Ekaterina Schnittke

BIRCH BARK LETTERS AGAINST THE BACKGROUND OF WRITTEN LANGUAGE ACQUISITION

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Numerous similarities between medieval vernacular texts and those written by present-day incipient writers (children and adults alike) suggest that there are certain regularities underlying the processes of literacy acquisition and the evolution of written language in general. This paper is a comparative case study of medieval vernacular Russian correspondence and letters written by contemporary Russian children. The aims of this study include the following: (i) identifying the specific structural and non-structural aspects of the similarity between the mentioned language varieties; (ii) formulating a theoretical basis for interpreting data in developmental terms; (iii) defining the role of oral strategies in the evolution of written language; (iv) proposing that our knowledge of the processes of writing acquisition by modern children and adults, which are accessible to immediate observation and experimentation, can illuminate our understanding of the pragmatics of historical texts.

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0.1 Introduction

After a long gap since the pioneering works on writing development by Vygotsky (1934/1987) and Luria (1929), the topic has newly captured the scholarly attention in the sixties of the past century. The study of writing development admittedly requires a multidisciplinary approach: linguists, psychologists, neurologists, anthropologists, sociologists, and educators alike have contributed their perspectives to the study of writing emergence in individuals and its social and developmental implications.

Numerous experiments with children and adult novice writers suggest that writing is a domain-specific knowledge (Luria 1971, Ammon 1991, Cossu 1997, Tolchinsky 2003), to a great extent independent of general cognitive abilities. This implies that at least some processes of writing acquisition are universal for all literacy acquirers, including those who lived and learned to write centuries ago, when the written language (henceforth WL) was still under formation. However, to the best of my knowledge, the findings of the recent research on modern incipient writing have never been applied to a cross-historical linguistic analysis. Yet, early medieval vernacular writings are remarkably reminiscent of texts produced by modern novice writers. The similarities range from the appearance and typical mechanical mistakes to specific aspects of text organization. This paper aims at filling this gap by comparing the case of medieval Russian correspondence with letters written by contemporary Russian children.

The hypothesis of this study is that the resemblance between the two text varieties studied stems from the fact that both are products of incipient writing. Methodologically, the paper draws on the Uniformitarian Principle (UP) that maintains the uniformity underlying processes of language change today and in the past (Labov 1994). Thus, studying present observable processes provides a key to the past. In this paper, the UP is extended to WL acquisition seeking to explore how WL acquisition by modern children and adults illuminates our understanding of vernacular writings of the remote past.

The Old Russian documents, known as birch bark letters (hereafter BBL), date from the 11th-15th centuries and are the earliest attestation of Old Russian vernacular[2]. Most of the documents are ordinary personal or business notes and letters. For texts, their description, and the grammar of the Old Novgorod dialect in which they are written see Zaliznjak (2004); a complete digitalized database of photographs, outline drawings, commentaries, and translations are located at www.gramoty.ru (accessed on 12/11/2013). The children's texts are taken from various private archives kindly provided by friends and family.

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[2] The validity of approximation of the language of these documents to the factual spoken language and the linguistic situation in the East Slavic area are discussed in Picchio (1979), Živov & Timberlake (1997), Lunt (1988), Franklin (2002).

The paper is divided into five major sections. Section 1 examines examples from each text variety and establishes a list of common features, both non-structural and structural. Section 2 puts forward a theoretical justification for comparing the two text varieties. Section 3 surveys the research on writing acquisition. Section 4 interprets the similarities between the two text varieties in light of this research. Finally, section 5 discusses further implications of the proposed approach to early historical texts and steps for future investigation.

0.2 Principles of presenting illustrative materials and list of notations

The language examples consist of a glossed transliterated text in original spelling, divided into words, and followed by an English translation. When the focus is on the exterior of the document, only photographs and outline drawings (as they appear in the digitalized archive at www. gramoty.ru) are provided as illustrations of BBL. Children's letters in such cases are illustrated by photographs from my own data base accompanied by exact transliteration that preserves as many original features as possible. The following notations and abbreviations will be used in the examples and analysis:

WS   wrong spelling

( )   letters omitted by the authors

(( ))   words omitted by the authors

{ }   mirror reversed letters

/   clause boundary

//   T-unit boundary

| line boundary (used only when examples are not quoted in line-to-line format)

|| page boundary

1. Non-structural similarities

1.0. General appearance

One of the most palpable similarities between the two types of texts is their general appearance. Figures 1-4 show four letters. Two are written by two seven-year-old girls 51 years apart. The other two are written by Novgorodians in the 12th and 13th centuries, respectively.

Fig 1. Marina's (age 7) letter to her grandparents (ca. 1996)
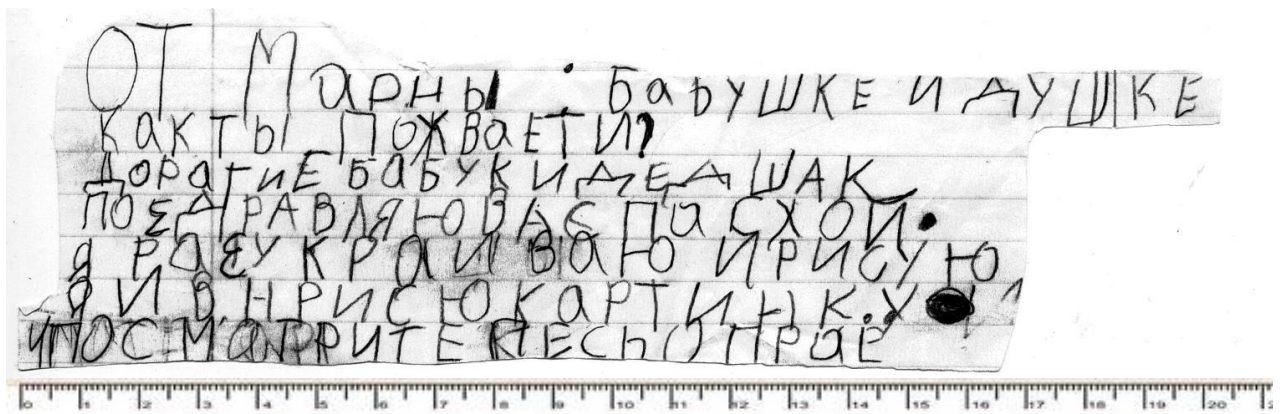
1	ОТ МАР(и)НЫ: БАБУШКЕ И (де)ДУШКЕ
2	КАК ТЫ ПОЖ(и)ВАЕТИ?
3	ДОРОГИЕ БАБУ(ш)К(а) И ДЕДУШАК
4	ПО{З} ДРАВЛЯЮ ВА(с) С ПАСХОЙ
5	Я РА{З}УКРА(ш)ИВАЮ И РИСУЮ
6	Я И В(ам) Н(а)РИС(у)Ю КАРТИНКУ
7	И ПОСМАТРИТЕ ПЕС(м?)ЬО ПРА Ё …

Fig. 2. Irena's (age 7) letter to her mother and grandmother (ca. 1945)
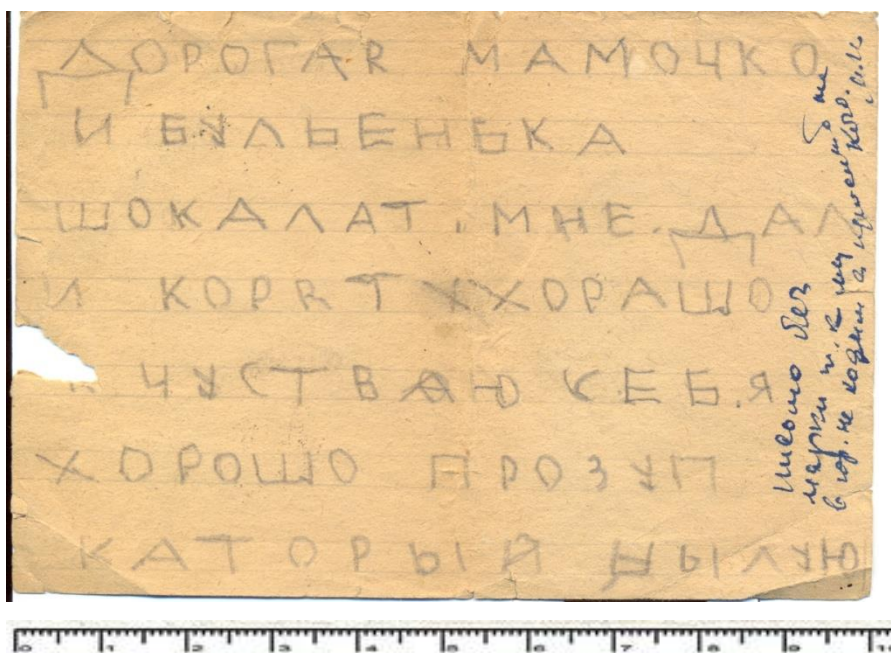
Fig. 3. Birch bark letter no. 615 (ca. 1280-1300)
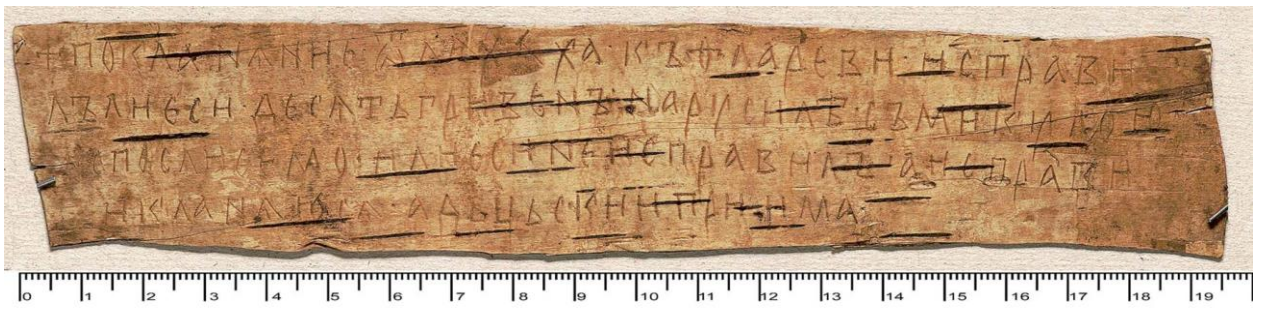
Fig. 4. Birch bark letter no. 624 (ca. 1160-1180)

