between Hungarian and Russian children, the observation that children regard and consider themselves and children generally as *good* and *kind* creatures, proved not to be valid in the Lao respondent group. From the stimulus word *child* Laotian kindergarteners mainly associated to such adjectives as ຂີ້ດີ (naughty), ບໍ່ຮູ້ຫຍັງ (doesn't know anything) and ບໍ່ຮູ້ຈັກຄິດ (does not know how to think). Lao respondents also uttered generally negatively about children with such reactions as: ຂີ້ເຫີ້ (cry), and ຂີ້ໃສ່ສິ້ງ (pooh in the pants).

Water plays a central role in Lao kindergarteners' linguistic picture of the word, partly due to the fact that *water* was one of the ten stimulus words of the research – consequently it is over-represented in the results –, and partly presumably due to the more vital importance of availability of *water* in Laos for drinking, washing, fishing and other purposes. Relevant cultural background information in Laos that partly explains the central role of *water* in Lao-speakers' linguistic picture of the word is firstly the fact that tap water is of very poor quality, not appropriate for human consumption, secondly, Laos is a tropical country with excessive amount of precipitation, of huge rivers such as the Mekong river and a considerable dependency on water for irrigation and fishing purposes. The mentioned phenomenon could be grasped by numerous lexical items connected to *water* in the top 15 list of the cumulated results, including the words: ນ້ຳກິນ (drinking water), ນ້ຳອາບ (water for shower), and ນ້ຳໃຊ້ (clean water for multiple purposes).

Further considerable differences were identified between the previously researched Hungarian and Russian children and Lao kindergarteners. From the stimulus word *toy* (játék, играшка, ຂອງຫຼິ້ນ), Hungarian and Russian children usually associated to objects including *baba*/кукла (doll), *auto*/машина/машинка (car), and *vonat* (train), meanwhile Lao kindergarteners typically mentioned ໂທລະສັບ ([mobile] phone) and

ກາຕູນ (cartoon) – tools of modern technology. The stimulus word *toy* – similarly to *home* – furthermore drew the attention to challenges in identifying the equivalents of stimulus words in a cross-cultural study: a phenomenon coined as the Lacuna Paradox (Lenart, 2018). In the Lao respondent group a peculiar lexeme was identified: while in Hungary and Russia children typically associate the verb *like* (*szeret*, *любить*) to *toys*, Lao kindergarteners mentioned ມ່ວນຊື່ນ (*enjoy*), a verb that reflects a general approach to life in the Lao culture that focuses on enjoying life without worrying about troublesome questions and problems.

Devil as a stimulus word shed light on curious cultural discrepancies between the first two countries and Laos. Laotian children most frequently described *devil* with the adjective *long*, in the form of such syntagms as ດົບມືຍາວ (*long nail*), ມືດົບຕີນຍາວ (*long toe nail*), ດຂ້ວຍາວ (*long teeth*), ຜົມຍາວ (*long hair*), ດຂະນຍາວ and ວິນຍາວ (*long arms and long tongue*). Noun reaction words to *devil* displayed another Laotian cultural specificity: while Russian kindergarteners described *devil* as a similar creature to a human being, a *person/man* (*человек*), Hungarians associated to an animal (*szarv*, [*horn*]), while Laotians evoked a *ghost* or a *spirit* (*ຜີ*) – an integral element of Lao religious (Buddhist) and spiritual thoughts present in everyday conversations and in the family circle too. Verb reactions to *devil* refer to *speaking* (*válaszol* [*reply*]), and *mond* [*say*] in the Hungarian; and *hearing* (*слышать*) in the Russian respondent group, meanwhile in Laos the devil is seen as a creature that catches children and eats them (ຈັບຮັກກັນອາຫານ).

Similarly to *devil*, considerable differences were observed when comparing the reactions to the stimulus word *foreigner* (*külföldi*, *иностранец*, ອົງຕ່າງປະເທດ): a typical foreigner is described by Lao respondents as a *big* (ໃຫຍ່), *tall* (ສູງ), *white* (ຂາວ) person with *red eyes* (ຕາແດງ), *red hair* (ຜົມແດງ), and *red face* (ຫມ້າແດງ). A logical linguistic imprint of the dissimilar body type of Laotians and foreigners is the frequent appearance of *nose* and *beard* in the reaction words, as Lao people typically have a smaller and flatter nose and scarcer facial hair when compared to certain foreigner groups. A colourful – and culturally strongly motivated – description of foreigners was grasped in the course of the research displayed in such reaction words as: ຂີ້ຍົນ (*take an airplane*), ຈັບມື (hold each other's hands: a highly atypical behaviour in Laos), ຖ່າຍຮູບ (*take photos*), ຈູບ (*kiss*, a behavioural taboo in Laos), and ຂີ້ລົດຖີບ (*ride a bicycle*).

Angel is characterised by the Hungarian and Russian respondents with positive traits including *kedves* (*kind*), *szép* (*nice*), *jó* (*good*), *segít* (*help*), *хороший* (*good*), and *добрый* (*kind*), while Lao associations display a less favourable image resulting in the following reaction words: ຕັບງຳມຸ້ມ (*looking for bad people*), ຕັບງຳມຸ້ມ (*looking for naughty people*), ນັ່ງຕັບງຳມຸ້ມກັກແຄມ (*sitting and looking for people who steal mom's chicken*), and ທວະດາຄົນຕາຍ (*an angel is a dead person*).

The picture of a country with strong communitarian characteristics is showing up from the collection of the reaction words, expressed by frequent occurrence of words with reciprocal semantic traits including ຮັກກັນ (*love*, literally “*love each other*”), ບັນກັນ (*share*, literally “*share with each other*”), ອາໄສຢູ່ນຳກັນ (*live together*), ຊ່ວຍເຫຼືອກັນ (*help*, literally “*help each other*”), and ຢູ່ນຳກັນ (*stay together*). These lexical items are more widely used by speakers of the Lao language, when contrasted with the Hungarian and the Russian languages.

All in all, the association experiment proved to be an effective methodological tool to investigate and compare the linguistic picture of the world of 4-5-year-old kindergarteners in Hungary, Russia and Laos. Substantial similarities and noteworthy differences were identified in the research that opened the doors of examining further age-groups in order to trace the verbal development of children from a cross-cultural perspective.

The conclusions based on the comparison of the association test results additionally obtained in the Hungarian and Russian age groups of 10–12 year-olds and 18–20 year-olds demonstrate that by the age of 12 the formation of the culture-specific linguistic image of the world is almost completed (data unpublished). Besides, such comparison shows changes in the linguistic picture of the world that occur in the process of

its formation while a child develops as a social construct (James and Prout, 1997), or in other words, goes through steps of socialization (Vygotsky, 1962, 1978). The similar research based on the Lao language and culture would allow important intra- and intercultural data to be obtained.

Declarations

Author contribution statement

I. Lenart: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

I. Y. Markovina: Performed the experiments; Contributed reagents, materials, analysis tools or data.

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