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On the Relationship between Gemination and Palatalization in Early Romance Loanwords in Common Slavic*

Vít Boček

Abstract: This paper discusses how geminates in Early Romance loanwords were treated in Common Slavic. The proposal is that there was a tendency for Romance geminates to be replaced by palatalized consonants in Slavic, possibly via an early palatalized geminate stage in Slavic itself. This proposal receives support from the close relation between gemination and palatalization found in other Indo-European languages and presents a more systematic account of the phenomenon than other available explanations.

1. Introduction

In examining Early Romance loanwords in Slavic languages, Boček (2010a) mainly deals with the problem of sound substitutions, i.e., the question of which sounds of a donor language—specifically, the various Romance dialects splitting in the second half of the first millennium into individual Romance languages—were substituted by which sounds in a recipient language—here, Common Slavic. It seems that one and the same Romance sound was substituted in two different ways in Common Slavic. The resulting Slavic sound was either exactly the same as its source Romance sound, or it was palatalized. The fragmentary available data seem to suggest that the difference in substitution is due to whether the source Romance sound was geminated or not. Boček therefore proposes a preliminary hypothesis that Romance geminates were substituted by palatalized consonants in Common Slavic, as shown below, with possible further development from

Common Slavic to the early stages of individual Slavic languages (cf. Boček 2010a: 150–51, 2010b).

> Romance *C* > Common Slavic *C*
> Romance *CC* > Common Slavic *C′*

Here I pursue the question in greater detail, insofar as the data permit, and suggest that Romance geminates were indeed replaced by palatalized consonants in Slavic. The argument is supported by parallel developments in other languages.

2. Data

2.1. Sources

First and foremost, it is necessary to collect the largest possible amount of data concerned with our claim, i.e., to collect a list of Early Romance loanwords in Common Slavic in which one may presume that the immediate Romance source had a geminated consonant. Such data are obtained primarily from the works of four authors. Skok, in his early paper (1926), dealt primarily with the chronology of palatalizations in Romance ("Balkan Latin" in his terminology), but he undertook the task specifically by examining loanwords in Slavic (see also individual entries in his etymological dictionary of Croatian and Serbian; Skok 1971–74). Rocchi (1990) presented a monograph on the topic of Romance loanwords in South Slavic languages, from which it is also possible to get information about the earliest group of loanwords. Šega (2006) continued with Rocchi's work in her unpublished doctoral thesis and focused closely on Early Romanisms in Slovene. Finally, Holzer (2007), in his historical grammar of Croatian, worked with Early Romanisms in order to establish a relative chronology of late Common Slavic sound changes.

2.2. List of Loanwords

The data obtained from the works mentioned (and from Boček 2010a, 2010b), sorted according to the type of geminate consonant, are as follows:[1]

-ss-

(1) Latin *Cissa* 'name of the island of Pag' > Romance *Kęssa* > Common Slavic *Kĭsā* + Suffix *-ĭskā* > *Kъsьska* > Serbo-Croatian *Cȁska* 'a locality on the island of Pag' (Skok 1926: 387; Holzer 2007: 94)

(2) Latin *missōrium* 'dish, pan' > Romance *męssǭrju* > Common Slavic *mĭsǭr'u* > *mъsūr'ъ* > Croatian *masūr* 'dish, pan' (attested only in Nom. Pl. *masuri*; Skok 1971–74: 2, 385; Holzer 2007: 114)

(3) Latin *Massarum* 'a mountain range in Dalmatia' > Romance *Mǎssǎru* > Common Slavic *Mǎsǎru* > *Mosorъ* > Croatian *Mòsor* 'a mountain range in Croatia' (Skok 1971–74: 2, 459; Holzer 2007: 116–17)

(4) Latin *missōrium* 'dish, pan' > Romance *męssǭrju* > Common Slavic *mĭšǭr'u* > *mъšūr'ъ* > Croatian *màšūr* 'tub, bowl' (Skok 1971–74: 2, 385; Holzer 2007: 114)

(5) Latin *missōrium* 'dish, pan' > Romance *męssǭrju* > Common Slavic *mĭšǭr'u* > *mšūr* > *šmūr* > Čakavian *šmūr* 'round dish made from one piece of wood' (Skok 1971–74: 2, 385; Holzer 2007: 135)

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[1] In the cited works, the same word is usually given in different forms depending on the preciseness of the reconstruction of individual authors. The most accurate formal analysis is offered by Holzer; in contrast, Rocchi, Šega, and Skok are usually content with citing only the resulting historically attested forms from individual Slavic languages. In our list, the forms are unified in order to offer a more consistent perspective to the reader. For a description and explanation of Romance and Slavic sound changes and sound substitutions, see Holzer 2007, whose model I follow; for more problematic cases, a discussion is provided in the following sections.

