

Indonesian vs. Bribri: Striking lexical similarities in two unrelated languages

*Haakon S. Krohn¹

¹Universidad de Costa Rica

Ciudad Universitaria Rodrigo Facio, Montes de Oca, Provincia de San José, Costa Rica

*Corresponding author. Email: hkrohn@gmail.com

Abstract

Despite the fact that Indonesian and Bribri belong to two different language families and are spoken on opposite sides of the world, their lexicons contain many words that are strikingly similar. In this paper I analyze the origin of three word pairs from these languages that not only sound similar, but also have almost exactly the same meaning: (1) Indonesian *kulit* and Bribri *kuólit* 'skin, hide, leather, crust, shell, bark, rind, peel', (2) Indonesian *kutu* and Bribri *kú* 'louse', and (3) Indonesian *kupu-kupu* and Bribri *kua'kua* 'butterfly'. The intention is not to propose any genealogical link between the Austronesian and the Chibchan language families, but rather to show how phonological, morphological and semantic properties can converge in two unrelated languages and produce this kind of eye-catching similarities.

Keywords: *Indonesian language, Bribri language, Austronesian languages, Chibchan languages, historical linguistics, phonology, morphology, semantics.*

Abstrak

Terlepas dari kenyataan bahwa bahasa Indonesia dan Bribri termasuk dalam dua rumpun bahasa yang berbeda dan digunakan di belahan dunia yang berlawanan, leksikon mereka mengandung beberapa kata yang terbilang sangat mirip. Dalam makalah ini saya menguraikan asal mula tiga pasangan kata dari bahasa-bahasa ini yang tidak hanya terdengar mirip, tetapi juga memiliki arti yang hampir persis sama: (1) kulit dalam bahasa Indonesia dan bahasa Bribri *kuólit* 'kulit tubuh, kulit hewan, kulit olahan, kerak, cangkang, kulit kayu, kulit buah, kulit ari', (2) Kutu dalam Bahasa Indonesia dan bahasa Bribri *kú* 'kutu', dan (3) kupu-kupu dalam bahasa Indonesia dan bahasa Bribri *kua'kua* 'kupu-kupu'. Tujuan dari makalah ini bukanlah untuk mengusulkan hubungan silsilah apapun antara rumpun bahasa Austronesia dan Chibchan, melainkan untuk menunjukkan bagaimana sifat fonologis, morfologi dan semantik dapat bertemu dalam dua bahasa yang tidak terkait dan menghasilkan jenis kesamaan yang menarik perhatian ini.

Kata kunci: *bahasa Indonesia, bahasa Bribri, bahasa Austronesia, bahasa Chibchan, sejarah kebahasaan, fonologi, morfologi, semantik.*

A. Introduction

Indonesian and Bribri are, as far as we know, two completely unrelated languages: the former belongs to the Malayo-Polynesian branch of the Austronesian family and the latter to the Isthmic branch of the Chibchan family. Although some scholars have proposed genealogical relationships between Austronesian and Native American languages (see an overview in Blust 2013, 712-714), these are not convincing and none of them include the Chibchan languages explicitly.

Despite this, as a person with knowledge of both languages, I have often noted that certain phonological similarities between them produce similar-sounding words. For instance, the Bribri word *sulít* [suɾít] 'thin, narrow' resembles the Indonesian *sulit* 'difficult', and *sawí*

[sawĩ?] ‘fabric, wool’ in Bribri sounds a lot like the Indonesian sawit ‘oil palm’. Such cases are, nevertheless, fairly common among unrelated languages and therefore not of great interest.

