RESEARCH

Linguistic creativity in heritage speakers

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This paper presents and analyzes lexical and syntactic evidence from heritage Russian as spoken by bilinguals dominant in American English. The data come from the Russian Learner Corpus, a new resource of spoken and written materials produced by heritage re-learners and L2 learners of Russian. The paper focuses on lexical deviations from baseline Russian at a single- and multi-word level, which we divide further into *transfer-based structures* and *novel creations*, showing that the latter are used by heritage speakers, but generally not freely available to L2 learners. In constructing innovative expressions, heritage speakers follow general principles of compositionality. As a result, such innovative expressions are more semantically transparent than their correlates in the baseline or dominant language. We contend that semantically transparent, compositional patterns are based on structures that are universally available across languages. However, L2 speakers resort to these universal strategies for creating novel phrases much less often than heritage speakers. In their linguistic creativity, heritage speakers' utterances parallel those of L1 child learners rather than L2 speakers.

1 Introduction

Heritage speakers are typically defined as "unbalanced bilinguals": those who grew up exposed to a minority language at home, but feel more comfortable with the dominant language of the society in which they live. The category of *heritage speakers* covers a wide range of abilities, from those who can understand but not speak their heritage language (HL) to those who are quite proficient in their heritage language but limited in some registers associated with literacy (Valdés 2001; Polinsky & Kagan 2007; Rothman 2007). The wide range of proficiency and aptitude levels among heritage speakers raises a number of questions concerning their status as native speakers (see Montrul 2008; 2016; Benmamoun et al. 2013; Scontras et al. 2015 for a discussion).

The objective of this paper is to identify and characterize some distinctive features of the lexical-semantic knowledge manifested by heritage speakers. We introduce data from heritage speakers' lexical production and use it to trace patterns; we then establish the uniqueness of those patterns to heritage speakers by comparing them to data coming from L1 and L2 learners. On a broader level, this paper aims to enrich an area of inquiry that has so far received insufficient attention in the growing field of heritage language research.

1.1 Data

Our data come from heritage Russian as it is spoken by American English-dominant bilinguals. Lexical issues in Heritage Russian are traditionally discussed in terms of calquing, code-switching, and stylistic violations (see, for example, Zemskaja 2001).

Semantic phenomena associated with Heritage Russian have not been studied in detail, with the exception of some work on the semantics/pragmatics of aspect and the pragmatics of politeness (Dubinina 2010; Laleko 2010; Mikhaylova 2012; Dubinina & Polinsky 2013). None of the studies listed above investigate deviations in the structure of collocations or the production of such collocations by heritage speakers. Although changes in collocations that occur under language contact have been explored (e.g. Protassova & Nikunlassi 2014), the mechanisms that govern these changes have not been analyzed. Taking these gaps into consideration, we approach the lexical and semantic aspects of Heritage Russian through an analysis of non-standard lexical and syntactic co-occurrence patterns in production. We argue that, where heritage speakers' lexical production differs from that found in the baseline language (i.e., the language heritage speakers are exposed to as their input)[1], the differences are not accidental; rather, we contend that they point to a systematic reorganization of lexical items and expressions. This pattern of reorganization may offer insight not only into the lexical and syntactic features of heritage Russian, but also into the linguistic creativity of its speakers.[2] We define "creativity," in this context, as speakers' ability to create novel expressions.

HL investigations frequently employ experimental studies to test comprehension. However, the design of these studies, which tend to focus on passive assessment, can leave speakers' production skills in shadow. To enhance the results returned by experimental studies, large sets of easily usable production samples – learner corpora – are currently being developed for several languages, including Russian. In this particular paper, we draw our language data from the Russian Learner Corpus (RLC),[3] a resource designed to assist in the investigation of linguistic characteristics of heritage and L2 Russian. At present, the corpus interface and tagging functionality enable search using labels that correspond to different lexical and grammatical parameters. These labels mark deviations of heritage Russian from the baseline (modern spoken Russian) in morphology, syntax, and the lexicon. This growing body of data can be analyzed by comparison to the baseline, as reflected in the RNC, the largest corpus of Russian available.

The corpus data for the present study include oral and written production. *Written texts* were collected from more than 50 heritage speakers and 40 L2 learners. In the heritage group, the respondents were all college-age students, some of whom had enrolled in one semester of Russian for Russian speakers. The majority of these speakers were born in the USA and grew up in Russian-speaking families, although we lack the information as to whether both of their parents, or just one, were Russian speakers. The L2 section of the

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[1] Below we will be using the term "baseline Russian" to describe the language of adult first-generation immigrants to America, whose speech forms the input to heritage learners. Although this is a simplifying assumption, we suppose that this baseline form of Russian has no critical differences from the language spoken by non-emigrant Russians of the same generation; this "standard" variant is captured in the language of the Russian National Corpus (RNC), especially the spoken variant, to which we compare our heritage data. Although defining a standard is a problematic task (see Andrews 1999; 2006 for a discussion), we believe that the RNC offers the best "standard" dialectal data for our study for two reasons: first, the majority of our respondents were taught Russian in a classroom, which means that they were oriented towards the literary norm of Russian; second, the RNC is the biggest and most well-balanced resource of the standard language available.

[2] This understanding of "creativity" has been discussed and adopted within vastly different approaches (cf. Chomsky 1966; Fauconnier & Turner 2008; Tomasello & Brandt 2009), which gives us hope that we can use it in a relatively neutral way.

[3] The RLC comprises texts produced by two categories of non-standard speakers of Russian: L2 learners and heritage language speakers whose dominant language is American English. These texts were provided by Anna Alsufieva, Evgeny Dengub, Irina Dubinina, and Olessya Kisselev. Preliminary linguistic analysis and tagging was undertaken by the members of the Heritage Russian Research Group (Higher School of Economics), with technical support provided by Timofey Arkhangelsky. Future plans for the corpus include the addition of Russian texts created by speakers dominant in German, Finnish and Italian.

corpus contains texts produced by students who started studying Russian as adults. For those students who were enrolled in classes, data were also collected from their written language exams. In both groups, the proficiency level of respondents was no lower than intermediate-mid on ACTFL scales, with the majority performing at the advanced level. Unfortunately, further demographic details were not available for these students.

Oral (elicited) production data were collected from the materials reported by several researchers. Materials on heritage Russian production include "frog stories" (based on the methodology developed by Berman & Slobin 1994; Slobin 2004) and narratives based on short, silent video clips.[4] Data on and discussion of heritage Russian frog stories are presented in papers by Isurin & Ivanova-Sullivan (2008) and Polinsky (2008); several of our illustrative examples below are drawn from these sources.

To focus on the lexical and semantic aspects of heritage Russian, we have chosen in this paper to investigate deviations tagged 'LEX' or 'CONSTR' in RLC. Fragments marked as 'LEX' correspond to improper lexical items; 'CONSTR' indicates mismatches in grammatical or phrasal constructions (collocations),[5] including variations in government patterns, prepositions, lexical restrictions and combinability, etc.

All the expressions tagged as divergent required partial or complete restructuring in order to be acceptable in standard Russian. Such restructuring often involves subtle semantic, syntactic and pragmatic changes. Consider the following example, in which the standard expression is strictly limited to an idiomatic unit and doesn't permit any variations. Despite being an idiom, this unit has a clear passive-like syntactic structure with a specially marked verb form *nazyvajutsja* (call.PRS.3SG) and an inanimate subject (*professija* 'profession'). The animate agent in this case is left unexpressed:

(1)   a.   *Heritage Russian*
          <. . .> kakim   sposobom   russkij   jazyk
                  which.INS   way.INS   Russian.NOM   language[NOM]
                  nazyvaet   èti   professii. . .
                  call.PRS.3SG   this.ACC.PL   profession.ACC.PL
                  '<. . .> in what way the Russian language calls these professions'
      b.   *Baseline Russian*
          <. . .> kak   èti   professii
                  how   this.ACC.PL   profession.ACC.PL
                  nazyvajutsja   po-russki. . .
                  call.REFL.PRS.3SG   in.Russian
                  '<. . .> what these professions are called in Russian. . .'

The analysis of divergent expressions presented below allows us to compare lexical strategies used by heritage speakers and speakers of baseline Russian. We present data from both oral production (frog story and video clip narrative; only heritage speakers) and written production (heritage speakers and L2 learners).

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[4] The clips and the corresponding narratives are available at: https://dataverse.harvard.edu/dataverse/polinsky.
[5] Here and below, we use the term *construction* in its traditional sense (roughly, a particular grammatical pattern or phrasal unit paired with its meaning); although loose, this definition is much in keeping with a variety of definitions proposed within the modern framework of Construction Grammar theories (Fillmore et al. 1988; Goldberg 1995; 2006; Croft 2001; for more details, see Hoffmann & Trousdale 2013). The basic intuition behind such definitions is a view of constructions as non-compositional wholes.

