How Strong is the Case for Contact-Induced Grammatical Restructuring in Quechuan?

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1. Introduction[1]

Pieter Muysken's work since the late 1970s on Northern Quechua has suggested the possibility that grammatical structure may be restructured due to contact in a gradual, rather than an abrupt, fashion (cf. Muysken 1977, 1980, 2000, but especially Muysken 2009, which develops ideas found in Arends 1993, 1996, and also Cardoso 2009).[2] Additionally, he has proposed that such a "gradual transformation of an expansion language, Incaic imperial Quechua, into a morphologically more simple variety as it spread northward into Ecuador" (Muysken 2009: 77) is best seen as showing not only contact-induced change without substrate influence ("koineization") but also contact-induced change with substrate influence ("creolization"), and has offered some likely candidates for this development of Ecuadorian Quechua (henceforth EQ):

> The Barbacoan family, spoken in coastal southern Colombia and northern Ecuador, and the Jivaroan family, spoken in the Andean foothills of southern Ecuador and northern Peru, would be the most likely candidates [where we could identify a major dominant substrate language that may have influenced EQ]. A detailed comparison of the structural features of these languages and the specific traits of [EQ] still needs to be made (Muysken 2009: 85).

Muysken also proposes specific traits of EQ where such an influence may be detected, viz. the simplification of some parts of the morphology when compared with other Quechua varieties and with Proto-Quechuan, "some Shuar and Barbacoan loans in flora/fauna [and] possible influence in local [EQ] grammar features" (Muysken 2012: 239). Other studies by this author consider the possibility of substrate influence on EQ as well (cf. especially Muysken 2010, 2011b).

The external history of EQ is known to some extent (cf. Muysken 2011a, 2011b); the Ecuadorian varieties emerged between the 15th and 18th centuries (i.e., the Incaic expansion and the colonial periods) as the product of transplanted (mostly southern) Peruvian varieties. The sierra was reportedly occupied by peoples speaking Barbacoan, Jivaroan and unclassified languages by the mid-16th century; Quechua seems to have been the language of an urban elite at that time. By the end of the colonial period, however, large parts of the sierra (both urban and rural) were reportedly EQ-speaking. EQ would then be caught up between the expansion of its superstrate (Spanish as the prestige language) and the marginalization or disappearance of most of its substrate (the non-Quechuan languages). Given this reconstruction of the region's linguistic ecology, it is actually only natural to look for contact-induced phenomena in EQ.

The goal of the present paper is to preliminarily assess the available evidence in favor of some of Muysken's thought-provoking claims mentioned at the beginning. Based on the extant descriptive literature on Quechuan, Barbacoan and Jivaroan, and concentrating on the

loss and restructuring of EQ morphology, this study concludes that there is still a substantial amount of work to be done in order to render Muysken's intuitively attractive and possibly even correct case stronger. Unfortunately, the current state of descriptive work on all the languages involved does not allow us to be more confident as to how much of present-day EQ morphology is really due to creolization possibly with a Jivaroan, or probably rather with a Barbacoan, substrate.

2. The morphology of EQ in genealogical and areal perspective

Four morphological developments in EQ and can easily be shown to represent deviations from Quechuan patterns and were identified in Muysken (2009) as innovations of this particular northern variety: some reduction in person and number marking, the form and function of an erstwhile benefactive applicative, and the make-up of (de-)verbal forms used in selected kinds of subordinate clauses.[3] (I will very briefly address selected tense-aspect-modality-evidentiality (TAME) markers at the end of this section.) The deviations are schematically summarized in Table 1 below and discussed in turn in what follows. Within Quechua, the relevant comparisons are made with the Ancash and Ayacucho varieties, which stand for Central and Southern Quechua, respectively; Imbabura Quechua (a variety from northern Ecuador) stands for EQ.[4] The non-Quechua languages chosen —because of both data availability and spatial proximity to EQ— are Awa Pit and Tsafiki (Barbacoan) on the one hand and Aguaruna and Shuar (Jivaroan) on the other.[5]