(6)   Latin *missa* 'mass' > Romance *mẹssa > Common Slavic **mĭs'a* >
       Old Church Slavic *mъša*, Croatian *mäša*, Slovene *máša,* etc. 'mass'
       (see Boček 2010b)

(7)   Latin *platessa*, Romance *platussa 'flatfish' > Croatian *plàtuša*
       'flatfish, Pleuronectes solea' (Rocchi 1990: 280; Skok 1971–74: 2,
       679)

(8)   Latin *brassica* 'brassica, turnip' > Romance *brăssika > Common
       Slavic *brăsky > *brosky > Serbian, Croatian *bròska* 'Imperatoria
       ostruthium', *bròskva* 'cabbage, turnip', Slovene *bròskev, bròskva*
       'Brassica oleracea' (see Boček 2010a: 136–42)

-mm-

(9)   Latin *commāter* 'godmother' > Romance *kŏmătr-* > Common
       Slavic *kŭmătra* > *kъmotra > Old Church Slavic *kъmotra*, Slovak,
       Czech *kmotra,* etc. 'godmother' (Boček 2010a: 72–77)

(10)   Latin *commūnicāre* 'to share, to take concern' > Romance
       *kommunikāre > Common Slavic *komŭkāti > Old Church Slavic
       *komъkati 'receive or give the Eucharist in Holy Communion'
       (Rocchi 1990: 143–44)

-nn-

(11)   Latin *cannicius* 'wicker net' > Romance *kănnīcju > Common
       Slavic **kănīc'ъ* > Serbo-Croatian *konič* 'a part of the wine press
       made from wicker' (Skok 1926: 390)

(12)   Latin *Tinnīnium* 'a town in Dalmatia' > Romance *Tẹnnēnju >
       Common Slavic **Tĭnīn'u* > **Tьnin'ъ* > *Tnīń > *Knīń (on change *t*
       > *k*, see Holzer 2007: 79) > Croatian *Knīn* 'a town in Dalmatia'
       (Holzer 2007: 104)

(13)   Latin *anniculus, annuculus* 'one year old' > Romance *ănnūklu >
       Common Slavic *ănūkle > Croatian *onùkle*, with apheresis *nùkle*
       'one or two year old sheep or goat' (Rocchi 1990: 57; Skok 1971–
       74: 2, 558)

(14) Latin *cannabis*, *cannabus* 'cannabis' > Romance *cănnăbu >
Common Slavic **konop'a*, *konopъ > Serbo-Croatian *kònoplja*,
Slovene *konóplja*, Church Slavic *konoplja*, Serbo-Croatian *kònop*,
Slovene *konòp* 'rope' (Rocchi 1990: 106–07)

(15) Vulgar Latin *cannabŭla 'gorget' > Romance *kănnābla > Croatian
konăblja 'wooden gorget around the neck of a sheep' (Rocchi
1990: 108; Skok 1971–74: 2, 136)

(16) Latin *gunna* 'fur, pelt' > Romance *gūnna > Common Slavic
**gūn'a* > Bulgarian *gunja* 'coat from goat wool', dialectal *guna*,
Macedonian *gunja* 'coat', Serbo-Croatian *gûnj* 'rug; warm coat',
obsolete *gùnja*, Slovene obsolete *gúnj(a)* 'rug, fearnought'
(Rocchi 1990: 195–96; Skok 1971–74: 1, 634)

(17) Latin *thynnus*, *tunnus* 'tuna' > Romance *tūnnu > Croatian *tȕnj*,
tȕn, *tȕna* 'tuna, Thynnus vulgaris' (Skok 1971–74: 3, 523; Rocchi
1990: 341–42)

(18) Latin *nonna* 'foster-mother' > Romance *nōnna > Common Slavic
*nōna > *nūna > Slovene *núna* 'midwife; godmother', Serbian
njúna 'wife of godfather' (Skok 1971–74: 2, 523; Šega 2006: 190–
92)

-rr-

(19) Latin *cerrus* 'oak' > Romance *kjerru > *tserru > Common Slavic
*cerъ > Church Slavic *cerъ* 'turpentine tree', Bulgarian,
Macedonian *cer*, Slovene *cèr*, Serbo-Croatian *cȅr* 'oak, Quercus
cerris' (Skok 1926: 397; Rocchi 1990: 129–30; Šega 2006: 94–96)

(20) Latin *cirrus* 'curl, frizz' > Romance *kerra > Common Slavic *kera
> Serbo-Croatian *kȅra* 'fringe on clothing' (Skok 1926: 403; Rocchi
1990: 134–35)

(21) Latin *cirrula (diminutive from *cirrus* 'curl, frizz') > Romance
*kẹrrla > Common Slavic *kirla > Croatian *kīrla* 'rod used in
traditional wooden boat caulking' (Skok 1971–74: 2, 75; Rocchi
1990: 134–35; Holzer 2007: 104)