1.1. Block letters

All four documents are written in **block letters,** except for the letter "a" in Marina's letter (fig. 1) and in the BBL (fig. 3, 4). The "cursive" *a* is idiosyncratic of this particular child, but regular in BBL.

1.2. Continuous writing (*Scriptio continua*)

In two of the quoted texts, viz. Marina's letter (fig. 1) and the BBL no.624 (fig. 4), there are no spaces between words.

1.3. Punctuation

In Irena's letter (fig. 2) the dots are used either for occasional word separation as in *shokolat.mne dali* (1) or randomly as in *seb.ja* (2).

(1) from fig. 2, line 3

> *shokolat.   mne   dali*
> chocolate -WS-Acc.sg   I -Dat   give-Past pl
> 'They gave me the chocolate.'

(2) from fig. 2, line 5

> *seb.ja* for *sebja* 'myself'
> oneself-ACC. co-referential with *ja* 'I'

Likewise, in fig. 3 – BBL no. 615 – dots separate the words, also not systematically. Dots, as well as other marks, such as colon, vertical line, dot with an arch, could also be used for syllabic delimitation in BBL (cf. letters no. 422, 509, 335, *inter alia*).

1.4. Mechanical mistakes

Several types of mechanical mistakes are shared by both BBL and children's letters.

1.4.1. Omissions

Letters, syllables, words, or whole phrases are frequently omitted in the examined writings. Marina's letter (fig. 1) serves as a particularly good example of this feature: not a single line goes without an omitted segment. In the following transliterated examples the omitted letters are enclosed in round brackets, while the omitted words are in double round brackets:

(3) from fig. 1, line 1

> *ot   Mar(i)ny   babushke   i   (de)dushke*
> from Marina-GEN.SG grandmother -DAT.SG and grandfather-DAT.SG
> 'From Marina to grandmother and grandfather'

In the second letter illustrated above, Irena drops a whole phrase (fig. 2, lines 6-7) that remains irrecoverable:

(4)   *pro zup /   katoryj   ((…)) {c}yluju //*
> about   tooth-NOM.SG.M-WS   which-NOM.SG.M-WS   kiss-PRES.1SG-WS
> 'About the tooth that ((…)). Kissing' ('[I am] kissing [you]' being the standard closing phrase that usually appears before a signature).

Nikolka (age 7) swallows a whole phrase leaving only the end of the sentence, the omitted words being added by an adult hand (see fig. 5, lines 3-4):

(5) ((*U nas   skoro budet   koshka*))   *i*   *sobaka*   *nak* (sic! for *kak*)

by we-GEN.PL soon be-FUT.3SG cat-NOM.SG.F and   dog-NOM.SG.M   like

u   vas

by   you-GEN.PL

'((We will soon have a cat)) and a dog, just like you.'

Fig. 5. Phrase omission - Nikolka (age 7)
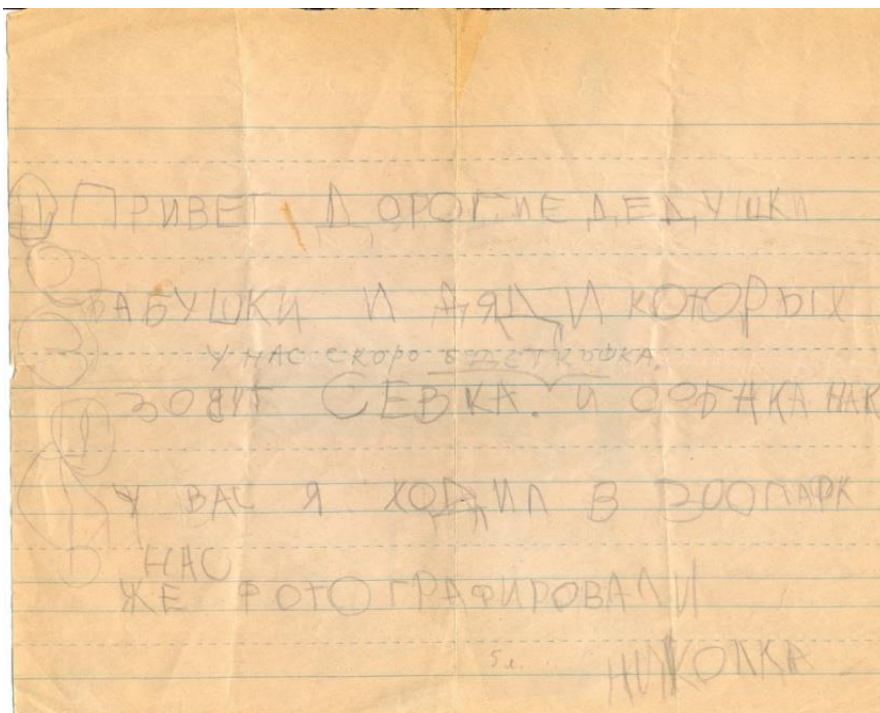
Similarly, segment omissions are characteristic of BBL. Many omissions were corrected by the authors on the spot, but others went undetected, e.g. *d'lja var''vre* instead of *d'lja var''v(a)re* 'for Varvara' (cognate of Barbara) (657); *dorgo* for *dor(o)go* 'expensive' (St. R. 11); *s'trou* (x2), *setrou* instead of *s'(s)trou, se(s)trou-* ACC.SG 'sister'*; poklo* instead of *poklo(no)* 'bow' (531 and 414)*; polženo* instead of *pol(o)ženo-* PARTPLE.PASS.NOM.SG. NEUT 'has been set', to name just a few.

1.4.2. Segments repetition

Along with omissions, letters of emergent writers are full of undetected repetitions. Irena's letters demonstrate a few instances of this feature. We can see one of them in figure 2, line 4: x̲xorašo, a misspelled *xorošo* 'well'. Interestingly, in another letter, written by the same

author a month before, we see another instance of repeating the same letter in the same word. Some of the other examples include *pire<u>re</u>da-{i}t{i} prevet* '<u>se</u>send hi' for *peredajte privet* 'send hi' (Irena, 7), as well as

(6)   *No*   *ja*   <u>*tebja*</u>   *skoro*   <u>*tebja*</u>   *uvižu*

      But I-NOM.SG   you-ACC.SG soon   you-ACC.SG see-FUT.PF.1SG

      'But I will soon see you <u>you</u>' (Marina, 10)

(7)   *Dorogie*   *Čumakovy,*   *v{y}*   *dolžny{y}*   *nasit{'} /*

      dear-NOM.PL   Čumakov-NOM.PL you   must-PL   wear-IMPF.INF-WS

      nasit{'}   *sam{y}ju*   *krasivuju*   *ad(e)ždu*

      wear-IMPF.INF-WS most-ACC.SG.F-WS pretty-ACC.SG.F   cloth-ACC.SG.F-WS

      kotor{y}{ja}   *uvas*   *es{'}t{'}*

      which-NOM.SG.F-WS   at you-GEN.SG-WS is-WS

           'Dear Chumakovs (surname), you must wear <u>wear</u> the prettiest outfits that you have' (Tisha, 7)

      Similar examples are found in BBL. Letter repetitions: *xoc<u>c</u>'* instead of *xoc'* (want-3SG.PRES) 'he wants' (N731); *m<u>mi</u>* instead of *mi* (I-1SG.DAT.ENCL.) 'to/for me' (N732)'. Syllable repetition: *tako<u>ko</u>* instead of *tako* 'so' (N531). Word repetition:

(8) *c'to*   *že*   *za*   *m["]no[ju]*   *tvoriši |*   <u>*[za] m"noju*</u>

    what EMPH.PART   on   I-1SG.INSTR. make-2SG.PRES for I-1SG.INSTR.

osm' koun"   *i griv'na*

eight kun-GEN.PL and grivna

      'Why are you, then, charging of me eight kunas and a grivna <u>of me</u>?' (In the preceding sentence, the author had claimed that his debt was of a smaller amount) (N238).

