The Indo-European etymology of Fi. peukalo 'thumb'

In this paper it is argued that *pälkä, the Uralic etymon for 'thumb' which is still preserved in Sámi, cannot account satisfactorily for Balto-Finnic peukalo 'thumb'. It is proposed that the latter is a superfluous loan word from a source with the form *beugalō, from a base *beug- 'bend, bow' + an instrumental/diminutive l-suffix. Several features of the word point to Germanic as the probable source language: attested cognates are, e.g. Old Swedish bøghil, German Bügel.

Introduction

The Finnish word peukalo occurs with three main meanings1, '1. thumb; 2. big toe; 3. mill wheel pivot'. The main, and thus original, meaning is no doubt 'thumb', as also shown by the many cognates elsewhere in Balto-Finnic (BF). According to SKES: 534–535, the Fi. peukalo corresponds to Karelian peikalo, peigalo, Veps peigol, Vote peukolo, peiko, Estonian peial, põigel, Livonian pēgal, pegil. The meaning is uniformly 'thumb'. In Fi. there are derivatives, such as peukaloida 'vidröra med tumme eller fingrar, tumma, fingra, manipulera, māta med tummen; göra hjultappar, förse med kuggar; to touch with the thumb or fingers, manipulate, measure with the thumb, meddle, tamper with', again testifying to the original meaning 'thumb' of this word.

Turning now to other Uralic languages outside BF, their designation for 'thumb' is given in Rédei (1988: 363): the reconstructed proto-form is *pälkä, as attested by the Sámi (Lule) pieš'kē, Mordvin pelka, Udmurt pel'j, and Komi pel, pev. As it is attested in Sámi, in the Volga-Finnic branch and in Permic, it belongs to the Finno-Permic lexical
According to Janhunen (1981: 241), also Samoyedic piäj ‘outside’ ~ Finno-Permic pëli ‘reuna, ääri’ < Uralic *pêli belongs here, making it an Uralic word: on this premise, he derives BF peukalo from *pälkä through a derivative *pelkälo which through irregular phonetic developments would have resulted in peukalo. But according to Rédei, the Samoyedic and BF words for ‘thumb’ cannot, owing to the incompatible sound correspondences, belong to the same etymon. Note that in SKES: 534–535, precisely the same lexical items as above are enumerated, but the phonetic incompatibility is not commented upon, giving the impression that the compilers of the SKES think that the BF peukalo does indeed belong to the same group as *pälkä. On balance, most of the evidence suggests that peukalo is an innovation of unknown origin in BF which has replaced the inherited Finno-Permic designation for ‘thumb’, *pälkä which is still retained in Sámi. This invites us to try and sort out whether it could have been formed from native BF language material, or alternatively, whether a loan word source can be singled out.

Fi. peukalo ‘thumb’

It is thus imperative to analyse this word according to its formants. I start with the ending, -lo. Penttilä (1957: 289–90) calls the suffix -lo -lö semi-productive. It lacks a definite meaning, but it often functions as a diminutive suffix, as in kotelo, kotilo, metsälö, purtilo. He also compares it with -la -lä (p. 285) which is productive in designations of place names and proper names, but otherwise unproductive. Examples are Heinola, Heikkilä, manala, kauppala, kahvila, pappila, vankila, ravinolta, sairaala, jumala, sukula, kampela, hetula. It also occurs in adjectives, such as matala, ovela, nokkela, tukala, vetelä. According to Hakulinen (1957: 114–115), the suffix -lo -lö as in kohtalo, onkalo is never deverbal (exception: untelo); further, writing of the suffix -la -lä (p. 86–7), as in setälä, tuonenela, tukala, he says that it probably goes back to a FU diminutive suffix. It is a common feature of such suffixes that they are used to denote local relations. Another possible association is with the -l- formant of the series of external local cases in BF: allative -lle, adessive -lla, ablative -lta. However, this suffix is also
found in a large number of Germanic loan words: *humala, kapula, kattila, kavala, kynttilä, rinkilä, satula, siivilä, sinkilä, sämpylä, vintilä, vispilä. From Baltic, there is one such loan word: *apila ‘clover’.

Proceeding now to the root vocalism, the diphthong -eu- is itself quite rare in BF (as it should be in Uralic, which avoids diphthongs in general), and when present has usually arisen through recent developments (see e.g. Hakulinen 1957). This is an indication that we may be dealing with a loan word. However, as listed by Hofstra (1985: 44–47), the number of loan words with Gmc. -eu- < IE -eu- is also rather small. It is represented by:

*keula ‘prow, bow of a boat’ < Gmc. *skeula-
steura ‘Steuer’ < Gmc. *steura-
teuras ‘slaughter’ < Gmc. *þeuraz ‘Stier’
leukojainen ‘Motte’ is uncertain, possibly < Gmc. *fleugōn-.