However, much more eye-catching are some word pairs that, in addition to being phonetically similar, also convey the same meanings in both languages. I have so far encountered three of these pairs, all of which correspond to relatively basic meanings and, curiously enough, begin with the phoneme sequence /ku/ in both languages. The first pair involves the Bribri word kuólit [kwôrit], whose meaning is ‘skin, hide, leather, crust, shell, bark, rind, peel’. This is strikingly similar, both in form and meaning, to the Indonesian word kulit ‘skin, hide, leather, crust, shell, bark, rind, peel, cover, outer layer’. The second pair is Indonesian kutu and Bribri kú [kũ], that both mean ‘louse’. Although the Indonesian term in this case has a second syllable with no correspondence in Bribri, the similarity between the words is interesting because the meaning ‘louse’, as well as ‘skin’ and ‘bark’ from the first word pair, is included in the Swadesh 100 terms list (Swadesh 1971). Finally, the third pair consists of the words for ‘butterfly’: Indonesian kupu-kupu and Bribri kua’kua [kwã?kwa]. Here it stands out that both terms are reduplications of very similar roots.

It is of course very common that words with identical or similar meanings in languages from different families have a similar phonetic shape, but that is almost always due to borrowing. This is something that occurs also in Indonesian and Bribri, where we find pairs like kopi and kàpi [kápi] for ‘coffee’. However, in the case of the three word pairs treated in this paper, none of them seem to be borrowings, at least not from outside the same language group. Data of this type have many times led scholars to propose historical links between distant languages, but that is by no means the intention of this article. Instead, the goal is to identify phonological, morphological and semantic patterns both from a diachronic and a synchronic perspective in order to shed light over how these similarities have come to be, and thereby also to show how shared typological features can lead to such situations in unrelated languages in general.

It is worth pointing out that all the Indonesian words mentioned here are identical in Standard Malaysian, and that the words in Bribri have similar (although with some important differences) cognates in Cabécar. The reason why I use the label Indonesian specifically throughout the paper is simply in order to emphasize the presence of these words in concrete modern-day languages, and because Indonesian and Bribri are the languages in which I became aware of the lexical similarities. This means, of course, that the term Malay (in the broad sense) could have been used interchangeably with Indonesian.

Before the analysis, I will provide a brief presentation of the Bribri language, since it is not a well-known language worldwide. Bribri belongs to the Chibchan language family, which is native to the so-called Intermediate Zone in lower Central America and northern South America. Within the core of this family (which include all Chibchan languages except Pech), Bribri is classified as a member of the Western Isthmic group, in which it forms the Viceitic subgroup together with the closely related Cabécar (Constenla 2008; 2012). The other living Western Isthmic languages are Naso (more commonly known as Teribe/Térraba) and Boruca, while Ngäbere (Guaymí), Buglere (Bocotá) and Cuna, as well as the extinct Dorasque and Chánguena, make up the rest of the Isthmic branch.

In many different occasions, Macro-Chibchan phylums that link the Chibchan family to other languages all over the Americas, especially within Central America, have been proposed, such as the Lenmichí proposal, which includes the Chibchan, Misumalpan and Lencan languages (Constenla 2012). The most recent theory of external relationships is developed by Pache (2018) and connects the Chibchan languages with the Macro-Jê languages, all of which are spoken south of the Amazon River. However, none of these theories has obtained anything close to unanimous consensus.

The majority of the Bribri speakers, all of whom are part of the Bribri ethnic group, live in Costa Rica, specifically in the southern parts of the country. According to the national census of 2011, 45.1% of the 18,198 inhabitants that self-identify as Bribris speak the language (Fuentes 2014, 332-333). There were also registered 1,068 Bribris in Panama in 2010 (Instituto Nacional de Estadística y Censo de Panamá 2015, 40), but no source indicates how many of them speak the language. There are three main dialect groups of Bribri: Amubre and Coroma, spoken near the Caribbean coast, and Salitre, spoken on the opposite side of the Talamanca mountain range, towards the Pacific coast.

Regarding the phonology of Bribri, it is notable that it has both oral and nasal vowel phonemes, while it lacks distinctive nasal consonants; nonetheless, voiced consonants are nasalized phonetically through several processes, one of which is nasal propagation from phonologically nasal vowels. It is also a tonal language; all lexical words, as well as many others, contain a stressed syllable, which is pronounced with one of two (perhaps three in the Amubre dialect) phonologically distinctive tones: high (which also presents a rising allotone) or falling. The unstressed syllables, on the other hand, are pronounced with a low tone, which is the neutral one.

