

Yaqui possessive constructions: evidence for external possession

Lilián GUERRERO

IIFL-Universidad Nacional Autónoma de México

Abstract: This paper revisits possessive constructions in Yaqui (Uto-Aztecan; Mexico). Previous studies have described Yaqui internal and verbal possessive constructions. The former makes use of juxtaposition, pronominal possession, and genitive phrases, and the latter shows possessive verbs taking the possessor as nominative subject and the possessee as accusative object. This study complements previous works with observations based on corpus data, and introduces a new, complex construction in Yaqui grammar: external possessive constructions. In external possession, the possessee can be coded as an accusative or locative argument, whereas the possessor can be coded as a nominative, accusative, dative or locative argument; dative and locative marking correspond to oblique core arguments. Locative external possessors have been barely documented outside European languages.

Keywords: external possession, body parts, locative possessors, locative possessee, Yaqui

1. Introduction

Possession is a semantic concept that reflects the relationships between an individual and her environment, including kinship terms, body parts, garments, domestic animals, natural entities, and physical, cultural, and emotional objects. What makes the study of possession systems intriguing, and at the same time difficult, is the fact that they are not restricted to one and the same structure, but instead occur in a wide variety of constituents and constructions within the same language, and their distribution usually correlates with different semantic relations (Seiler 1983; Heine 1997; Payne & Barshi 1999; Stolz *et al.* 2008; Haspelmath 1999, 2006; Stassen 2009; McGregor 2009). The Uto-Aztecan family is no exception, and individual languages usually show several types of possessive constructions (Langacker 1977; Muchembled 2014; Haugen 2017).

The present study focuses on Yaqui.¹ There are a few studies on Yaqui possessive constructions (Jelinek & Escalante 1988; Gurrola 2005; Muchembled 2010; Álvarez 2012). These works have focused on internal and verbal possession, and they have shown that the notion of (in)alienability is not a grammatical category (i.e. it is not obligatorily marked). Previous studies did not document the existence of external possession.

The aim of this paper is twofold. First, it seeks to build upon previous works by presenting some semantic correlations based on corpus data. Second, it aims to introduce external possession as a valid and productive construction in Yaqui grammar. We will confirm that internal and verbal possession can express virtually any possessive relation, whereas external possession is most prominent with body parts. Internal and verbal possession show the expected structural properties, but external possession reveals some interesting patterns of argument coding: the possessee can take accusative or locative marking, while the possessor can be marked as nominative, accusative, dative or locative. In Yaqui, dative and locative are marked by locative postpositions, so they correspond to oblique arguments. Regardless of the morphological coding, the external possessor functions as a semantic core argument of the verb, but has limited syntactic privileges, i.e., it cannot serve as a passive subject. Therefore, unlike typical external possessive constructions that involve the morphosyntactic ‘promotion’ of the possessor, Yaqui constructions prefer the ‘demotion’ of both the possessor and the possessee.

The information is organized as follows. §2 lays out the basic morphosyntactic features of the language, §3 briefly introduces the notion of possession, and §4 offers an overview of typical possessive constructions in Yaqui and introduces the corpus. §5 is organized in three sections; §5.1 presents the external possessive constructions (applicative, nominative, splitting), §5.2 examines their semantic properties, and §5.3 discusses their syntactic characteristics. §6 offers some final thoughts.

¹ Yaqui (ISO: yaq) is a Southern Uto-Aztecan language spoken in Sonora, Mexico, and Arizona, US; this study is based on the Sonoran variety. I thank two anonymous reviewers and the associate editor of AMERINDIA for their useful comments and suggestions. The study was partially supported by the UNAM-DGAPA-PAPIIT (IN400919) and Conacyt (A1-S-24378) grants.

2. The Yaqui language

Yaqui is an agglutinating, accusative, dependent-marking, verb-final language; except for a few suppletive forms, verbs are not inflected for person or number (Lindenfeld 1973; Dedrick & Casad 1999; Guerrero 2006 and henceforth). There is a rigid SOV word order, though other orders are possible for specific pragmatic functions. The language distinguishes direct core arguments (nominative, accusative) from oblique core arguments. Direct and oblique core arguments are semantically required by the verb. In nominals, the nominative is unmarked $-\emptyset$ (1a-b), and the accusative is marked by $-ta$ (1b); the accusative $-ta$ and the plural $-(i)m$ are mutually exclusive (1c). When present, determiners also take case markers: $-\emptyset$ for nominative, $-ka$ for accusative, $-e$ for oblique, and $-me$ for plurals.²

- (1)a. *u- \emptyset o'ou- \emptyset batwe-u yeu=siika*
 DET-NOM man-NOM river-DIR out=go.SG.PFV
 'The man went to the river.'
- b. *u- \emptyset o'ou- \emptyset u-ka kari-ta bicha-k*
 DET-NOM man-NOM DET-ACC house-ACC see-PFV
 'The man saw the house.'
- c. *aapo u-me toto'im-im jinu-k*
 3SG.NOM the-PL chicken-PL buy-PFV
 'He/She bought the chickens.'

Oblique core arguments are marked by postpositions.³ In addition to the goal of motion verbs (1a), the directional $-u$ 'to' marks several semantic roles

² Abbreviations: ACC: accusative, APPL: applicative, CLM: clause linkage marker, CPLM: completive, DEM: demonstrative, DET: determiner, DESID: desiderative, DIR: directional, DM: discourse marker, GEN: genitive, IMPF: imperfective, INST: instrument, INT: intensifier, INTRA: intransitive, LOC: locative, LOCC: contact-locative, NEG: negation, NOM: nominative, OBL: oblique, PASS: passive, PFV: perfective, PL: plural, POSS: possessive, POT: potential, PRE: present, PSTC: past continuative, RED: reduplication, RES: resultative, SG: singular, STA: stative, TRA: transitive.