	EQ	Other Quechuan
Person/number - verbal.1 - verbal.2 - nominal	no clusivity no portmanteaus none (e/Pastaza)	clusivity some portmanteaus suffixal PSR
Voice - BEN applicative	valency-neutral loss of -pu	valency-relevant
Subordination - Adverbial clauses - Purpose clauses	SR (no person) SR (no person)	SR (DS w/person) NMLZ+ACC[6]
TAME - PQ *-yku - PQ *-yka - PQ *-ku - PQ *-ri	(lost) (lost) DUR REFL	DYN/DIRCT DUR MPASS INCH

Table 1. Selected EQ morphology vis-à-vis Quechuan. Based on Muysken (2009: 80)

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[3] See Muysken (2011c) for a slightly different (but compatible) list of differences in morphosyntax between EQ and other Quechua varieties.

[4] It is worth noting that there is non-negligible variation within EQ; as pointed out by an anonymous reviewer, the Imbabura variety is geographically closer to the Barbacoan languages than to the Jivaroan ones.

[5] Bruil (2008) points out the relevance of the extinct Barbacoan language Caranqui as probable substrate of EQ, but not much is known about the grammatical structure of this language.

[6] Or some other case marker; in Ayacucho Quechua, e.g., it is the benefactive -paq.

2.1 Person/Number Marking

First note that the inclusive vs. exclusive distinction found in pronouns, possessive suffixes and verbal markers in most Quechuan varieties (e.g. in Ancash in (1) and Ayacucho in (2) below) has been lost in EQ (3). Second, verb forms used with 1↔2 interactions in other Quechuan typically show portmanteaus (e.g. -*q* in Ancash and -*yki* in Ayacucho), whereas EQ has nothing of the sort. Moreover, the 1P marker -*wa* ~ -*ma*, still robust in most Quechua varieties, is reportedly becoming obsolescent in EQ;[7] the 2P marker -*su* ~ -*shu* is already lost.

(1) Ancash Quechua present verb forms (Parker 1976: 105f)[8]

P \ A	1SG	1PL.EXCL	2SG	2PL	3SG
1SG			-*ma-nki*	-*ya-ma-nki*	-*ma-n*
1PL.EXCL		—	-*ya-ma-nki*	-*ya-ma-nki*	
1PL.INCL					-*ma-ntsik*
2SG	-*q*	-*ya-q*			-*shu-nki*
2PL	-*ya-q*	-*ya-q*		—	
S	-:	-*ya-:* EXCL	-*nki*	-*ya-nki*	-*n*
		-*ntsik* INCL			

(2) Ayacucho Quechua present verb forms (Soto Ruiz 1976: 93f)

P \ A	1SG	1PL.EXCL	2SG	2PL	3SG
1SG			-*wa-nki*	-*wa-nki-chik*	-*wa-n*
1PL.EXCL		—	-*wa-nki-ku*		-*wa-nku*
1PL.INCL					-*wa-nchik*
2SG	-*yki*	-*yki-ku*			-*su-nki*
2PL	-*yki-chik*			—	-*su-nki-chik*
S	-*ni*	-*ni-ku* EXCL	-*nki*	-*nki-chik*	-*n*
		-*nchik* INCL			

(3) Imbabura EQ present verb forms (Cole 1982: 103-104,159-160)

P \ A	1SG	1PL	2SG	2PL	3(SG)
1SG		—	(-*wa*)-*ngui*	(-*wa*)-*ngui-chi*	(-*wa*)-*n*
1PL			-*ngui*	-*ngui-chi*	-*n*
2SG	-*ni*	-*n-chi*			-*n*
2PL	-*ni*	-*n-chi*		—	-*n*
S	-*ni*	-*n-chi*	-*ngui*	-*ngui-chi*	-*n*

Non-Quechuan languages of the region show both dissimilar and similar argument-marking patterns. Barbacoan is known to have an egophoric vs. allophoric distinction (also known under the names conjunct vs. disjunct, assertor vs. non-assertor, or congruent vs. non-

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[7] According to an anonymous reviewer, however, -*wa* is still in use in the Imbabura variety. It seems that there is more variation in this respect within EQ in general, and within Imbabura Quechua in particular, than the comparative literature on Quechua has acknowledged hitherto.
[8] The plural suffix -*ya* becomes -*yaa* in open syllables.