BF -eü-, Fi. -öy- occurs in a number of instances:
köyhä ‘poor’ < Gmc. *skeuxwas
pöytä ‘table’ < Gmc. *beuda-
röytä ‘Vordach’ < Gmc. *greuta-

BF -iu- occurs in:
kiusata ‘tease’ < Gmc.*keusan-
liuta ‘swarm’ < Gmc. *leuda-
riutta ‘sand bank’ < Gmc. *greuta-
tiuris ‘teuer’ < Gmc. *deurjaz/*deuriz

The oldest layer is that which shows -öy-, and the more recent loan words show -iu-. Those with -eu- are also judged to be very old, they should at least predate the Proto-Nordic period.

To sum up, the ending as well as the root vocalism, although not decisive, do arouse the suspicion that BF peukalo may be a loan word belonging to a rather early IE layer, e.g. Proto- or even Pre-Gmc.
The Elbow and the Arm as "Bows"

In seeking an explanation for Tokharian B pawn, Tokh. A pok ‘arm’, Giuliano Bonfante (1980) compared this word with the German Ellenbogen, and Eng. elbow, which are derived from verbs of the group exemplified by German beugen, biegen ‘to bow, to bend’. Other nominals can be found, such as Bucht, an old derivative in -ti from the zero-grade form of the verb (cf. Modern German bücken). This all led him to propose a reconstruct *bhoughos for ‘arm’ in Proto-Tokharian. To this one would like to add that recent studies have shown that, based on shared lexical items, Tokharian is more closely related to Germanic than to Baltic and Slavic (Adams 1982). This makes it more plausible to adduce a similar word formation principle for the upper extremity. In a subsequent refinement of his idea, Bonfante (1981) finds that the traditional equation of the Tokh. words with the IE bhāhūs ‘forearm, elbow’, attested in Greek, Indo-Iranian, and Germanic, is phonologically impossible because in Tokharian, although the stem vowel is lost in the u-stems, it has usually left traces, e.g. in the plural and in nominal compounds (Van Windekens 1976: 131) and in dual forms (Bonfante 1981). The rejection of the traditional etymology by an argument based on a regular sound correspondence naturally adds to the strength of the new proposal made in his 1980 paper. However, his own positive argument was based on the Tokh. B diphthongized form pawn, which was important to him because Tokh. B differs from Tokh. A in retaining original ou-diphthongs. Now, Thomas (1985: 115) has stated that the reading of the original Tokh. B document containing this word actually has to be amended to poke, so that both Tokh. A and B show the same word poke for ‘arm’. Therefore, although it was feasible, given the premises that were available when it was presented, Bonfante’s etymology probably has to be rejected. His indication of the importance of words for ‘bend, bow’ in words for the upper extremity remains valuable, however.

The thumb as a "Little Bow" or "Bender"

As recently pointed out by Peeters (1989: 201), “etymological studies are generally retrospective, i.e. a word is brought back to its source, but
it could also be prospective. In that case we start from a given etymon and see how it develops into a word in the language we are interested in. This is where etymology and historical phonology or historical grammar are most closely related”. He then proceeds to demonstrate his novel idea with examples of Old English reconstructs which he follows down to Modern English attested forms.

Here, I now wish to test, by means of such a prospective method, whether an IE etymon “little bow”, or “the bender”, along Bonfante’s line of thought as quoted above, could be the source of the Fi. peukalo. Thus, as a purely arithmetical exercise, we construct a diminutive formation from the IE root *bheugh-, to form a noun meaning ‘little bow’. The diminutive formant -lo is typical in such instances, cf. Kluge (1926: 29–30). In an alternative analysis, this l-formant may be motivated as an instrumental suffix, as in e.g. Sw. töril ~ tyril < Gmc. hwerilo- ‘stirring rod’, OE bitl ‘hammer’, OHG lofli ‘spoon’ and other nomina instrumenti (Olson 1916: 238–55, Kluge 1926: 47–48). We would arrive at a Gmc. protoform *beugVlo- or *beugVla- depending on the gender (for the moment, I leave the question of the quality of the connecting vowel V unresolved). Applying the usual sound substitutions, we find that such a word for ‘little bow’ or ‘bender’ would be rendered in BF with p- for b-, -k- for -g-, the suffix would probably be retained as -la or -lo, and the root diphthong (cf. Hofstra 1985, quoted above) would be rendered by -iu-, -öy-, or -eu-. We arrive at a BF adapted reconstruct of either one of the forms *piukVlo, *pöykVlo, or *peukVlo, depending on the time depth of the loan process. As seen, the latter reconstruct actually covers all the essential features of the actual BF attested word peukalo.

On the basis of this prospective etymology, I thus propose that this old BF word originally arose as a metaphor meaning “little bow” or “the bender” in an IE dialect which was in close contact with BF-speakers shortly after Sámi had separated from early Proto-BF. This specialized lexical item was adopted as a so-called “superfluous loan word” (Larsson 1981: 19–20, 26–27), which ousted the native term *pålkä in due course. The earlier existence in Proto-BF of *pålkä is proven by the Sámi evidence. When it comes to assigning the donor of the loan to a particular IE dialect, Germanic (or Pre-Germanic) comes
into mind in the first place, as the “bow” metaphor is already attested in designating ‘elbow’. Moreover, German Beuge meant ‘innere Seite des gebeugten Armes, Beines’, cf. Rumpfbeuge, Kniebeuge. One notices that in elbow, Ellenbogen, armbåge, and Beuge, there is no diminutive suffix. It is not such a great step to take if we assume that in parallel to the non-diminutive “big bow”, i.e. the elbow, the early Germanic speakers used to talk about their “little bow” too, which, on the strength of the Fi. peukalo, I would now assign as the thumb.