1.2 General approach

Our focus here is on phrasal structures, which usually lie beyond the scope of research. To illustrate a standard analysis of heritage Russian grammar errors, consider the following example from Isurin & Ivanova-Sullivan (2008: 83), which shows a heritage Russian phrase that is ungrammatical in the baseline language:

(2) a. *Heritage Russian*
         idjot   v   morju
         go.PRS.3SG   in   sea.DAT (invalid case)
         'goes into the sea'
     b. *Baseline Russian*
         zaxodit   v   vodu
         go.PRS.3SG   in   water.ACC
         'steps into the water'

Isurin & Ivanova-Sullivan (2008) interpret the deviation in this phrase as a failure to use the proper preposition. Indeed, if the speaker had used the preposition *k* 'toward', the sentence would have been grammatically correct. Our approach parts ways with this formal analysis in considering the *whole phrasal structure* to have been misused. Consider: in (2), the speaker describes a simple spatial scene: a person is standing not far from the sea, then moves towards the sea and steps into the water. In this case, the construction *idti k* 'go to' does not seem to be acceptable in standard Russian because its semantics implies a spatial gap between the subject and the landmark, without contact between them.[6] If the subject steps *into* the water, another construction, *zaxodit' v vodu* (lit. 'enter the water'), must be used.

Violations in the use of phrasal structure are particularly noteworthy within a broader context of language interference and calquing. Heritage speakers are heavily influenced by the dominant language, so it is reasonable to expect them to use calques: word-for-word translations from the dominant language. Calquing indeed occurs in heritage language; since Benson (1960), numerous accounts have provided evidence of direct translations from English into Heritage Russian (see Mikhaylova 2006; Polinsky 2008; Dubinina & Polinsky 2013). For example[7]:

(3) a. *Heritage Russian* (Laleko 2010: 28)
         princessa   v   ljubvi   s . . .
         princess.NOM   in   love.OBL   with
         'The princess is/was in love with . . .'
     b. *Baseline Russian*
         princessa   vljublena . . .
         princess.NOM   enamoured.PASS.PTCP.SG.F
         'The princess is/was enamoured. . .'

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[6] This explanation is not applicable to all types of landmarks, but only to vast landmarks, such as *more* 'sea'. Cf. (i), which can be interpreted both as 'he is going to see me/to my place' and 'he is approaching me':

(i) On   idjot   ko   mne.
     3SG.NOM   go.PRS.3SG   to   1SG.DAT

With large landmarks like *more* 'sea', however, the lack-of-contact limitation significantly influences the available lexicalization strategies, cf.:

(ii) Tuda my   zabiralis'   očen'   často,   kogda šli
     there 1PL.NOM   get.PST.PL   very   often   when   go.PST.PL
     k   morju   novymi putjami
     to   sea.DAT   [new ways].INS
     'We got to this place very often when we went new ways to the sea.' (RNC)

[7] In (3a), there is no Russian equivalent to the auxiliary corresponding to the English *is*. This suggests that even simple calquing strategies are more complicated than they may appear. Nevertheless, assuming that auxiliaries and copulas warrant a separate investigation, we classify (3a) as a genuine calque.

(4) a. *Heritage Russian*

      iskusstvo   učit   čeloveka   o . . .

      art.NOM   teach.PRS.3SG   person.ACC   about

      'Art teaches a person about . . .'

   b. *Baseline Russian*

      iskusstvo   učit   čeloveka . . .

      art.NOM   teach.PRS.3SG   person.ACC

      'Art teaches a person' [+ prepositionless dative object]

Below, we show that calquing does not fully account for all the cases of lexical deviations we address; furthermore, this phenomenon cannot explain the mechanisms underlying the emergence of lexical and syntactic deviations. Indeed, overall, the RLC data suggest that direct borrowing from the dominant language is relevant in only a limited number of instances. It seems that, when heritage speakers fail to find a proper Russian phrase to express their semantic intention, rather than turning to their dominant language, they build phrases of their own.

In example (2), we saw that, when attempting to verbalize a simple spatial scheme, the heritage speaker simply combined the semantics of the basic motion verb *idti* 'to go', the preposition *v* 'into', and the noun *more* 'sea' (used in the wrong case form). The resulting construction is awkward, if not wrong, in both standard Russian *and* Standard English when the subject of the "going" is a person, as it is in (2). This awkwardness arises because both languages have a restriction on the lexical meanings of the relevant nouns. The Russian *idti/ vyxodit' v more* 'go into the sea' is appropriate only if the "goer" is a vessel:

(5) The ship went into the sea.

(6) *Baseline Russian*

    Korabl'   vyšel   v   more.

    ship[NOM]   go.PST[SG.M]   in   sea.ACC

    'The ship went into the sea.'

To gauge the frequency with which calques are produced by non-native speakers of Russian, we examined RLC data (as of 2014) for heritage and L2 learners. A total of 473 sentences produced by L2 learners and 624 sentences produced by heritage speakers were examined; the data, with heritage language/L2 identifiers removed, were independently analyzed by three raters and subsequently compared. As the Figure 1 below shows, out of 310 deviations from standard lexical distribution produced by heritage speakers, 25% were calques. Meanwhile, 64% of the 285 deviations produced by L2 learners of Russian were calques.

In the remainder of this paper, we will investigate in detail the lexical distribution in Russian language produced by heritage speakers, setting aside L2 word-combination strategies that do not rely on dominant-language calques (an issue that warrants further investigation). Among heritage speakers, cases of lexical deviation that are not due to calquing can be divided into two types: a) structures that lack calques altogether and b) structures that we will describe as **semi-calques**. In Section 2, we discuss the linguistic mechanisms that heritage speakers use to derive new expressions, thereby avoiding calquing; Section 3 presents the hybrid expressions that we refer to as semi-calques; Section 4 discusses the actual calques that our research has uncovered.

To anticipate the discussion below, we propose that heritage speakers prefer compositional structures,[8] avoid non-compositional ones, and tend to rely heavily on

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[8] The principle of compositionality (also known as "Frege's principle") defines the meaning of the whole as a function of the meanings of its parts and the way they are syntactically combined; see Partee (1994) for further discussion.
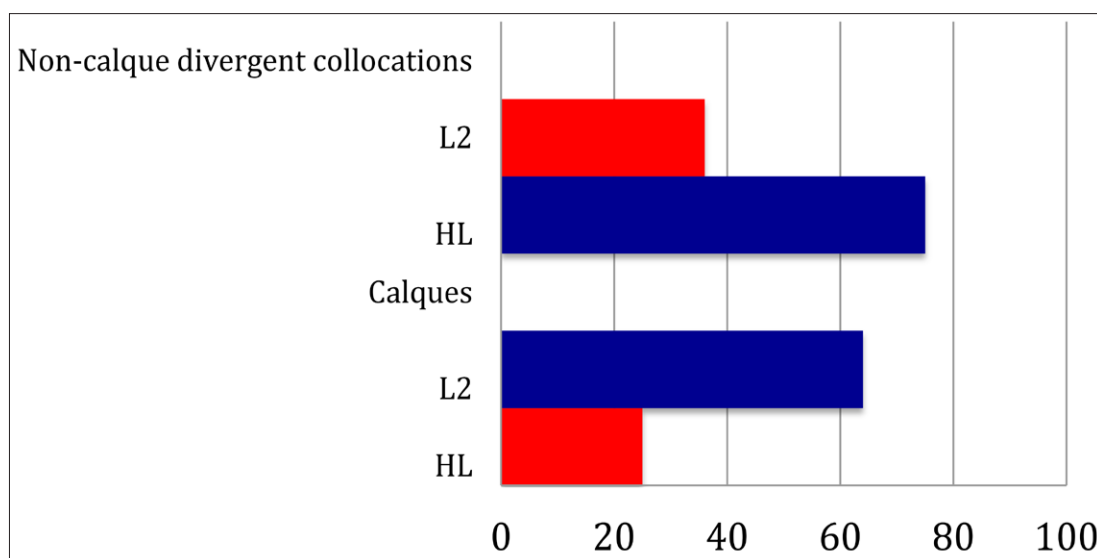
Figure 1: Calques in phrasal expressions as produced by heritage speakers and L2 learners of Russian (percentages based on corpus counts; 595 examples: 310 from heritage speakers, 285 from L2 speakers).

conceptual structures when producing lexical content, thereby bypassing language-specific requirements. In that sense, heritage speakers show similarities with young L1 learners, whose lexical production we address in Section 5. Section 6 presents our conclusions and outlines directions for further research.

2 Absence of calques

In order to understand the creative behavior of heritage speakers, let us first revisit the familiar distinctions among conceptual structure, semantic structure, and grammatical structure. According to Jackendoff, "[c]onceptual structure is not a part of language per se – it is a part of thought. It is the locus for the understanding of linguistic utterances in context, incorporating pragmatic considerations and 'world knowledge'; it is cognitive structure in terms of which reasoning and planning take place" (Jackendoff 2002: 123). Conceptual structure includes presumably universal categories such as Event, State, Object, Path, and Property. These categories underlie the lexical-conceptual structures of the lexical items that compose phrases and clauses. They also play a role in allowing speakers to build semantic categories by combining functions and arguments. It is only in the final stage of the process, when semantic categories are put into grammatical structures, that language-specific properties play a primary role.