congruent), either additionally distinguishing grammatical relations (Awa Pit) or limited to egophoricity (Tsafiki):

(4) Awa Pit argument marking: Egophoricity + GRs (Curnow 1997: 193f)

    e.g. PST: *-w* 'EGOPH.SBJ' vs. *-s* 'EGOPH.OBJ' vs. *-zi* 'ALLOPH'

(5) Tsafiki argument marking: Egophoricity (Dickinson 2002; also Moore 1979, Turner 1992)

    e.g. DECL *-yo* 'EGOPH' (vs. Ø), INTER *-yu* 'EGOPH' (vs. Ø), etc.

Jivaroan languages, by contrast, has argument markers closer in function to the Quechuan ones — and note that both Aguaruna and Shuar actually have portmanteau morphemes for 1↔2 interactions:

(6) Aguaruna SAP↔SAP verbal suffixes (Overall 2007: 317)

    -hamɨ '1SG→2SG' vs. *-himɨ* '1PL→2SG'/'2PL →1'

(7) Shuar SAP↔SAP verbal suffixes (Gnerre 1999: 68f)

    (7a) *Tu-rám-tat-j-i.*
           say-3→1PL/2-FUT-1PL-DECL
           'S/he will tell us.'

    (7b) *Su-kárta-r-me.*
           give-2→1PL-PL-2
           'You (SG) give [things] to us.'

    (7c) *Tu-ru-t-yá.*
           say-2/3→1SG-IMPER-2
           'Tell me!'

Thus, even though contact with languages that have different argument-marking patterns may explain part or all of the loss of the relevant EQ verbal morphology, it is not easy to see how this would have worked in the details, particularly so regarding the 1↔2 portmanteaus and considering the quite different egophoricity-centered system of Barbacoan. The loss of clusivity in EQ, on the other hand, is more plausibly attributed to contact with clusivity-less Barbacoan and Jivaroan, even though a contact-independent explanation is certainly also possible.

2.2 Benefactive Applicative

There would be more to say about the evolution of Quechuan benefactive (quasi-) applicatives, especially regarding their form, but suffice it here to say that EQ only retains the marker *-pa* and, more importantly, that this marker is no longer an applicative or quasi-applicative.[9] Whereas in Ancash verbal valency is clearly affected by the suffixation

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[9] A different issue —not treated here— is the existence of an innovative benefactive compound predicate based on *cara-* 'give' in EQ. Such applicative or pseudo-applicative constructions are well-known from West Africa,

of *-pu/-pa* (8) (in other Quechua varieties, the applied object appears in the accusative instead of the benefactive illustrated in 8a), in EQ the suffix conveys an honorific meaning without altering the valency of the predicate and the syntax of the clause:

(8) Ancash Quechua (Parker 1976: 84, 119)

(8a) *Wawqi-:-**paq***   *apa-**pu**-shaq.*
brother-1SG.PSR-for   bring-BEN.QAPPL-1SG.FUT
'I will carry (it) for my brother.'

(8b) *Tushu-na-yki-**paq***   *toka-shaq.*
dance-NMLZ-2SG.PSR-for   play-1SG.FUT
'I will play for you (SG) to dance.'

(8c) *Rura-**pa**-ma-rqa-n.*
make-BEN.QAPPL-1SG.OBJ-REC.PST-3SG
'S/he made (it) for me.

(9) Imbabura EQ (Cole 1982: 113, 185)

(9a) *Wasi-ta*   *rura-rka-ni*   *ñuka*   *churi-**paj**.*
house-ACC   make-PST-1SG   1SG   son-for
'I made a house for my son.'

(9b) *Miku-na-ta*   *muna-**pa**-ngui=chu?*
eat-NMLZ-ACC   want-HON-2=IRR
'Do you (SG HON) want to eat?'

Is contact helpful here as an explanatory factor? As far as I can judge from the extant descriptions, Barbacoan languages do not have benefactive applicative markers, but those found in Jivaroan (particularly in Aguaruna), are well-behaved (i.e., they are not valency-neutral like the present-day EQ morpheme), i.e. they conform to the expected behavior of applicatives. The EQ development might just as well have been contact-independent.