1.4.3. Metathesis

      Transposed letters are another frequent lapse in both types of letters. Fig. 1, line 3 illustrates one: *dedushak* instead of *dedushka*-NOM.SG 'grandfather'. Although there are no instances of such an error in the BBL illustrated above, numerous examples can be found in other letters, e.g. *ko Poktĕ* instead of *ko Potkĕ* 'to Potka' (nickname derived from *p"t"ka* 'bird', Zaliznjak 2004: 531) (N750); *s'me rgivnĕ* instead of *s'me grivnĕ* (GEN.SG) 'seven grivnas' (Smol. 8/9); *nmogo* instead of *mnogo* 'many' (N391).

1.4.4. Mirror reversal of letters

      Another characteristic feature of children's texts is the mirror reversal of letters, as can be seen in Marina's letter (fig. 1, lines 4, 5) where the letter *з* /z/ is spelled consistently as *ε* (in

transliteration reversed renderings are enclosed in figure brackets), e.g. *po{z}dravljaju* '(I) congratulate', *ra{z}ukra(š)ivaju* (1SG.PRES) '(I) color'. Numerous instances of this phenomenon are found in BBL, as well (for a complete list, see Worth 1984). In N624 (fig. 4) we see an example of a reverse Ц. Compare to Ц in *cyluju* '(I am) kissing' (fig. 2, line 7). Other letters that can occur in the reverse version in BBL include **y** [u], **ю** [ju], **a** [a], and **и** [i] (square brackets show transliteration symbols). Children's favorites, in addition to these, are **з** [z], **я** [ja], **и** [i], **р** [r], **ч** [č], **к** [k], **ε** [e], **ы** [y] - a high back vowel, **с** [s], **в** [v], and **ь − ['**] a "soft sign" which indicates palatalization of the preceding consonant. Most of these are reversed in a letter written by Irena, a year earlier than the one illustrated in fig. 2 (see figure 6).

Fig. 6. Irena's (age 6) letter to her mother
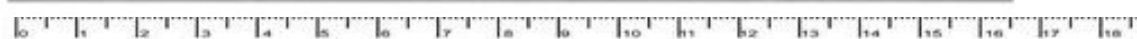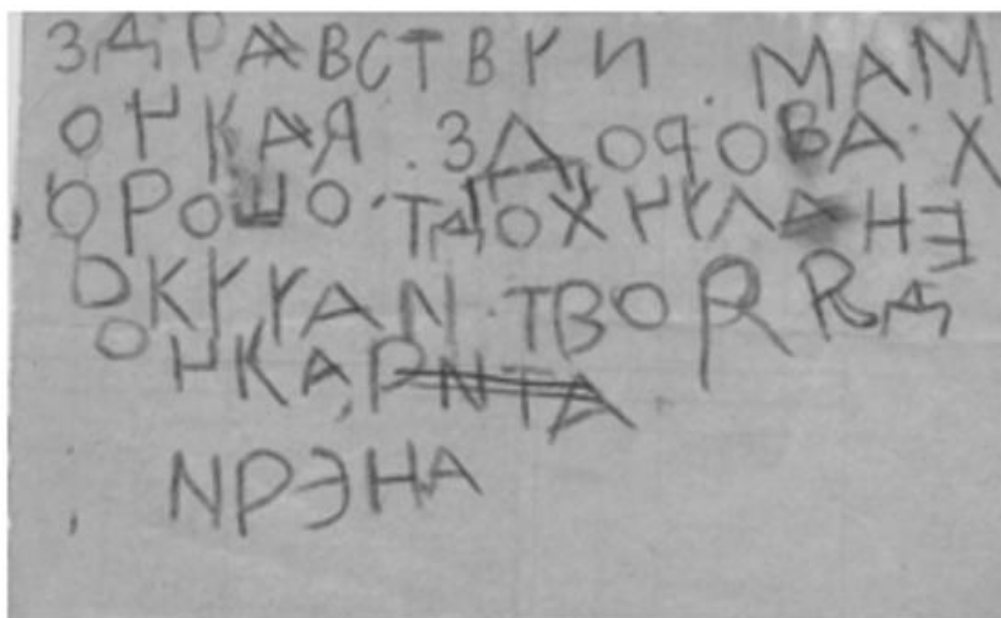
1	ЗДРАВСТВ{У}И . МАМ|О{Ч}КАЯ . ЗДО{Р}ОВА· Х|ОРОШО·ТДОХ{Ч}УЛА Н{Е}
	zdravstv{u}i . mam|o{č}ka ja. zdo{r}ova · x|orošo· tdox{č}ula n{e}
	hello-IMP.2SG mommy-NOM.SG I healthy-NOM.SG.F well rest-PAST.F not
2	{С}К{У}{У}А{И}·ТВО{Я}{Я}ДО{Ч}КАРИТА|{И}РЭНА
	{s}k{u}{u}a{i}· tvo{ja} d|o{č}ka ~~rita~~|{i}réna
	miss-IMP.2SG your-NOM.SG.F daughter-NOM.SG.F ~~rita~~ Irena

'Hello mommy, I am in good health. (I) had a good rest. Don't miss (me). Your daughter ~~Rita~~[3] Irena.'

2. Structural similarities

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[3] The crossed-out *rita* suggests that a girl named Rita served as Irena's scribe.

2.1. Syntax level

Emergent writing is characterized by ellipticity, coordination rather than subordination, lack of lexical and syntactic diversity, and boundary fuzziness. It can be shown that all of the above features are also typical of BBL and naïve writing in general. In this section, however, instead of providing examples for each of those characteristics, I will focus on measures of syntactic complexity established in research on the ontogeny of writing.

Texts by emergent writers are hard to segment into clearly delimited and easily analyzable units such as sentences: It is not only that chunks of information are being stringed, but also details and afterthoughts can be added to or embedded into syntactically unrelated units (Hunt 1965, 1966, 1970). To account for syntactic fuzziness in children's writings, K. Hunt posited minimal terminable units, or T-units, defined as "one main clause plus any subordinate clause or non-clausal structure that is attached to or embedded in it" (Hunt 1970: 4). Interestingly, similar syntactic units, *primary sentences*, were proposed by A. Zaliznjak for dealing with the syntax of BBL (Zaliznjak 2004: 155).

One of the most widely used and admittedly reliable ways to assess syntactic complexity (hence, supposedly, maturity) is measuring the number of words per T-unit (Hunt 1965, 1970, Loban 1976, Scott & Stokes 1995, Scott & Windsor 2000, Beers & Nagy 2011). In his study of 1000-word samples collected from 72 writers at different levels of writing experience, Hunt has shown that this measure steadily increases by grade level: the average T-unit of fourth-graders was 8.6 words long, of eighth graders 11.5 words, of twelfth graders 14.4 words, whereas that of superior adults was 20.3 words long (Hunt 1965). This measure, complemented with two other, viz. the number of words per clause, and the number of clauses per T-unit, allows one to account for the four characteristics of writing development listed above: ellipsis/explicitness, parataxis/hypotaxis, fuzziness of syntactic boundaries, and (lack of) lexical and syntactic diversity. Indeed, the length of T-unit will increase as writing becomes more explicit, as more information is packed into a sentence by using nominalizations, adverbials, and relative and other subordinate clauses. Needless to say, Hunt's figures are not to be taken as an unconditional measure of syntactic maturity as there is no value in length *per se*. Brevity is "the soul of wit" (Shakespeare) and "the sister of talent" (Chekhov). Moreover, short simple sentences can serve specific stylistic purposes. In general, stylization attests to a writer's high proficiency, including the mastery of written resources. However, for beginning writers, the average length of T-units seems to be an adequate measure of the author's command of writing in close correlation with intuitive holistic evaluation.