³ For a better understanding of case marking and grammatical relations, see Guerrero (2006, 2017, 2019a, b). For instance, the suffix $-ta$ marks several syntactic functions including the object of several transitive verbs, the beneficiary of some ditransitive verbs, the subject of subordinate clauses, the complement of some postpositions, as well as some cases of internal possession. Although Lindenfeld (1973) suggested the term 'dependency marker', $-ta$ is generally glossed as accusative in Yaqui grammar. $-u$ is labeled 'dative-like' because it satisfies some but not all properties of dative case; it marks semantic arguments associated to directional roles such as goal, interlocutor and recipient, but also location and source. Furthermore, some postpositions mark their complement as nominative, e.g. the locative $-po$ (2c), others mark it as accusative, e.g. *mak* 'with' (9a), and others alternate between the two, e.g., the directional $-u$ (1a, 2a), and the locative $-t$ (2b). In the last case, the suffix $-ta$ is mandatory when the complement is animate.

typically associated with dative case in many languages, including the interlocutor, experiencer, or stimulus of verbs that translate as *talk to*, *miss*, *remember*, *forgive*, *be angry at* (2a), i.e. dative-like marking. However, *-u* is not the default coding for oblique core arguments. Verbs like *shout*, *know about*, *envy/be jealous*, *believe* mark the same argument with the ‘contact’ postposition *-t* ‘at, over’ (2b); verbs expressing sickness mark the patient with the general postposition *-po* ‘on’ (2c), though some verbs denoting disease or protuberances from a human body may use *-t* (2d). Oblique pronominal arguments are translated into Spanish with the dative clitic.

- (2)a. *Lupe-∅ Joan-ta-u waate-∅*
 Lupe-NOM John-ACC-DIR miss-PRE
 ‘Lupe misses John.’ (Sp. *le extraña*)
- b. *inepo Peo-ta-t e’a-∅*
 1SG.NOM Peter-ACC-LOCC believe-PRE
 ‘I believe in Peter.’ (Sp. *le cree*)
- c. *Loola-∅ ousi tom-po wante-∅*
 Lola-NOM a_lot stomach-LOC feel.pain-PRE
 ‘Lola’s stomach aches.’ (Sp. *le duele el estómago*)
- d. *tampa’i-m ne-t yeu=weye*
 wisdom_teeth-PL 1SG.OBL-LOCC out=go.SG.PRE
 ‘My wisdom teeth are coming in.’ (Sp. *me están saliendo las muelas del juicio*)

There are three classes of ditransitive verbs depending on the morphological marking of the third argument. Verbs like *bittua* ‘send’ (3a) mark the recipient/beneficiary with *-u*, i.e., dative-like marking; verbs of putting and removing (3b) mark the location with *-po* or *-t*, i.e., locative marking; verbs like *maka* ‘give’ mark the beneficiary with *-ta* (3c), i.e., primary-object marking. Multiple-accusative constructions are very common in Yaqui (Guerrero & Van Valin 2004). In the causative clause in (3d), the causee, the theme and the recipient all take accusative case.

- (3)a. *bempo u-ka toto’i-ta u-e jamut-ta-u bittua-k*
 3PL.NOM DET-ACC hen-ACC DET-OBL woman-ACC-DIR send-PFV
 ‘They sent the hen to the woman.’
- b. *u-∅ jamut-∅ librom mesa-t to’a-k*
 DET-NOM woman-NOM book.PL table-LOCC lay.down.PL-PFV
 ‘The woman put the books all over the table.’
- c. *bempo u-ka toto’i-ta u-ka jamut-ta maka-k*
 3PL.NOM DET-ACC hen-ACC DET-ACC woman-ACC give-PFV
 ‘They gave the hen to the woman.’

- d. *Peo-Ø usi-ta mansana-ta yoem-ta miik-tua-Ø*
 Peter-NOM child-ACC apple-ACC man-ACC give-cause-PRE
 ‘Peter made/let the child give the man the apple.’

In §5, we will see that within external possessive constructions (EPCs), the possessor and the possessee can both be coded as direct and oblique core arguments.

3. Possessive constructions

Possession is a semantic concept that involves two participants, namely the possessor and the possessee. On the semantic side, possession is a vaguely-defined notion that embraces different semantic associations (Heine 1997; Stolz *et al.* 2008; McGregor 2009):

- Closest, permanent, and most inherent relationships
 - Kinship terms: blood relations (*parents, children*); social and cultural relations (*wife, friends*)
 - Body parts: human, animal, plant parts (*head, face, liver*); physical features, sickness
 - Part-whole: a component of an inanimate entity (*house’s door, the lid of the pot*)
 - Location: an entity’s side (*the bottom of the pot*), a place (*my town*), the location of an entity (*there is a stone in the beans, the beans have stones*)
- Less close, temporary, and less inherent possessive relationships
 - Associative: a conventional/cultural nexus between a person/object and a position, work or religious situation (*her mourning, John’s culture, my boss*)
 - Ownership: animals, physical and other properties (*dog, house, clothes, money, food*)

On the morpho-syntactic side, there are, at least, three primary strategies to code a possessive relationship (Stassen 2009):

- *Internal possession*: the possessor and the possessee form a single constituent, e.g. possessive pronouns (*my dog*), genitive phrases (*John’s dog; the dog of John*)

- *Verbal possession*: a clause with a possessive verb, e.g. a possessor-oriented verb (*I have a dog*) or a possessee-oriented verb (*the dog belongs to me*)
- *External possession*: the possessor and the possessee belong to two constituents, and there is no possessive verb, e.g. dative possessor clauses (*me rompí el brazo* ‘I broke my arm’)

While the prototypical relations involve two participants with different specifications of animacy and agentivity (Stolz *et al.* 2008), the core meanings of possessive constructions include ownership, whole-part, and kinship relationships (Aikhenvald 2013). Many languages distinguish between inalienable possession and alienable possession, where the former is associated with the most inherent relations (kinship, body part, whole-part), and the latter with the less inherent relations. (Legal) ownership is thought to be the most canonical case of possession since the possessor is in control of the possessed thing, e.g. *Peter has/owns a motorcycle*, but **Peter has/owns his head* (Chappell & McGregor 1996).

4. Yaqui possessive constructions, an overview

Yaqui has several types of possessive constructions. Previous studies have described internal and verbal possession (§4.1) from synchronic (Jelinek & Escalante 1988; Gurrola 2005), diachronic (Álvarez 2012) and comparative (Muchembled 2010) perspectives. Our aim here is to complement previous works with semantic observations based on corpora (§4.2).