2.3 Subordinate Clauses

Two types of subordinate clauses are relevant in the present context: temporal adverbial clauses and purpose clauses. As to the former, both EQ and other Quechua varieties have switch-reference forms, but EQ does not mark person on them while other varieties do. The different-subject forms of both Ancash (10) and Ayacucho (11) take possessive suffixes to convey person and number of the different subject (illustrated here with 1st person singular forms), whereas those of EQ have an invariable suffix *–jpi* (12):

(10) Ancash Quechua (Cole 1983: 2-3): Switch-reference (SS *-r ~ -shpa* vs. DS *-pti-*{PSR})

(10a) *Lima-ta* *chaa-ri-**r**,*   *rikaari-shaq*   *amigo-u-ta.*
L.-ACC   arrive-after-SS₁   see-1SG.FUT   friend-1SG.PSR-ACC
'After arriving in Lima, I will see my friend.'

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as well as from southern and eastern Eurasia, but the existence of a close parallel in Cha'palaa (southern Barbacoan; Ecuador), mentioned by an anonymous reviewer, is certainly worth exploring in greater detail.

(10b)   *Chakra-chaw   urya-**shpa**   pallamu-rqu-u   wayta-kuna-ta.*
         field-LOC   work-SS₂   pick-REC.PST-1SG   flower-PL-ACC
         'While I worked in the field, I picked flowers.'

(10c)   *Chakra-chaw   urya-**pti-y**,   María   pallamu-rqu-n   wayta-kuna-ta.*
         field-LOC   work-DS-1SG.PSR   M.   pick-REC.PST-3SG   flower-PL-ACC
         'While I worked in the field, Maria picked flowers.'

(11) Ayacucho Quechua (Hartmann 1994): Switch-reference (SS *-stin ~ -spa* vs. DS *-pti-*{PSR})

(11a)   *Tuma-**stin**   puriku-chka-nki.*
         drink-SS.SIM   walk.around-DUR-2SG'
         You (SG) are walking around drinking.'

(11b)   *Miku-**spa(-n)**   lluqsi-rqa.*
         eat-SS.SEQ-3.PSR   leave-PST
         Having eaten, s/he left

(11c)   *Ñuqa   ni-**pti**-y=mi   ri-rqa.*
         1SG   say-DS-1SG.PSR=EVID   go-PST
         'S/he went because I said it.'

(12) Imbabura EQ (Cole 1983: 5): Switch-reference

(12a)   *Utavalu-man   chaya-**shpa**,   ñuka   mama-ta   riku-rka-ni.*[10]
         O.-ALL   arrive-SS   1SG   mother-ACC see-PST-1SG
         'When I arrived in Otavalo, I saw my mother.'

(12b)   *Juzi   Utavalu-man   chaya-**jpi**   pay-paj   wasi-man   ri-rka-ni.*[11]
         J.   O.-ALL   arrive-DS   3SG-GEN   house-ALL   go-PST-1SG
         'When Jose arrived in Otavalo, I went to his house.'

Interestingly enough, Barbacoan languages have switch-reference forms in temporal adverbial clauses, but they do not mark person, therefore lending plausibility to the contact hypothesis. Jivaroan languages, by contrast, have switch-reference forms that do mark person in such clauses. More information on concrete contact scenarios, their intensity and duration, would be needed in order to come to an attractive solution here.

Regarding purpose clauses, note that other Quechua varieties have deverbal nominalized forms there; consider the Ancash (13) and Ayacucho (14) examples below with forms showing the nominalizer *-na*, a possessive suffix, and the benefactive/purposive suffix *-paq* 'for'. By contrast, EQ uses a switch-reference form in these clauses (15) (and, as expected, such forms do not mark person); note that the markers (*-ngapaj* / *-chun*) differ from those employed in temporal clauses (*-shpa* / *-jpi*):

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[10] Simple reflex of PQ *-špa* (Cerrón-Palomino 1987: 196).
[11] Either from PQ *-pti* or innovative from *-q-pi* (-AGT-LOC) (Cerrón-Palomino 1987: 195). The latter could well be a calque from Jivaroan: Aguaruna reportedly has a subordinate deverbal form featuring nominalizing morphology and a locative case marker (anonymous reviewer, p.c.).

