Historical observations on defectiveness: the first singular non-past

Исторические наблюдения над дефективностью: первое лицо единственного числа непрошедшего времени

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Аннотация В русском языке глаголы, у которых в непрошедших временах отсутствует форма первого лица ед. ч. (типа *убедить*), представляют собой известную морфологическую проблему дефектных парадигм. Если на синхронном уровне дефектность можно трактовать как часть лексической информации глагола, вопрос истории возникновения неполных парадигм остается открытым. В настоящей статье рассматриваются исторические данные, касающиеся дефектных глагольных парадигм. Диахронически можно выделить два класса глаголов с крайне нерегулярными морфологическими чередованиями: (1) глаголы, имеющие в парадигме церковнославянское чередование *д ~ жд*, и (2) глаголы с исходом основы на зубной согласный, в которых не наблюдалось никаких чередований. Особое внимание в статье уделяется второму классу глаголов, поскольку они никогда ранее не становились предметом специального исследования. Появление дефектных парадигм прослеживается через вытеснение этих двух классов из нормативного русского языка в течение последних двухсот лет: чередование заменяется пробелом в парадигме.

1 Introduction

A number of second conjugation verbs in Russian are commonly cited as being defective in the 1sg non-past, such as *убедить* (Table 1).

It is generally agreed that there is no semantic explanation for this gap. As Družinina (1962, 14) writes, "[э]то традиция". Indeed, she even suggests a set of classroom exercises for teaching defective paradigms.

Nevertheless, these gaps are not entirely random, in as much as the verbs affected are second conjugation verbs whose stem ends in a consonant which, as a rule, should undergo

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Table 1 Non-past paradigm of
убедить

	SG	PL
1	Ø	*убедим*
2	*убедишь*	*убедите*
3	*убедит*	*убедят*

Table 2 Verbs with defective
1SG per Zaliznjak (1977), with
RNC count of non-past tokens
(queried 4/2007)

Expected alternation		RNC non-past tokens
т ∼ ч or *щ*	*очутиться*	105
	претить	106
д ∼ ж	*бдеть*	78
	-бедить(-ся) (*по-*, *у-*)	1571
	чудить (*на-*, *по-*, *от-*)	69
	дудеть (*по-*, *про-*)	23
	ерундить (*на-*)	2
	галдеть (*за-*, *по-*)	70
	лихорадить	55
	обезлошадить	0
	сбондить	0
	сбрендить	6
	шкодить (*на-*)	7
зд ∼ зж [*žž'*]	*угораздить*	7
с ∼ ш	*чудесить* (*на-*)	2
	кудесить (*на-*)	1
	-лесить (*об-*, *обез-*)	0
	лисить	2
	ляпсить	0
	обрусить	2
	парусить	6
	пылесосить (*про-*)	20
	рысить (*за-*, *про-*)	4
з ∼ ж	*бузить* (*на-*)	27
	дерзить (*на-*)	31
	лямзить	1
	мерзить	14
	обуржуазить(-ся)	0
	угобзить	0
ст ∼ щ	*шелестеть* (*за-*, *по-*, *про-*)	167
	шерстить (*пере-*)	4
м ∼ м[l']	*тмить(-ся)* (*за-*)	35

an alternation in the 1SG. Zaliznjak's (1977) list of defective second conjugation verbs
is given in Table 2, along with a token count of non-past forms from the Russian National
Corpus (RNC), to give some impression of their distribution in the lexicon.

Given that the defective verbs appear to belong to the alternating stem type, it is tempting to seek an explanation for the gap in some problem engendered by the (potential) alternation. But it is far from clear what that problem might be. Three possibilities come to mind:

a) The application of the regular inflectional rules would produce a phonologically unacceptable form.
b) The expected form is acceptable in raw phonological terms, but violates some other condition. For example, Es'kova (1989, 98) observes that the columnar end stress of *a*-stem nouns conflicts with the stress shift occasioned by the null genitive plural null ending. On this interpretation, **мечт-∅* is defective because it cannot realize post-stem stress (see also Pertsova 2005 for a recent treatment).
c) The speaker is unable to decide between competing alternation patterns (Družinina 1964, 13, cited in Baxturina 1966, 115; Albright 2003 suggests a similar approach to defective verbs in Spanish).

None of these has any obvious application here:

a) Phonologically, the expected 1sg forms would be unexceptionable, with the possible exception of **тмлю*, since [C_{stop}ml'] is an otherwise unattested consonant cluster.
b) The only explanation along these lines that has been suggested (at least, that I am aware of) is homophony avoidance: the expected 1sg forms of *бузить*, *дерзить* and *лисить* would coincide with those of other, more frequent verbs (*будить*, *держать*, *лишать*). But this would affect only a handful of verbs.
c) The alternations listed in Table 2 are exceptionless in the standard language, so it is hard to see how serious morphological competition could be involved. The one stem type where there is a degree of uncertainty, namely stems in *m* (which can alternate with *ч* or with *щ*), does not incline towards defectiveness any more than stems ending in other consonants.