4.1. Typical possessive constructions

There are three types of internal possessive constructions (IPCs): juxtaposition (4), possessive phrases (5) and genitive phrases (6). The possessee is always a noun. In possessive phrases, the possessor is coded by a free pronoun; in genitive phrases, the possessor is coded by a noun and it is marked by the suffix *-ta* (an expected feature in dependent-marking languages). Notice that the regular order within IPCs is possessor-possessee.⁴ In the examples, the possessor is in bold.

⁴ Yaqui is strongly (OV) nucleus-final, so the possessee occurs at the end of the phrase in IPC.

- | | | | | | |
|-------|-------------------------|-------------------|-----------|-----------|---------------------|
| (4)a. | <i>juya</i> | <i>buja-m</i> | tree | branch-PL | ‘tree’s branch’ |
| b. | <i>waka</i> | <i>beea</i> | cow | skin | ‘cow’s skin’ |
| c. | <i>te’opo</i> | <i>chaka’aria</i> | church | flank | ‘church’s flank’ |
| (5)a. | <i>in a’e</i> | | | | ‘my mother’ |
| b. | <i>em koba</i> | | | | ‘your (SG) head’ |
| c. | <i>a jo’a</i> | | | | ‘his/her home’ |
| d. | <i>itom pweplum</i> | | | | ‘our town’ |
| e. | <i>enchim kujteerim</i> | | | | ‘your (PL) courage’ |
| f. | <i>bempo’im ya’ut</i> | | | | ‘their boss’ |
| (6)a. | <i>uusi-ta</i> | <i>yeka</i> | child-ACC | nose | ‘the child’s nose’ |
| b. | <i>Maria-ta</i> | <i>luutu</i> | Mary-ACC | grief | ‘Mary’s grief’ |
| c. | <i>pueblo-ta</i> | <i>wayoa</i> | town-ACC | shore | ‘the town’s shore’ |

In several languages, if the possessor is the speaker or a speech act participant, the structure is more “closely knit” (Aikhenvald 2013: 10). In Yaqui, 1st and 2nd persons make use of simple possessive pronouns, but the 3rd person can be coded by different possessive phrases and genitive phrases. Thus, there is a simple pronoun in (7a), a long/emphatic pronoun in (7b), a general possessive pronoun *-wa* in (7c), and a simple pronoun and *-wa* in (7d); (7e) depicts a genitive phrase (7e), and (7f) a genitive phrase followed by a possessive phrase, i.e., multiple-making.⁵

- | | | |
|-------|--------------------------|----------------------------|
| (7)a. | <i>a kari</i> | ‘his/her house’ |
| b. | <i>apo’ik kari</i> | ‘his/her house’ |
| c. | <i>kari-wa</i> | ‘his/her house’ |
| d. | <i>a kari-wa</i> | ‘his/her house of him/her’ |
| e. | <i>Joan-ta kari</i> | ‘John’s house’ |
| f. | <i>Joan-ta a kari-wa</i> | ‘his house of John’ |

Yaqui also has three possessor-oriented verbs: *-(e)k* directly attached to the possessed entity (8a), *jippue* (8b) and *atte’ak* (8e). The last two take the possessor as the nominative subject and the possessee as the accusative object.

- | | | | | | |
|-------|---|-------------------|------------|-----------|--------------------|
| (8)a. | <i>Junama</i> | <i>Wa’imam-po</i> | <i>ket</i> | <i>ne</i> | <i>wawae-k-an</i> |
| | there | Guaymas-LOC | also | 1SG.NOM | relative-have-PSTC |
| | ‘There in Guaymas, I had some relatives.’ | | | | |

⁵ Notice that the possessive pronoun *-wa* marks the possessed noun, a feature found in head-marking languages.

- b. *into juna-me bea moream ket jippue-Ø*
 DM DEM-PL DM moream.PL also have-PRE
 ‘And they also have the *moream* [a type of wisdom]’
- c. *u-ka guitarra-ta Ivan-Ø atteak*
 DET-ACC guitar-ACC Ivan-NOM own
 ‘Ivan owns that guitar.’

4.2. Possessive constructions in the corpus

The corpus discussed here consists of a large and diverse collection of data that includes spontaneous and semi-spontaneous data, as well as data from direct elicitation. The spontaneous data (40%) come from oral texts including folk stories, life stories, and conversation. The semi-spontaneous data (47%) was obtained in the field to document linguistic phenomena unrelated to possession; this group includes examples from the Yaqui-Spanish dictionary (Estrada *et al.* 2004), and well-known visual stimuli used in field work (motion, locative/posture, put/take, and cut/break verbs; the frog story, and the pear story).⁶ Data from direct elicitation (13%) were also collected to corroborate specific issues. Table 1 shows some preliminary correlations. As expected, internal and verbal possession are the most common constructions present in the corpus, but there is also a third type: external possession (§5). Not only are all three construction types valid strategies within spontaneous, semi-spontaneous and direct elicitation data, but they also occur with similar frequency. For instance, possessive pronouns and the possessive verbs *-k* and *jippue* are the preferred structures. Furthermore, although kinship and body parts can be unpossessed (9), this zero marking is unusual, suggesting that typical inalienable nouns do prefer to appear within a possessive construction. There are fewer instances of external possession; this may explain why this construction went unnoticed until now.

- (9)a. *apa-ta-mak yebij-bae, in maala-Ø*
 father-ACC-with arrive.SG-DESID 1SG.POSS mother-NOM
 ‘With respect to my mother, she will arrive with [your] father.’
- b. *Peo-Ø gokim-mea juya-ta na'ikimte-Ø*
 Peter-NOM foot.PL-INST.PL branch-ACC separate-PRE
 ‘Peter separates the branches with [his] feet.’

⁶ See the reference to the stimuli at the end of the paper.