(13) Ancash Quechua (Cole 1983: 3-4): Nominalized form

  (13a) *Huaraz-ta   shamu-rqu-u   mamaa-nii-ta   rikaa-na-a-paq*
         H.-ACC   come-REC.PST-1SG   mother-1SG.PSR-ACC   see-NMLZ-1SG.PSR-for
         'I came to Huaraz to see my mother.'

  (13b) *Fuan-ta   Huaraz-ta   kacha-rqu-u   mamaa-nin-ta   rikaa-na-n-paq*
         J.-ACC   H.-ACC   send-REC.PST-1SG   mother-3SG.PSR-ACC   see-NMLZ-3SG.PSR-for
         'I sent Juan to Huaraz to see his mother.'

(14) Ayacucho Quechua (Soto Ruiz 1976: 156): Nominalized form

  (14a) *Tarpuku-na-nku-paq=ña=m   allichaku-chka-nk*
         sow-NMLZ-3PL.PSR-for=already=EVID   get.ready-DUR-3PL
          'They are already getting ready to sow.'

  (14b) *Yanuku-na-nku-paq=mi   mikuy-kuna-ta   apa-chka-ni*
         cook-NMLZ-3PL.PSR-for=EVID   food-PL-ACC   bring-DUR-1SG
         'I am bringing food for them to cook.'

(15) Imbabura EQ (Cole 1983: 6-7): SR

  (15a) *Utavalu-man   shamu-rka-ni   ñuka   mama-ta   visita-**ngapaj**.*[12]
         O.-ALL   come-PST-1SG   1SG   mother-ACC   visit-SS
         'I came to Otavalo to see my mother.'

  (15b) *Juzi-ta.   Utavalu-man   kacha-rka-ni   pay-paj   mama-ta   visita-**chun***
         J.-ACC   O.-ALL   send-PST-1SG   3SG-GEN   mother-ACC   visit-DS
         'I sent Jose to Otavalo to see his mother.'

    These purposive switch-reference forms are also used in desiderative expressions in EQ. Here, again, other Quechua varieties employ nominalizations, like the accusative-marked infinitive of Ayacucho Quechua below:

(16) Desiderative (Soto Ruiz 1976: 157, Cole 1982: 38)

  Ayacucho Quechua

  (16a) *Piñaku-pti-ki=m   mana   yayku-mu-**y-ta**   muna-n=chu.*
         get.angry-DS-2SG.PSR=EVID   NEG   enter-DIRCT-INF-ACC   want-3SG=IRR
         'S/he doesn't want to get in because you (SG) get angry.'

  Imbabura EQ

  (16b) *Ñuka   muna-ni   miku-**ngapaj**.*
         1SG   want-1SG   eat-SS
         'I want to eat.'

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[12] Similar forms in other EQ varieties (Orr's 1978 "ecuatoriano de la selva" as opposed to "ecuatoriano de la sierra" like Imbabura EQ): *-ngawa* in Pastaza, *-ngaj* in Tena, *-ngapa* in Napo (Cerrón-Palomino 1987: 240).

(16c) *Ñuka   muna-ni   kan   miku-**chun**.*

    1SG   want-1SG 2SG eat-DS

    'I want you (SG) to eat.'

Leaving aside the issue of what governs the distribution between same-subject and different-subject forms in EQ (the data in Cole 1983 suggest a direct/inverse-related 1/2 vs. 3 opposition playing an interesting role here), as well as the intriguing and unclear etymology of *-chun* (which is a 3rd person imperative in other Quechuan varieties), I will now turn to Bruil (2008) regarding the probable evolution of such forms.[13] This author hypothesizes that the loss of argument marking in subordination in general is due to Barbacoan influence (pp. 123f), that switch-reference forms in purpose clauses is also due to contact with Barbacoan (pp. 124, following a suggestion in Adelaar 2004: 149), and that the extension of such switch-reference forms to desiderative constructions is due to Spanish influence (p. 126). Limiting myself here to the second hypothesis, it is clear that both Barbacoan and Jivaroan languages have morphologically simple patterns with respect to subordinate clauses: adverbial and purposes clauses show switch-reference forms in all languages (like EQ), but these do not mark person in Barbacoan, even in different-subject forms (like EQ) and do mark person in Jivaroan, even in same-subject forms. Examples follow:

(17) Awa Pit purpose clauses (Curnow 1997: 268-269)

(17a) *Carmen   piya   kɨɨ-t   kway-zi   atal   pashpa   kwin-na.*
    C.   corn mill-SER drop-ALLOPH chicken DIM   give-INF
    'Carmen ground corn to give to the baby chickens.'