(22) Latin *subterrāneus* 'subterranean' > Romance *suterrānju* >
      **sotrānju* > Common Slavic **sŭtrān'u* > **sъtran'ъ* > Croatian *strănj*
      'wine-cellar' (Rocchi 1990: 334–35; Holzer 2007: 133)

(23) Latin *Turris* 'an old Roman settlement in Istria' > Romance **torre*
      > Common Slavic **tŭrĭ* > **tъrъ* > Croatian *Tăr* 'a village in Istria'
      (Holzer 2007: 135–36)

(24) Latin *gerrēs* 'sea fish' > Romance **gerra*, **girra* > Common Slavic
      **gera, gira* > Croatian *gèra, gȉra* 'fish, Smaris alcedo' (Skok 1971–
      74: 1, 551–52; Rocchi 1990: 189–90)

(25) Latin *parricus* 'enclosure, fence' > Vulgar Latin **părrĭcātu-* >
      Romance **parrkātu* > Croatian *prkát, prkât, prkăt* 'sheepfold',
      Slovene *párkot*, dialectal *prekàt* 'bounded space' (Rocchi 1990:
      263; Skok 1971–74: 3, 45; Šega 2006: 198–200)

-ll-

(26) Vulgar Latin *castellaceus*, diminutive from *castellum* 'castle,
      fortress' > Romance **kăstellāceu* > Serbian *Kostólac* 'a small
      Serbian town on the Danube river' (Skok 1926: 397–98)

(27) Vulgar Latin **castelliōnem* Acc. Sg., diminutive from *castellum*
      'castle, fortress' > Romance **kăstelljōne* > Common Slavic
      **kăstĭl'ōnu* > **kostъljūnъ* > Čakavian *Košljūn* 'a small island near
      Krk in Dalmatia' (Skok 1971–74: 2, 167; Holzer 2007: 105–06)

(28) Latin *cēpulla* 'little onion' > Romanian *čebulla* > Common Slavic
      **čebula* > Čakavian *čebùla*, Slovene *čebúla* 'little onion' (Rocchi
      1990: 126–27; Šega 2006: 89–91)

(29) Vulgar Latin **follicella* (diminutive from *follis* 'skin, sack') >
      Romance **fōllĭcella* > Serbo-Croatian (with dissimilation *ll* –
      ll > *n* – *l*) *fùnkjela, pùnčela* 'skin' (Skok 1926: 403; Skok 1971–74: 1,
      536; Rocchi 1990: 179)

(30) Latin *lollīgō, -gĭne* 'cuttlefish' > Romance **ollīgĭne* > Serbo-
      Croatian *lȉganj, lȉgnja, òligānj, ùliganj* 'squid' (Skok 1926: 406;
      Rocchi 1990: 218)

(31) Latin *anguīlla* 'conger, eel' > Romance **angūilla* > Common Slavic
      *jẹgulʾa > Serbo-Croatian *jègulja, angùlja, jànguja,* Slovene *jegúlja*
      'conger, eel' (Skok 1926: 408; Skok 1971–74: 1, 770; Rocchi 1990:
      55–56; Šega 2006: 32)

(32) Vulgar Latin **vallum* 'rampart, wall' > Romance **ßăllu* >
      Common Slavic **Bălu* > **Bolъ* > Čakavian *Bōl* 'a town on the
      island of Brač' (Rocchi 1990: 354–55; Holzer 2007: 92)

(33) Latin **crībellum* 'sifter' > Romance *kribellu* > Common Slavic
      *Kribela > **Krъbela* > Croatian *Krbĕla* 'designation for two small
      islands, Mala Krbela and Velika Krbela, in Dalmatia' (Holzer
      2007: 108)

(34) Latin **Allūvium* (< *alluviō* 'flood, inundation') > Romance **ăllūßju*
      > Common Slavic **ălūbu* > **olȳbъ* > Čakavian *Olȉb* 'an island in
      northern Dalmatia' (Skok 1971–74: 2, 553; Rocchi 1990: 51–52;
      Holzer 2007: 121)

(35) Late Latin *casula* 'shack, cottage, small house' > Romance **kăsulla*
      > Common Slavic **košulʾa* > Church Slavic *košulja* 'overcoat,
      mantel', Bulgarian *košúlja,* Serbo-Croatian *kòšulja,* etc. 'shirt'
      (Rocchi 1990: 120; see also Boček 2010a: 55–61)

(36) Vulgar Latin **pullicella* (diminutive from *pullus* 'young (one)')
      '(little) girl' > Romance **pōllĭčella* > (with dissimilation *ll – ll > n –
      l*) Croatian *pùncjela,* Slovene *punčêla* '(little) girl' (Rocchi 1990:
      288; Skok 1971–74: 3, 72; Šega 2006: 214–16)