	Possessive constructions	Spontaneous	Semi-spontaneous	Direct	Total
internal (63%)	Juxtaposition	13	96	7	116
	Possessive phrases	333	194	34	561
	Genitive phrases	30	59	15	104
verbal (24%)	Possessive verb <i>-(e)k</i>	38	82	25	145
	Possessive verb <i>jippue</i>	30	70	24	124
	Possessive verb <i>atte'ak</i>	7	4	13	24
external (11%)	Nominative possessives	5	23	1	29
	Applicative possessives	9	22	22	53
	Splitting possessives	10	32	16	58
zero (2%)	Kinship and body parts	9	2	10	21
		484	586	167	1235

TABLE 1. Yaqui possessive constructions (corpus)

All possessive constructions can express virtually any possessive relationship, but there are some restrictions (Table 2). On the one hand, internal possession and the verb *-(e)k* serve as general constructions since they combine with both inalienable and alienable nouns. As first mentioned by Jelinek & Escalante (1988), *jippue* cannot express the closest kinship relations (e.g. with parents, daughters, sons), but in oral texts it is possible to find examples expressing ‘having a child under custody’ or kinship terms outside the core family (10a). On the other hand, *atte'ak* may code an emphatic inalienable relation (10b). The regular use of *atte'ak* is to express legal ownership of physical objects and a few domestic animals.

(10)a. *ite=into itom papa_yo'o-ta jippue-n*
 IPL.NOM=DM IPL.POSS papa_old-ACC have-PSTC
 ‘And we had our grandfather.’

b. *ini'i jamut asoa-ta empo atte'ak*
 DEM woman son-ACC 2SG.NOM own
 ‘That woman’s son is yours.’ (lit. you own the woman’s son)

Possessive Constructions	Possessive relationships						Total
	kinship	body part	part-whole	locative	associative	ownership	
Juxtaposition	6	30	51	17	4	8	116
Possessive phrases	325	65	-	23	38	110	561
Genitive phrase	28	34	3	2	9	28	104
Possessive verb <i>-(e)k</i>	33	45	10	20	17	20	145
Possessive verb <i>jippue</i>	11	46	-	5	16	46	124
Possessive verb <i>atte'ak</i>	4	1	-	-	-	19	24
Nominative possessives	-	29	-	-	-	-	29
Applicative possessives	2	27	3	-	-	21	53
Splitting possessives	-	54	2	-	-	-	58
Zero marking	1	20	-	-	-	-	21
	410	353	69	67	84	252	1235

TABLE 2. Yaqui possessive constructions and possessive relations

The distribution shown in Table 2 suggests that Yaqui does not consistently follow the expected form-function relationships in alienability contrast (Haiman 1983; Haspelmath 2006). That is, kinship terms prefer possessive pronouns over genitive phrases but not over juxtaposition or zero marking. Body parts combine with most possessive constructions regardless their morphological coding. In fact, external possession -the most complex coding- is mostly constrained to inherently possessed body parts.

5. External possession in Yaqui

External possession constructions (EPCs) include any construction in which a noun is coded as a constituent of a verb but semantically understood as the possessor of another argument. That is, the possessor and the possessee serve as two independent constituents and there is no possessive verb. EPCs can involve noun incorporation, applicative morphemes, ‘raising’, or possessee demotion (Payne & Barshi 1999; Haspelmath 1999). Based on the coding of the external possessor (EP), three EPCs have been identified in Yaqui:⁷ applicative, nominative, and ‘splitting’. The description begins with the most regular type, and then continues with the more complex structures. In

⁷ Álvarez (2012) mentions two types of EP constructions: the applicative EPC (originally presented in Guerrero 2007), and the stative EPC in (i-ii). There are no examples of stative EPCs in my sample.

(i)	<i>[Peo-ta kari]-Ø</i>	<i>ya'a-la</i>	(ii)	<i>Peo-Ø</i>	<i>kari-ta</i>	<i>ya'a-la</i>
	Peter-GEN house-NOM	build-RES		Peter-NOM	house-ACC	build-RES
	‘Peter’s house is built.’			‘Peter has the house built.’		

the examples, the possessor and the possessee are in brackets, and the possessor is in bold.

5.1. Yaqui external possessive constructions

Applicative possession. In an applicative clause, an adjunct or oblique core argument is coded as a direct core argument. In (11a), the beneficiary is marked by the postposition *-betchi'ibo* 'for'. In the applicative version in (11b), the morpheme *-ria* is added to the verb and the beneficiary is coded as an accusative argument, i.e., a double-accusative construction.

- (11)a. *Aurelia-Ø u-ka wakabak-ta joa-k Goyo-ta-betchi'ibo*
 Aurelia-NOM DET-ACC wakabaki-ACC cook-PFV Goyo-ACC-for
 'Aurelia cooked the wakabaki soup for Goyo.'
- b. *Aurelia-Ø Goyo-ta u-ka wakabak-ta joa-ria-k*
 Aurelia-NOM Goyo-ACC DET-ACC wakabaki-ACC cook-APPL-PFV
 'Aurelia cooked Goyo the wakabaki soup.'

There are examples of applicative EPCs in my corpus. In (12a), *pitta* 'squash' takes three arguments: agent, theme and location; the theme 'my fingers' exemplifies an IPC. In the applicative version in (12b), the EP is coded as an independent accusative argument. In this EPC version, there is an additional direct core argument, the accusative possessor *nee*. Note that the word order for the possessor and the possessee is different from the one attested in the IPC.

- (12)a. *aapo [in mam-pusiam] pueta-po pitta-k*
 3SG.NOM 1SG.POSS hand-finger.PL door-LOC squash-PFV
 'He/She squashed my fingers in the door.'
- b. *aapo [mam-pusiam] [nee] pueta-po pitta-ria-k*
 3SG.NOM hand-finger.PL 1SG.ACC door-LOC squash-APPL-PFV
 'He/She squashed my fingers in the door.' (lit. squashed me the fingers)

In addition to body parts (13a), applicative EPCs may involve kinship (13b), part-whole (13c), and close ownership (13d) including domestic animals, water, money, garments, cars, and kitchen artefacts. Occasionally, a kin's possessor may be coded twice, externally and internally (13b), but the obligatory coding is the accusative EP. The examples in (13b-c) illustrate that other syntactic arguments can appear between the possessor and the possessee, i.e., they are two separate constituents.