However, these observations apply only to the contemporary normative standard. Earlier periods permitted variant 1sg patterns. Thus *убедить*, defective in the contemporary language, not only displays 1sg forms in earlier texts, but displays variant forms:

(1) *Ну, да я зна-ю, что я не убеж-у вас* [...]
well yes I know-1sg that I not convince-1sg you
'Well yes, I know I won't convince you [...]' (RNC/Tolstoy, *Letters* 1894)

(2) *Вряд ли я вас убежд-у в моем взгляде* [...]
hardly Q I you convince-1sg in my view
'I'm hardly going to convince you of my view [...]' (RNC/Dostoevsky, *Diaries* 1887)

This suggests that the original motivation for defectiveness might be found in the paradigmatic relationships which obtained in the past. Problems that arose under prior morphological conditions were ultimately lexicalized to yield the defectiveness of contemporary paradigms. That is, defectiveness is a matter of arbitrary lexical specification, but nonetheless can be motivated diachronically, see also Sims (2006). In the ensuing sections I pursue this line of inquiry, using the list in Table 2 as a point of reference, and observe that there is indeed evidence that a number of these verbs formerly had aberrant 1sg alternations. The conclusion is two-fold: for some verbs it seems clear that defectiveness is lexicalized, for others it is possible that the original motivation is still in force.

Table 3 Usual correspondence of 1sg alternation and past passive participle alternation

INF	1SG	PPP	INF	1SG	PPP
бросить	*брошу*	*брошенный*	*запретить*	*запрещу*	*запрещенный*
поразить	*поражу*	*пораженный*	*разбудить*	*разбужу*	*разбуженный*
истратить	*истрачу*	*истраченный*	*пустить*	*пущу*	*пущенный*

Table 4 Infinitive stem/past passive participle correspondence among defectives

INF	1SG	PPP	INF	1SG	PPP
-бедить	Ø	*-бежденный*	*пылесосить*	Ø	*пылесосенный*
сбондить	Ø	*сбонденный*	*обуржуазить*	Ø	*обуржуазенный*
облесить	Ø	*облесенный*	*лямзить*	Ø	*лямзенный*
ляпсить	Ø	*ляпсенный*			

2 Variant alternations

Evidence for prior variation in the 1sg can be recovered both through synchronic evidence and from the historic record. Synchronically, it is revealing to look at other stem-final consonant alternations within the verb paradigm, since these bear a relationship to what happens in the 1sg. In the second conjugation, the past passive participle (ppp) typically undergoes the same alternation as the 1sg, cf. Table 3.

Those defective verbs that have a ppp (most do not) display a stem-final consonant which would not be permitted as a 1sg alternant. *-бедить* has *жд*, while the others are non-alternating, cf. Table 4.

Projecting the behaviour of the ppp onto the 1sg leads us to expect both *д* ∼ *жд* and non-alternation in the 1sg.

The historic record confirms that both types were once admitted into the normative standard, and that these ultimately bear a relationship to defectiveness. Table 5 lists those defective verbs from Zaliznjak's list for which information is provided in pre-Revolutionary sources on the standard written language (grammars, style guides and dictionaries). The sources earlier than Lomonosov (1755) are, strictly speaking, Church Slavonic, but are nonetheless relevant to the history of the written language.

Two verbs (cf. Table 5) are attested with 1sg *д* ∼ *жд*, and both these and twelve of the remaining thirteen verbs have a non-alternating 1sg attested or implied. The verbs *-лесить* and *обрусить* are mentioned by Černyšev specifically as not being non-alternating, implying someone else claimed that they were, though I have not found this in any of the sources I consulted. (The one verb which stands apart is the Ukrainian borrowing *шкодить*, which is also found with the Ukrainian 1sg within the gloss for *врежда́ю* in Berynda 1627.) Thus, our diachronic investigation can focus on *д* ∼ *жд* on the one hand, and non-alternating verbs on the other.

Table 5 Defective verbs (from Table 1) with pre-Revolutionary citations

	Černyšev 1915	Ogienko 1914	CS/Russian dictionary 1867–1868	Pavskij 1841	Vostokov 1831	Greč 1827	Puchmajer 1820	first Academy dictionary 1789–1794	Barsov 1785	Lomonosov 1755	Polikarpov 1704	Slavynec'kyj XVII v.	Smotrickij 1619
бдеть	Ø		•	Ø	•			•	•		•	•	•
-бедить	N/жд		жд	жд				жд/•	жд	жд	жд	жд	
дудеть	N		•	Ø	•	•	•	•			•		
кудесить	Ø		•		•		•	•			•		
-лесить	N												
мерзить	Ø		•		•			•	•			N	
обрусить	N												
очутиться	Ø/•	N				•		•					
тмить			•		•		•	•					
угобзить			N			•		•			•		
чудесить	Ø		N		•			•					
чудить	Ø		жд	Ø	•			жд/•	жд				жд
шкодить			N										

• = non-alternating 1SG
Ø = defective 1SG
N = normal alternation in the 1SG

3 The ∂ ∼ жд alternation

The Church Slavonic reflex of Common Slavonic *dj* was once accepted in the 1SG of verbs in *-∂* of Church Slavonic origin, particularly in elevated style. The fullest list of verbs optionally taking 1SG *жд* comes from Barsov (1785, p. 555 in the 1981 edition), who cites *-бедить*, *будить*, *видеть*, *водить*, *вредить*, *градить*, *кадить*, *нудить*, *радить*, *садить*, *сладить*, *судить*, *трудить*, *ходить*, *цедить*, *чредить*, *чудить* and *щадить*. The list was clearly not meant to be exhaustive (in as much as it ends with 'etc.'), but, if we add to this *упредить*, the list includes nearly all the verbs cited in older grammars and style guides as possibly taking 1SG *жд*.