  One of the possibilities we consider is that heritage speakers rely more heavily on conceptual structure than native speakers, often foregoing the requirements placed on their language by semantic and grammatical structures (cf. Polinsky 2006 for similar observations). In relying on conceptual structure *par excellence*, heritage speakers may create new formations that do not bear any clear similarity to specific phrases in either of the languages they have access to. A particular subcase of this phenomenon is heritage speakers' creation of compositional expressions where one would otherwise expect calques from the dominant language. The fact that heritage speech contains fewer calques than L2 speech indicates that dominant-language transfer is less strong for heritage learners than for L2 learners; this finding, in turn, suggests that heritage speakers possess linguistic intuition for both languages. The absence of calques is not categorical, nor does it imply that heritage speakers are consciously making the choice to avoid this form of dominant-language transfer. Rather, we contend, this tendency simply indicates heritage speakers' general dependence on conceptual structure.

The examples we present below of the heritage non-calquing strategy will be further divided into pattern-based structures (built on conceptual primitives) and decompositional structures (based on compositionally simple "building blocks").

2.1 Conceptual primitives as building blocks: Pattern-based structures

The notion **conceptual primitive** captures the intuition that certain elements are fundamentally irreducible from a conceptual perspective. Conceptual primitives comprise a cross-linguistically universal set of compositional patterns (including patterns of motion, giving, destruction, etc.), which are traditionally described in linguistic theory in formal or cognitive terms (cf. Jackendoff 2002 for the former, and Langacker 2000 for the latter). When mapped onto the lexical and syntactic structures of a particular language, these patterns may be expressed in various ways, as compositional grammar imposes few limitations. In this section, we argue that this mapping has its own specific nature in heritage speakers' production. We pursue this argument by addressing those instances of heritage output that display simple conceptual structures and universal patterns. We also show how these patterns deviate from those found in the standard language. Structures of this type will be referred to as "pattern-based."

To begin with a simple instance of pattern-based structures, consider the example below, repeated from (2):

(7) a. *Heritage Russian*
         On   idjot   v   morju.
         3SG.NOM   go.PRS.3SG   in   sea.DAT (invalid case)
         'He goes into the sea.'
     b. *Baseline Russian*
         On   idjot   v   vodu.
         3SG.NOM   go.PRS.3SG   in   water.ACC
         'He goes into the water.'

Example (7a) illustrates a basic spatial pattern of motion, which, by default, implies TRAJECTOR, SOURCE, GOAL and PATH; consider the more fleshed-out instance of this pattern in (8), where *train* is TRAJECTOR, *Cambridge* is SOURCE, *London* is GOAL and *fields* is PATH.

(8)   The train goes from Cambridge to London across the fields.

In most cases, this pattern is reduced to TR + G, due to the *Goal-bias* effect, which highlights GOAL as the more salient thematic role (Ikegami 1987; Stefanowitsch & Rohde 2004), for instance as in (9):

(9)   The train goes to London.

Assuming this basic pattern of motion, we can posit that, in (7a), the speaker takes the direct meanings of words and combines them in a straightforward compositional way to produce a construction that fits the basic TR + G scheme, illustrated in common instances such as *idti v školu* 'go to school', *idti v teatr* 'go to the theatre', etc. Note that "open space" goals also conform to this structure; cf. *idti v pol'e* 'go to the field', *idti v l'es* 'go to the woods', *idti v gory* 'go into the mountains', etc.

The frequency of the construction *idti v* + Location 'go to a location' is around 9,000 in the RNC; the frequencies of *VESSEL idti v more* and *PERSON idti v vodu* are 46 and 48, respectively. The heritage speaker clearly follows the more frequent pattern at the same time, ignoring the non-compositional restrictions on the complement of the preposition *v* in the PP that combines with *idti*.

To reiterate, in example (7a) above, the word *voda* 'water' is a much better candidate for a "goal" than the word *more* 'sea' for the typical native speaker (note that the same generalization also holds true for English, where in the corresponding construction *water* is definitely preferable to *sea* when denoting location for non-vessel subjects). The heritage speaker, however, looks beyond these limitations to produce a semantically transparent phrase.

As another example of non-spatial pattern-based structures, consider (10), where the intended meaning is 'giving money to a beneficiary in exchange for something valuable'. The transparent pattern that accounts for (10) entails SUBJECT and BENEFICIARY and optionally expresses MEANS and REASON; consider (11), where *President* is SUBJECT, *general* is BENEFICIARY, and *excellent service* is REASON.

(10)   *Heritage Russian*
       idei   o   pooščrenii   kul'tury[9]
       idea.NOM.PL   about   rewarding.OBL   culture.GEN
       'ideas concerning the stimulation/encouragement of culture'[10]

(11)   The President awarded his general with a medal for excellent service.

In Russian, however, the word *pooščrenije* (lit. 'stimulation/encouragement') is used in this pattern only when the BENEFICIARY is expressed by an animate noun:

(12)   *Baseline Russian*
       pooščrenije   rabotnikov [BEN]
       rewarding.NOM   worker.GEN.PL
       'stimulation/encouragement of workers'

When, instead, the beneficiary is an abstract noun or an organization (something cognitively less primitive), *pooščrenije* in Standard Russian is more likely to be replaced by the word *podderžka* (lit. 'maintenance'): *podderžka proekta / predprijatija / nauki / kul'tury / sporta etc.* 'maintenance of a project / an enterprise / science / culture / sport'). In the RNC, *pooščrenije kul'tury* is not attested at all, while a direct Google search returns less than half as many matches for *pooščrenije kul'tury* than for *podderžka kul'tury*. This number also includes repetitions and contexts that differ in meaning.

In the next example, the divergent pattern has to do with the marking of the by-phrase as ablative:

(13)   *Heritage Russian*
       *èkspluatacija   stran   tret'ego   mira
       exploitation.NOM   country[GEN.PL]   third.GEN   world.GEN
       ot   lic   s   vysokim   VVP
       from   person[GEN.PL]   with   high.INS   GDP
       tože   stala   pričinoj . . .
       also   become.PST.SG.F   reason.INS
       lit. 'exploitation of the Third World countries from the persons with high GDP
       has also become the reason. . .'

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[9] This phrase is taken from the sentence *V 2010, posle prošestvija 75 let s podpisanija Pakta Rerixa, sovremenniki prodolzhajut prodvigat' idei o soxranenii i pooščrenii kul'tury* 'In 2010, 75 years after signing the Roerich Pact, contemporaries keep on promoting ideas about preserving and rewarding culture'.

[10] *Encouragement of culture* is a comparatively rare word combination, as frequency effects indicate: even a direct Google search for *encouragement of culture* (without a deeper analysis of semantic and pragmatic context) returns 381,000 matches compared to 1,940,000 matches for *maintenance of culture*. No occurrences of *encouragement of culture* are attested in the COCA corpus.

In standard Russian, (13) is infelicitous because the agent of the nominalization is introduced with the preposition *ot* 'from'; instead, the instrumental case should be used for this function.

(14) *Baseline Russian*
 èkspluatacija   stran   tret'ego   mira
 exploitation.NOM   country[GEN.PL]   third.GEN   world.GEN
 licami   s   vysokim   VVP
 person.INS.PL with   high.INS   GDP

The speaker's intention in (13) is to express a direct relation between entities. One entity (*strany tret'ego mira* 'Third World countries') experiences negative influence (*èkspluatatsija* 'exploitation') exerted by another entity (*lica s vysokim VVP*, lit. 'persons with high GDP'). The structure of (13) is determined in large part by the heritage speaker's decision to use a nominalized construction. Had the negative influence been expressed by a verb instead, the syntactically simple transitive structure 'A exploits B' would have sufficed. However, this simple structure would have caused problems for the sentence as a whole: (13) contains two predicates, 'exploit' and 'become a reason for', with the first serving as an argument for the second. REASONs are often conceptualized as entities and verbalized as nouns; the speaker therefore nominalizes and partially passivizes the verb *èkspluatirovat'* 'exploit'. Now that a passive construction has been introduced, the idea of "directedness" becomes more salient, with the associated semantics [SOURCE + directed relation (negative influence) + GOAL]. Seeking to adhere to these semantics, the heritage speaker selects the preposition *ot* 'from', which is a standard marker of SOURCE in Russian.[11] Thus, the heritage speaker arrives at a semantically well-specified but grammatically invalid marker, ignoring the restrictions imposed by both English and Russian in order to produce a semantically transparent pattern-based collocation.

In (15), the speaker's intention is to describe the means that the author used to write the play. For this reason, s/he marks the noun *monologue* as an instrument and puts it in the instrumental case. In standard Russian (as in standard English), however, this context doesn't permit an instrumental pattern (AGENT + INSTRUMENT + OBJECT); rather, it requires a separate lexical expression, as illustrated in (16) for Russian and (17), for English:

(15) *Heritage Russian*
 Èta   p'esa   napisana   monologom
 this.F.NOM   play.NOM   written.PASS.PTCP.SG.F   monologue.INS
 'This play is written as a monologue.'

(16) *Baseline Russian*
 Èta   p'esa   napisana
 this.F.NOM   play.NOM   written.PASS.PTCP.SG.F
 v   forme   monologa   /   kak   monolog
 in   form.OBL   monologue.GEN   /   as   monologue[NOM]
 'This play is written as a monologue.'

(17) This play is written as a monologue.