As for the morphosyntactic properties, it is worth mentioning that Bribri is an ergative and postpositional language. Moreover, almost all affixes are suffixes, with the verbs being the morphologically most complex words. The most exhaustive grammatical descriptions of Bribri are Constenla, Elizondo and Pereira (1998) and Jara (2018). There is also a printed dictionary (Margery 1982), as well as a digital dictionary available on the web (Krohn 2021).

B. Methods

The study has a qualitative and descriptive character. The lexicographic information relative to the analyzed words comes from various dictionaries that are cited throughout the paper. One of these is a digital Bribri-Spanish Spanish-Bribri dictionary that is currently being developed by the author (Krohn 2021). The words in question are then analyzed in the light of grammatical descriptions of Indonesian and Bribri, as well as diachronic reconstructions of the corresponding proto-languages.

The main objective is to determine how phonological, morphological and semantic developments have led three pairs of words in Indonesian and Bribri, two unrelated and geographically distant languages, to become strikingly similar both in form and meaning. Therefore, the origin of all the features they have in common is traced as far back as possible. The findings could, in turn, reveal coinciding patterns worthy of more exhaustive interlinguistic studies, and also demonstrate how such similarities can emerge in languages in general, without the need any genealogical link.

C. Finding and Discussion

1. *Kulit* and *kuólit*

The first pair of Indonesian and Bribri words with strikingly similar form and meaning that I will analyze is *kulit* and *kuólit*. As I have already mentioned, these words cover a broad range of meanings that in many other languages are denoted by different words, which is an interesting semantic fact per se. The denotations in Indonesian can be approximately summarized as 'skin, hide, leather, crust, shell, bark, rind, peel, cover, outer layer', while the meanings 'skin, hide, leather, crust, shell, bark, rind, peel' have been registered for the word in

Bribri. It is quite clear that all these meanings are related, and that what they have in common is that they refer to some kind of outer layer. Thus, both words are highly polysemic and denote very similar semantic networks.

In this respect, Koptjevskaja-Tamm and Gast (2018) find that colexification of ‘skin’ and ‘bark’ is relatively common in some linguistic areas of the world, especially in most parts of the Americas and eastern Melanesia. However, according to their maps, they do not seem to have registered this feature in Indonesian (or Malay), possibly because of the existence of the more specific term *pepagan* or the modified term *kulit kayu*, so the latter area could in reality be larger. They also suggest that this phenomenon could be a reflex of “a more general tendency towards metaphorical transfer between humans, animals and plants”. Furthermore, Rzymiski et al. (2020) show that skin–bark and skin–leather both are among the twenty most common colexifications around the world, according to their criteria. The semantic similarity between the words in Indonesian and Bribri is therefore not very rare.

The Indonesian word *kulit* consists of one single morpheme, and this seems to have been the case at least since Proto-Malayo-Polynesian, for which Blust and Trussel (2010) reconstruct **kulit* with the meaning ‘skin, hide, rind, bark’, that would stem from **kuliC* in Proto-Austronesian, with the more specific meaning ‘rind, peeling of fruits or tubers’.

In the case of *kuólit* in Bribri, its phonological representation is /kuôdit/ and its pronunciation is [kwôrit]. It is important to point out that this is only one of many dialectal and stylistic variations of the word, found specifically in the Coroma dialect. The other forms registered by Krohn (2021) are *ajkuólit* [ahkwôrit] and *jkuólit* [hkwôrit]. The former contains an additional syllable at the beginning, [ah], which is reduced to [h] quicker speech. In the dialect of Coroma, the process has gone ever further, and the deletion of initial unstressed syllables, especially [ah], stands out as a quite systematic pattern in this diatopic variety. The only remainder of the glottal consonant is a lengthening of the initial consonant that can be heard in careful speech: [k:wôrit].