- (13)a. *bea [koba-ta] [a] wik-ria-k*
 DM head-ACC 3SG.ACC cut-APPL-PFV
 ‘And then, [the other boy] cut him on the head.’
- b. *Yookooni-Ø [in huubi] [nee] etbwa-ria-k*
 Yookoni-NOM 1SG.POSS wife 1SG.ACC steal-APPL-PFV
 ‘The Yookoni stole my wife from me.’ (lit. stole me my wife)
- c. *[karo-ta]=te [maniam] tu’ute-ria-k*
 car-ACC=1PL.NOM brake.PL fix-APPL-PFV
 ‘We fixed the car’s brakes.’ (lit. fixed the car the brakes)
- d. *[soto’i-ta]=ne [jamut-ta] jamta-ria-k*
 pot-ACC=1SG.NOM woman-ACC break-APPL-PFV
 ‘I broke the woman’s pot.’ (lit. broke the pot the woman)

Nominative possession. Nominative EPCs involve two-place predicates but, unlike verbal possession in (8b-c), they do not form typical transitive clauses: the possessor serves as the nominative subject, but the possessee is marked by the locative postposition *-po* (14a), i.e., it is an oblique core argument. The nominative EPC is common with injury verbs, so the possessee must be a body part.⁸ The nominative subject and the locative possessee must be coreferential.

- (14)a. *[u-Ø ili uusi-Ø] [pujba-po] witta-Ø*
 DET-NOM little child-NOM face-LOC scratch-PFV
 ‘The child is scratching [his] face.’ (lit. scratches on the face)
- b. *[goi tonom-po]=[ne] jeokte-k*
 two knee.PL-LOC=1SG.NOM scrape-PFV
 ‘I scraped both my knees.’ (lit. on both knees scraped)

Nominative EPCs do not have an IPC counterpart; compare (15a-b). There is also a restriction against adding a co-referential dative pronoun (15c). These constraints are exclusive to this EPC type. The example in (15d) demonstrates that possessed nouns other than body parts can occur within an IPC in object position; the example in (15e) shows that possessive pronouns do occur with oblique arguments as well as adjuncts.

- (15)a. *[Lupe-Ø] [mam-po] taja-k*
 Lupe-NOM hand-LOC burn-PFV
 ‘Lupe burned [her] hand.’ (lit. burned on hand)

⁸ These verbs require two core arguments but not a possessor-possessee relationship, e.g. ‘The child scratched the paper/your face’. When inherent possession is present, then a nominative EPC occurs.

- b. **[Lupe-Ø_i] [a_i mam-po] taja-k*
 Lupe-NOM 3SG.POSS hand-LOC burn-PFV
 ‘Lupe burned [on] her hand.’
- c. **[Lupe-Ø_i] [mam-po] [a-u_i] taja-k*
 Lupe-NOM hand-LOC 3SG.OBL-DIR burn-PFV
 ‘Lupe burned her on the hand.’
- d. *inepo [a kari] taja-k*
 1SG.NOM 3SG.POSS house burn-PFV
 ‘I burned his house.’
- e. *u-Ø lakron-Ø in jo’a-u kibake-k a joiwai-ta-mak*
 DET-NOM thief-NOM 1SG.POSS house-DIR enter.SG-PFV 3SG.POSS friend-ACC-with
 ‘The thief got into my house with his friend.’

‘Splitting’ possession.⁹ In the EPCs below, there is no valency morpheme (like applicative EPCs), and the nominative subject does not need to be coreferential with the possessor (like nominative EPCs), and yet the possessor and the possessee belong to different constituents. Two additional features distinguish splitting EPCs from the first two. First, the possessee can be marked accusative (16a), but it generally takes a locative marking. Second, the coding of the possessor varies: it can be marked as accusative (16), dative-like *-u* (17), or locative *-t* (18).

- (16)a. *junaman into ori bisitleta-Ø ori [chao-ta] [a] chukta-k*
 there DM DM bicycle-NOM DM beard-ACC 3SG.ACC cut-PFV
 ‘And there, a bicycle cut his beard.’ (lit. cut him the beard)
- b. *u-Ø lakron-Ø [toma-po] [enchi] muju-k*
 DET-NOM thief-NOM stomach-LOC 2SG.ACC shoot-PFV
 ‘The thief shot you in the stomach.’
- (17) *u-Ø jamut-Ø_i kooka-ta [kutanaa-po] [a-u_i] u’ura-k*
 DET-NOM woman-NOM necklace-ACC neck-LOC 3SG.OBL-DIR take-PFV
 ‘The woman took off the necklace on her neck.’ (lit. took it on the neck to her)
- (18)a. *u-Ø baiseebolim-Ø [mam-po] [ne-t] yejte-k*
 DET-NOM butterfly-NOM hand-LOC 1SG.OBL-LOCC stand-PFV
 ‘The butterfly stood on my hand.’ (lit. it stood on the hand on me)
- b. *u-Ø yoeme-Ø in tu’ule-’u [man-po] [ne-t] tajte-Ø*
 DET-NOM man-NOM 1SG.POSS like-CLM hand-LOC 1SG.OBL-LOCC touch-PRE
 ‘The man that I like is touching my hand.’ (lit. touches on the hand on me)

⁹ I adopt the term ‘splitting’ (König 2001) in order to capture the diverse morphological coding of Yaqui external possessors. As we will see below, these EPCs show different morphosyntactic properties not captured by typical dative, raising or promotion EPC types.

Although a double-accusative splitting EPC is possible (16a), this is very unusual in my sample; the most common situation involves an oblique possessor and an oblique possessee (Table 4 below). Depending on the semantic valence of the verb, an accusative theme may also occur, as in (17). The rest of the paper examines the semantic and syntactic properties of EPCs.

5.2. Semantic properties

Yaqui EPCs satisfy several semantic features listed in the literature for typical external possession. On the one hand, there is a human possessor as the primary experiencer (Seiler 1983; Schaefer 1999; Stolz *et al.* 2008); applicative EPCS may allow inanimate possessors when there is a part-whole relation (13c). On the other hand, EPCs are prominent within the ‘personal’ domain, especially body parts (Haspelmath 1999; Velázquez-Castillo 1999; Lødrup 2009; Van de Velde 2010). Table 3 shows the possessive relationships involved in EPCs.