I will demonstrate the procedure by two sets of letters. The texts within the first set are approximately one year apart from each other. Letters (9) and (10) present a "travelogue" by

Gosha, 6 and 7 years, respectively. The second set is comprised of two BBL: (11) has a lower T-score than the other (12). The texts were marked for clause and T-unit boundaries according to the working principle of "one non-zero (simple or compound) subject and all related predicates" per clause. This particular method of syntactic delimitation is tentative until a more thorough analysis of conditions for zero subjects is performed on these texts. In addition to the length of T-units, the ratio of the number of clauses to the number of T-units will be calculated.

(9) Gosha, age 6.

1. DEDUŠKA POJMAL V POLE {Z}AJEČA // **5**
grandfather-NOM.SG catch-PAST.PFV.M.SG in field-LOC.SG hare-ACC.SG.WS

'Grandfather caught a hare in the field.'

2. ON PROŽYL NESKOLKO DNEJ // **4**
 he-NOM.SG live-PAST.PFV.M.SG a few day-GEN.PL

'It lived a few days ((with us))'

3. MY EGO<u>O</u> FOTAGRAFIRAVALI // **3**
 we-NOM hi<u>m</u>m photograph-PAST.IMPFV.PL.WS

 'We took pictures of him.'

4. I (de)DUŠKA VYPU(s)TIL // **3**
and grandfather let-go-PAST.PFV.M.SG —

'And grandfather let ((it)) go' **T-score**
  15÷4=3.75

(10) Gosha, age 7.

1. NINA ILINIŠNA KATALA MEN'{JA} PAPU I MAMU NA **11**
Nina-Name.NOM.SG Ilyinishna-Patronym.NOM.SG.WS drive-PAST.IMPFV.F.SG me-WS papa-ACC.SG and mama-ACC.SG. on
MIKRA AVTOBUSE PO VYŠYNGTONU. //
Van-LOC.SG around Washington-DAT.SG

'Nina Ilyinishna drove me, Dad, and Mom in the Van around Washington'

2. V AMEREKE OČEN'. KRASIVO // **4**
 in America-LOC.SG.WS very beautiful

'It is very beautiful in America'

3. PO.PO NOVYM GODOM NOREŽAJUT DO.MA FANARIKOMI I. NI **11**
 in.in new-INSTR.SG. year-INSTR.SG decorate-PRES.IMPFV.3PL.WS ho.use-ACC.PL light-INSTR.PL.WS and. not-WS
TOL'KO DOMA I DEREVJA. //
only house-ACC.PL also tree-ACC.PL.WS

'In in <false start> For the New Year (they) decorate houses (with) lights; and not only houses, ((but)) also trees'

4. MY BYLI V DOMI // **4**
 we-NOM. be-PAST.PL in house-LOC.SG.WS

'We were in a house.'

5. **TAM MY VIDILI ŽELEZNUJU DOROGU. //** **5**
 there we-NOM see-PAST.IMPFV.PL.WS iron(rail)-ACC.SG.F road-ACC.SG

'There we saw a railroad.'

6. NA ŽELEZNOJ DOROGE. BYLI ROBOČII // **5**
on iron(rail)-LOC.SG.F road-LOC.SG be-PAST.PL workman-NOM.PL.WS

'On the railroad (there) were workmen'

7. **TAM BYLI OČIN' BOL'ŠYI GORY. //** **5**
 there be-PAST.PL very-WS big-NOM.PL.WS mountains-NOM.PL

'There were very big mountains.' **5**

8. **TAM BYL**　　　　**KOKOJTA**　**ISKUSTVINYJ**　　　**SNEG**. //
    there be-PAST.M.SG.　some-WS　artificial-NOM.SG.M.WS.　snow-NOM.SG.

'There was some artificial snow.'

9. **I JEŠČĚ**　**BYLO**　　　**{Č}TOTO**　**VRODI**　**TRAMVAJA**. //
    and also-WS be-PAST.SG.N something-WS　like-WS tram-GEN.SG.

'And also (there) was something like a tram.'

10. **STRIKOZA**　　　　　**BYLA**　　　**ZDELANA**　　　**IS**　　　**BLISTJAŠČIX**　　　**KAMNEJ**. //
    dragonfly-NOM.PL.-WS　be-PAST.F make-PART.PASS.F from-WS　sparkling-GEN.PL stone-GEN.PL

 'A dragonfly was made of sparkling stones'

6

6

___

T-score

62÷10=6.2

(11). BBL no. 69 (ca. 1280-90s)

OT　TEREN'TEJA　　　**K"　MIXALJU** //
from Terentij-NameGEN.SG. to　Mikhal-NameDAT.SG

'from Terenty to Mikhal'

1. **PRISH'LIT'**　　**LOŠAK"**　　　**S"**　**JAKOV'CEM"** //
 send-IMP.2PL　horse-ACC.SG.　with　Jakovec-NameINSTR.SG

'Send a horse with Jakovec'

2 **POEDUT'**　　　**DRUŽINA**　　**SAVINA**　　　　　**ČAD'　//**
 will-come-3PL troop-NOM.SG　Savva's-NamePOSS.F.NOM.SG　people-NOM.SG

'**The troops, Savva's people, will come'**

3. **JA NA JAROSLAVLI**　　　　　　**DOBR"**　　　**ZDOROV"**　　　　**I　S**
 I　in Jaroslavl-toponymLOC.SG　good-M.NOM.SG.　healthy-M.NOM.SG.　and with

GRIGOREM' //
Grigorij-NameINST.SG

'I am in Yaroslavl, well and healthy and with Grigory'

4. **UGLICANE**　　　　　　**ZAMER'Z'LI**　　**NA　JAROSLAVLI** //
Uglich-people-NOM.PL　　freeze-PAST. PL　in　Jaroslavl-LOC.SG

'(The ships) of Uglich <toponym> people got frozen in Yaroslavl'

5. **I　TY**　　　**DO　UGLECA** //
 and　you-2SG　to　Uglich

'And you (also send) to Uglich'

6. **I　TU　PAK"**　　　　　**DRUŽINA** //
and　here especially-PARTICLE　troop-NOM.SG

'And especially (that) the troop (is coming) here'

4

4

4

8

4

4

4

_____
T-score: 28:6=4.7

(12) BBL no. 622 (ca. 1360 to the beginning of the 14th c.)

PRIKAZO　OT　MATFEJA　　　**KO MARK(U)**　　**I　KO SAVE** //
order-NOM.SG from Matfej-NameGEN.SG to　Mark-NameDAT.SG and to Savva-NameDAT.SG

'An order from Matfej to Mark and Savva'

5

13

1. PRO NEPRJANOE   SEREBR(O)   ...GE   DONABOLISJA //
    about   unwoven-PART.PASS.N.ACC.SG silver-ACC.SG ...   care-IMP.2SG
'See about the money for the unwoven (linen)'

10 (4+6)

2. DA JA SJA   DIVLJU /   C(EM)U MNE   VESTI   OT VASO   NETU //
    and I   REFL wonder-PRES.1SG   why   me-DAT   message-GEN.SG from you-GEN.PL no
'And I wonder, why there is no message from you'

5

3. TAKO ---- (MOI)MO   ŽIVOTOMO   ZOBLETESJA //
     so   my-INSTR.SG   property-INSTR.SG   care-PRES.2PL
'Is that how you care for my property?'

5(+)

4. ------- OT-E---T- NE XOCETE   PRI(S)LATI //
     ...   ...   not want-PRES.2PL   send-INF.PFV.
'... ... you don't want to send.'

16(+)

5. LIXO   LI   VAMO   DOBRO   LI   O   MO(IE)MO ŽIVOTE   O
    bad-ADV. or you-DAT.PL well-ADV or   about my-LOC.SG property-LOC.SG about
 JAKOLI   VAMO   NABOLITI   SJA MOIMO PRIKAZOMO
Jakov's-POSS.LOC.SG you-DAT.SG care-INF.IMPFV REFL my-INSTR.SG order-INSTR.SG
BOLŠIMO//
great-INSTR.SG
'Whether you are unwell or well, by my great order you are to care for my
((and)) Yakov's property'

6. CJUŽIMO   LI   NABOLITISJA O(ŽE V)Y   TAKO   DEIETE //
others-DAT.PL INTERROG.PARTICLE care-INF.IMPFV that   you-Nom.SG   so   do-PRES.2PL

7

'Do outsiders (have) to take care (of that) if you are behaving this way?'

7. BOGA   SJA   BOI(TE) ----- (B)LJUDITE //
    God-ACC.SG   REFL   fear-IMP.2PL ---- keep-IMP.2PL

5

'Fear God, keep (your) [word?]'