The non-attestation of this word, with the precise meaning ‘thumb’, in the modern Gmc. languages is understandable in view of the considerable time depth that we have to assume for the existence of this word, as indicated by the BF rendering -eu- of its root vocalism. Otherwise, the full repertoire of lexical and morphological items needed to entertain this etymology is there. Thus, the extant Sw. verbs are (SAOB V: B 4854—, 4548–50) böja ‘to bend, to curve, to incline’ ~ OSw. bögia ~ Icel. beygja ~ OSax. bögian ~ OHG bogan (Modern German beugen) ~ OE biezan < Gmc. *bauzian, which is a causative form related to Sw. boga ‘to incline, to bow’ etc. < Gmc. *buʒ-. Examples of nouns are OHG bōg, OE bēag, both meaning ‘ring’. Especially important are Nordic attestations which allow us to reconstruct the one-time presence, also in Nordic, of a strong verb no longer extant as such (SAOB V: B 4693): The Sw. adj. bågen ‘bent, curved’ ~ OSw. bughin ~ boghin, is an adjective corresponding to the Icel. boginn, past participle form of a strong verb, and moreover there are the OSw. imperfect bögh as well as the Icel. plural imperfect bugum. The reconstructable Nordic strong verb is matched by the actually extant verbs Gothic biugan, OE bügan, OHG biogan ~ German biegen. Moreover, the type of noun we are reconstructing really does exist in some of the modern Gmc. languages, now denoting various more or less technical items. Examples are Sw. bugla ~ böгла; bygel ‘bow’, from OSw bōghill ~ byghill etc. (SAOB V: B 4550–1, 4635–6, 4686–93). We are now in a position to make predictions as to the quality of V in our Gmc. reconstruct *beugVlō. The i-vocalism in the second syllable of the OSw. forms bōghill etc. is to be evaluated in the same way as, e.g. in the OHG a-stem enkil, masc. ‘talus, Fussgelenk’ which alternates with the ō-stem OHG ankala, fem. ‘idem’ (EWA: 260). It can be seen that the Fi. peukalo agrees with the
vocalism, both in the second syllable and in the ending, of the predicted feminine reconstruct *beugalō but would disagree on both points with its reconstructed masc. counterpart *beugila- (which is compatible with the later attested forms OSw bøghill ~ byghill etc.).

Actually, the Gmc. ‘ankle’< *ankalō- etc. is a rather exact semantic parallel to my proposed *beugalō etc. since it too is a derivative of a root *ank- meaning ‘to bend’. This Gmc. word has secure parallels outside Gmc. such as the Latin angulus ‘angle, corner’, ungulus ‘fingerring’, and most importantly, Sanskrit aṅgūli- ‘finger, toes’.

In view of the attested masc. noun OSw bøghill etc. (compatible with a reconstructed *beugila-) it is reasonable to assume that a fem. counterpart *beugalō once existed. This latter form matches Fi. peukalo phonetically and also semantically as demonstrated above. Note that the l-formant in these Gmc. words, when it comes to body parts, was not only applied to the ‘ankle’ but also to the ‘thumb’ itself, e.g. Old English þýmel, OSw. þúmlinger, þumulfinger ~ þomalfinger, Modern Sw. (dialectal) tumling, Modern Danish tommelfinger (SEO II: 1242).

Conclusion

There was a Finno-Permic word *pälkä for ‘thumb’ which was also present in the early Proto-Balto-Finnic/Sámi dialectal amalgam (Rédei 1988: 363), but later, after the split into Sámi and BF, the inherited word for thumb disappeared from BF where it was replaced by a loan word peukalo which happened to have a rather similar consonantal frame as the native word. However, the phonetic features of this word (the root vocalism -eu-, untypical of Proto-BF; and the IE diminutive/instrumental ending -lo) make an IE source probable. A loan word “little bow” or “bender” can be accounted for with IE elements, providing not another root etymology but rather a good match of the whole word, phonetically, morphologically, and semantically, with the proposed prototype. Several other words for parts of the body (e.g. kaavis, kave, raato, ruho, runko, runnakko, ruumis, vainaja, hahta, hartia, hius, kallo, kuve, kynä, laikko, lantio, lovi, maha, napa, otsa, parnas, pinta, pursto, raaja, raivo) have already been described as Gmc. loan
words (Hofstra 1985: 297), so the semantic field is compatible with my assumption. The structure of the BF word allows us to date it back to well before the formation of Proto-Nordic, thus to a Proto- or even Pre-Germanic layer.

Note

1 All Fi. meanings here and below quoted from Lönnrot 1958.

Literature


Penttilä, Aarni 1957: Suomen kielioppi. WSOY, Porvoo.