Because of this, one would assume that this first syllable, /ah-/, was part of the proto-form of the word and that it gradually has become lost in some of the modern-day forms. However, it is not registered in any dialect of Cabécar (Margery 2004, 502), and Pache (2018, 193) reconstructs **kua?* as the proto-form for most of the Central American Chibchan languages, whereas it seems that **huka*, which is reflected in a geographically and genetically wider variety of Chibchan languages, might come closer to the Proto-Chibchan form. Hence, /ah-/ must be a prefix with unknown semantic content added in an earlier stage of Bribri that is now disappearing gradually again.

Moreover, the syllable [-rit] is not part of the root. The root, [kwô], can also occur without this suffix, and Krohn (2021) has registered the following variations: *ajkuò* [ahkwó], *jkuò* [hkwó] and *kuò* [kwó]. The last one of these corresponds to the Coroma dialect. The semantics of the forms without [-rit] is very similar to the ones that do include it, but [-rit] seems to give the word a more general meaning. Therefore, the non-suffixed forms are mostly used with a modifier noun that specifies the entity the skin or outer cover belongs to, for example *namù kuò* ‘jaguar skin’ or *kós kuò* ‘oak bark’, whereas the referents of the suffixed forms do normally not have this level of specificity.

The [-rit] suffix does not appear in any other word registered in Margery (1982) and Krohn (2021), and neither does it show up in reconstructed proto-forms nor in Cabécar, so also this element must be a fairly recent addition in Bribri. One possible origin could be the adjective *sulít* [suřit] ‘thin, narrow’ mentioned in the introduction, considering the frequent deletion of pretonic syllables (/su/ in this case) and because adjectives always follow nouns in Bribri. This would give *kuò sulít* ‘thin skin’ as a possible source for *kuólit*, but is, however, a highly speculative proposal.

2. *kutu* and *kú*

The first syllable of the Indonesian *kutu* 'louse' is very similar to *kú* 'louse' in Bribri. In both languages, the term is fairly generic, not referring to any particular species.

Interestingly, Kamus Besar Bahasa Indonesia (Badan Pengembangan dan Pembinaan Bahasa 2016) claims that *kutu* is a borrowing from Sanskrit *kīṭa* 'insect, caterpillar or worm, excrement'. However, Blust and Trussel (2010) reconstruct **kutu* for Proto-Malayo-Polynesian 'head louse, sparks from a fire, water striker (insect that walks on water)', based on a consistent pattern throughout the Malayo-Polynesian languages, and very similar forms also appear in other Austronesian languages, which gives the reconstructed **kuCux* for 'head louse' in Proto-Austronesian. The initial /k/ in both Indonesian and Sanskrit word must therefore be a coincidence rather than the result of a borrowing.

The word *kú* in Bribri has the underlying representation /kû/ and the surface form [kû]. In the same fashion as the Indonesian word, it has been quite stable throughout the centuries. Pache (2018, 144) reconstructs **kūʔ* for Proto-Chibchan, but admits that the final /ʔ/ is only tentative, based solely on the falling tone in Bribri; an alternative form would thus be **kū*, as proposed by Constenla (1981, 397). Pache (2018, 144, referring to Pache 2016, 122) adds that the vowel nasality in the proto-language "might be related to the smallness of the referent – in several South American languages, nasality seems to indicate small size of the entity referred to".

3. *kupu-kupu* and *kua'kua*

The last word pair, Indonesian *kupu-kupu* and Bribri *kua'kua*, both meaning 'butterfly', is interesting not only because of the sequence /ku/ at the beginning of the root in both languages, but also because of a shared morphological trait, the reduplicated root. Reduplication is a strategy found in both languages, but with different ranges of functions that most often do not coincide. Here it is vital to stress a fact pointed out by Blake (2019), according to whom "reduplicated forms are not uncommon for butterflies" in languages around the world. This is a very significant typological feature regarding the analysis of this word pair.