	EP	kinship	body-part	part-whole	ownership	Total
Nominative possessives	NOM-Ø		29	-	-	29
Applicative possessives	ACC- <i>ta</i>	2	27	3	21	53
Splitting possessives	ACC- <i>ta</i>		20	2		22
	DAT- <i>u</i>		5			5
	LOC- <i>t</i>		31			31
		2	112	5	21	140

TABLE 3. External possessors and possessive relationships

In Yaqui, body parts can function as subjects, objects, obliques, and adjuncts. While IPCs with body parts in subject position are unproblematic (19a), the same structure is strongly disfavored in object position; for some consultants, (19b) and (19d) are ungrammatical. In this context, my consultants prefer the EPC variants in (19c) and (19e), respectively.

(19)a. [*em* *gokim*] *si* *bwe'ere*
 2SG.POSS foot.PL INT big
 ‘Your foot is too big.’

b.# *u-Ø* *chu'u-Ø* [*em* *gokim*] *ke'e-ka*
 DET-NOM dog-NOM 2SG.POSS foot.PL bite-PFV
 ‘The dog bit your foot.’

- c. *u-∅* *chu'u-∅* [*gok-po*] [*enchi*] *ke'e-ka*
 DET-NOM dog-NOM foot-LOC 2SG.ACC bite-PFV
 'The dog bit you on the foot.'
- d. **Ba'a* *chaktia-∅* [*nim* *koba-po*] *kom* *weche-k*
 water drop-NOM 1SG.POSS head-LOC down fall-PFV
 'A drop of water fell down on my head.'
- e. *ba'a* *chaktia-∅* [*koba-po*] [*ne-t*] *kom* *weche-k*
 water drop-NOM head-LOC 1SG.OBL-LOCC down fall-PFV
 'A drop of water fell down on my head.' (lit. fell down on me on the head)

Previous studies have argued that the possessor of a body part is too strongly affected to be left in situ (Wierzbicka 1988; Velázquez-Castillo 1999). Thus, a body part's EP can be motivated by *relevance* in terms of affecting/affectedness (Shibatani 1994), beneficially/adversely affected (Croft 1994), or the affectedness condition proposed by Haspelmath (1999). These motivations suggest that the animate possessor is also a beneficiary or affected participant, and that the event's effect on part of a person does have an equal effect on the person as a whole.

5.3. Morpho-syntactic properties

The Yaqui data do not correlate with well-known dative EPCs found not only in European languages (Payne & Barshi 1999), but also in North American and Mesoamerican languages (Palancar & Zavala 2013). In typical dative EPCs, there is an accusative possessee and an indirect object or dative possessor, e.g. *le corté el pelo* 'I cut his/her hair'. On one hand, we have seen that the coding of the possessee varies in Yaqui. As shown in Table 4, applicative EPCs usually take an accusative (direct) possessee, but nominative and splitting EPCs demand a locative (oblique) possessee. On the other hand, the possessor can be coded as a nominative subject, an accusative argument marked by *-ta*, or an oblique argument marked by *-u* and *-t*.

	EP	ACC possessee	LOC possessee	Total
Applicative possessives	ACC- <i>ta</i>	52	2	53
Nominative possessives	NOM-∅	-	29	29
Splitting possessives	ACC- <i>ta</i>	4	18	22
	DAT- <i>u</i>	1	4	5
	LOC- <i>t</i>	1	30	31
		58	82	140

TABLE 4. Morphological coding of external possessors and possessee

The grammatical coding of the possessee is due to the EPC, not to the meaning of the verb. Verbs like *beba* ‘hit’ and *bicha* ‘see’ take accusative themes in simple clauses (20a) and (20c). Once again, when the theme involves a body part, there is an EP and a locative possessee like in (20b) and (20d), respectively. In my sample, body parts cannot be introduced by a determiner.

- (20)a. *Joan-Ø u-ka soto`i-ta beba-k*
 John-NOM DET-ACC pot-ACC hit-PFV
 ‘John hit the pot.’
- b. *Joan-Ø [koba-t] [a] beba-k*
 John-NOM head-LOCC 3SG.ACC hit-PFV
 ‘John hit his head.’ (lit. hit him on the head)
- c. *u-Ø yoi_jitebi-Ø ili uusi-ta bicha-k*
 DET-NOM yori_doctor-NOM little child-ACC see-PFV
 ‘The white doctor saw the child.’
- e. *u-Ø yoi_jitebi-Ø [toma-po] [a] bichu-k*
 DET-NOM yori_doctor-NOM stomach-LOC 3SG.ACC see.CMPL-PFV
 ‘The white doctor examined his stomach.’ (lit. saw him on the stomach)

The coding of the possessee within a PP is known as ‘possessum demotion’ because the accusative possessed noun is ‘demoted’ to a non-direct status, i.e., it takes oblique case marking and has reduced behavioral properties (see below). The locative possessee can be interpreted directly ‘as indicating the more specific place of which the predicate is true’ (Haspelmath 1999: 121).

With respect to the EP, it functions as accusative argument (53%), intransitive subject (21%) and oblique argument (26%); the last group contains dative-like and locative marking. However, the closest dative EP marked by *-u* is uncommon (five cases in the sample) and it occurs when the subject and the possessor are co-referential (21a); when they are not co-referential, accusative or locative marking must be used (21b).

- (21)a. *ili uusi-Ø; [gok-pusiam-po] jaiti [a-u]; ya`a-k*
 little child-NOM foot-finger.PL-LOC dirty 3SG.OBL-DIR make-PFV
 ‘The little child made his toes dirty.’ (lit. made him dirty on the foot fingers)
- b. *[chu`u-ta gokim-po] jittoa-ta=ne [a-et]; ya`a-k*
 dog-ACC foot-LOC ointment-ACC=1SG.NOM 3SG.OBL-LOCC make-PFV
 ‘I put ointment on the dog’s foot.’ (lit. made ointment the dog’s foot on him)

The morphological coding of the EP may be influenced by the meaning of the verb. Thus, accusative EPs are usually associated with causative verbs that imply physical alteration, such as *cut, burn, break, hit, bite, peck, twist, scratch*, but also *see/examine, wash, take care*. Locative EPs are related to position or change-of-position verbs including *tie up, hang up, put, take, sit, stand, fall*, as well as *touch, keep, massage, get out/appear, jump*, and *splash*. Accordingly, accusative EPs seem to highlight the notion of affectedness, while locative EPs emphasize the sense of an affected sub-region of the possessor. Still, a couple of predicates may alternate, as depicted in (21). Note also that none of these verbs demand a possessor as a core argument (recall (19) and (20)); the first group demands an accusative argument in simple clauses, and the second group requires a locative argument (but not two) usually marked by *-po* (rarely *-t*).