Finally, (18a) is an attempt to express a CONTAINER + OBJECT pattern. In order to convey the idea of placing one entity into another, which seems logical for this sentence, the

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[11] Cf. also *vpečatlenije ot* (lit. 'impression from'), *udovletvorenije ot* (lit. 'satisfaction from'), *poraženije ot* (lit. 'defeat from').

speaker uses the preposition *v* 'in', but fails to follow contextual restrictions that prohibit this lexicalization pattern for entities like people and society.

(18)   a. *Heritage Russian*

V	obščestvo	možet	vxodit'	bol'šoe
in	society.ACC	may.PRS.3SG	enter.INF	large.NOM
količestvo		ljudej.		
quantity.NOM		people.GEN.PL		

'A great number of people form the society.'

       b. *Baseline Russian*

Obščestvo	možet	vključat'
society.NOM	may.PRS.3SG	include.INF
mnogo	raznyx	ljudej.
many	different	people.GEN.PL

'A society can include a great number of people.'

To conclude this section, we have presented several instances of structures based on simple, widespread patterns. The knowledge and use of such patterns is certainly affected by their frequency but it is important to keep in mind that frequency alone cannot be the determining factor in the selection of patterns.

2.2 Decompositional structures

Decomposition is an explanatory strategy that speakers can use to unpack the meaning of an idiomatic structure; under this strategy, each element of the structure's semantics is interpreted in as detailed a manner as possible. This strategy parallels the process that lexicographers go through when defining the meanings of words in a dictionary. In decompositional structures, speakers tend to avoid translating expressions from their dominant language word-for-word. For particularly complex constructions, this means that these expressions must first be disentangled before being translated. When heritage speakers attempt to deconstruct complex constructions, they often resort to strict compositionality, breaking the concept into simpler semantic items, each one of which is lexicalized by a separate word. This strategy can lead to problems if a given language's way of expressing a complex concept involves non-compositional elements and does not correspond to a clear universal pattern.

Idioms and set expressions present an obvious instance of non-compositionality, and speakers who do not have access to those non-compositional expressions have to invent replacements for those. The corpus data we have at our disposal suggest that heritage speakers reshape non-compositional expressions into compositional equivalents.

This strategy of decomposing a complex meaning into simpler elements and avoiding non-compositionality is illustrated in the following example:

(19) *Heritage Russian*

čtoby	my	učilis'	i	brali
so.that	1PL.NOM	learn.REFL.SBJV.PL	and	take.SBJV.PL
primer,	kak	postupat'	i	razvivat'sja	pravil'no,
example[ACC]	how	act.INF	and	develop.INF	correctly
smotrja	na	postupki	i	ošibki
look.CVB	on	action.ACC.PL	and	mistake.ACC.PL
našix	čelovečeskix	predkov. . .		
[our	human	ancestors].GEN.PL		

'for us to learn and develop as we explore and follow the example of our ancestors. . .'

In (19), the speaker provides a literal interpretation of a concept that is expressed by an idiomatic structure in the baseline, *učit'sja na ošibkax* 'learn from one's mistakes (lit.: learn on mistakes)'.

The principal reason for the non-transparency of the baseline expression, which motivates the speaker to search for a clearer way to communicate the meaning, seems to be the interpretation of the preposition *na* 'on'. The semantics of this preposition within the baseline expression is quite vague. Furthermore, the construction itself is not only highly idiomatic but also very rare: the expression *učit'sja na ošibkax* has only 22 occurrences in the RNC, which is low compared, for instance, to such idiomatic expressions as *brat' primer* 'follow one's example' (227 occurrences in the RNC) or *brat' v svoi ruki* 'take into one's own hands'/'control' (140 occurrences in the RNC). Since this idiom is both structurally opaque and uncommon, the speaker breaks down the complex meaning into a set of simple elements and comes up with a new, strictly compositional, expression to convey the necessary concept.

Heritage speakers also apply the decompositional strategy to frequent phrasal units when their meanings are complex and their structures differ in the heritage and dominant languages. In (20), the speaker may know that there should be a non-compositional way to express the idea she wants – which prevents her from calquing the English construction – but fails to retrieve the appropriate Russian phrase, however common:

(20) *Heritage Russian*
     Mnogie   strany   sdelali
     [many   country].NOM.PL   do.PST.PL
     podobnye   dejstvija.
     [similar   action].ACC.PL
     'Many countries undertook such actions.' (lit.: 'many countries did similar actions')

(21) *Baseline Russian*
     Mnogie   strany   sdelali
     [many   country].NOM.PL   do.PST.PL
     to   že   samoe
     that.ACC   EMPH   proper.ACC
     'Many countries did the same.'

As in the previous example, (20) decomposes the semantics of *< to act > in the same way*. The correct Russian phrase in this context, *sdelat' to že samoje*, captures the symmetrical-event concept with a holistic verbal expression, lit.: 'to do + that (+ intensifying particle) + most'. Since this situation affords no opportunity for heritage speakers to guess the right expression, either by appealing to the dominant language or by seeking some standard semantically transparent pattern, decomposition surfaces as a last resort to convey the desired meaning.

Heritage speakers show attempts to make the semantics of structures they use more precise in order to avoid ambiguity. Sometimes this desire to be extra clear leads to a complete rephrasing of an idiom, as we witnessed earlier. In other cases, the speaker will slightly 'tune' an expression to eliminate all hints of idiomaticity, as in the example below:

(22) *Heritage Russian*
     . . . šans   načat'   novyj   obraz   žizni
        chance[NOM]   begin.INF   [new   image].ACC   life.GEN
     ' . . . a chance to start a new life'

Example (22) is perfectly fine when interpreted through the lens of common sense: clearly, no one can literally start a new life, but people often change their lifestyle. Strange as it may seem, this idea is expressed with an identical idiom in both standard Russian and English: *načat' novuju žizn'* (*start a new life*). The heritage speaker, however, makes the effort to decompose this construction in order to clarify its meaning.

Our data thus show that heritage speakers readily create new units; however, in doing so, they generally avoid complexity and non-compositionality.

3 Semi-calques

The next major strategy adopted by heritage speakers involves "semi-calques," which we define as newly created expressions that rely simultaneously on the two linguistic systems available to a bilingual speaker. The following example serves as an illustration:

(23)   *Heritage Russian*
        Ètot   rasskaz   porovnu   sčastlivyj
        this.M.NOM   story[NOM]   equally   happy.NOM
        kak   i   pečal'nyj.
        as   and sad.NOM
        'This story is equally happy and sad.'

Example (23) contains two deviations from standard Russian, only one of which will be of relevance here. First, the Russian adjective *sčastlivyj* 'happy' cannot licitly combine with nouns like *rasskaz* 'story'. A Russian speaker would use *vesjolyj* 'cheery' or *razvlekatel'nyj* 'entertaining' in this position. *Sčastlivyj rasskaz* is a clear calque from the English *happy story*.

The second deviation, the one that we will focus on here, is the non-standard phrasal unit *porovnu* A *kak i* B (lit.: 'equally A as B'). Structurally, this phrase is very close to the corresponding English phrase *equally sad and happy*. The English construction expresses the intensity of **two** qualities as applied to one and the same object (*story*). That's the main import of *equally* in this phrase.

Russian does not have a direct counterpart of *equally* that could be used in this context. The adverb *odnovremenno* 'simultaneously/at the same time' doesn't imply the "intensity" comparison that the speaker obviously wants to express. The speaker could use *ravno* 'in the same way, equally' in this context, but this adverb is rare and somewhat obsolete in this function. (Only 29 instances of the construction *ravno A & B* occur in the RNC, and they are limited to the data from the 18th- and 19th-century language).[12]

Russian does, however, have a special construction used for focusing on the juxtaposition of two qualities: the highly idiomatic two-part construction *stol' zhe A skol' i B* (lit. 'as much A as B'):

(24)   *Baseline Russian* (RNC: Andrej Zaliznjak, Lingvistika po Fomenko, 2000)
        K   sožaleniju,   pered   nami   ne   bolee   čem   očerednoe
        to   regret.DAT   in.front.of 1PL.OBL   no   more   than   another.NOM
        stol'   že   nevežestvennoe
        as.much   EMPH   ignorant.NOM
        skol'   i   vysokomernoe   zajavlenie.
        as   and arrogant.NOM   statement.NOM
        'Unfortunately, what we see is nothing but another equally ignorant and arrogant statement.'

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[12] Furthermore, the qualities brought together by this obsolete structure are normally parallel and not opposed, cf. the following corpus examples: *ravno privetliva i obxoditel'na* 'equally welcoming and friendly in manner' (1850–1860) or *ravno nerassuditel'ny i opromečivy* 'equally imprudent and heady' (1872).

In (24), two different properties are set in opposition (*nevežestvennoje* 'ignorant' implies insufficient knowledge, while *vysokomernoje* 'arrogant' implies excessive confidence in one's knowledge). The English *A and B equally* and the Russian *stol' že A skol' B* constructions are semantically close, but the Russian construction is not semantically transparent and its components are quite rare.[13] The semantic transparency and dominant frequency of *equally* renders this unit salient enough to form the first part of the heritage speaker's novel construction in (23). The second element is the Russian phrase *kak i* (lit. 'as and'), which decomposes to the classical comparative marker *kak* 'as' and the connective *i*. The resulting new construction, *porovnu A kak i B* 'equally A as and B', is thus glued together compositionally from frequent and salient fragments of the relevant English and Russian constructions.