From this list, only two verbs, *-бедить* and *чудить*, have been cited as defective, so it is clear that there is no simple correlation between the prior admissibility of 1SG *жд* and defectiveness. As first step, Barsov's list can be pruned somewhat if we look at the statements of later observers. Grot (1885, 368) gives as a rule of thumb that the Church Slavonic alternation occurs only with prefixed forms. By the early 20th century, we find Černyšev (1915, 306–307) allowing 1SG *жд* as an option only for the prefixed verbs *-бедить*, *-градить* (*пре-*, *возна-*), *насадить*, *насладить*, *-нудить* (*вы-*, *при-*), *упредить* (*пред-*), *учредить*. Likewise, corpus evidence suggests that use of the 1SG

Table 6 1SG *ж* versus *жд*. Token count from the RNC (queried 3/2007)

	18ᵗʰ–19ᵗʰ c.		20ᵗʰ c.	
	ж	*жд*	*ж*	*жд*
-*бедить* (*по-, у-, переу-, разу-, у-…-ся*)	3	4	4	2
будить (*воз-, про-…-ся*)	7	0	1	0
видеть[1]	3,000	4	10,000	0[2]
водить (*в-, вз-, воз-, воспроиз-, выпро-, до-, за-, из-, на-, от-, пере-, по-, под-, препро-, при-, про-, произ-, раз-, руко-, с-, у-*)	293	0	1287	0
вредить (*на-, по-*)	6	0	23	0
градить (*о-, на-, возна-, за-*)	15	1	20	0
кадить	0	0	0	0
нудить (*при-*)	3	0	1	0
-*предить* (*у-, преду-*)	18	4	28	0
-*садить* (*на-*)	0	0	3	0
сладить (*на-…-ся*)	3	1	5	0
судить (*за-, об-, о-, рас-, с-, от-*)	121	0[3]	169	0
трудить	0	0	0	0
ходить (*до-, ис-, нис-, об-, оби-, от-, пере-, по-, под-, пре-, превос-, при-, про-, проис-, с-, у-, в-, вос-, вс-, вы-, за-*)	1060	10[4]	4270	0
цедить	0	0	0	0
-*чредить* (*у-*)	0	1	0	1
чудить	0	0	0	0
щадить (*по-*)	21	0	25	0

жд was limited. Table 6 gives figures from the Russian National Corpus, based on Barsov's list (plus *упредить*), contrasting 1SG forms in Church Slavonic *жд* versus normal Russian *ж*.

From Table 6 it is evident that 1SG *жд* was not much used even in the 18ᵗʰ–19ᵗʰ centuries, and by the 20ᵗʰ century it had all but disappeared. What particularly stands out from these figures is that -*бедить* is the only verb to evince serious competition between the two alternatives, and that this competition seems to be retained into the 20ᵗʰ century. (The data for *учредить*, which shows only *жд*, are intriguing, but too scanty to say much about.) The fact that the verb in which the *д* ~ *жд* alternation was most robust is also the one which ended up defective makes a causal connection seem more plausible.

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[1] The figures for *видеть* are only for the unprefixed verb. As the counting of hits through the interface of the RNC becomes more approximate as the numbers get higher, there is little point adding to this the figures from the much less frequent prefixed forms. However, the prefixed forms were searched for, and none of them evince instances of 1SG *жд*.

[2] Factoring out five instances of Church Slavonic material and works on historical linguistics.

[3] The RNC yields four instances of *жд*, but these all involve the same Bible citation, and represents Church Slavonic rather than Russian: *Якоже слышу, сужду, и суд Мой праведен есть, яко не ищу воли Моея, но воли пославшего Мя Отца* (John 5:30).

[4] Eight of these involve repetitions of the same Bible citation.

Table 7 Changing paradigm of *страдать*

	18th c. INF *страдать*		Later INF *страдать*	
	SG	PL	SG	PL
1	*стражд-у*	*стражд-ем*	*страда-ю*	*страда-ем*
2	*стражд-ешь*	*стражд-ете*	*страда-ешь*	*страда-ете*
3	*стражд-ет*	*стражд-ут*	*страда-ет*	*страда-ют*

Table 8 Changing paradigm of *жадать*/*жаждать*

	18th c. INF *жадать*		Later INF *жаждать*	
	SG	PL	SG	PL
1	*жажд-у*	*жажд-ем*	*жажд-у*	*жажд-ем*
2	*жажд-ешь*	*жажд-ете*	*жажд-ешь*	*жажд-ете*
3	*жажд-ет*	*жажд-ут*	*жажд-ет*	*жажд-ут*

3.1 Elimination of *жд*

The Church Slavonic alternation *д* ∼ *жд* met different fates in the different areas of verbal morphology where it plays a role. The alternation is firmly established in derived imperfectives and past passive participles (*убедить* ∼ *убеждать* ∼ *убежден*). But in the non-past, it was clearly resisted from the outset, and ultimately rejected. The data in Table 6 are too scanty to give much indication as to what was going on, but the behaviour of the parallel alternation in the first conjugation may give some further clues.

The first conjugation Church Slavonic verbs *страдать* and *жадать* originally had the *жд* alternant in the non-past. Both verbs lost this alternation, but in two different ways. In the case of *страдать*, following a development familiar from other verbs, the stem-final -*a* was retained in the non-past paradigm, eliminating the conditions for the alternation (Table 7). In the case of *жадать*, the infinitive stem was back-formed on the basis of the non-past, thus extending stem-final *жд* to the whole paradigm (Table 8).

Two conclusions can be drawn from this. First, *жд* was rejected not just from the 1sg, but from the non-past as a whole. Second, the behaviour of *жадать* shows that whatever the problem with *жд* was, it was not phonological, since *жд* is maintained in the non-past. The problem was evidently morphological: having *жд* as the product of an alternation was rejected, though *жд* as such was acceptable.