8. NI O SMENOVE   TO(VARE)   ----- ŠLETE
not about Semen's-NamePOSS.LOC.SG merchandise-LOC.SG   ----- send-PRES.2PL

6(+)

'Nor about Semen's merchandise do you send …"

‾‾
T-score
59÷8=7.4

The difference in T-scores within the set of contemporary examples hypothetically measures the development of Gosha's writing skills (from 3.75 to 6.2) over one year. It is too early to make any strong claims with regard to the statistical significance of these results: the computation must be run over a large body of texts. Likewise, it is impossible to say that the figures for contemporary Russian children's writings are comparable in any way to those of Old Russian material. We can cautiously assume though that letters with a T-score of 4.7 are written by less skillful writers than those with the score of 7.4. However, the results are tentative and

aim only to map out the course for future research and applying methods of contemporary research in writing development to the study of historically early writings[4].

2.2. Discourse and Pragmatics

Although mature writers reportedly produce longer sentences, it has been observed that writing development manifests not as much on the syntactic level, but rather on the discourse level (Perera 1984, Scinto 1986, Applebee 2000, Myhill 2012).

Growing maturity of writing manifests itself in thematic development (Scinto 1984), referential choice and avoiding referential ambiguity (Kroll et al. 1981). Development is also clearly seen on the plane of sentence connectives (Rentel & King 1983, Crowhurst 1987, Allard & Ulatowska 1991). Leaving a detailed examination of thematic development and cohesive devices in our text varieties for future research, I will focus on one aspect of textual organization in birch bark and children's letters that reveals some interesting parallels, viz. the opening address formulas.

2.2.1. Textual organization – Incipits

The most frequent incipit in BBL is the formula 'from X to Y' (*ot X-a ko Y-u*). In different periods, this formula could be extended, e.g. 'a letter (*gramota*) from X to Y'**,** 'a bow (*poklono*) from X to Y', etc. Most of the children's letters I've examined start with the stereotypical address 'Dear + Name/Kinship term', e.g. *dorogoj Tiša* 'Dear Tisha'; *dorogaja mamočka* 'Dear Mommy'. Some start with 'Hello (+ dear) + Name/ kinship term', e.g. *zdravstvuj (dorogoj) papa* 'Hello (dear) Dad'. However, along with these obviously learned formulas, we find some more spontaneous, naïve ones which are all characterized by the desire of the author to identify himself from the start, just like in BBL. For example, *dorogoj papa.ja.vadik* 'dear papa.i.am.vadik; *babushka Marina. Ja Danja.* 'Grandma Marina. I am Danya'; *Prevet Kira, éto ja Andrej.* 'Hi (WS), this is me, Andrei'; *privet vsem ot Pavlika* 'regards to all from Pavlik' (cf. the BBL formula *poklono ot X-a k Y-u* 'A bow from X to Y'); and, finally, most strikingly: *ot Mariny: babushke I dedushke* 'from Marina: to Grandma and Grandpa'.

To be sure, the incipits in the BBL were highly conventional and doubtlessly learned (Worth 1984, Zaliznjak 1987). Moreover, they were susceptible to trends, their chronological distribution serving as a supplemental aid in dating the letters. Yet, evidence from many ancient

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[4] Corpus linguistics is opening new vistas in the analysis of historical texts. A T-unit parsing of the historical subcorpus in the National Corpus of the Russian Language according to set criteria will enable us to trace the dynamics of the evolution of the written language.

epistolary traditions[5] suggests that identifying the sender in the beginning of a distant communicative act is prototypical. Naïve opening formulas in children's letters attest to that, too.

3. Theoretical Background and Discussion

The numerous similarities between the BBL and those written by modern-day children demand an explanation. I argue that these similarities derive from the fact that both text varieties are instances of writing in the early stages of its development, whether historically or individually. This section views the facts described in the previous sections from the perspective of what is known about the emergence of writing in children and the evolution of WL. A few conceptual clarifications are necessary before proceeding.

By suggesting cross-historical parallelism between the two text varieties I am far from advocating the theory of recapitulation of phylogeny (the evolution of writing) through ontogeny (the development of writing in the individual). The dubious reputation of the theory aside, writing is not an innate capacity, and thus it is not viable to discuss a learned skill in evolutionary terms[6].

Rather, I am relying on the well-established Uniformitarian Principle (UP) which assumes a uniformity of the observed processes of linguistic change today and those of the unobservable past. This principle serves as a working hypothesis in modern historical linguistics and is its major *raison d'être* (Christy 1983, Labov 1994, Janda & Joseph 2003). The UP has been also postulated for language acquisition and creolization, i.e. for language development in the individual and through generations, respectively (DeGraff 1999, 2009). In regards to the creation of Creole languages, DeGraff wrote:

> Fortunately, Uniformitarianism dispenses with time machines. ... If acquisition of native languages by children (L1A) and of nonnative languages by adults (L2A) plays a role in observable instances of language change, then current results from language acquisition research should establish boundary conditions on our theoretical speculations on what children and adults could, in principle, contribute to Creole formation. (DeGraff 2009: 933)

If one views WL as a linguistic system with a grammar distinct from that of speech (Chafe 1982, Olson 1993, 1996), then medieval vernacular WLs can be viewed as languages that have not yet been entirely shaped. Therefore, *mutatis mutandis*, DeGraff's argument can be applied to our material: processes operating in writing acquisition today could reasonably be

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[5] See Hoffner (2009) for Hittite correspondence; Van den Hout (1949) for Classical Greek; Meecham (1923) and Bagnall (1995) for Hellenistic and Roman Egypt; Halla-aho (2011) for Classical Latin and (2008) for Vindolanda letters. The practice persisted through the Renaissance manuals of letter-writing (Henderson 1983).

[6] In this paper, for clarity's sake the word *evolution* is reserved to refer to the development of written language to distinguish it from the development of writing in children. It is used in a non-technical sense throughout.

assumed the same as those that operated in the period of its formation. The hypothesis is that the similarities between the vernacular and the children's texts can be explained in terms of the authors' progress in writing acquisition, regardless of their age and the level of development of the WL itself. Moreover, assuming the UP enables us to reason that the same processes were also in action in the formation of WL through history.

The version of the UP that accepts uniformity of laws and processes, but not that of effect, causes, or phenomena (Janda and Joseph 2003), accounts for the different outcomes resulting from the different configurations of contributing factors. It also enables us to deal with some "difficult questions" of cross-age and cross-historical comparisons: How justifiable is the comparison between modern children and medieval adults? Are we not suggesting that their cognitive development is comparable, and thus the medieval writers are like children? How justifiable is the comparison even between modern children and modern illiterate adults, for that matter? To what extent can one compare the learning of mature individuals and those who are still undergoing physical, mental, and social development?

3.1 Cross-age comparisons

One argument against a comparison of children and adult literacy learners draws on Piagetian constructivist outlook on learning as one that builds on previous experience. Working in this framework, Lytle (1991) argued that it is not appropriate to compare adult literacy learners with children if only because their linguistic and social experiences are not on a par with each other. This argument, however, can be extended to any comparison, because not only adults and children differ in their resourcefulness in learning, but so do children from different social strata or any two individuals for that matter. That said, the social factor in literacy acquisition cannot be denied. Thus, children from families in which literacy is valued and widely practiced have been shown to become more successful readers and writers than children from families with limited literacy practices and indifferent or negative attitudes to literacy (Clay 1966, Heath 1983). However, the fact that different learners employ different resources and rely on different past experiences does not mean that cognitive processes underlying literacy acquisition are different.

It is indeed difficult to separate writing development from personal development. One influential model of writing development measures writing progress along multiple dimensions, among which are stylistic, affective, cognitive, and moral dimensions (Wilkinson et al. 1983). However, there is evidence that the processes underlying the construction of knowledge about writing are domain-specific, independent of general cognitive abilities, and similar for adults and children (Luria 1971, Ammon 1991, Cossu 1997, Cossu & Marshall 1990, Tolchinsky 2003). In

a pioneering experiment by Luria (1971), the inhabitants of post-revolution Uzbek villages who attended a three-year course of *likbez*, the acronym of a Russian phrase meaning 'liquidation of illiteracy' ('liquil'), repeatedly outperformed the non-literate subjects in the experiments that tested such cognitive operations as categorization and deductive reasoning. Luria stressed that "[t]he described peculiarities of thinking have nothing in common with the biological specifics of the examined people. They are solely a socio-historical trait of psychological activity" (Luria 1971: 53, my translation). Scribner and Cole (1981) argued that the cognitive differences between literates and illiterates are due to formal schooling in its entirety rather than to literacy alone. A number of more recent studies suggest that metalinguistic cognitive abilities, often considered prerequisites for literacy acquisition, are in fact a consequence of it. In one study, illiterate adults were not able to perform typical word segmentation tasks, but after a few months of reading instruction performed the same tasks satisfactorily Bertelson, Gary, & Alegria, 1986; cited in Tolchinsky 2003: 189). In another study, it has been shown that the ability to judge grammaticality of an utterance is independent of age and improves dramatically with mastery of reading (Karanth & Suchitra, 1993, cited in Tolchinsky 2003: 195). Cossu and Marshall (1990) wrote about a boy with linguistic and mental retardation who was unexpectedly successful in reading and writing with no effect on the boy's IQ scores. The authors concluded that general cognitive abilities must be independent of the abilities needed for decoding and encoding linguistic units. At the same time, other studies maintained the importance of working memory in literacy acquisition processes such as planning and reviewing (McCutchen 1996), which implies that general cognitive abilities are, after all, related to the abilities needed for literacy acquisition. What is critical for our discussion, however, is that the studies mentioned above demonstrate similarities in children's and adults' performance of cognitive tasks related to literacy acquisition.