Another illustration of a new constructions composed from parts of both languages is given in (25). This example is taken from a frog-story production experiment (Isurin & Ivanova-Sullivan 2008: 89). In this particular fragment, the dog is lying down, and the frog is sitting nearby with its leg on the dog's back. Then the frog moves its leg:

(25) a. *Heritage Russian*

Ljaguška	vzjala	s	sobaki	lapu.
frog.NOM	take.PST.SG.F	from	dog.GEN	paw.ACC

'The frog took its leg off the dog.'

   b. *Baseline Russian*

Ljaguška	ubrala	lapu.
frog.NOM	take.away.PST.SG.F	paw.ACC

'The frog took its paw away.'

Although the situation described is visually quite simple, the way it is articulated is non-compositional in both English and Russian. The English construction used in this context is built around the verb *to take*, which can be followed by different adverbial modifiers or particles depending on the context. Ordinary possessive contexts (taking an object into one's hands) require *from/off* (cf: *he took a book from the shelf / he took a picture off the wall*, etc.), while the motion of a body part is normally described with the adverbial modifier *away*.

Similar to English *take*, the Russian verb *vzjat'* occurs in canonical possessive constructions (taking something from a person), cf. (26), as well as in locative (ablative) constructions (for example, taking something from the surface, as shown in (27)):

(26) *Heritage Russian* (RNC: Kornej I. Čukovskij, 1940–1969)

Vladimir Galaktionovič	vzjal	u	menja
Vladimir Galaktionovič[NOM]	take.PST[SG.M]	from	1SG.GEN

gvozdi,	topor	i	bečjovku.
nail.ACC.PL	axe[ACC]	and	string.ACC

'Vladimir Galaktionovič took nails, an axe, and a string from me.'

(27) *Baseline Russian* (RNC: Vasily Aksjonov, 1963)

Gorjajev	vzjal	so	stola	listy. . .
Gorjajev[NOM]	take.PST[SG.M]	from	table.GEN	sheet.ACC.PL

'Gorjajev took the papers from the table . . .'

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[13] Taken separately, both words, *stol'* and *skol'*, are obsolete and used in modern Russian only in stylistically marked contexts. The raw frequency of *equally* (in the time period from 2005 to 2009) in COCA is 4627, compared to 1026 and 153 instances of *stol'* and *skol'*, respectively, in the RNC.

Exceptions to this Russian pattern are phrases that contain an animate SOURCE, in which case the verb *vzjat'* 'take' is replaced by *snjat'* (prototypically used for taking off clothes, cf. *snjat' odeždu* 'take off one's clothes'):

(28) On   snjal   mešok   s   osla.
      3SG.NOM   take.off.PST[SG.M]   sack[ACC]   from   donkey.GEN
      'He took the sack off the donkey.'

The donkey in (28) plays the same grammatical role as the table in the previous example, but it cannot be regarded as a standard surface. Hence, the situation described in (28) retains its strong locative semantics; conceptually, taking a sack off a donkey is understood to be more like taking off clothes (worn by an animate participant) than like taking an artefact from a table.

Yet another restriction concerns the OBJECT role in (25). Both *vzjat'* 'take' and *snjat'* 'take off' are incompatible with a body part in the OBJECT position. Both verbs specifically denote mechanical displacement of an item by means of hands. The natural movement of a body part, if controlled by the body's owner, is not mechanical; it is caused by the psycho-cognitive impulse of an animate agent and needs no instrument in order to be performed. This type of motion is lexically distinguished in Russian and is encoded by the verb *ubrat'*:

(29) Uberi   ruki   (so   stola).
      take.away.IMP   hand.ACC.PL   from   table.GEN
      'Take your hands (away) (off the table).'

To express the meaning encoded in (25), the heritage speaker minimizes the linguistic options by making the construction as transparent as possible. The immediate counterpart of the English verb *take* '*vzjat'*', the most frequent and salient verb, is combined with the preposition *s,* which translates the whole variety of English items – *from*, *off*, *with,* and *away.* The resulting construction is a compositional semi-calque.

Example (30) illustrates another semi-calque:

(30) *Heritage Russian*
      Po   kontrastu   k   ètomu
      along   contrast.DAT   to   this.M.DAT
      ja   dumaju   čto . . .
      1SG.NOM   think.PRS.1SG   that. . .
      'In contrast to this I think that . . .'

This piece is a hybrid of the respective English and Russian non-compositional constructions: *in contrast to* and *po kontrastu s ètim* (lit. 'along contrast with'). The heritage speaker uses the first preposition *po* 'along' from the proper Russian construction and goes on to borrow the second preposition *k* 'to' from English.

This choice, like those discussed above, is based on several conceptual considerations. First, the need to compare two ideas in terms of their similarity or difference is resolved in baseline Russian with the help of the preposition *po* 'along', whereas English employs a variety of elements:

(31) a. *English*
          compared to /in comparison with
      b. *Baseline Russian*
          po   sravneniju   s
          along   comparison.DAT   with

(32) a. *English*
          by analogy to
      b. *Baseline Russian*

po	analogii	s
along	analogy.DAT	with

(33) a. *English*
          under suspicion of
      b. *Baseline Russian*

po	podozreniju	v
along	suspicion.DAT	in

Both the semantic consistency and the statistical stability of *po* within the relevant Russian constructions make it a straightforward element for the heritage speaker to use.

What about the choice of the second preposition, *k* 'to', which the heritage speaker borrows from English in (30)? Although the choice of this preposition ignores the Russian system, it is not arbitrary either. While, as mentioned, the speaker is comparing two entities with respect to their dissimilarity, this is not the full meaning of the construction. The semantics of (30) also implies that one of the entities being compared is more salient than the other, and the relation is thus one of unilateral directedness. Seen in this context, the preference for *k* over any other lexical element may be attributed to the strong association of *k* with directional semantics. Thus, again, we see that the heritage speaker does not hybridize Russian and English elements together arbitrarily, but deliberately draws on the simplest items from each construction, in terms of both semantics and lexical combinability, to form a semi-calque.

4 Calques

We have so far concentrated on strategies other than direct dominant-language calques that heritage speakers use to create novel expressions. However, heritage speakers are by no means immune to this more direct form of language interference. Furthermore, calquing has received significant attention in L2 acquisition studies (Odlin 1989; Ellis 1997), and thus offers an important opportunity for direct comparison between L2 and heritage speakers. We explore that comparison in this section.

Unlike L2 learners, heritage learners rely heavily on their intuitions when producing Russian.[14] Thus, when heritage speakers do create calques, they typically import dominant-language constructions that happen to be associated with similar licit and readily available structures in Russian. This tendency was shown in example (3a), repeated below:

(34) *Heritage Russian*

Iskusstvo	učit	čeloveka
art.NOM	teach.PRS.1SG	person.ACC
o	èmotsional'noj	glubine.
about	emotional.F.OBL	depth.OBL

'Art teaches a person about emotional depth.'

The prepositional construction in (34) is a typical calque produced by a heritage speaker, based on the American English phrase *teach someone about something.* Unlike American English, Russian needs no preposition to introduce the theme role of the verb *učit'* 'teach'; this argument appears in the dative case. When the speaker calques the prepositional

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[14] The same observation has been made for heritage speakers of other languages, Spanish in particular (see Montrul et al. 2014; Montrul & Perpiñán 2011; Boon & Polinsky 2015).

construction from English (verb plus preposition), s/he translates the preposition with the regular Russian marker that introduces content – *o* 'about', as in *znat' o* 'know about', *čitat' o* 'read about', *informirovat' o* 'inform on/about', *pisat' o* 'write about'. Thus, the calque reinterprets *učit'* 'teach' as a verb that gives information *about something* while preserving the (syntactic and semantic) transparency of the Russian structure.

    Another motivated calque produced by a heritage speaker is shown in the following example:

(35)   a. *Heritage Russian*

Ja	živu	očen'	blizko	k	N'ju-Jorku.
1SG.NOM	live.PRS.1SG	very	close	to	New York.DAT

'I live really close to New York.'

      b. *Baseline Russian*

Ja	živu	sovsem	nedaleko	ot	N'ju-Jorka.
1SG.NOM	live.PRES.1SG	quite	not.far	from	New York.GEN

'I live not far from New York.'

The deviation from baseline Russian in (35a) is quite subtle. It can be explained by the fact that the Russian language distinguishes both between dynamic and static situations and between temporary and permanent (again, static) situations. *Blizko k* (lit. 'close to') is attested in the baseline language, but it typically surfaces either with verbs of movement or with static verbs that denote temporary locations. It is not normally followed by city names; cf. the following examples:[15]

(36)   *Baseline Russian* (RNC: Vladimir Bogomolov, 1957)

Nesomnenno	lodka	podxodila	blizko	k	beregu. . .
no doubt	boat.NOM	come.PST.SG.F	close	to	shore.DAT

'No doubt the boat approached the shore < . . .>'

(37)   *Baseline Russian* (RNC: Elena Čižova, 2002)

Kak	xozjajka	ja	sidela	blizko	k
as	hostess.NOM	1SG.NOM	sit.PST.SG.F	close	to
dveri,	čtoby	legče	vstat'.		
door.DAT	in.order.to	easier	stand.up.INF		

'As a hostess, I was sitting close to the door to stand up easier.'