This raises two further questions. First, why was the other characteristic Church Slavonic alternation, *т* ∼ *щ*, not rejected? Second, why was the *жд* alternation allowed in some parts of the paradigm but not others? The answer to the first seems fairly clear: *щ* exists natively as the alternant of *ст*, so *щ* was already established as a morphological alternant; the fact that Church Slavonic and native alternations involve a different base consonant seems to have been immaterial. The second question likely involves the distinction between

inflection and derivation, broadly construed, with the *жд* alternant rejected from the core inflectional paradigm but admitted in more peripheral areas with quasi-derivational status, such as participles.

3.2 Particular characteristics of -*бедить*

It was suggested above that the defectiveness of -*бедить* was connected with the fact that 1SG *д* ∼ *жд* was better established with it than with other verbs (see Table 6). Why should this have been the case? One clue comes from reading between the lines of Barsov's (1785, p. 555 in the 1981 edition) description of this class. He characterizes 1SG *жд* as Church Slavonic and *ж* as its native Russian equivalent, illustrating the contrast with two lists of corresponding verbs, e.g. *бужду* versus *бужу*. What Barsov is contrasting here are not so much morphological differences as lexical doublets, which may differ in other features as well, e.g. Church Slavonic *гражду* versus Russian *горожу*. Significantly, some verbs on the first list are missing from the second, namely -*бежду*, *слажду*, *чрежду* and *чу-жду*. These are all Church Slavonic verbs with no (semantically equivalent) corresponding Russian form. Thus one reason for the particular status of the *жд* alternation with -*бедить* may be that, originally, it was the only option for this particular verb (and similarly for *чудить*). Clearly, this in itself is an insufficient explanation, as the same might be said of -*чредить* and *сладить* (as well as *упредить*, not on Barsov's list), which were readily adapted to the native Russian pattern.

Another feature that might be said to set -*бедить* apart is that it is invariably prefixed—recall Grot's (1885, 368) rule of thumb, cited above, that the Church Slavonic alternations only occur with prefixed verbs. But again, there are verbs that fit this description which did adopt *ж*, namely *учредить* (given as *чредить* by Barsov) and *упредить*.

These two features (lack of semantically equivalent East Slavonic counterpart, and being a bound stem) thus single out three verbs as being especially prone to take 1SG *жд*, namely -*бедить*, *учредить* and *упредить*, but they fail to distinguish -*бедить* from the other two. Yet there is evidence that, even at an early date, something set -*бедить* apart. In the first Academy dictionary (1789–1794), the entry for -*бедить* gives as 1SG forms -*бежду* or non-alternating -*бедю* (likewise for *чудиться*). *Упредить* and *учредить* on the other hand are given with 1SG *жд* only (all other verbs allegedly with 1SG *жд* have only *жд*, or a choice between *жд* and *ж*). It is unclear how to interpret the non-alternating pattern in this context, but at the very least, it would seem to be an acknowledgment of the non-acceptability of the normal 1SG alternation.

One can imagine the following scenario for the genesis of defectiveness in -*бедить* (and, by analogy, for *чудить*). The word was adopted as a Church Slavonicism, with 1SG *жд* as part of its profile. But overall, 1SG *жд* never met with more than a lukewarm reception, and was already on its way out by the 19th century. -*бедить* ended up stuck between the non-acceptability of the normal alternation and the dwindling acceptability of 1SG *жд*. The non-acceptability of the normal alternation may also explain the persistence of 1SG *жд* into the 20th century: 1SG *жд* may have been bad, but apparently no worse than 1SG *ж*. Table 9 gives data from the RNC for the complete non-past paradigm, which show that by the 20th century, neither *жд* nor *ж* is much used. The question remains as to why the normal alternations should never have been fully acceptable for -*бедить*, but the historic record sheds no light on this.

Table 9 Non-past tokens of -*бедить*, full non-past paradigm (RNC, queried 2/2007)

	<1900	>1900
1SG *жд/ж/д'*	4/3/0	2/4/1
2SG	35	89
3SG	126	520
1PL	28	230
2PL	53	235
3PL	42	170
2SG IMPV	20	54
total	311	1304

Note: 2PL figures include 2PL imperative (IMPV)

4 The *т ~ щ* alternation

As noted above, this originally Church Slavonic alternation has been maintained in Russian, so one should not expect the same problems. Nevertheless, one verb which had this alternation turns up on Zaliznjak's list of defectives, namely *претить*. The reason for this is probably because it violates Grot's rule of thumb on the correlation of the Church Slavonic alternation with prefixation, as Grot himself notes. The other exception is *святить*, which Zaliznjak does not treat as defective. What sets *претить* apart may be the fact that this verb is essentially impersonal (note that even Polikarpov 1704 portrays it this way), i.e. problems with the formation of the 1SG are compounded by the fact that there is little need to form it.

5 Non-alternating dental stems

Recall from Table 5 that most of verbs from Zaliznjak's list for which there is a pre-Revolutionary citation are attested at some point as being non-alternating in the 1SG. To this list we can add further items cited as defective by Ušakov and Vinokur (1935–1940); all four of those that have pre-Revolutionary attestations are cited as non-alternating.[5]

The class of non-alternating stems in the history of Russian is something of a philological mystery. In principle, there is nothing strange about such a pattern, in as much as it simply involves the generalization of a single stem shape throughout the whole non-past paradigm. Indeed, non-alternation in the 1SG turns up in various Russian dialects (Bernštejn 1974, 106–108; Obnorskij 1953, 109–113), and is certainly present, at least sporadically, in the spoken language: Baxturina (1966) and, more recently, Alley et al. (2006) report experimental data showing a not inconsiderable tendency for speakers to produce non-alternating forms, and of course a quick internet search will easily yield examples in informal writing. But there is no recognition of this in the normative standard. Nevertheless, as is clear from Table 5 and Table 10, there was once a tradition whereby certain verbs were acknowledged to be non-alternating, though the full extent of this tradition seems not to be fully appreciated.