In the field, I asked my consultants whether the possessee or the possessor may be left implicit. This is possible only with splitting EPCs taking an accusative possessor and an accusative theme (4 cases in my sample). With verbs like *muju* ‘shoot’ (22a) and *ke’e* ‘bite’ (22b), the locative possessee may not be specified, and the accusative possessor refers to an affected entity as a whole.¹⁰ However, the metonymic interpretation is syntactically and/or pragmatically odd with dative-like and locative possessors:

- (22)a. *u-Ø lakron-Ø [enchi] muju-k* (=16b)
 DET-NOM thief-NOM 2SG.ACC shoot-PFV
 ‘The thief shot you.’
- b. *u-Ø chu’u-Ø [nee] ke’e-ka* (=19b)
 DET-NOM dog-NOM 1SG.ACC bite-PFV
 ‘The dog bit me.’
- c. **u-Ø jamut-Ø_i kooka-ta [kutanaa-po] u’ura-k* (=17)
 DET-NOM woman-NOM necklace-ACC neck-LOC take-PFV
 ‘The woman took off the necklace from [her] neck.’

¹⁰ Payne & Barshi (1999: 7) claimed that *the dog bit him on the leg* is not a (raising) EPC in English, since ‘the dog bit him’ is a complete sentence and ‘in the leg’ just further refines the location at which the Undergoer was affected. As suggested by a reviewer, it may be the case that (16b) and (19b) are not instances of EPC because the possessed entity can be omitted, and it can undergo passivization (see (27) below) when other EPCs cannot. This may also explain the fact that double-accusative EPCs (outside applicative ones) are infrequent (Table 4).

- c'. **u-∅* *jamut-∅_i* *kooka-ta* [*a-u*]_i *u'ura-k*
 DET-NOM woman-NOM necklace-ACC 3SG.OBL-DIR take-PFV
 'The woman took off the necklace on her.' (but ok if not co-referential)
- d. *u-∅* *yoeme-∅* [*man-po*] *tajte-∅* (=18b)
 DET-NOM man-NOM hand-LOC touch-PRE
 'The man touches his hand.' (= the man's hand)
- d'. #*u-∅* *yoeme-∅* [*ne-t*] *tajte-∅*
 DET-NOM man-NOM 1SG.OBL-LOCC touch-PRE
 'The man touches me.' (lit. touches on me)

Direct and oblique core arguments share some but not all syntactic privileges. The two core arguments (but not adjuncts) have access to relativization and cliticization when the NP is extraposed, but only direct core arguments can serve as a passive subject (Guerrero & Van Valin 2004; Belloro & Guerrero 2010; Guerrero 2019a). In Yaqui, extraposition can be to the right and to the left. Extraposed NPs differ formally and pragmatically from those constructions showing canonical word order. When the nominative subject follows the verb, nothing happens (23a). When an accusative argument occurs post-verbally (23b), two properties must be satisfied: the extraposed NP must be a definite NP, and a clitic pronoun must occur clause-internally (determiners become obligatory when the NP appears detached). When an oblique core argument is extraposed, the same restrictions apply (23c).

- (23)a. *yeu=siika-ne'e* *ju'u-∅* *demonio-∅*
 out=go.SG.PFV-fly DET-NOM demon-NOM
 'He left flying, that demon.'
- b. *aapo* *jiba* *a_i* *bitchu-k*, *u-ka'a* *jamut-ta_i*
 3SG.NOM always 3SG.ACC watch-PFV DET-ACC woman-ACC
 'He watched her all the time, the woman.'
- c. *aman* *a-u_i* *yepsa-k*, *u-e* *kaba'i-ta-wi_i*
 over.there 3SG.OBL-DIR arrive.SG-PFV DET-OBL horse-ACC-DIR
 'He arrived over there to it, to the horse.'

In the sample, there are a few examples of extraposition involving a possessor-possessee relation. In (24a), the accusative possessee is extraposed to the left, and then there is a clitic pronoun co-indexed to it; in (24b), the accusative possessor is extraposed and the clitic is also present. However, when a locative possessee is extraposed, there is not a coreferential clitic (24c-d). In the sample, oblique EPs are pronominal, and

so they cannot be extraposed. More data is need with respect to oblique EPs and extraposition.

- (24)a. [*ju-ka kaba'i-ta*]_i *bato'im [nee] a_i=bwa'a-su-ria-k*
 DET-ACC horse-ACC people.PL 1SG.ACC 3SG.ACC=eat-CMPL-APPL-PFV
 'With respect to the horse, the people eat it.' (lit. eat me the horse)
- b. [*ili usi-ta*]_i [*taka-t*] *si esukwam-∅ a_i=yeu saja-k*
 little child-ACC body-LOCC INT rash-NOM 3SG.ACC=out go.PL-PFV
 'The rash came out on the child's body.' (lit. come out at the body the child)
- c. [*mam pusiam-po*] *yoeme-∅ [a-u] chukta-ka si ojbo*
 hand finger.PL-LOC man-NOM 3SG.OBL-DIR cut-CLM INT blood
 'When the man cut his finger, there was a lot of blood.' (lit. cut the finger to him)
- d. *inepo techoa-ta [e-t] benta-k [pujba-po]*
 1SG.NOM mud-ACC 2SG.OBL-LOCC anoint-PFV face-LOC
 'I anointed your face with mud.' (lit. anointed mud in face at you)

In Yaqui, only accusative arguments can undergo passivation, while oblique arguments yield impersonal clauses. The verbal suffix *-wa* marks both passive and impersonal clauses. The constructions in (25) are the passive counterpart of typical transitive (1b), ditransitive (3a-b), causative (3c) and applicative (13b) constructions, repeated here for convenience. In (25a'), the theme serves as the passive subject. When there is more than one accusative argument, the recipient (25c'), the causee (25d') and the applied beneficiary (25e') outrank the theme. In a passive clause, the agent is omitted, and the privileged syntactic argument takes nominative case.