Permanent static situations are usually expressed through the construction *nedaleko ot* 'not far from':

(38)   *Baseline Russian* (RNC: Dar'ja Glebova, 2004)

Samyj	krasivyj	i	neobyčnyj	sobor	
[most	beautiful	and	unusual	cathedral].NOM	
naxoditsja		na	malen'kom	ostrove	nedaleko
be.situated.REFL.PRS.3SG		on	small.OBL	island.OBL	not.far
ot	berega.				
from	shore.GEN				

'The most beautiful and unusual church is on the small island not far from the shore.'

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[15] A Google search shows that the frequencies of *blizko k* + [town/city name] are comparatively low, but not nonexistent. For instance, *živu blizko k Moskve* has 237 occurrences on Google, while the grammatically more acceptable correlate *živu nedaleko ot Moskvy* has 11600; likewise, *živu blizko k Piteru* has 7 occurrences on Google versus 2730 occurrences of *živu nedaleko ot Pitera*. Although the existence of examples of "*blizko k* + town/city name" on the Internet may mark the emergence of a new progressive norm, we are inclined to classify these examples as deviations that are not part of the baseline.

In the RNC, this construction occurs more than 1200 times with town/city names.

How do heritage speakers compare to L2 speakers with respect to calquing? As was mentioned above, corpus data show that L2 learners of Russian use significantly more English calques than heritage speakers do. Furthermore, the calques they produce are markedly distinct from those that we find in heritage speech. The driving force behind L2 calques is the copying of form, without much consideration for concomitant semantics. Consider the following example, which shows an L2 calque for the construction *for two hours* that clearly comes from the dominant English:

(39) a. *L2 Russian*
      dlja   dva   časa
      for   two   hour.PL
      'for two hours' (lit. for to two hours)
   b. *Baseline Russian*
      Ø   dva   časa
                  two   hour.PL
      'for two hours'

The preposition *dlja* 'for', unlike its English equivalent, is restricted in Russian to mark the addressee, recipient, or beneficiary, and has no temporal interpretation. Because *dlja* has no meaning in the temporal context, example (39a) is ungrammatical in the baseline.

Similarly strong semantic divergence between English and Russian can be seen in the calque in (40), also produced by an L2 learner:

(40) *L2 Russian*
      My   pošli   v   magazin
      1PL.NOM   go.PST.PL   in   shop[ACC]
      nazyval   Kalinka.
      call.PST[SG.M]   Kalinka
      'We went into the shop named/called Kalinka.'

(41) *Baseline Russian*
      My   pošli   v   magazin
      1PL.NOM   go.PST.PL   in   shop[ACC]
      pod   nazvaniem   Kalinka.
      under   name.INS   Kalinka
      'We went into the shop called Kalinka.'

In place of this unfamiliar construction, the L2 speaker produces an (ungrammatical) word-by-word translation of the standard English construction *called/named X*. The situation is further confused by an error in the Russian verb form: the speaker uses the active past form of the causative verb (*nazyval,* lit. 'he called') instead of a passive participle (*nazvannyj,* lit. '(one that) was called'). However, neither verb form produces a phrase that is interpretable in baseline Russian:

(42) *pošli   v   magazin   nazyval   Kalinka
        go.PST.PL   in   shop.ACC   call.PST[SG.M]   Kalinka

(43) *pošli   v   magazin   nazvannyj   Kalinka
        go.PST.PL   in   shop.ACC   call.PASS.PTCP.SG.M Kalinka

From these examples, we can see that the L2 calquing method is strongly motivated by form rather than semantics, and therefore tends to be difficult for native speakers to

make sense of. By contrast, the heritage calquing strategy, illustrated in (34) and (35a), produces constructions that are interpretable, if not entirely natural, in baseline Russian. L2 learners, on the other hand, do not refer to the semantics of Russian when they calque constructions from English, but rather borrow ready lexical units that may not be understandable to standard Russian speakers. In doing so, they demonstrate less linguistic creativity.

To further illustrate our point, we present below two short texts produced by an L2 speaker (Text 1) and a heritage speaker of the same proficiency level (Text 2); both speakers took the same language class. The author of Text 1 relies more heavily on her dominant language, producing 10 calques from English. The author of the second text cannot avoid calques either, but produces only 4 calques. Conversely, the L2 speaker produces notably fewer non-calque deviations: one in Text 1 versus seven in Text 2. Our preliminary analysis of these texts focuses on phrasal calques and non-calques; divergent structures are marked in bold and each is assigned the status of calque or non-calque. The commentaries are presented in Tables 1 and 2 after the texts.[16]

Text 1

«**Как я понимаю эти слова** (Constr) [1], успех – это достижение цели. **Успех не может быть определён** (Constr) [2] без понятия (lex) того, чем он не является, т. е. без понятия (lex) "неудача". К такому принципу построения музыкального произведения прибегали и **советские композиторы классической музыки** (Constr) [3]. Например, советский композитор и современник Шостаковича Вано Мурадели решил написать дисгармоничную, диссонантную (lex) **музыку** для своей оперы «Великой дружбы» **для 30- й годовщины** (Constr) [4] Октябрьской революции. 11 февраля 1948 г. Авторы Постановления Политбюро Центрального комитета Всесоюзной коммунистической партии (большевиков) ЦК ВКП (б) «Об опере 'Великая Дружба'» представили эту оперу не только как дисгармоничное, диссонантное (lex) музыкальное произведение, но и как «сумбурное» произведение. Опера казалась им сумбурной, потому что ясные, простые и запоминающиеся мелодии, которые **обычный слушатель мог бы легко** (Constr) [5] петь (lex) после концерта, **отсутствовали в музыке** (Constr) [6]. **Согласно авторам Постановления** (Constr) [7]: Музыка оперы невыразительна, бедна. В ней нет ни одной запоминающейся мелодии или арии. такие откровенные элементы (lex) считались бы недопустимыми в советских концертных залах и театрах, но, может быть, Шостакович хотел представить эти неприятные элементы советской аудитории, чтобы показать, **как плохая** (lex) **и нетерпимая** (lex) **была жизнь** (Constr) [8] в дореволюционной России, и как отчаянно народ нуждался в революции, которая окончательно избавила российское общество от угнетающего буржуазного мрака прицарской (lex) власти. **В том случае** (Constr) [9] непростая, недоступная, незапоминающаяся диссонантная (lex) **музыка оперы всё ещё была реалистическая** (Constr) [10], потому что музыкальный диссонанс отлично выражает патетику и горечь. (Пафос? Как можно перевести 'pathos'?). **Если всё это действительно было намерение Шостаковича** (Constr) [11], то аудитория, критики и советская власть ужасно неправильно (lex) поняли «Леди Макбет Мценского уезда».

'As I understand these words, success is achieving a goal. Success cannot be defined without the notion of what it is not, that is without the notion of «failure». Classical composers of Soviet times also resorted to that principle. For example, Vano Muradeli, a Soviet composer and a contemporary of Shostakovich, decided to write disharmonious

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[16] Lexical deviations are marked as well, but we do not comment on them.

and dissonant music for his opera "The Great Friendship" for the 30th Anniversary of the Great October Revolution. On October 11th, 1948, the authors of the Central Committee of Bolshevik Party Decree About the opera "The Great Friendship" presented this opera not only as a disharmonious, dissonant musical piece, but also as a "chaotic" piece. They thought the opera was chaotic because clear and easy-to-remember tunes which a common listener could easily sing after the concert were absent in the music. According to the Decree authors: the opera music is expressionless and impoverished. It doesn't contain any easy-to-remember melody or air. Straightforward elements of this kind would be considered unacceptable in Soviet music halls and theatres but Shostakovich probably wanted to present these unpleasant elements to the Soviet audience to show how bad and intolerable life was in pre-revolutionary Russia and how bad people needed revolution which would relieve people from the oppressive bourgeois gloom of the Tsar government. In that case the complicated, hard to understand and to remember opera music was still realistic because the musical dissonance perfectly expresses the pathetics and bitterness (Pathos? How should I translate 'pathos'?). If all this was really Shostakovich's intention, the audience, critics and the Soviet government understood "Lady Macbeth of Mtsensk" awfully wrong.'