(37) Latin *scutella* 'small bowl, cup' > Romance **skŭdella* > Common
      Slavic **skŭdela* > **skъdela* > Serbo-Croatian *zdjĕla, zdĕla,* Slovene
      zdêla 'dish, pan' (Rocchi 1990: 321–22; Skok 1971–74: 3, 645–46;
      Šega 2006: 243–44)

(38) Latin *tabella* 'slate, tablet' > Romance **tăßẹlla* > Common Slavic
      *tăvīla > Croatian *tòvila* 'stool' (Rocchi 1990: 337; Skok 1971–74: 3,
      486)

(39) Latin *bōtellus* 'sausage' > Romance **bọ̄dellu* > Common Slavic **būdel'ŭ* > **budel'ь* > Slovene *búdelj, bûlje, bûdla* 'stuffing' (Šega 2006: 45–48)

(40) Latin *caballus* 'horse' > Romance **kăbāllu* > Slovene *okobâl, okobâlo* 'astride' (Šega 2006: 60–62)

(41) Latin *favīlla* 'ashes' > (with metathesis) Romance **fallīva* > **fallī-* + suffix **-iska* > Common Slavic **palīska* > Slovene *palíska, políska, paljúska*, Croatian *palìska, políska* 'dust, powder' (Skok 1971–74: 2, 593; Šega 2006: 135–37)

-pp-

(42) Latin *Philippus* 'Philip' > Romance **Fẹlẹppu* > Common Slavic **Filipu* > Croatian *Fìlip* 'Philip' (Skok 1971–74: 1, 697; Holzer 2007: 98–99)

(43) Latin *cuppa* 'cup' > Romance **kọ̄ppa* > Common Slavic **kūpa* > Serbo-Croatian *kùpa*, Slovene *kúpa* 'glass, cup' (Skok 1971–74: 2, 237; Rocchi 1990: 154; Šega 2006: 116–18)

-bb-

(44) Latin *sabbatum* 'Saturday' > Romance **săbbăta* > Common Slavic **săbăta* > **sobota* > Old Church Slavic *sobota* 'Saturday; week', Croatian *sobòta, sobôta*, Slovene *sobóta* Slovak, Czech, Polish *sobota* 'Saturday' (see Boček 2010a: 142–46)

-tt-

(45) Latin *Cattarum* 'Roman town in Dalmatia' > Romance **kattaru* > Common Slavic **kataru* > Croatian *Kòtor* 'town in Montenegro' (Holzer 2007: 106)

(46) Romance **pettja* (cf. Italian *pezza* 'rag') > Common Slavic **peča* > Croatian *pȅča* 'piece of something; headscarf, napkin' (Skok 1971–74: 2, 627; Šega 2006: 206; Holzer 2007: 123)

(47)   Romance *bŭttja (cf. Late Latin buttis 'barrel, cask') > Common
       Slavic *bŭt'a > Serbo-Croatian bȁčva, Slovene bâčva, bečvä 'barrel,
       cask' (Skok 1971–74: 1, 86; Rocchi 1990: 83–85; Šega 2006: 55–60)

(48)   Latin gutta 'drop' > Romance *gǭtta > Common Slavic *gūta >
       Croatian dialectal gùta 'drop; gout', Slovene dialectal gúta
       'paralysis' (Rocchi 1990: 197–98; Skok 1971–74: 1, 639)

(49)   Romance *kottūga (cf. Medieval Latin cottus 'coat') > Common
       Slavic *kotūga > Croatian kòtiga, Čakavian kotîga, Old Church
       Slavic kotyga 'sort of dress' (Rocchi 1990: 204–05; Skok 1971–74:
       2, 169)

(50)   Latin vitta 'ribbon' > Romance *ßetta > Common Slavic *bet'a (?) >
       Bulgarian, Macedonian bečvi 'trousers', Serbo-Croatian bjȅčva,
       bȉčva 'trousers, stockings' (Skok 1971–74: 1, 146; Rocchi 1990:
       361–62); for a discussion of sound substitutions, see section 3.1.

(51)   Latin glittus 'soft, gentle' > Romance *glettu > Common Slavic
       *glet'a (?) > Bulgarian gleč, Macedonian gleǵ, Serbo-Croatian glêđ,
       glȅđa 'smalt, enamel, glaze' (Rocchi 1990: 191–92); for sound
       substitutions, see section 3.1.