(17b) *Na=na   sɨ   pyan-ni-ma-ti-mtu-s,   Carmen   ayna-t   kwa-npa*
    1SG=TOP firewood chop-ASP-ASP-ASP-ASP-EGOPH C.   cook-SER eat-DS
    'I'm going to chop firewood so that Carmen can cook and eat.'

(18) Tsafiki purpose clauses (Moore 1979: 48)

(18a) *Fi-chun   ka-yo-e.*
    eat-SS   take-EGOPH-DECL
    'I bought (lit. took) (it) to eat (it).'

(18b) *Sona   mera-sa   ta-yo-e.*
    woman hear-DS have-EGOPH-DECL
    'I have (it) so that my wife can hear (it).'

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[13] See also Muysken (2011b) for an overview of verbal morphology used in complementation and subordination across Quechua varieties that pays special attention to some variation within EQ. This author explicitly mentions "possible substrate influence" when discussing the following EQ-specific complex-predicate constructions: (a) verb of saying + future V form to express desire/intention (Shuar); (b) verb of doing + V to express 'going to' (Barbacoan, Chibchan, Paezan and Tucanoan; for the EQ variety under scrutiny, the relevant contact language is probably the isolate Waorani); (c) *-chun* in subjunctive/purposive DS forms (Tsafiki); and (d) use of *yalli* 'exceed' in comparisons (perhaps from Barbacoan).

(19) Aguaruna purpose clauses (Overall 2007: 504)

    (19a)   *Hiina-aha-maia-hi-I   ii-na   batsama-taĩ-ka   mini-ika-ku.*
            exit.PFV-INTM.PST-1PL-DECL   1PL-ACC   live-1PL/3-FOC   arrive-IPFV.PL-SS.1PL
            'We set off to go back to our homes.'

(20) Shuar adverbial clauses (Gnerre 1999: 74,76)

    (20a)   *Wi   chichá-ku-n   paánta-n   chichá-ja-i.*
            1SG   speak-SS-1SG   clear-OBJ   speak-1SG-DECL
            'When I speak, I do so (lit. speak) clearly.'

    (20b)   *Chichá-i   nín-kia   tá-y-i.*
            speak-DS.1SG/3   3-TOP   arrive-3-DECL
            'While I / s/he_i was speaking, s/he_i arrived.'

In the light of this evidence, Bruil's claim as to the possibility of Barbacoan influence here is indeed a very attractive one.[14]

2.4 Selected TAME markers

Finally, it is in order to at least mention the TAME markers addressed by Muysken, viz. the reflexes of Proto-Quechuan *-*yku*, *-*yka*, *-*ku*, and *-*ri*. The first two have been lost in EQ; they mark dynamicity/direction and durativity in other Quechuan varieties, respectively. The marker -*ku* encodes durativity in EQ, but in other Quechuan varieties, and presumably also in Proto-Quechuan, it is a mediopassive morpheme. Awa Pit has an imperfective marker -*(m)tu*, which is somewhat similar to Quechuan -*ku*, but even though they might be considered linked (as two subtypes of diminished-transitivity markers), the unclear details regarding the semantic change and the rather modest formal similarity does not allow one to regard this mere finding as strong evidence in favor of a contact-induced change mediopassive > durative in EQ. Lastly, -*ri* is an inchoative marker in Proto-Quechuan and other Quechuan varieties but a reflexive marker in EQ — a hitherto unexplained development. The connection between inchoativity and reflexivity is, at least formally, well attested elsewhere (cf. Spanish anticausative *se*, evolved from a reflexive marker), but it is far from clear how Barbacoan influence would have worked here: neither Awa Pit nor Tsafiki have a verbal reflexive proper, let alone any related marker (e.g. a pronominal one) that would formally resemble EQ -*ri* (but Tsafiki has an inchoative suffix -*di*, which might have played a role). I was not able to see any other connection between these developments, especially the latter two listed above, and possible Jivaroan or Barbacoan models.