Text 2

Я считаю, что в России больше ударились в развлекательные программы. Многим людям надоели боевики и **фильмы с насилием над человеком** (Constr) [1]. Хочется фильмов без сцен (lex), непристойностей и ударов, после которых герои встают, как будто и не теряли сознание. **Если уйти от этого** (Constr) [2]—вот это будет способствовать развитию в стране гражданского общества. Цензура должна существовать – нельзя же показывать что угодно. Большинство моих знакомых политологов считают, что его фильм никак не связан с убийством посла и другим насилием, это вообще отдельное дело и **обвинения в сторону режиссера** (Constr) [3] только для вида. Я согласна с этой точкой зрения. Тем не менее, не существует законов которые **ограничивают свободу слова о** (Constr) [4] том, что политически некорректно. Например, в Америке можно кричать о том, что вы ненавидите президента **при сжигании американского флага** (Constr) [5]. Одновременно, существует ограничения на свободу слова **в рабочих местах** (Constr) [6] - например Закон о Равных Возможностях. Это вовсе не значит, что государство посягает на вашу свободу слова. **Цель такого закона сугобо** (Lex) **от желания защитить** (Constr) [7] других лиц на рабочем месте от клеветы. Еще мы проклинаем власть и ждем сумасшедшую пенсию. **Разбуди нас ночью, мы без оговорки вспомним** (Constr) [8] «у лукоморья дуб зелёный; златая цепь на дубе том. . .» Гордимся Тостым, Достоевским и людьми, которые помнят больше чем, что сделал Раскольников и кто такая Наташа Ростова. **И не смотря на все** (Constr) [9], не снимаем крестик и никогда не забываем присесть на дорожку.

 'I think that people in Russia hit into entertaining programs. Many people got tired of action movies and movies with human violence. They want movies without scenes, indecencies and blows after the characters get up as if they hadn't lost their consciousness. If we depart from this, this exactly will contribute to the development of the civil society in the country. Censorship should exist – you just can't broadcast anything you want. Most of my friends who are political scientists believe that his movie does not deal with the ambassador's murder or any other type of violence, this is a particular case and the accusations towards the director are only for the sake of appearance. I agree with this point of view. Nevertheless, there are no laws that limit the freedom of speech about what is politically

#	Annotated error	Calque from English? If yes, what expression is calqued	Corresponding Russian expression
[1]	Как я понимаю эти Слова... Kak ja ponimaju èti slova 'As I understand these words'	Yes/As I understand these words	В моем понимании эти слова значат... V mojom ponimanii in [my understanding].OBL èti slova značat these word.NOM.PL mean.PRS.3PL
[2]	Успех не может быть определён Uspex ne možet byt' opredeljon 'Success cannot be defined'	Yes/Success cannot be defined	Успех нельзя определить Uspex nel'zja opredelit' success[NOM] impossible define.INF
[3]	советские композиторы классической музыки sovetskie kompozitory klassičeskoj muzyki 'Soviet composers of classical music'	No	классические композиторы советского времени klassičeskie kompozitory sovetskogo [classical composer].NOM.PL Soviet.GEN vremeni time.GEN
[4]	музыку...для 30-й годовщины.... muzyku ... dlja 30 godovščiny 'music for the 30th anniversary of '	Yes/music for the 30th anniversary	музыку к 30 годовщине muzyku k 30 godovščine music.ACC to 30 anniversary.DAT
[5]	которые обычный слушатель мог бы легко петь после концерта kotorye obyčnyj slušatel' mog by legko pet' posle koncerta 'Which a common listener could hum (sing) after the concert'	Yes/Which a common listener could hum (sing) after the concert	обычному слушателю было бы легко напевать/напеть obyčnomu slušatelju [common listener].DAT bylo by legko napet' be.SBJV.SG.N COND easy sing.INF posle koncerta after concert.GEN
[6]	которые отсутствовали в музыке kotorye otsutstvovali v muzyke 'which were absent from the music'	Yes/which were absent in the music	которых в этой музыке не было kotoryx v ètoj muzyke which.GEN.PL in [this music].OBL ne bylo not be.PST.SG.N

[7]	Согласно авторам Постановления Soglasno avtoram postanovlenija 'According to the authors of the Decree'	Yes/According to the authors of the Decree	Согласно Постановлению soglasno Postanovleniju according Decree.DAT
[8]	как плохая и нетерпимая была жизнь kak ploxaja i neterpimaja byla žizn' 'how bad and intolerable life was'	Yes/how bad and intolerable life was	насколько тяжелой и невыносимой была жизнь naskol'ko tjaželoj i nevynosimoj byla žizn' as.much hard.INS and intolerable.INS be.PST.SG.F life[NOM]
[9]	в том случае v tom slučaje 'In that case'	Yes/In that case	в таком случае v takom slučaje in [such case].OBL
[10]	музыка оперы всё ещё была реалистическая muzyka opery byla realističeskaja 'the opera music was still realistic'	Yes/the opera music was still realistic	музыка все-таки была реалистической muzyka vsjo-taki byla realističeskoj music.NOM nevertheless be.PST.SG.F realistic.INS
[11]	Если всё это действительно было намерение Шостаковича. . . Esli vsjo èto dejstvitel'no bylo namerenije Šostakoviča 'If all this was indeed Shostakovich's intention'	Yes/if all this was indeed Shostakovic's intention	Если действительно в этом было намерение Шостаковича Esli dejstvitel'no v ètom bylo namerenije Šostakoviča If really in this.M.OBL be.PST.SG.N intention.NOM Shostakovich.GEN

Table 1: Annotated errors, Text 1.

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#	Annotated error	Calque from English?/If yes, what expression is calqued	Corresponding Russian expression
[1]	фильмы с насилием над человеком fil'my s nasilijem nad čelovekom 'movies with violence over people'	Yes/Movies with violence	фильмы, которые показывают насилие над человеком fil'my kotorye film.NOM.PL which.NOM.PL pokazyvajut nasilije nad show.PRS.3PL violence.ACC above čelovekom person.INS
[2]	Если уйти от этого. . . Esli ujti ot ètogo 'If we depart from this'	Yes/If we depart from this	Отказ от этого будет способствовать Otkaz ot ètogo refusal[NOM] from this.M.GEN budet sposobstvovat' be.FUT.3SG help.INF
[3]	обвинения в сторону режиссера obvinenija v sto-ronu režissjora 'accusations towards the film director'	No	обвинения режиссера obvinenija režissjora accusation.NOM.PL director.GEN 'accusations against the film director'
[4]	ограничивают свободу слова о . . . ograničivajut svobodu slova o 'they limit the freedom of speech about. . .'	Yes/Limit the freedom of speech about	ограничивают свободу слова относительно. . . ograničivajut svobodu slova limit.PRS.3PL freedom.ACC word.GEN otnositel'no concerning 'they limit the freedom of speech about. . .'
[5]	при сжигании американского флага pri sžiganii amerikan-skogo flaga 'burning the American flag'	No	сжигая американский флаг sžigaja amerikanskij flag burn.CVB [American flag].ACC
[6]	в рабочих местах v rabočix mestax 'in the workplace'	Yes/in the workplace	на рабочем месте na rabočem meste on [work-related place].OBL
[7]	Цель такого закона сугобо от желания защитить. . . Cel' takogo zakona sugobo ot želanija zaščitit' lit. 'The pur-pose of this law is only out of the wish to protect. . .'	No	Цель такого закона – желание защитить Cel' takogo zakona – goal[NOM] [such law].GEN želanije zaščitit' wish.NOM protect.INF
[8]	Разбуди нас ночью, мы без оговорки вспомним. . . Razbudi nas noč'ju, my bez ogovorki vspomnim 'If we are woken up at night, we would still immediately recall. . .'	No	Разбуди нас ночью, мы сразу Вспомним. . . Razbudi nas noč'ju, wake.up.IMP 1PL.ACC at.night my srazu vspomnim 1PL.NOM immediately recall.FUT.1PL
[9]	И не смотря на все. . . I nesmotrja na vsjo 'And despite all this. . .'	No	И несмотря на все это. . . I nesmotrja na vsjo èto and despite [all this].ACC

Table 2: Annotated errors, Text 2.

incorrect. For example, in America you can cry about how you hate the President burning the American flag. At the same time there are limitations on the freedom of speech at the workplaces – for example the Equal Opportunity Act. This does not mean that the State infringes on our freedom of speech. The purpose of this law is only of the wish to protect the other people at the workplace from slander. Also we are cursing the government and waiting for fantastic pension. Wake us up in the morning and we immediately remember "On seashore far a green oak towers, and to it with a gold chain bound. . ." We are proud of Tolstoy, Dostoevsky and the people who remember more than what Raskolnikov did and who Natasha Rostova is. And despite all this, we don't take the cross off and we never forget to sit before the long journey.'

5 Heritage language speakers and L1 learners

We have suggested that heritage speakers are highly creative in filling their lexical gaps, and that they deploy resources made available to them by their heritage language when doing so. Another group of highly creative non-standard speakers are small children acquiring their first language. It has already been shown that children are much more creative than adults, readily ignoring certain linguistic restrictions and overgeneralizing patterns (Ceitlin 2009). Consider the following example:[17]

(44) *Russian child language* (Gvozdev 1961: 96)
      [Ženya was stroking a cat and then said:]

Vot	by	iz	nego	šubku	sdelat'.
here	COND	from	3SG.GEN	fur.coat.ACC	make.INF

kogda	on	pospeet,	my	sdelaem
when	3SG.NOM	ripen.FUT.3SG	1PL.NOM	make.FUT.1PL

iz	nego	šubku.
from	3SG.GEN	fur.coat.ACC

'If only we could make a fur coat out of it. When it ripens, we'll make a fur coat out of it.' (3, 4, 11)

The idea of "ripening" in this example is generalized by Ženya to cover not only plants but also animals. On his reinterpretation, animals become ready to be utilized (for fur coats) in the same way that fruits and vegetables become ready to be utilized (for food and drinks).