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[5]These are *бомбить*, *вверзиться*, *(в-/у-)гнездиться*, *завязить*, *звездиться*, *каверзить*, *капризить*, *куститься*, *насмердеть*, *обезлюдить*, *окрыситься*, *пороситься*, *слезиться*, *соседить*, *стрекозить*, *умилосердить*. In addition to those listed in Table 10, note the non-alternating *умилосердюся* from the Elizabeth Bible (1751) in Jeremiah 13:14.

Table 10 Additional defective verbs from Ušakov and Vinokur (1935–1940) with pre-Revolutionary citations

	Černyšev 1915	Ogienko 1914	CS/Russian dictionary 1867–1868	Vostokov 1831	Greč 1827	Puchmajer 1820	first Academy dictionary 1789–1794	Lomonosov 1755	Polikarpov 1704	Slavynec'kyj XVII v.	Smotrickij 1619
-гнездить(-ся) (*в-/у-*)			N				N			*ждж*	●
слезить(-ся)	Ø	●	●	●	●	●	●	*ж*	●	●	●
смердеть (*на-*)			N				N	N	●		
соседить(-ся)			N			●	*жд*				

● = non-alternating 1SG
Ø = defective 1SG
N = normal alternation in the 1SG

The point of reference for most commentators is the list in Vostokov's (1831, 75) grammar: the dental stems *бдю*, *дудю*, *чудюсь*, *ощутю*(*сь*), *борзюсь*, *мерзю*, *слезю*, *скользю*, *тузю*, *кудесю*, *чудесю* and *обезопасю*, and the labial stems *каймю*, *клеймю* and *тмю*. Many later observers have rejected outright the idea that such forms exist, or ever could have existed. For example, Pavskij (1841, p. 160 in the 1850 edition) writes that they "относятся к грамматическим вымыслам". Obnorskij (1953, 113f) and Kiparsky (1967, 217) reiterate Pavskij's assessment, in effect accusing Vostokov of having made them up.[6] Miklosich (1876, 325) and Černyšev (1915, 291–293), treat Vostokov's list with less scepticism, and Černyšev further notes that some of these forms may be found in the first Academy dictionary. In fact, Vostokov's entire list comes from either the first (1789–1794) or second (1806) Academy dictionary[7] (with the exception of *ощутю*, for which *очутюсь* may have been intended; see fn. 13 below). Vostokov's fault must simply have been to gather these entries up in one place.

But such forms predate even the Academy dictionaries by a considerable margin. The earliest overt discussion of non-alternating verbs that I am aware of comes from Barsov (1785, p. 554f in the 1981 edition), who allows for non-alternating stems in *д* and *з*, with

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[6]Obnorskij (1953, 113f) writes of verbs such as *дудить*, *чудиться* and *бдеть*, "[…] которые выделяются иногда нашими грамматистами, выставляющими для них совершенно искусственные формы без чередования согласного основы […]" and comments similarly on non-alternating verbs in *-с* and *-з*, in both cases citing only Vostokov. Kiparsky (1967) speaks of Vostokov as having 'normalized' various of these verbs; on p. 218 Kiparsky offers the same explanation for *каймить* and *клеймить*.

[7]There are some interesting discrepancies between the two editions. *Обезопасить* is given a regular 1SG in the first edition, but a non-alternating one in the second. *Борзить* is completely lacking from the first edition, and *скользить* is said to be impersonal; both are given non-alternating 1SG forms in the second edition.

the observation that both are quite rare, and that the type in *з* is a Church Slavonicism. The latter is a surprising assertion, since non-alternation is as unexpected in Church Slavonic—or rather, in Old Church Slavonic—as it is in Russian. But there is evidence for such a class in late Church Slavonic, though there appears to be no scholarly consensus as to their significance or extent. Polikarpov's (1704) dictionary contains a particularly large number, at least 48 (I cannot guarantee to have caught them all). Keipert (1988, XXII) attributes a fair amount of influence to this list, at least in the period prior to Lomonosov's grammar, and in turn traces its origins to Smotrickij's (1619) influential grammar of Church Slavonic. Let us address Keipert's two points in turn.

First, pace Keipert, there is no clear evidence that later citations of non-alternating verbs are directly traceable to Polikarpov. Keipert (1988, XXII) notes that in the period after the publication of Polikarpov's dictionary, the first Bible concordances appeared (Bogdanov 1737, cited in Keipert 1988; Il'inskij 1761 [1733]; Kantemir 1727), and that these likewise contain non-alternating verbs. He ascribes these forms to the influence of Polikarpov's dictionary. But in fact there appears to be no direct relationship. Kantemir's and Il'inskij's concordances together (I have not been able to consult Bogdanov's) contain eight entries corresponding to Polikarpov's non-alternating verbs (see Table 11), but only three of them are given as non-alternating in these later sources. Of these three, two are found in sources prior to Polikarpov: Slavynec'kyj (XVII v.) has *бдю* (as well as *смердю*, agreeing with Polikarpov but not Kantemir or Il'inskij), while Smotryc'kyj has both *бдю* and *дождю*. Thus, the non-alternating forms of these concordances seem to represent an independent manifestation of the same tradition evidenced in Polikarpov, and not a direct emulation of Polikarpov's practice.