2.5 Summary

The above discussion of EQ deviations from the patterns prevalent in Quechuan and possible contact-induced developments can be schematically summarized in Table 2 below.

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[14] As Pieter Muysken aptly points out (p.c.), this raises the issue why the *chun*-forms are so widespread, extending to Quechuan varieties spoken both in Tungurahua and the jungle; Barbacoan could well have had a pervasive influence in all EQ varieties. See Bruil (2011) for additional discussion of -*chun* as DS marker in the context of Barbacoan influence.

	EQ	Other Quechuan	Jivaroan	Barbacoan
Person/number - verbal.1 - verbal.2 - nominal	no clusivity no portmanteaus none (e/Pastaza)	clusivity some portmanteaus suffixal PSR	no clusivity some portmanteaus suffixal PSR	no clusivity no portmanteaus none
Voice - BEN applicative	valency-neutral loss of -pu	valency-relevant	(valency-relevant)	(none)
Subordination - Adverbial clauses - Purpose clauses	SR (no person) SR (no person)	SR (DS w/person) NMLZ+ACC	SR (w/person) SR (w/person)	SR (no person) SR (no person)
TAME - PQ *-yku - PQ *-yka - PQ *-ku - PQ *-ri	(lost) (lost) DUR REFL	DYN/DIRCT DUR MPASS INCH		(AP IPFV -(m)tu)

Table 2. Selected EQ morphology vis-à-vis Quechuan and non-Quechuan (First two columns reproduced from Table 1 above)

3. Discussion

Muysken (2009: 98) identifies the following timeline for selected changes in EQ:[15]

all known sources	ca. 1700	ca. 1900	ongoing
loss of clusivity loss of NMLZ-{PERS} loss of -sun-ki '3→2SG' V-ku > V-kuna in PL	loss of -pu 'BEN' loss of PSR suffixes	loss of -yki '1→2' -ku > -ri 'REFL' -yka > -ku 'DUR' -pa 'BEN'	loss of -wa '1.OBJ'

His final comments on these changes is indicative of his koineization (non-substrate-influenced) vs. creolization (substrate-influenced) distinction mentioned at the outset of the present article:

> The earliest changes […] may possibly be viewed as cases of morphological simplification independent of individual substrates, while later changes, such as the shift in meaning of the verbal suffixes *-ku-* and *-ri-*, must have a different explanation, and could be due to substratal influence. This would suggest a gradual restructuring towards the possible substrate languages (which have now

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[15] See also Ciucci & Muysken (2011) for additional supporting evidence regarding the early date of many of the EQ innovations.

disappeared). Nonetheless, at least some of the morphological simplification must have been gradual in nature as well. (Muysken 2009: 98)

The data presented in Section 2 above lead to the identification of possible substrate languages as schematically summarized in Table 3 below; they mostly point towards Barbacoan. Nevertheless, as Muysken himself says, some other, now extinct, substrate languages cannot be ruled out.

	EQ	Possible substrate
Person/number - verbal.1 - verbal.2 - nominal	no clusivity no portmanteaus none (exc. Pastaza)	Barbacoan, Jivaroan Barbacoan Barbacoan (+Jivaroan)
Voice - BEN applicative	valency-neutral loss of *-pu*	(Barbacoan)
Subordination - Adverbial clauses - Purpose clauses	SR (no person) SR (no person)	Barbacoan Barbacoan
TAME - PQ *-*yku* - PQ *-*yka* - PQ *-*ku* - PQ *-*ri*	(lost) (lost) DUR REFL	 *! *!

Table 3. Selected morphological phenomena in EQ

Note that Bruil (2008) and Muysken (2009) disagree as to what motivated some of the comparatively early changes in EQ; in particular, the restructuring of morphological make-up of subordinate clauses is said to be due to Barbacoan influence by the former author but are presented as possible cases of contact-independent innovation by the latter. Muysken says that later EQ innovations might have been contact-induced, and they may very well have been, but the extant evidence from Barbacoan seems to make the unknown-and-extinct-language(s) suggestion more attractive — hardly firm ground to continue reconstructing the exact details of EQ prehistory.