3.2 Cross-historical comparisons

The literary environment of today's learners of literacy differs radically from that of medieval vernacular writers. Modern children, who are exposed to literacy from infancy, have a notion of writing in their knowledge base long before they undergo formal training in writing (Tolchinsky 2003). Today, advanced literacy acquisition involves the mastery of a ready-made, fully-fledged, and diversified literary language – a process that lasts well beyond formal schooling. By contrast, early vernacular authors were writing in a language with a relatively short or no literary tradition. The writing practices were limited to household record keeping, correspondence, and some legal records.

It is true that medieval vernacular authors were familiar with and in some cases fluent in the literary language of the time. The case of Russian was unique in that the literary language, the Old Church Slavonic (OCS), was genetically related and, at early stages, very close to the vernacular language[7]. Yet, as the name of the OCS suggests, it was the language of the church with very limited genre diversification. Therefore, the first BBL authors were creating WL in their dialect almost from scratch.

As for individual progress in writing development, we know little about early schooling systems (but see Gippius 2012), but even for the most advanced writers their education could not have been as extensive as the modern all-pervasive one. As writing acquirers, early authors were meeting the same challenges as modern ones, but they were also constrained by the limited literary tradition.

One example is the use of continuous writing, which was the norm in the time of BBL and a short episode in children's writing. Another example is the use of punctuation marks for boundary demarcation by early authors and by children. It was a relatively late innovation in the history of writing (Parkes 1992), remarkably reinvented by children when they are left to their devices. Temple et al. (1982: 41) explain this practice by referring to the concepts of "negative space" (space left out) and "positive space" (space filled in) in architecture. The authors argue that word separation was first marked with punctuation marks rather than with blank spaces because positive space is psychologically more salient than the negative space. These two examples do not imply that BBL authors and today's children or their writings are equally "primitive". Rather, they imply that continuous writing represents something "archetypal" or "uniform" in the development of WL. Uncovering such uniform phenomena contributes to our understanding of both the history of writing and the acquisition of writing.

In cross-historical comparisons it is important to separate those features that were induced by the state of the WL at the time from those derived from the skill level of an individual author. One method could be to examine all the texts that form one synchronic slice and place them on a "scale of skillfulness" with shared features determining the "ceiling" of the WL and individual features determining the progress of the author. The difficulty of such a method is in establishing the criteria for assessing skillfulness, and here is where the data from the WL acquisition come into play.

It is also important to distinguish writing as a notational system from writing as a linguistic system. Although the development of both reveals intriguing similarities with writing

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[7] The Old Church Slavonic belonged to a southern branch of the Slavic languages, whereas Russian is an eastern branch of which Old Novgorodian was a northern dialect.

acquisition, I will not discuss the evolution of script only highlighting those issues that are instrumental for the interpretation of BBL or other vernacular texts[8].

In the following sections, I will first briefly overview research on writing as a distinct language system and its evolution. I will then proceed to outlining research on writing acquisition by modern children. Finally, I will evaluate the data of BBL and children's letters in light of this research and discuss prospects for future research.

3.3. Written Language (WL)

Many of the structural features of WL result from the physical properties of the written mode (see Table 1). As opposed to oral speech − a product of multi-channel communication situated in a setting shared by both participants − writing is typically[9] produced for a reader who is temporally and spatially distanced. None of the paralinguistic means (such as gestures and facial expressions) or phonetic cues (such as intonation, voice timbre, tempo, etc.) are available in writing. Thus, all the contextual details must have an explicit linguistic expression resulting in an autonomous text (Olson 1993). Such linguistic means include the following: endophoric (in-text) reference, hypotaxis (subordination) that makes logical relations explicit, and full non-elliptic thematic structure.

The manual mode of writing, as opposed to the vocal one of speech, has a slower pace, which allows the author to plan ahead, avoid false starts and redundancies, and handle more complex structures (Chafe 1982). Another distinctive feature of writing is its permanency in contrast to the irreversibility of speech, which is conveyed in the Roman saying, *verba volent scripta manent* 'words fly away, what is written remains.' Since speech does not leave any physical traces, it is impossible to back-scan what has been said. Speech production is governed by memory and physical constraints related to breath, which makes the oral product fragmented into units delimited by pauses, repetitions, repairs, and interruptions (Chafe 1982, Keenan 1977) rather than syntactic structural boundaries. In contrast, a written product can be scanned back and revised which results in clearly defined syntactic structures.

Other factors that are listed in literature among the distinctive features of WL and oral speech, in fact, capture other dichotomies that can exist in either mode. Such is the opposition of planned and spontaneous, which is independent of the production mode: one can plan an oral speech or spontaneously write a letter.

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[8] For an overview of what children know before being taught writing and an historical account of writing emergence, see Tolchinsky 2003. For individual studies of children's pre-writing writing behavior, see Luria (1929). For the history of writing (script) evolution, see Daniels (2009), DeFrancis (1989), Harris (1995), Woods (2010) .
[9] The dramatic change of this situation in the media age is undeniable but irrelevant for our purposes.

Likewise, the features of detachment and involvement (Tannen 1982) are at the base of the functional formal/informal opposition, rather than the modal written/oral one. For example, compare a corresponding distinction of "grammar of closeness" and "grammar of restrain" in Yokoyama (1993, 1994). The "grammar of closeness" (characterized by involvement and informality) is strongly associated with the oral mode of production, because it is a primary and a dominant register of speech both in pre-literate societies (Ong 1982, Goody 1968) and language acquisition. The grammar of restrain develops gradually in parallel with ritual development, social stratification, inter-communal relations, etc. Another source for the development of the grammar of restrain is leaving the limits of situatedness, which is especially fostered by writing.

The formation of literate devices and strategies is a long process that may take centuries for a language to develop and years for a child to learn them. The history of the WL can then be viewed as a two-dimensional process. On the one hand, it is a gradual departure from oral strategies toward adopting the literate ones. On the other hand, it is a continual increase of informal writing and of speaking in the formal register. It would be reasonable to assume that in the beginning stages, oral strategies penetrate WL and thus WL of novice writers resembles oral speech. However, as I will show in the next section, this is not always the case in writing acquisition.

Table 1. The physical properties of oral and written modes and their linguistic consequences

ORAL		WRITTEN	
physical properties	linguistic devices, consequences	physical properties	linguistic devices, consequences
1. (addressee's perspective) multi-channel sight: gestures/facial expressions, context hearing: full phonetic quality	exophoric (out of text) reference, elliptic thematic structure: high rate of verbs/low rate of nouns and adjectives meaning through intonation, implicit logical relations: parataxis	1. uni-channel: no context, no auxiliary paralinguistic devices, no phonetic nuances	endophoric (in-text) reference; explicit logical relations: hypotaxis; non-elliptic thematic structure
2. vocal mode of production (i) fast speed (ii) irreversibility: no back-scanning, working memory constraints (iii) breath constraints	interruptions false starts, repairs, hesitation discreteness, low semantic density, repetition, fuzzy syntactic boundaries fragmentation (breath group)	2. manual mode of production (i) slow speed (ii) permanency: back-scanning freeing working memory	handling multiple ideas at once, clear syntactic structure idea integration, high semantic density, clear syntactic boundaries

WL Acquisition

The emergence and development of writing in children has been thoroughly studied in the last decades. Special attention has been devoted to technical measurements of the quality and maturity of writing. Extensive surveys of writing research can be found in the literature (see MacArthur, Graham, & Fitzgerald 2006, Andrews and Smith 2011, Berninger & Chanquoy 2012). Here I will highlight the major research approaches – the product-based, the process-based, and the socio-cultural – focusing only on those findings that can prove useful for interpreting the data from historically early writings.