On the other hand, Keipert does appear to be correct that non-alternating 1sg forms cannot be traced back before Smotryc'kyj. Smotryc'kyj gives the forms *бдю*, *слезю*, *гнѣздю* and *дождю* in his grammar. The major grammar which preceded it, the parallel Greek and Church Slavonic Adelphotes (published in L'viv, 1591), contains no non-alternating verbs.

Where did such forms come from? Horbatsch (1974, vi) attributes them to the spoken dialect of either Smotryc'kyj or his typesetter,[8] in as much as similar forms are attested in some Ukrainian and Belorussian dialects.[9] While it cannot be excluded that this played a role, the fact that such forms are absent from Smotryc'kyj's vernacular writings (Pugh 1996, 252) makes this explanation not entirely satisfying. Nor were these forms changed in subsequent editions of Smotryc'kyj's grammar that were published elsewhere, which otherwise contain a number of corrections and alterations to grammatical forms (Horbatsch 1964). What is more, three of the four forms cited by Smotryc'kyj are in direct contrast with the corresponding ones found in the Ostrog Bible (*снабжу* in Ezekiel 34:16, *одожду* in Exodus 16:4 and elsewhere, and *слежу* in Job 3:24). Since Smotryc'kyj drew much of his material directly from the Ostrog Bible (Horbatsch 1974, vi), these are unlikely to have been mere oversights. Rather, they appear to be deliberate innovations or corrections. One can only guess what the motivation was, but it is worth speculating.

Дождити is set apart from other verbs by its morphological ambiguity in the 1sg. Earlier sources (Adelphotes, Ostrog Bible) have the expected Church Slavonic form

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[8]It seems unlikely that the typesetter could have been responsible. Horbatsch offers this proposal to explain non-alternation in both dental and labial stems, but, as pointed out below, Smotryc'kyj expressly allows non-alternation in labial stems.

[9]Of course, in the context of Ukrainian, this involves levelling of the 1sg solely with the 3pl, since Ukrainian lacks stem-final palatalization in the other non-past forms. Thus the term *non-alternation* that I have been employing would be a misnomer.

Table 11 Non-alternating verbs from Polikarpov (1704) compared with the catechisms of Kantemir (1727) and Il'inskij (1761 [1733])

Polikarpov	Kantemir	Il'inskij
бдю	same as Polikarpov	same as Polikarpov
чуждуся, чудюся	lacking	same as Polikarpov
дождю	same as Polikarpov	same as Polikarpov
гордюся	*горжуся*	lacking
кадю	lacking	*кажду*
нудю(ся)	lacking	*нуждуся*
постюся	lacking	*пощуся*
смердю	*смержу*	*смержу*

(*о-*)*дожду*. Morphophonologically this involves a self-cancelling stem alternation: *жд* > *жжд* > *жд* (with degemination of *жж* as the last step), so that the alternation is not overtly manifested. What Smotryc'kyj might have done was reinterpret *дожд-* in the 1SG as the unmodified basic stem, and apply the default 1SG ending *-ю* of the 2nd declension (on the assumption that he restricted 1SG *-y* in the 2nd declension to the outcome of the *д ~ жд* alternation). This proposal is given some support by the fact that he appears to have given *бежати* a similar treatment, normalizing the 1SG ending to *бегю* in place of the correct but anomalous *бегу*. The treatment of *гнѣздити*, whose expected 1SG was presumably *гнѣжду*, may have been on analogy with *дождити*; note that 1SG forms of *-дождити* turn up at least four times in the Bible, giving it a certain salience. In addition, it may be significant that even the Ostrog Bible has a non-alternating imperfect form of this verb (*угнѣздяхуся* in Daniel 4:18). Since the imperfect and 1SG normally display the same stem-final consonant alternation, this may indicate a tendency towards non-alternation prior to Smotryc'kyj.[10]

For *бдѣти* I know of no reliable attestations of the Church Slavonic 1SG. The Ostrog Bible has the etymologically related *снабжу*, with a clearly East Slavonic version of the consonant alternation, in place of **снабжду*. It may be that Smotryc'kyj's *бдю* was meant to correct this vulgarism, and that the expected form **бжду* was somehow (phonotactically?) unacceptable.

Слезю is the only example from Smotryc'kyj which does not involve stem-final *д*. One intriguing hint is given by the fact that in one of the three citations of this form, the grapheme Smotryc'kyj uses for *з* is not the normal one, but rather *s* (**ѕ**), which was originally a distinct phoneme (the palatal affricate /*dz*/). Whether this *s* is etymologically justified is uncertain,[11] but the striking fact is that the one verb where it is certain that stem-final *s* is etymologically justified, namely *гобьзити*, is one which later turns up both as non-alternating and defective (as *угобзить*; see Table 5). It is not implausible that *s*

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[10] In fact, other verbs that have been cited as having non-alternating 1SG forms can be found with non-alternating imperfects in the pre-Smotryc'kyj period, e.g. *мерзяше*, *смердяху* (both from Žitie Andreja Jurodivogo, XV century text), *слезяше* (Skazanie o mamaevom poboišče, XVI century text) and *снабдяше* (Povest' o vzjatii carygrada turkami, XVI century text); these texts were consulted through the online Biblioteka literatury Drevnej Rusi. Of course, too much faith should not be put on the testimony of imperfect forms. Even Old Church Slavonic texts show non-alternation in the imperfect, a result of a specifically Bulgarian/Macedonian innovation (Vaillant 1964, 245).

[11] Most Church Slavonic texts have *з*, but some have *s* (Slovník jazyka staroslověnského). The Lower Sorbian *łdza* 'tear' suggests /*dz*/ and many Bulgarian dialects also have /*dz*/, but the evidence here is ambiguous, as affricitization of /*z*/ does also occur as a secondary development.

was non-alternating in the 1SG, just as the other palatals.[12] Had this been maintained even after *s* > *з*, non-alternation would represent a lexical archaism.