In fact, two important questions posed by Muysken seem to me to be still somewhat open. First, "[c]an we identify a single major dominant substrate language that may have influenced [EQ]?" (Muysken 2009: 85). Based on the present-day descriptions available to me, such a language would have to be Barbacoan (possibly Caranqui, as suggested by Bruil 2008, 2011), rather than Jivaroan — with a strong emphasis on *may*, however. The new switch-reference morphology in EQ seems to be the best evidence for contact-induced change. Second, "[w]hat features can be readily explained through autonomous simplification processes and what features would require a different, possibly substratist, explanation?" (Muysken 2009: 85). I see two problems with the quote at the beginning of Section 3 in this respect: Why is the earlier loss of morphology autonomous, rather than the later loss? Why is the shift of some TAME markers rather contact-induced? There does not seem to be a direct motivating or driving force in either Barbacoan or Jivaroan, let alone in Spanish, for such developments.

I thus conclude that, intuitively appealing though Muysken's koineization hypothesis is, a strong case in its favor is yet to be made, and the extant descriptions of possible substrate languages does not allow one to be more confident here.

   Finally, let me zoom out and briefly comment on an interesting hypothesis formulated by Muysken when discussing the evolution of EQ. He suggests that there might be a correlation between the outcome of such contact situations and the morphological make-up of the participating languages:

> [The fact that radical restructuring in EQ led to the loss of morphology in specific grammatical contexts and regularization rather than a total loss] may be due to the agglutinative character of Quechua; in that case we would predict that in general agglutinative languages undergo different processes of restructuring than inflectional languages (Muysken 2009: 97).

In other words, the outcome of such an alleged koineization process would be decisively determined by the morphology-typological profile of the superstrate language. Nevertheless, since the case for the specific koineization-cum-creolization process in EQ proposed in Muysken (2009) is not particularly strong, and since, to my knowledge, no similar cases have been made for other Quechuan varieties, we still do not know whether this applies to Quechuan in general — even though, as mentioned by Pieter Muysken (p.c.), the evidence in favor of EQ as spreading comparatively late is indeed convincing. Within Indo-European, to judge from the reasonably documented morphological change documented in Germanic, Romance, Celtic, Slavic, and Indo-Aryan, it would seem that radical restructuring does not necessarily lead to total loss of morphology. Are there parallels from Turkic, Tungusic, Eskaleut, Uralic, Bantu, and Dravidian (all examples of "agglutinating" families) that support Muysken's proposal regarding the resistance of agglutination to total morphology loss? His tentative prediction is both attractive and worth pursuing further, but more work needs to be done, not only within Quechuan but also within other language families, in order to obtain conclusive support for such a claim.

Abbreviations

A agentive argument of bivalent predicates, ACC accusative, AGT agentive, ALL allative, ALLOPH allophoric, AP Awa Pit, ASP aspect(ual), BEN benefactive, DECL declarative, DIM diminituve, DIR direct, DIRCT directional, DS different subject, DUR durative, DYN dynamic, EGOPH egophoric, EQ Ecuadorian Quechua, EVID evidential, EXCL exclusive, FOC focus, FUT future, GEN genitive, GRs grammatical relations, HON honorific, IMPER imperative, INCH inchoative, INCL inclusive, INF infinitive, INTER interrogative, INTM intermediate, INV inverse, IPFV imperfective, IRR irrealis, LOC locative, MPASS mediopassive, NEG negative, NMLZ nominalization, OBJ object(ive), P patientive argument of bivalent predicates, PERS person, PFV perfective, PL plural, PQ Proto-Quechua, PSR possessor, PST past, QAPPL quasi-applicative, REC recent, REFL reflexive, S single argument of monovalent predicates, SAP speech act participant, SBJ subject, SEQ sequential, SER serial, SG singular, SIM simultaneous, SR switch-reference, SS same subject, TAME tense-aspect-modality-evidentiality, TOP topic x→y '*x* acting on *y*'

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