-kk-

(52)   Latin Muccurum 'Roman settlement in Dalmatia' > Romance
       *mokkru > Common Slavic *mukru > Croatian Màkar 'a district in
       the town of Makarska in Dalmatia' (Holzer 2007: 113)

(53)   Latin saccus 'sack, bag' > Romance *sākku > Common Slavic *sāku
       > *sakъ > Bulgarian, Macedonian sak 'fishing net; bag, sack',
       Slovene sàk, Serbo-Croatian sȁk 'fishing net' (Rocchi 1990: 311;
       Skok 1971–74: 3, 189; Šega 2006: 236–37)

(54)   Romance *băkka, *băkku 'vessel for water' > Common Slavic *boka
       > Slovene bokára 'bulbous vessel', Serbo-Croatian bòkār, bòkara
       'pitcher' (Šega 2006: 39–41)

(55)   Vulgar Latin bisaccia 'pack, sack, bag' > Romance *ßēsakkja >
       Common Slavic *bīsak'e > Serbo-Croatian Bisače 'toponym in

Dalmatia' (Skok 1971–74: 1, 156; Šega 2006: 43–45); a different loanword is to be seen in Slovene *besága, bisága* 'bag, sack', Serbo-Croatian *Bìsâg* 'a village in Croatia', *bìsage* 'two bags', which reflect Romance voicing of a degeminated consonant in intervocalic position.

3. Analysis

3.1. Our Proposal

The proposal is that the Romance geminates were replaced by palatalized consonants in Slavic. It is possible to find loanwords in the list above whose form corresponds to the proposed substitution rule, i.e., those cases when a palatalized sound in the Slavic form corresponds to *CC*. However, a small set of loanwords seems to conform to the rule, but, in fact, it actually conforms to another substitution rule, namely *CCj* > *C′*. In these cases the distinctive feature of palatalization in the Slavic sound is apparently induced by the presence of *j* immediately after the geminated consonant in the Romance form. This concerns the following four items:

(27) Romance **kăstelljōne* > Common Slavic **kăstĭl′ōnu* > **kostьl′ūnь* > Čakavian *Košljūn*

(46) Romance **pettja* > Common Slavic **peča* > Croatian *pȅča*

(47) Romance **bŭttja* > Common Slavic **bŭt′a* > Serbo-Croatian *băčva*, Slovene *bâčva, bečvà*

(55) Romance **ßę̄sakkja* > Common Slavic **bīsak′e* > Serbo-Croatian *Bisače*

After eliminating these loanwords, 51 loanwords remain. Of those remaining, the following eleven seem to correspond to our proposal:

(4) Romance **męssǭrju* > Common Slavic **mĭšǭr′u* > **mъšūr′ь* > Croatian *màšūr*

(5) Romance **męssǭrju* > Common Slavic **mĭšǭr′u* > **mšūr* > Čakavian *šmūr*

(6) Romance *męssa > Common Slavic *mьs'a > Old Church Slavic
     mъša, Croatian mäša, Slovene máša

(7) Romance *platussa > Croatian plàtuša

(16) Romance *gūnna > Common Slavic *gūnja > Bulgarian,
     Macedonian gunja, Serbo-Croatian gûnj, gùnja, Slovene gúnj(a)

(17) Romance *tūnnu > Croatian tùnj, tùn, tùna

(31) Romance *angūilla > Common Slavic *jęgul'a > Serbo-Croatian
     jègulja, angùlja, jànguja, Slovene jegúlja

(35) Romance *kăsulla > Common Slavic *košul'a > Church Slavic
     košulja, Bulgarian košúlja, Serbo-Croatian kòšulja, etc.

(39) Romance *bǫdellu > Common Slavic *būdel'ŭ > *budel'ъ > Slovene
     búdelj, bûlje

(50) Romance *ßētta > Common Slavic *bēt'a (?) > Bulgarian,
     Macedonian bečvi, Serbo-Croatian bjèčva, bìčva

(51) Romance *glettu > Common Slavic *glet'a (?) > Bulgarian gleč,
     Macedonian gleǵ, Serbo-Croatian glêđ, glëđa

As we can see, these amount to only one fifth of the total number.
Nevertheless, seven loanwords whose Romance source contained the
geminate *rr* may also be included in this set:

(19) Romance *k'erru > *tserru > Common Slavic *cerъ > Church Slavic
     cerъ, Bulgarian, Macedonian cer, Slovene cèr, Serbo-Croatian cȅr

(20) Romance *kerra > Common Slavic *kera > Serbo-Croatian kèra

(21) Romance *kęrrla > Common Slavic *kirla > Croatian kīrla

(22) Romance suterrānju > *sotrānju > Common Slavic *sŭtrān'u >
     *sъtran'ъ > Croatian strănj

(23) Romance *torre > Common Slavic *tŭrĭ > *tъrъ > Croatian Tär

(24) Romance *gerra, *girra > Common Slavic *gera, gira > Croatian
     gȅra, gìra