Smotryc'kyj's text represents the earliest attestations of non-alternating dental stems within a literary tradition which, while not Russian strictly speaking, is nevertheless part of its heritage. The forms proposed by Smotryc'kyj duly found their way into the 18th century reworking of the Church Slavonic Bible (the Elizabeth Bible, 1751), with *надождю*, *одождю*, *слезю* and *снабдю* replacing the forms cited above from the Ostrog Bible. However, it is unlikely that Smotryc'kyj was the sole inspiration for such innovations. Consider the imperfect of *чудитися*, which is found in the Ostrog Bible with the expected *жд* (*чуждахуся*) but in the Elizabeth Bible with no alternation (*чудяхуся*) (Klassovskij 1867, 97). Since Smotryc'kyj discusses neither this verb in particular, nor the alternations of the imperfect in general, his grammar cannot have been the source of this switch. (Likewise, it further calls into question the role of vernacular influence, in as much as the imperfect was already long absent from the spoken language.) Later Church Slavonic gives evidence of still more non-alternating verbs; Joannovič's (1851, 112) grammar lists quite a few.

Within the context of pre-20th century literary Russian, non-alternating stems seem largely to be Church Slavonicisms, as pointed out by Barsov. The most prominent exception to this generalization is the decidedly East Slavonic *очутиться*. A possible explanation for its behaviour was implied by Družinina (1962, 14), namely dissimilation of the second *ч* in **очучусь*.[13] (A comparable dissimilation analysis is also applicable to labial stems, discussed below.)

Still, even with a clearer picture of the historical background of the non-alternating type its relationship to defectiveness remains unclear. At one level there is an obvious parallel with the behaviour of stems with 1SG *жд*: an aberrant pattern was adopted by a handful of verbs and subsequently eliminated, leaving defectiveness in its wake. But where stems in *жд* represent a closed class with a discrete historical origin and circumscribed stylistic range, the origin and extent of the non-alternating class is quite diffuse. A look at Dolopčev's (1909) dictionary is telling. A number of entries deal with non-alternating 1SG forms. Most involve an injunction to avoid non-alternation and use the regular form instead. These include time-honoured non-alternating verbs of the type discussed above (*гнѣздюсь*, and also *побѣдю*, for which Dolopčev recommends *побѣжду*), uncommon or obscure verbs, some of which later observers cite as defective (*обезлесю*, *обезсмертю*, *суетю(сь)*), alongside forms which appear simply to be substandard variants of relatively common verbs (*встретюсь*, *гордюсь*,[14] *заблудюсь*, *зависю*). On the other hand, he recommends non-alternation for *прослезюсь* and *скользю* (as in the first Academy dictionary). Thus, there is historical evidence for non-alternation in various layers of the lexicon and in various registers, but only a subset of this bears a relationship to defectiveness.

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[12]The root is a Germanic borrowing originally ending in *-g*; compare Gothic *gabig-s* 'rich'. The verb must have been denominal, based on a noun such as Church Slavonic *гобьзъ* (see Trubačev 1979, though, curiously, the form is reconstructed here with /z/ rather than /dz/).

[13]In discussing the defectiveness of *очутиться*, she suggests it is due to the fact that the sequence **чучу* is 'uncharacteristic' for Russian (though note that a similar sequence in *чучело* is fine). Vostokov (1831, 75) gives the Church Slavonic etymological equivalent likewise with a non-alternating 1SG, *ощутюсь*. This may well have been a mistake. As was pointed out above, Vostokov's list is drawn from the first and second Academy dictionaries, and this is the one discrepancy between them: Vostokov fails to list the dictionaries' *очутюсь*, while the dictionaries have the regular 1SG for *ощутиться*. One suspects that Vostokov really meant to be referring to *очутиться* and not *ощутиться*.

[14]Though note that Polikarpov (1704) has *гордюся* (see Table 11).

6 Labial stems

Second conjugation stems ending in labial consonants also undergo an alternation in the 1sg, but are conspicuously absent from Zaliznjak's list of defectives, the only instance being *тмить*. If defectiveness is somehow related to the possibility of a 1sg alternation, why are labial stems not affected? There is historic evidence for non-alternating labial stems, so given the correlation discussed above between non-alternation and defectiveness, this absence is even more puzzling.

However, the historic record does show that the status of non-alternating labial stems appears to have been somewhat different from that of dentals. As with the dentals, the first overt mention comes from Smotryc'kyj. He characterizes the epenthetic *l* as optional, thus *славлю* or *славю*, *сплю* or *спю* etc. (leaf 157, verso). In the same passage, he likewise describes 1sg *жд* as optional (alongside *ж*), thus *рожду* or *рожю*, *хожду* or *хожю* etc. This contrasts with the treatment of non-alternating dentals. These are not discussed at all—the forms simply turn up as such, without comment. Thus, we can distinguish two types of 1sg variation in Smotryc'kyj's presentation:

a) The optional application of an overtly Church Slavonic alternation type. In the case of *жд* versus *ж*, this is fairly clear: *жд* is Church Slavonic while *ж* is East Slavonic. On analogy with this, we can suppose that labials with epenthetic *l* were construed as Church Slavonic, though how to characterize those without is not entirely clear. As Horbatsch notes, non-alternation is a Ukrainian dialect feature, but as Pugh (1996) points out, this feature is absent in Smotryc'kyj's vernacular writings.
b) A small handful of dental stem verbs appear simply to lack a 1sg alternation.