Young children frequently overuse templates in this manner, generalizing their meanings. In the context of Russian, this effect is illustrated most often with reference to derivational schemas:

(45) a. *Russian child language*

Naša	kurica	o-cypljat-i-l-a-s'!
our	hen.NOM	PREFIX-chick-PST-3SG.F-REFL

      Lit. 'Our hen has chicked!'

      b. *Baseline Russian*

Naša	kurica	snesla	jaico.
our	hen.NOM	lay.PST.SG.F	egg.ACC

      'Our hen has laid an egg.'

---

[17] The examples in this section are taken from two children's speech corpora: one transcribed by Alexander Gvozdev from the utterances of his son Ženja and published in Gvozdev (1961), the other compiled by Irina Dubrovina from recordings of her daughter Toma.

(46) a. *Russian child language* (Ceitlin 2009: 409–410)
          Kusok   nikak   ne   na-vil-iva-et-sja.
          slice[NOM]   in.no.way   not   PREFIX-fork-IMPERF-PRS.3SG-REFL
          'I can't pick the slice up with the fork.' (lit.: The slice doesn't fork-up)
      b. *Baseline Russian*
          Ja   nikak   ne   mogu
          1SG.NOM   in.no.way   not   can.PRES.1SG
          zacepit'   kusok   vilkoj.
          catch.INF   slice[ACC]   fork.INS
          'I can't pick the slice up with the fork.'

The utterances in (45a) and (46a) include new terms following frequent and productive Russian prototypes, but these expressions also violate constraints on lexical production imposed by the adult language. Lexical examples of this kind are numerous; when children lack well-formed words, they may fill the gaps in their lexicon by composing new derivatives with all their creativity (Ceitlin 2009).

Although some general principles governing structure-building by children at an early age have been broadly discussed (see Bowerman 1983; Clark 1997; 2003; Tomasello 2003), there is no exhaustive account of the creative principles employed by Russian-speaking children at an early age. One way to begin to understand their strategies is through comparison with similar basic strategies used by heritage speakers. We outline some of these parallels below.

The first observation, based on available transcripts, is that young learners mirror adult heritage speakers in relying on conceptual structure and bypassing additional language-specific mechanisms. Consider the following examples illustrating the general ablative pattern: AGENT + VERB + OBJECT + SOURCE:

(47) a. *Russian child language*
          Toma [after throwing back the blanket:]
          Ja   ubrala   odejalo   ot   nožek.
          1SG.NOM   take.away.PST.SG.F   blanket.ACC   from   leg.DIM.GEN.PL
          'I took the blanket away from my little legs.' (2;11;07)
      b. *Baseline Russian*
          Ja   snjala   odejalo   s   nožek.
          1SG.NOM   take.off.PST.SG.F   blanket.ACC   from   leg.DIM.GEN.PL
          'I took the blanket off my little legs.'

(48) a. *Russian child language*
          Toma
          Smotri,   on   šarik   zabral
          look.IMP   3SG.NOM   ball[ACC]   take.away.PST[SG.M]
          ot   mal'čika.
          separating.from   boy.GEN
          'Look, he took the ball from the boy.' (3;03)
      b. *Baseline Russian*
          Smotri,   on   šarik   zabral
          look.IMP   3SG.NOM   ball[ACC]   take.away.PST[SG.M]
          u   mal'čika.
          By   boy.GEN
          'Look, he took the ball away from the boy.

While conceptual patterns involving SOURCE are not restricted, languages impose specific structural constraints on the expression of this concept. In particular, Russian limits the range of verbs that can be used with a SOURCE that is a body part (47b). Only the verb *snjat'* 'take off' may be used in this case, accompanied by the preposition *s,* which duplicates the verb prefix. In (48a), where the animate SOURCE is also the POSSESSOR, the preposition *ot* is used instead of the default preposition *u.*

These examples suggest that the child has acquired the general ablative pattern with its most frequent and cognitively salient marker *ot* 'from' (the frequency of *ot* 'from' in ablative contexts, according to RNC, is seven times higher than the frequency of *u* in the same environment). However, she has not yet mastered the relevant lexical restrictions, based on subtle semantic differences that dictate the use of this pattern. This limitation compels her to follow the principle of compositionality when constructing a novel phrase. Despite the fact that heritage speakers have two languages to resort to, they frequently display the same mechanism (see section 2.1 above).

Additionally, heritage speakers and young L1 learners alike produce comparable decompositional structures (see Section 2.2 for the discussion of heritage speakers' decompositional expressions). Consider the following example from Gvozdev (1961: 163):

(49) *Russian child language*
      Ženya

Papa,	a	čjornyj	i	zeljonyj	vinograd	rastut
daddy	PTCL	black.NOM	and	green.NOM	grape[NOM]	grow.PRS.3PL

na	odnom	že	kuste?
on	one.OBL	EMPH	bush.OBL

'Daddy, do black and green grapes grow on the same tree?' (5;7;29)

The child is clearly trying to articulate the idiomatic construction *odin i tot že* 'one and the same' (lit. 'one' + 'and' + 'that' + intensifying particle), but fails to locate the structure correctly in his lexicon and elects to give a more transparent explanation instead: *one* + intensifying particle *že*. Recall that heritage speakers adopt the same compositional strategy when they encounter problems with idiomaticity.

Despite the parallels shown above, however, the two groups are not entirely similar. For instance, some of the deviations that characterize heritage speech may never be found in the speech of children, since heritage speakers can rely on the additional resources of their dominant language to produce formal structures (including calques and semi-calques). Less evident, perhaps, are lexical violations that can be committed only by children. Consider the following example:

(50) *Russian child language*
      Toma (2;06;19) [Toma is sitting and slapping herself on the knees]

P:	Toma,	ty	čto	delaeš'?
	Toma	2SG.NOM	what	do.PRS.2SG

'Toma, what are you doing?'

T:	Ja	stuču	po	štanam
	1SG.NOM	slap.PRS.1SG	on	pants.SG.M.DAT

'I'm slapping my pants.' (2;06;19)

The answer given in (50) is unlikely to be produced by an adult speaker of any natural language, including a heritage speaker. The body is ascribed greater salience than any piece of clothing; hence, *slapping the/my pants* is a less natural utterance than *slapping the/ my knees*. Heritage speakers acquire this principle along with their dominant language

and import it into the heritage language thereafter, whereas children continue to produce this sort of error even after they learn simple constructions.

6 Conclusions

Linguistic creativity is often associated with literature, not language or linguistics. In the present work, we import the concept of linguistic creativity into the study of heritage languages, where we characterize the phenomenon as involving two main facets: the violation of co-occurrence constraints in non-compositional phrasal units, and the creation of innovative lexical material, including multi-word expressions. Based on this conception of linguistic creativity, we have examined lexical distribution in the production of heritage speakers, comparing our findings to similar data from L1 and L2 learners.

In this paper, we showed that heritage speakers demonstrate greater linguistic creativity than proficiency-matched L2 learners. Particularly, heritage speakers create new phrases using structures that are absent in both their languages, relying on pattern-based behavior and decomposition of meaningful elements. These strategies result in novel phrasal formations, which we associate with calque avoidance. We also observed partial calquing (semi-calquing) and selectively motivated calquing, along with direct borrowings from the dominant language.

In all their novel productions, heritage speakers abide by the basic principle of compositionality: they decompose meanings that would otherwise be idiomatic and deploy resources from both languages when expressing those meanings. Even when borrowing from their dominant language, heritage speakers follow the principles of semantic consistency and transparency. On the contrary, L2 learners most often rely on straightforward calquing.

We also compared the linguistic strategies of heritage speakers to those adopted by monolingual first language learners. Strategies that heritage speakers share with child L1 learners include the use of pattern-based constructions, the use of meaning-based decomposition, and the conflation of fragments taken from different standard constructions into a single novel expression.

Although the non-calquing and semi-calquing strategies used by L2 learners require further investigation, it is clear that the use of set expressions and the lower reliance on calquing fundamentally distinguishes heritage speakers from L2 learners, underscoring the differences between the two groups. However, it is also too simplistic to posit that heritage speech is frozen at an early acquisition stage. Although heritage speakers and young L1 learners (between ages 2 and 4) deploy similar strategies of strong compositionality, clear differences also exist between the two groups. Certain types of non-compositional constructions are more readily acquired by children because they are not exposed to the interference from another, dominant, language.

Looking ahead, it is our hope that this study will set a precedent for future investigations into the patterns of linguistic creativity in L1, heritage language, and L2. A more detailed discussion of non-calquing and semi-calquing strategies in L2 production is due in the near future. New structures produced by heritage and L2 speakers show some inevitable dominant-language interference, but they also reveal some general syntactic and semantic patterns that should be investigated beyond Russian-English bilinguals.

Abbreviations

HL = heritage language, L1 = first language, L2 = second language, RNC = Russian National Corpus, RLC = Russian Learner Corpus, ACTFL = American Council on the Teaching of Foreign Languages, BEN = beneficiary

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Competing Interests

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