(25) Romance *parrkātu > Croatian prkát, prkât, prkät, Slovene párkot,
     prekàt

Borrowing of Early Romance forms had been taking place in the
South Slavic region, where soon afterwards the depalatalization *r' > r*

occurred (cf. Holzer 2007: 83), so we could presuppose that, in the beginning, Slavic loanwords did contain palatalized *r'*, but it was obliterated by the subsequent sound change. However, this presumption is weakened by the fact that *r'* did not dispalatalize in Kajkavian and Slovene in positions before a vowel (cf. Greenberg 2000: 95–96). For our set of data, this means a problem in the case of item (19): the genitive form of Slovene *cèr* is *cêra*, but with an original *r'* we would expect *cêrja. On the other hand, Ramovš (1924: 73) gives several examples of dialectal words also not conforming to the pattern "*r'* gives *rj* before a vowel" (cf. Genitive forms *casâra*, *drvâra*, *gospodâra*, *devêra*, *papîra*, etc.).

Furthermore, there are additional problematic cases in our set of words. This concerns the reconstruction of the protoforms in items (50) and (51). It is not clear what consonant should be reconstructed in the Common Slavic form, since the attested words in individual Slavic languages contain sounds that cannot appropriately be traced back to one common source. Skok (1971–74: 1, 569) presupposes secondary voicing in Serbo-Croatian *glêđ*, *glèđa* as opposed to Bulgarian *gleč*; it is, however, not apparent what he had in mind by this. Thus, the problems with the reconstruction of items (50) and (51) somewhat weaken the power of the proposed solution.

Be that as it may, even if the loanwords with palatalized *r'* were included and a satisfactory solution to the problems mentioned in the previous paragraph were found, our list of loanwords conforming to the proposed substitution rule would still constitute maximally one third of the total. In order to be able to maintain the proposal that *CC* > *C'* in Slavic, we must be able to explain why a palatalized consonant is not found in the rest of the loanwords.

A natural explanation that comes to mind is that there actually was no geminate in the source Romance form in such cases. At the time of the first contacts between the Slavic and Romance populations, i.e., roughly in the second half of the first millennium, degemination took place. That is, the original Latin/Romance geminates ceased to exist and were changed to simple consonants of the same or, eventually, a different quality. In Romance studies, there is no consensus about the dating of the degemination. Mostly, it is considered to be a relatively late change. It must have taken place after the stressed vowel in the Romance words was lengthened (because the vowels before the geminate behave as vowels in a closed syllable, i.e., they are not lengthened) and even after the voicing of consonants in intervocalic position

(because the results of the simple and geminated consonants are different from each other in Romance languages).[2] From this, a question arises about whether two chronological layers of Romance loanwords in Common Slavic could be distinguished in our data. The loanwords conforming to our substitution rule would represent the older layer, when the geminates were still present in the source Romance words; by contrast, the loanwords not conforming to our rule would fall into the younger layer, when the Romance degemination had already ended. However, this assumption faces some challenges. Some loanwords that should be classified as belonging to the younger layer definitely underwent some very early Common Slavic changes. There seems to be only one way out of this, namely, to assume that the Romance degemination was in progress in various areas at different times and was of different duration; thus, the Slavs could encounter at the same time both Romance words in which the degemination was already completed (these would include the loanwords with a non-palatalized consonant) and Romance words in which the degemination had not yet been completed (these would subsume our small set of loanwords with a palatalized Slavic substitute for the Romance geminate). Under these conditions, our substitution rule would remain valid.[3]

3.2. Skok's Solution

Another systematic attempt to solve the problem was made by Skok. While etymologizing some of the loanwords that belong to the group with a palatalized Slavic consonant for the Romance geminate, Skok proposed that palatalization in source Romance forms had initially taken place. He reconstructed the following forms:

> Latin *anguīlla* > Romance **angullia* (Skok 1971–74: 1, 770)
>
> Latin *vitta* > Romance **vitteus* (Skok 1971–74: 1, 146)

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[2] Cf. Rohlfs 1949: 381–82; Lausberg 1967–69: 2, 67–71; Holzer 2007: 33.

[3] To support this solution, it may be added that our general explanation corresponds to Muljačić's (2000) empirical analysis of the loanword from Latin *thynnus, tunnus,* which has a form with a palatalized consonant in some areas (Croatian *tũnj* in central Dalmatia), and a form with a non-palatalized consonant in other areas (Croatian *tũn* in north and south Dalmatia, *tũna* in Istria and Krk).

Latin *glittus* > Romance **glittium*, Plural *glittia* (Skok 1971–74: 1, 569)

Latin *casula* > Romance **casūlula* > **casūllia* (Skok 1971–74: 2, 58–59)

Skok assumes that the palatalization process had already been taking place in Romance. In that case, the palatalized reflexes in Slavic would be expected.