3.2.1. Product-based studies

The product-based studies examine children's texts in search of changes that occur along the increase of the writer's expertise. Coming from the field of education and being practice driven, this approach is concerned with providing reliable criteria for writing assessment. Two criteria, the boundary fuzziness and the T-unit length, have already been extensively discussed above. Other characteristics include the following:

(i) Ellipticity. Novice writers tend to omit bits of information that are part of their (but not necessarily the reader's) background knowledge (Vygotsky 1934/1987, Olson 1977, Flower 1979, Scott 1988). As children develop as writers, they switch from the egocentric, or writer-based mode (Flower 1979), to the reader-based one. Their writing becomes more autonomous and explicit, and the phenomenon of ellipsis subsides. Audience awareness, the ability to provide endophoric (in-text) situational cues is a measure of growth in writing. It should be noted that ellipsis is also typical of oral speech. As such, it may and often does serve as a stylistic device in writing (and letter-writing specifically) to create the effect of spontaneity, sharing background knowledge, etc. Thus Cicero's informal epistolary style is renowned for being elliptic by choice (Halla-aho 2011).

(ii) Parataxis. Emergent writers tend to chain chunks of information without explicating logical relations between propositions rather than organize it hierarchically through subordination (O'Donnell et al. 1967, Hunt 1965, Harpin 1976, Perera 1984). Parataxis is also characteristic of the oral mode of production. This feature as a measure of a writer's maturity may be specific to cultures that have been termed by Robin Lakoff (1984) as "speaker-based" (not to be confused with Flower's "writer-based" strategies). In a speaker-based culture, responsibility for meaning is located with the speaker, rather than the hearer. Speakers of speaker-based languages strive for maximum explicitness. By contrast, in a hearer-based language, the hearer is the one who is responsible for locating the meaning, and explicitness is

qualified as simplistic or rude. In such a culture, parataxis is the desirable and the sophisticated way of combining sentences.

(iii) Lack of lexical and syntactic diversity. Growth in writing experience correlates with increased lexical and syntactic variety. In Modern English it manifests in increased number of adjectives (Wells & Chang 1986), adverbs and adverbial phrases, and nominal and relative clauses (Perera, 1984). The occurrence of these features is said to be contingent on the type of writing rather than on developmental level (Perera 1984: 234, Beard 1986). However, the very fact of being exposed to and practicing diverse genres and types of writing is indicative of growing writing maturity.

The results of the product-based research are particularly valuable to the topic of this paper, however, they should be taken with care. First, the changes that occur in children's writings may reflect the order in which the material is presented in the school curriculum rather than the writing development proper (Applebee 2000: 3). Second, some assessment scales (e.g. the influential model presented in Wilkinson et al.1980) measure personality development and its cognitive, emotional, moral, and social dimensions rather than writing development. Finally, the skill or device hierarchies proposed in research are rarely linear, indiscrete, or monotone, i.e. showing a consistent increase or decrease in some language device. For example, a longitudinal study of T-unit length demonstrated that despite the general tendency of growth there were periods of suspended or even regressive development (Loban 1976). Moreover, two correlating mechanisms can develop at different rates. Rentel and King (1983: 31) report that contrary to their expectations, the relationships of identity and similarity that both constitute cohesive harmony take a different developmental course: identity relationships are acquired up to four years earlier than similarity.

Methodologically, the above challenges can be met by including adult literacy learners into the picture of writing development, studying naïve writing (with minimal formal instruction), and regarding writing development as a dynamic multidimensional process rather than "the acquisition of static multilayered structures" (Dyson 1991: 157).

3.2.2. Process-based approaches

Another mass of research, also practice driven, focuses on the study of cognitive processes underlying writing rather than on its product. The observation that processes such as planning, organizing long-term memory, translating thoughts to text, and revising mark different stages of writing development and are carried out differently by novice and expert writers (Flower and Hayes 1981, Kroll 1981, Scardamalia and Bereiter 1987, Kellogg 2008, among

others) gave rise to a number of stadial models of writing development. A combined model would run as follows.

The stage of **emergent writing** begins with the infant's first contacts with literacy and lasts until the formal instruction of writing (Clay 1966). This stage is marked with writing-like activities such as drawing, the imitative and undifferentiated scribbling, scrawling with elements of iconicity or pictography, random letter writing, writing one's name, and non-random but still unconventional letter writing. The same activities and in the same order (up to iconic scrawling inclusively) were also performed by pre-literate children when asked to "invent" writing for mnemonic purposes (Luria 1929). The notion of writing as representing meaning does exist in the mental world of the child, but the symbolic relations have not yet been established. Children begin to approach phonetic awareness, the primary unit being the syllable. When asked to segment speech into smaller bits, they break the words into syllables. A study of Spanish and Hebrew children shows that when children begin to grasp the idea of mapping letters to sounds, they go through a "syllabic stage" by matching the number of syllables with the number of letters (the letters being random) (Tolchinsky 2003: 77)[10]. The proto-writing co-occurs with the proto-reading: children "read" from books using the typical literary intonation and constructions (Halliday 1975).

During the **preparation** stage (Kroll 1981), the child reaches phonetic awareness and is able to map sounds onto letters. While mastering the mechanics and spelling, children write in "invented spelling" that has its own logic, but is not strictly regular (Read 1986). The writing is used instrumentally and communicatively, but the quality of WL falls significantly behind oral production. Vygotsky (1934/1987: 202) mentions a nine-year-old boy whose writing resembled the speech of a two-year-old. He notes that one gets the impression that when a child switches from oral speech to written communication, he becomes more primitive. Vygotsky explains this by the link between the writing at this stage and the inner speech that is elliptic and incoherent by its nature because it is not addressing an external audience. It has been also suggested that the cognitive demand on the working memory placed by translating the sounds into written symbols takes the entire child's energy, leaving no resources for planning or revising. At this stage, to revise means to rewrite: first it is necessary to erase with a rubber and then to write the new version. Revising is a skill not soon to be learned, and crossing out marks a milestone in writing development (Graves 1979, cited from Perera 1984). When beginning writers re-read their work,

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[10] The psychological saliency of the syllable is also used to explain the observation that the transition from pictographs to writing as representing language has taken place only in languages with monosyllabic words (e.g. Sumerian, Egyptian). "The examples of ancient inventions of writing (Chinese, Sumerian, Maya) show that when a word (or morpheme) represented by a pictogram is a single syllable, the salience of the word in the stream of language coincides with the salience of the syllable in the stream of speech … [This facilitates reusing] a word-character for its sound but not its meaning: Sumerian *ti* 'arrow' for *ti* 'life'" (Daniels 2009: 36).

they read what they had intended to write rather than what they actually wrote: any omissions, repetitions, and other mechanical mistakes are ignored. For some unskilled writers, this practice can last as late as the college years.

The **consolidation** stage (Kroll 1981) begins when the child has mastered the mechanics of writing and is able to write whatever he can say. Writing at this stage will naturally have many features of oral speech in the informal register, including personal involvement, loose syntax, repetitions, exophoric reference, etc. It is marked by the lack of planning and minimal revising. This stage is characterized by knowledge-telling processes of text generation by identifying the topic, retrieving the knowledge about the topic and putting it in writing (Scardamalia & Bereiter 1987). Knowledge-telling representation is author-dominated with an unstable image of audience (Kellogg 2008). A child probes different genres, but coherence and genre appropriateness are an automatic result of the activity (persuasion, exposition, etc.) rather than a conscious application of world or genre theory knowledge. It takes about ten years to move to the next level, and many school graduates remain at this level "suspended awkwardly between speech and writing" (Kantor and Rubin 1981: 62).

When composing has become automatic and the writing starts to diverge from speech, the writer enters the **differentiation** stage. Now she is ready to cope with the distinctive functions of writing, its syntactic structures and patterns of organization, although the result is often awkward. Audience awareness is growing, but the author is still unable to imagine how the text will be perceived with another's eyes. Planning and reviewing interact with language generation. As a result, the process of writing becomes knowledge-transforming, i.e. "what the author says feeds back on what the author knows in a way not observed in knowledge-telling" (Kellogg 2008: 6). The revisions, however, are still at the local syntactic and vocabulary levels. The "ten year rule" says it takes at least another ten years of consistent training to reach this stage and about the same number of years to move to the next.

It is only in the fifth stage of **integration** (Kroll 1981) or **crafting** (Kellogg 2008) that students become fully competent writers who are able to make appropriate linguistic choices and to maintain voices that would influence their style. At this stage the author is not only able to extensively plan, re-plan, and globally revise, but also is skilled enough to anticipate and model the fictional reader's interpretation of the text. This stage is reached mainly by professional writers.

Combined with a product-based approach, the stadial process model enables to place the writers and their texts on the scale of writing competence, and thus set up the expectations of the texts.