In addition to *kupu-kupu* in Indonesian and other varieties of Malay, reduplicated forms for 'butterfly' are found in Old Javanese (*kupu-kupu* ~ *ku-kupu*), Balinese (*kupu-kupu*, but also *kupu*) and Ngaju Dayak (*ka-kupo*), but Blust and Trussel (2010) state that this similarity among Western Malayo-Polynesian languages is due to borrowing from either Malay or Javanese. The origin of this form in Malay or Javanese is uncertain, because the reconstructed form by Blust and Trussel (2010) for 'butterfly' in Proto-Malayo-Polynesian is **baŋbaŋ* ~ **beŋbeŋ*, while they in the case of Proto-Austronesian reconstruct **baŋbaŋ* for 'butterfly, moth'. *Kupu-kupu* does clearly not derive from these proto-forms, but the morphological reduplication pattern is the same. It is also relevant to notice that Wilkinson (1901), who covers late 19th century Malay, only registers the non-reduplicated form *kupu* (p. 548).

Reduplication of noun roots in Indonesian has many different functions, even though the most common one must be said to be plural marking. Nevertheless, this is not the case for *kupu-kupu*, since it does not have a corresponding single base synchronically and can denote both singular and plural. As Sneddon et al. (2010, 20) point out, many of the words of this type in Indonesian "are names of plants and animals, types of food and instruments, although such formations are not confined to these categories". One possibility is that the reduplication is based on the butterfly's two wings, since in Indonesian (and related languages) "sometimes a reduplicated form refers to something having two or more similar parts" (Sneddon et al. 2010, 20). On the other hand, Blake (2019) proposes that "perhaps the reduplication is iconic of flapping wings", citing several examples of reduplicated forms with this meaning in languages from distinct families.

In modern-day Bribri, reduplication is not a productive grammatical device, but fossilized reduplicated forms are relatively common. It is most frequently found in adjectives, many of which lack a non-reduplicated base synchronically, but some of them are reduplications of nominal roots. Additionally, reduplication is present in the plural forms of a small set of adjectives. Another word class with a significant number of reduplications is adverbs, even though many of these are null-derived from adjectives. There are also several nouns with a reduplicated root, but without any unifying semantic feature in common; some examples are *balíbalí* ‘undulating terrain’, *duláduhá* ‘youngster’, *mámá* ‘adornment, toy, mum (affective)’, *másmás* ‘newborn baby’ and *pulúpulu* ‘plant species (*Psychotria eurycarpa*)’. One noun, *alà* ‘child’, presents a reduplicated plural form, *alàralar*. Thus, the reduplicated root *kua’kua* for ‘butterfly’ does not correspond to any systematic semantic pattern in Bribri.

The word *kua’kua* has the phonological form /kuá?kua/ or /kuákkua/, depending on the analysis. The orthographic apostrophe is not an equivalent of the hyphen used in reduplicated words in Indonesian, but represents a glottal stop that appears in careful speech in this kind of reduplications: [kwǎ?kwa]. However, in faster speech the glottal stop is absent, because of which the word is sometimes written *kuàkua* instead. A non-reduplicated form, *kua’* /kuá?/ [kwǎ?], is found in the Salitre dialect (Constenla 1981, 368; Margery 1982, 53).

In earlier reconstructions of Proto-Chibchan, Constenla (1981, 368-369) has proposed *kuA- or *kuA? for ‘butterfly’, while Holt (1986, 113) has suggested *k^wa(tu). On the other hand, Pache (2018, 65-65) actually reconstructs a reduplicated form *k^wahk^wah for the meanings ‘butterfly’ and ‘hat’. He bases this on the fact that the word for ‘butterfly’ in Bribri, Cabécar, Boruca and Dorasque is a reduplicated root, and that what seems to be a cognate of ‘butterfly’ in the more distant extinct language Muisca, but that actually had the meaning ‘hat’, is also a reduplication, combined with the fact that another Chibchan language, Barí, has a reduplicated polysemic word with the meanings ‘butterfly’ and ‘hat’. However, this evidence for the reconstruction of the reduplicated form in Proto-Chibchan seems weak, so I consider the reduplication more likely to have appeared in Proto-Isthmic.