From this perspective, non-alternation among the labial stems is a quite general stylistic choice, while among the dental stems, it is lexically specified.

Polikarpov (1704) cites 11 (by my rough count) non-alternating labial verbs, alongside (about) 20 alternating ones. Interestingly, there is no overlap with Smotryc'kyj's list, i.e. the verbs for which Smotryc'kyj actually cites a non-alternating 1sg form are given by Polikarpov as alternating (*скорблю*, *славлю*, *сплю*, *терплю*). This lack of correspondence further supports the idea that non-alternation among labial stems was not lexically specified in the way it appears to have been for dentals. Later authors converge on a list of four: *каймить* (the first attestation I know of is in the first Academy dictionary), *клеймить* (cited in Lomonosov's grammar, §378), *дмиться* and *тмить* (the last two appearing in the first Academy dictionary). In the contemporary language, the first two now have normal 1sg forms, *дмиться* is obsolete and *тмить* is construed (by Zaliznjak) as defective.

The membership of this tiny class may well originally have had a phonological motivation. The case of *тмить* was discussed above (cf. Sect. 1). With *клеймить*, a possible explanation is dissimilation of the second [*l'*]. Note that, as with the defective dental stems described above, this root never displays a stem-final consonant alternation, having a non-alternating ppp, *клейменный*. (This analysis parallels the one offered above for *очутиться*.) A different explanation must be sought for *каймить*, since dissimilation is obviously not an issue. One possibility is that its (former) lack of alternation was due to analogy with the vastly more frequent *клеймить*; the RNC (queried 4/2007) records roughly 500 instances of (*за-*)*клеймить* but only seven of (*о-*)*каймить* (which occurs here solely in the ppp). The basis for this analogy would have been their phonological similarity: they are the only second conjugation verbs whose stems end in -*Vjm*.

In sum, the virtual absence of defective labial stem verbs coincides with the virtual absence of lexically specified non-alternating labial stem verbs in earlier periods.

Table 12 Two extremes from Baxturina ([1966](#)): 1SG forms from 64 subjects

	Alternating	Non-alternating	Both	Defective	Other
сдобить	38	2	0	24	0
пылесосить	24	29	2	8	1[15]

7 Conclusion

A substantial number of the verbs identified by Zaliznjak as defective in the 1SG can be traced back to verbs which in earlier periods were characterized by anomalous patterns of alternation in the 1SG, which fall into two classes. Verbs which once had the Church Slavonic 1SG *жд* provide evidence that defectiveness is lexicalized, and not due to synchronic problems in the grammar. Verbs which once had non-alternating 1SG forms are more difficult to interpret. On the one hand, non-alternation enjoyed a limited degree of acceptance in the literary language in earlier periods, whereas now it is excluded outright, which suggests a parallel with $\partial \sim жд$. On the other hand, non-alternation remains a viable non-standard option, whose influence on the standard language probably ought not to be dismissed.

Further, the nature of the diachronic and synchronic relationship between non-alternation and defectiveness is open to diverse interpretations. One extreme would be to view defectiveness as the surface manifestation of underlying non-alternation, as does Bernštejn ([1986](#), 8), when he writes "[...] мощная тенденция выравнивания основ ярко проявляется не только в диалектном, но и в литературном языке. Здесь она отражается главным образом в том, что глагольная парадигма не знает 1. л. ед. [...]". That is, defective verbs are really non-alternating verbs whose production is aborted by the superficial constraints of the literary standard. At the other extreme, we might see non-alternation as a reaction to defectiveness. This is what Pavskij ([1841](#), p. 160f in the 1850 edition) seems to have in mind when he writes, commenting on the list of non-alternating verbs found in Vostokov's ([1831](#)) grammar: "Правда, не терпимо в сих глаголах и правильное производство [...], но все это не дает права вводить неслыханные: бдю, дудю. А лучше сказать, что глаголы бдеть, дудеть, чудиться в 1-м лице не употребляются, и вместо себя берут 1-е лицо других однозначных глаголов". That is, these verbs are really underlyingly defective, and should they appear with non-alternating 1SG forms, this is simply a last resort, a sign of desperation, as it were. This is also the conclusion one might draw from the fact that for *-бедить* the first Academy dictionary gives *-бедю* as an alternative to *-бежду*, but not **-бежу*. Non-alternation is also recorded for this verb (though not approved of) by Dolopčev ([1909](#)), and, of course, pops up in later sources as well. Here it looks as if non-alternation were the reflection of problems engendered by the problematic status of the prescribed 1SG *жд*, and not a motivating factor in itself.

The data from Baxturina ([1966](#)) suggest that both forces may be at work. Compare the figures given for the two verbs in Table 12. At one extreme, *сдобить* tends to be treated as defective and only rarely as non-alternating, while *пылесосить* tends to be treated as non-alternating and more rarely as defective (and only by linguists at that).[16]

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[15]One respondent gave *пылесослю*.

[16]Baxturina divides her study group (all professionals of some sort) into linguists and non-linguists.

Thus, *пылесосить* looks as if it is essentially a non-alternating verb whose 1SG form is rejected by some speakers (who happen to be particularly conscious of the literary norm), while the defectiveness of *сдобить* appears to stem from other causes, non-alternation being only seldom resorted to.

In sum, the present study has found evidence that at least some verbs have conventionalized, lexicalized gaps, whose origins lie in now-obsolete morphological conditions. Other verbs have since been added to the class of defectives, either on analogy with the existing class, or they may be derivable from currently operating constraints (e.g. rejection of non-alternation). Teasing apart these factors at a synchronic level will require psycholinguistic experimentation, for which the diachronic background explored here is a useful prerequisite.

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