3.2.3. Sociocultural and sociopolitical approaches

Socially-oriented models challenged the vague definitions of development in the product- and process-based studies and emphasized the social component in literacy acquisition. Within these models, writing is viewed as an interactive social act shaped and constantly negotiated by the community's literacy practices (Vygotsky 1934/1987, Luria 1929, Heath 1984, Nystrand 2006). Development in this model is measured by the increasing participation in literacy practices of the community. The expectations, practices, and resources vary across domains of life, cultures, and communities, hence the notion of "multiple literacies" (Street 1984). The notion is most important for our purposes because it allows for an objective account of literacy situation cross-culturally and cross-historically within the system of literacy expectations of the studied culture or period rather than imposing our own ideas about literacy.

4. Interpretation

Based on the analysis carried out above, the BBL represent, by and large, the two stages of writing development, those of preparation and consolidation. Several features attest to the fact that the BBL writers had not completely mastered the mechanics of physical writing.

Mirror reversions of letters. The orientation of letters is admittedly one of the hardest things for young children to grasp. In everyday life "the child has learned to ignore the differences imposed by changes in perspective" (Temple et al 1982: 36). In other words, the child is able to identify an object regardless of the perspective: a chair turned upside-down will still be recognized as a chair. In writing, the rules change: the identity of a letter changes with direction. The complementary distribution of the "correct" and the reversed variants in BBL led D. Worth to suggest that these reversions reflected different orthographic subsystems (Worth 1984). However, it is also possible that the writers were still having problems with the orientation of the letters, as it happens in children's letters. Thus, Gosha, age 6, in one of his notes writes the letters *Р* /r/ and *Ч* /č/ invariably correctly, while in another note written a year later, the same letters, as well as the letter *ь*, a "soft sign", are consistently reversed. Along the lines of these examples that attest to the boy's incomplete mastering of writing mechanics, the co-existence of variants within the writing system of the medieval period may testify to the fact that the system had not yet been fully shaped. Practice based on usage rather than on rigid standardization allowed for a great deal of variation (Živov 2006).

This seems to contradict Zaliznjak's (2004) claim that the graphics of BBL comprised an independent system and that most of the BBL were written according to the norms of this system. Indeed, within the expectations of that system, the BBL might have contained little or no orthographic mistakes. However, this orthographic system exhibited a great deal of flexibility

in norms. Moreover, the graphic system of these texts is also characterized by a fair amount of variation in each chronological stratum.

By the same token, numerous omissions and repetitions are also features of early writing. It is true that everyone can occasionally commit such mechanical mistakes. However, competent writers usually are able to correct such flaws upon revising their works. In contrast, research shows that inexperienced writers never re-read their writings. The skill of revision is, first, a learned one, and, second, it is not learned until the differentiation stage of writing development.

Ancient writing practices prove this point as well. For example, in Rome, although the system of WL was highly developed, the technical activity of writing was not considered prestigious. The authors dictated their texts to scribes, usually slaves, then revised and edited the text a number of times, after which the fair copy was produced by a scribe. Thus, the final version was a product obtained by a "division of labor" (Günter 1997: 137). When writing shorter or personal notes, the writer dictated the text to himself. This sort of writing was notable for numerous mechanical mistakes resulting from insufficient practice in physical writing. Cf. a remarkable passage from Suetonius commenting on Augustus's writing: "He often inverts or misses out letters or even syllables. These are errors everyone commits..." (ibid).

While such features as omissions, repetitions, and mirror reversals tell us about the individual's progress in the development of writing, others suggest that there are certain developmental sequences which are characteristic to both individual's writing growth and the evolution of WL as a distinct linguistic system. Such are the continuous script and the use of punctuation.

T-unit length attests to the progress of the author in his development as writer, but a comprehensive diachronic analysis may reveal that it also characterizes the development of WL.

All these pieces of evidence point to the fact that writing in Novgorod was in the beginning stages of development. It could not have possibly been at advanced stages for two reasons. First, writing cannot be fully interiorized in the period of predominantly chirographic practice (Ong 1982). Second, literacy interiorization requires a massive institutionalized schooling. Our knowledge about education in medieval Novgorod is scant. We do not know how many years the training lasted or what part of the population was involved in it. However, we know that even a modern, all-pervasive school system does not always succeed in making people fully literate. It takes ten or more years of formal instruction to move beyond the first three stage of writing. The kind of training available to medieval Russians could not have been sufficiently extensive (both in terms of individual training and in terms of dissemination) to make literacy fully interiorized.

Živov and Timberlake (1997) point out that the BBL are not an exact written transcription of oral speech; specifically, because they are characterized by "a rhetoric completeness and rigid textual organization" (ibid: 8). I would like to look at the oral-written relationship from a developmental perspective. It appears that authors of many BBL were still at the preparation stage where writing lagged behind their oral speech. Therefore, their writing could not yet reflect it.

Conclusion

The main idea of this paper is that writing acquisition as it is observed today can elucidate our understanding of historically early writings. It is based on the hypothesis that the processes underlying writing acquisition today are the same as they were in the past, and so the observable present can serve as a key to the unobservable past. I provided a rationale for the idea that BBL represented writing in its beginning stages and attempted to maintain the points of similarities between two groups of novice writers: today's Russian children and medieval authors of BBL. The next questions to ask are: 1. What is it exactly that this key can help us open? (What kinds of claims about medieval writing can we make based on the data from writing acquisition by today's children?) 2. What is next: what are the prospects for future research? Here, in the conclusion I will propose some possible answers to these questions.

(i) *Uniformitarian principle is not only about BBL*. First of all, the thesis and implications made about the BBL and children's letters can be extended to any writing in the beginning stages, both in the present and in the past. Literacy studies showed that literacy interiorization is a long process that can take centuries on the historical plain and decades in the individual. Literacy dissemination being a function of text reproduction technology (from limited chirographic to printing, to media and digital technologies), analysis of any writing before full interiorization can benefit from acknowledging parallelism with writing acquisition. This is especially true of writing in the very beginning stages. The idea that the evolution of literary language is marked by increasing divergence from oral, context-situated strategies to specifically written, "autonomous" ones should be revised with consideration for the beginning stages in which written performance lags significantly behind the oral. Identifying the stage of evolution of WL in which a given text is written will determine the expectations of the text.

(ii) *Diagnostic tools for determining the level of writing development.* One of the ways to determine the syntactic maturity of a text is to profile it for a sentence-like unit length. In this paper, I have tentatively chosen a T-unit to be such a unit, but defining clear criteria for syntactic delimitation is a task to pursue in future research. The next step would be parsing the available corpus of texts for syntactic boundaries and tracing the dynamics of syntactic units' mean length.

Corpus technologies should prove a valuable tool in this task. T-unit statistics can show the dynamics of chronological evolution of WL.

Establishing the repertory of other diagnostic tools is another task for future research. Since maturity of writing is most notably seen on the discourse level, I see the next step in the comparative exploration of cohesive devices in novice writing, viz. referential choice (including the most elusive issue of zero-themes), thematic development, discourse connectives and the like.

(iii) Finally, it is necessary to further explore "the missing link" of the theory, namely the writings of modern adult novice writers. If the hypothesis about writing as domain specific knowledge is correct, then the same characteristics found in children's and early vernacular writings should be found in the writings of modern adult novice writers. Three paths of research are possible in this direction. One is to examine the writings of adults who have had very limited or no writing instruction in their childhood. In a modern, post-industrial world, these will be the speakers of a sub-standard variety of language. Those who choose to pursue this path can find their material in personal letters (cf. Yokoyama (2008) based on archival work), "letters to the editor" (a proliferate genre in Soviet Russia preserved in the People's Archive in Moscow), creative writing (cf. a movie script by a Russian woman published in Kozlova & Sandomirskaja (1996)). Another path would be to do field work in post-colonial countries in which literacy has only recently been introduced. A third path would be to study the writings of heritage speakers, who frequently get to learn how to write their native language only in their college years. This path seems to be especially promising, because the cognitive and the social factors are held under control. Speakers of substandard varieties are trapped in the vicious circle of being socially disadvantaged and illiterate. Native speakers in college are normally past the initial stages of writing development. In heritage speakers who made it to college, we have a category of intelligent, mature adults at the very beginning stages of writing development in their home language.

I would like to conclude with a quote:

> we historical linguists have everything to gain from building up an inventory of well-studied present times which, as they cumulate into a store of well-studied pasts will slowly but inevitably provide a more solid database for formulating and testing increasingly sophisticated hypotheses regarding language change. Yes, some of these hypotheses will turn out to be ridiculously wrong. But, we maintain, a scientific (sub)discipline cannot make significant progress by refusing to propose any generalizations until it has "gotten everything right". (Janda & Joseph 2003: 177)

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