The reduplicated root in Bribri is likely related to the noun *kua’* /kuá?/ [kwǎ?], which denotes the plant *Gynerium sagittatum*, a species of cane typically found along rivers. The word can also be used as a generic term for ‘plant’, as a result of the importance of this plant in the Bribri’s worldview. The term for ‘butterfly’ would thus have originated through polysemy as a product of a cognitive association between butterflies and *Gynerium sagittatum*. According to the native speaker Alí García Segura (personal communication), this is possibly based on a strong connection between them in traditional narrations. Moreover, butterflies are often found around these plants in the physical world, a fact that might have motivated this association originally. The reduplication could then have emerged as a means to differentiate the two possible referents of the lexical item

D. Conclusion

One of the similarities between the Indonesian and Bribri words examined in this paper is that all of them start with the phoneme sequence /ku/. In the cases of *kulit* and *kuólit*, and *kutu* and *kú*, this initial sequence is actually present in the reconstructed proto-forms (although a nasal /*ũ/ is reconstructed for ‘louse’ in Proto-Chibchan), whereas its origin in the third word pair is more unclear. Since the first two pairs denote what is often considered to be basic meanings of human language, their forms are also expected to be more resistant to substitution in favor of a different word. It is of course most likely that the initial /ku/ sequence in both proto-languages, and hence in the modern languages, is only a coincidence, but it would be worthy to find out if this pattern repeats in families from other languages, which could suggest

some kind of iconic mapping between meaning and sound. Moreover, I have shown that the final -lit in Indonesian kulit and Bribri kuólit definitely is a coincidence, since it is part of the root in Indonesian and a separate morpheme in Bribri. Despite this, together with the root, in Bribri it makes up a word that is strikingly similar to the Indonesian one.

As for the morphological parallel between kupu-kupu and kua'kua, it is possible that the structure is motivated by different factors in the two languages. While in Indonesian the reduplication seems to be an iconic form that reflects some physical attribute of the referent, either its number of wings or its movements, in Bribri it could be a mere indication of its association with the plant named kua', or even a strategy to differentiate the meaning 'butterfly' from its original source. It is also worth noting that reduplication for 'butterfly' is found, albeit not consistently, throughout the Austronesian and Chibchan language families, a fact that reveals a clear typological pattern. A thorough study of reduplication in words meaning 'butterfly' in the world's languages would therefore be very revealing as for how widespread this phenomenon really is.

The fact that kulit and kuólit do not only have a similar phonetic shape, but also denote almost the same polysemic network, is in line with a typological pattern of colexification of 'skin' and 'bark' observed by Koptjevskaja-Tamm and Gast (2018) and Rzymiski et al. (2020). However, in both languages they actually cover a much broader set of related meanings than the ones registered by these scholars. It is unclear how common the broad polysemy exhibited by kulit and kuólit is, so future interlinguistic studies of colexification should take into account the whole range of meanings.

The similarities between Indonesian and Bribri exposed here are certainly eye-catching, but all of them can be attributed either to typological patterns found in many unrelated languages or to sheer coincidences stemming from the proto-languages or appearing in more recent stages. The fact that this kind of resemblances can emerge in two such geographically distant languages is a good explanation of why, throughout the years, so many different genealogical links have been proposed between languages from all around the world, for then being refuted.

E. References

- Badan Pengembangan dan Pembinaan Bahasa. 2016. *Kamus Besar Bahasa Indonesia Daring*. Accessed February 4, 2021. Jakarta: Kementerian Pendidikan dan Kebudayaan Republik Indonesia. <https://kbbi.kemdikbud.go.id>
- Blake, Barry J. 2019. *English Vocabulary Today: Into the 21st Century*. New York: Routledge.
- Blust, Robert. 2013. *The Austronesian languages. Revised edition*. Canberra: Asia-Pacific Linguistics, Research School of Pacific and Asian Studies, The Australian National University. <http://hdl.handle.net/1885/10191>
- Blust, Robert and Stephen Trussel. 2010. *Austronesian Comparative Dictionary*, web edition [website]. Available at: <https://www.trussel2.com/ACD/>
- Constenla Umaña, Adolfo. 1981. "Comparative Chibchan phonology." PhD diss., University of Pennsylvania.