3.3. Other Solutions

To sum up, there are roughly three explanations at our disposal: (i) a single general explanation for all relevant words listed above, which is being proposed here (see 3.1); (ii) Skok's solution, i.e., positing a rule for a subset of the group of the words (see 3.2); and (iii) isolated explanations of individual words without a statement of any unifying principle. Given the difficulty of accurately reconstructing a number of loanwords, as well as their Romance sources, the third option is fully acceptable. For this type of explanation, some other tools are available. In particular, morphological arguments can be employed: e.g., a word can for various reasons be assigned to a specific declension class. This can influence the final consonant of the word stem, and as a consequence a substitution different from the expected one may occur. A word-formation argument can also be brought to bear on the issue, e.g., a full substitution of a foreign suffix by a domestic one, e.g., (Skok 1971–74: 2, 679) the substitution of Latin *-essa* by Slavic *-uša* in Latin *platessa* > Croatian *platuša*). And finally, it is also possible to investigate whether the etymology of a loanword would be better explained by presuming the involvement of an intermediary language, for instance, Germanic, in the process of borrowing a Romance word into Slavic.

3.4. External Parallels

Generally, it holds that in the absence of sufficient data to explain a phenomenon in a language, parallels found in other languages may shed light. Can we discover a relationship between gemination and palatalization outside the problem of Early Romance loanwords in Slavic? Perhaps the best example of such a connection is the development of geminates *ll* and *nn* from Latin to Spanish. In contradistinction

to the rest of Romance geminated consonants, which result in a simple consonant of the same quality in Spanish, the two geminates mentioned develop into palatal sounds:

> Romance *ll* > Spanish *l'*: Latin *caballus* > Romance *kaßállu > Spanish *caballo* [kaßál'o]
>
> Romance *nn* > Spanish *ñ*: Latin *annus* > Romance *ánnu > Spanish *año* (cf. Zavadil 1998: 179–83)[4]

However, the opposite path is probably more typical, i.e., the emergence of geminates from the sequence consonant + iotation. It is a relatively common phenomenon, well known from the development of a number of Indo-European languages. Let us mention some representative examples (for more examples from various languages, see Kümmel 2007: 176–82).[5]

1. The rise of geminates from the sequence consonant + vowel/ glide is presupposed in the development from Late Indo-European to Proto-Greek. Although various authors differ in details, they mostly concur on the basic point: all consonants except aspirates were palatalized and geminated if followed by *j*: *pj > p'p'*, *bj > b'b'*, *tj > t't'*, *dj > d'd'*, *kj > k'k'*, *gj > g'g'*, *sj > s's'*, *wj > w'w'*, *rj > r'r'*, *lj > l'l'*, *mj > m'm'*, *nj > n'n'*; in general: *Cj > C'C'*. The further development of the palatalized geminates is dialectally differentiated. An interesting point is that this sound change is usually covered by the term palatalization in Greek studies,

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[4] Essentially the same situation is found in Catalan; cf. Lausberg 1967–69: 2, 69–70. On the problem of Romance degemination from the systemic point of view, see especially Weinrich 1969: 144–61.

[5] Blevins (2004: 168–91) in her theory of evolutionary phonology describes seven general pathways by which segments can be transformed into a geminate in various languages in the world. Besides the most general ways, such as assimilation in consonant clusters or syncope of the vowel between two consonants of the same quality, she also mentions assimilation between consonant and adjacent vowel/glide. Somewhat surprisingly, she discusses only a variant of this general pattern, the sequence vowel/ glide + consonant (with an example from the Bantu language Luganda: **-ji̯duk- > -dduka-* 'run'). The opposite variant, the sequence consonant + vowel/glide, which we are concerned with here, is not analyzed by Blevins.

whereas the fact that gemination is also at work is considered rather to be an accompanying phonetic phenomenon.[6]

2. The rise of geminates is a characteristic innovation in the development of West Germanic, and to a lesser extent it is also observable in North Germanic. The change dates to the middle of the first millennium. The gemination took place in sequences of vowel + consonant + *j/w/r/l*. In most cases, it was triggered by the glide *j*. In West Germanic, *j* induced the gemination of all consonants except *r*; in North Germanic, it had the effect of geminating velars. At the same time, the glide *j* either disappeared or was preserved. The general pattern is, therefore, *Cj > CC(j)*.[7]