- Constenla Umaña, Adolfo. 2008. "Estado actual de la subclasificación de las lenguas chibchenses y de la reconstrucción fonológica y gramatical del protochibchense." *Estudios de Lingüística Chibcha* 27: 117-135.
- Constenla Umaña, Adolfo. 2012. "Chibchan languages". In *The Indigenous Languages of South America: A Comprehensive Guide*, edited by Lyle Campbell and Verónica Grondona, 391-440. Berlin/Boston: De Gruyter Mouton.
- Constenla Umaña, Adolfo, Feliciano Elizondo Figueroa and Francisco Pereira Mora. 1998. *Curso básico de bribri*. San José: Editorial de la Universidad de Costa Rica.
- Fuentes Rodríguez, Eugenio. 2014. "Características demográficas y socioeconómicas de las poblaciones indígenas de Costa Rica (Censo 2011)." In *Costa Rica a la luz del Censo 2011*, edited by Instituto Nacional de Estadística y Censos, 309-343. San José: INEC. Accessed February 4, 2021.
https://www.inec.cr/sites/default/files/documentos/inec_institucional/publicaciones/anpobla_censo2011-01.pdf_2.pdf
- Holt, Dennis. 1986. "The development of the Paya sound-system." PhD diss., University of California, Los Angeles.
- Instituto Nacional de Estadística y Censo de Panamá. 2015. *Diagnóstico de la Población Indígena en Panamá*. Accessed February 4, 2021.
https://www.contraloria.gob.pa/inec/archivos/P6571INDIGENA_FINAL_FINAL.pdf
- Jara Murillo, Carla V. 2018. *Gramática de la lengua bribri*. San José: E-Digital.
- Koptjevskaja-Tamm, Maria and Volker Gast. 2018. "Areality in colexification patterns." *Lecture at the workshop Semantic maps: Where do we stay and where are we going?*, Liège Université, Liège, Belgium, June 26–28, 2018.
- Krohn, Haakon S. 2021. *Diccionario bribri-español español-bribri*. Accessed February 4, 2021.
<http://www.haakonkrohn.com/bribri>
- Margery Peña, Enrique. 1982. *Diccionario fraseológico bribri-español español-bribri*. San José: Editorial de la Universidad de Costa Rica.
- Margery Peña, Enrique. 2004. *Diccionario cabécar-español español-cabécar*. San José: Editorial de la Universidad de Costa Rica.
- Pache, Matthias J. 2016. "Pumé (Yaruro) and Chocoan: Evidence for a new genealogical link in northern South America." *Language Dynamics and Change* 6 (1): 99-155.
- Pache, Matthias J. 2018. "Contributions to Chibchan historical linguistics." PhD diss., Universiteit Leiden.
- Rzymiski, Christoph, Tiago Tresoldi, Simon J. Greenhill, Mei-Shin Wu, Nathanael E. Schweikhard, Maria Koptjevskaja-Tamm, Volker Gast, et al. 2020. "The Database of Cross-Linguistic Colexifications, reproducible analysis of cross-linguistic polysemies." *Scientific Data* 7 (1), 13. <https://doi.org/10.1038/s41597-019-0341-x>

Sneddon, James N., Alexander Adelaar, Dwi Noverini Djenar and Michael C. Ewing. 2010. *Indonesian Reference Grammar* (2nd edition). Sydney: Allen & Unwin.

Swadesh, Morris. 1971. *The Origin and Diversification of Language* (Ed. post mortem by Joel Sherzer). Chicago: Aldine.

Wilkinson, Richard J. 1901. *A Malay-English dictionary*. Singapore: Kelly & Walsh.