3. In Slavic, a typical instance of this phenomenon is the gemination in Ukrainian, Belarusian, and some Russian dialects, which dates to the first half of the second millennium. After the loss of the weak jer in sequences consonant + jer + *j*, the glide caused the modification of the preceding consonant. One of the possible modifications was gemination. In Ukrainian, it affected all consonants except labials and *r*: *tj > t′t′, dj > d′d′, sj > s′s′, zj > z′z′, lj > l′l′, nj > n′n′, čj > č′č′, žj > ž′ž′, šj > š′š′*; in general: *Cьj > Cj > C′C′*.[8] A similar situation is found in Belarusian, where the geminates arise from the original sequences (palatalized) consonant + jer + *j*, after the loss of the jer. Subsequently, the geminate is depalatalized, or qualitatively changed; concretely: *l′j > l′l′, n′j > n′n′, t′j > t′t′ (> c′c′), d′j > d′d′ (>ʒ′ʒ′), s′j > s′s′, z′j > z′z′, š′j > š′š′ (> šš), ž′j > ž′ž′ (> žž), č′j > č′č′ (> čč)*; the general pattern is, therefore, *C′ьj > C′j > C′C′ (> CC)*.[9]

4. Some scholars also explain the Common Slavic palatalizations of alveolars by proposing that the first stage of the change was a palatalized geminate; concretely: *rj > r′r′, lj > l′l′, sj > s′s′, zj > z′z′, tj > t′t′ (and also kt > kt′/k′t′[10] > k′t′ > t′t′), dj > d′d′* with subsequent

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[6] On this, with a list of important references, see Bartoněk 1961 and, more recently, Sihler 1995: 192–96.

[7] On this, see Denton 1999.

[8] On this, see Bethin 1992.

[9] On gemination in Belarusian and its dialects, see Wexler 1977: 149–52.

[10] Cf. Rejzek 2008: 168–69.

dialectal differentiations (cf. Lamprecht 1987: 51–52; in a similar way, albeit with different notation, cf. Shevelov 1964: 207–15; but Panzer 1983: 305 disagrees). Some go even further and analyze the development of labials before jot in the same manner, i.e., they presuppose *pj > p′p′, bj > b′b′, vj > v′v′, mj > m′m′* and only thereafter the rise of epenthetic *l′* (cf. Erhart 1982: 26).

3.5. Discussion

The examples mentioned in number 4 in section 3.4 above are very closely related to our topic of Slavic sound substitutions in Early Romance loanwords. The borrowing of this layer took place just at the time when the palatalization of alveolars was in progress. Therefore, we can assume that at the time of the first contacts between the Slavic and Romance peoples, Common Slavic had these geminates in its phonetic repertoire. Generally, in the borrowing process the sounds of the foreign language are substituted by the phonetically closest sounds of the recipient language. Therefore, it would be logical if Romance geminates were substituted by geminates in Slavic; and the only geminates available were, at that time, the palatalized ones. Our substitution rule fits well into this scheme; it only needs to be modified with an initial stage of *C′C′* in Slavic; i.e., Romance *CC* > Common Slavic *C′C′*, followed by dialectal differentiation.

The elimination of geminates in Common Slavic is part of a long-term tendency known as the law of open syllables. In the early stages of Common Slavic, the geminates that represented Indo-European inheritance were eliminated; the result was a simple consonant: e.g., Indo-European **atta* 'father' > Latin, Gothic *atta*, Common Slavic **otьcь* (cf. Shevelov 1964, 181–85, with dating roughly in the first centuries A.D.). Palatalized geminates that had arisen in late Common Slavic from the sequences alveolar + glide were being eliminated by various different processes: by simplification and depalatalization (*r′r′* > South Slavic *r*), by simplification and assibilation (*t′t′* > West Slavic *c*, East Slavic *č*), by dissimilation of the first part of the geminate (*t′t′* > Church Slavic *št*), and by dissimilation of the second part of the geminate (*d′d′* > dialectal Bulgarian *dž*), etc. (cf. Erhart 1982: 25–26, with more Indo-European parallels).

4. Conclusion

To sum up, we have a good theoretical support for the attested Slavic palatalized consonants substituting Romance geminates. External parallels show a relationship between gemination and palatalization in various languages. Concretely, the rise of geminates from the sequence consonant + front vowel/glide, on the one hand, and the fall of geminates with the emergence of the simple palatalized consonant, on the other hand. The scarcity of linguistic evidence here, i.e., the small number of Romance loanwords in Common Slavic that had obviously geminates in their Romance sources, constrains us from presenting the proposed systematic explanation as clearly proven. Given that we are dealing with a prehistoric language contact situation, and specifically with the contact between two reconstructed protolanguages, both probably undergoing relatively strong dialectal differentiation, a more moderate tentative conclusion is probably merited. Thus the systematic solution proposed above is not so much a strict rule or pattern, but rather a tendency or predisposition. Its actual manifestation could eventually be blocked by other factors, such as phonological and/or morphological circumstances.

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The Institute of the Czech Language   Received: December 2011
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Veveří 97
60200 Brno
Czech Republic
vitbocek@gmail.com