- (25)a. *u-∅ o'ou-∅ u-ka kari-ta bicha-k* (=1b)
 DET-NOM man-NOM DET-ACC house-ACC see-PFV
 'The man saw the house.'
- a'. *u-∅ kari-∅ bicha-wa-k*
 DET-NOM house-NOM see-PASS-PFV
 'The house was seen.'
- b. *bempo u-ka toto'i-ta u-e jamut-ta-u bittua-k* (=3a)
 3PL.NOM DET-ACC hen-ACC DET-OBL woman-ACC-DIR send-PFV
 'They sent the hen to the woman.'
- b'. *u-∅ toto'i-∅ u-e jamut-ta-u bittua-wa-k*
 DET-NOM hen-NOM DET-OBL woman-ACC-DIR send-PASS-PFV
 'The hen was sent to the woman.'
- c. *bempo u-ka toto'i-ta u-ka jamut-ta maka-k* (=3b)
 3PL.NOM DET-ACC hen-ACC DET-ACC woman-ACC give-PFV
 'They gave the hen to the woman.'

- c'. *u-Ø jamut-Ø u-ka toto'i-ta maka-wa-k*
 DET-NOM woman-NOM DET-ACC hen-ACC give-PASS-PFV
 'The woman was given the hen.'
- d. *Peo-Ø usi-ta mansana-ta yoem-ta miik-tua-Ø* (=3c)
 Peter-NOM child-ACC apple-ACC man-ACC give-cause-PRE
 'Peter made/let the child give the man the apple.'
- d'. *u-Ø usi-Ø mansana-ta yoem-ta miik-tua-wa-Ø*
 DET-NOM child-NOM apple-ACC man-ACC give-cause-PASS-PRE
 'The child was made to give the man the apple.'
- e. *Aurelia-Ø Goyo-ta u-ka wakabak-ta joa-ria-k* (=11b)
 Aurelia-NOM Goyo-ACC DET-ACC wakabaki-ACC cook-APPL-PFV
 'Aurelia cooked Goyo the wakabaki soup.'
- e'. *Goyo-ta u-ka wakabak-ta joa-ria-wa-k*
 Goyo-ACC DET-ACC wakabaki-ACC cook-APPL-PASS-PFV
 'Goyo was cooked wakabaki soup.'

In opposition, oblique core arguments cannot serve as passive subjects. In (26), the nominative subject is omitted, and the oblique NP remains the same, i.e. an impersonal clause.

- (26)a. *Joan-ta-u waate-wa-Ø* (=2a)
 John-ACC-DIR miss-PASS-PRE
 'John is missed.' (Sp. *se le extraña*)
- b. *Peo-ta-t e'a-wa-Ø* (=2b)
 Peter-ACC-LOCC believe-PASS-PRE
 'Peter is believed.' (Sp. *se le cree*)

Consequently, it would be expected that applicative EPCs and splitting EPCs taking accusative possessors would undergo passivization. However, this is not necessarily the case. Passivization is possible only for those splitting EPCs taking accusative possessor and accusative possessee. For the construction 'the thief shot you in the stomach', both the impersonal and passive clauses are possible (27).

- (27)a. *[toma-po] [enchi] muj-wa-k* (=16b)
 stomach-LOC 2SG.ACC shoot-PASS-PFV
 '(Someone) shot you in the stomach.'
- b. *[empō] [toma-po] muj-wa-k*
 2SG.NOM stomach-LOC shoot-PASS-PFV
 'You were shot in the stomach.'

Interestingly, applicative EPCs prefer impersonal clauses to passive clauses. In (28a), the possessor and the possessee remain direct core arguments. The

passive clause in (28b) is fine, but this is an internal, not an external possessive construction. In the field, some speakers may accept (28c) but not (28d); in (28c) it is the possessee that behaves as the passive subject, a pattern that does not correspond with typical applicative constructions.

- (28)a. *[soto`i-ta] [jamut-ta] jamta-ria-wa-k* (=13b)
 pot-ACC woman-ACC break-APPL-PASS-PFV
 ‘(Someone) broke the woman’s pot.’
- b. *[soto`i-ta jamut] jamta-wa-k*
 pot-ACC woman break-PASS-PFV
 ‘The woman’s pot was broken.’
- c. #*[soto`i-Ø] [jamut-ta] jamta-ria-wa-k*
 pot-NOM woman-ACC break-APPL-PASS-PFV
 ‘The pot was broken the woman.’
- d. **[jamut-Ø] [soto`i-ta] jamta-ria-wa-k*
 woman-NOM pot-ACC break-APPL-PASS-PFV
 ‘The woman was broken the pot.’

Nominative EPCs (29) and splitting EPCs necessarily yield impersonal clauses unless there is an accusative argument different from the possessor and the possessee that may serve as the passive subject (30a-b).

- (29) *[mam-po] taja-wa-k* (=16a)
 hand-LOC burn-PASS-PFV
 ‘(Someone) was/got burned on the hand.’
- (30)a. *u-Ø kooka-Ø [kutanaa-po] [a-u]_i u’ura-wa-k* (=17)
 DET-NOM necklace-NOM neck-LOC 3SG.OBL-DIR take-PASS-PFV
 ‘A necklace was taken off her neck.’
- b. *techoa-Ø [pujba-po] [e-t] benta-wa-k* (=24d)
 mud-NOM face-LOC 2SG.OBL-LOCC anoint-PASS-PFV
 ‘Mud was anointed on your face.’
- c. *[man-po] [ne-t] tajte-wa-k* (=18b)
 hand-LOC 1SG.OBL-LOCC touch-PASS-PFV
 ‘(Someone) touch my hand.’

The crucial point here is that dative and locative EPs do not behave any differently from oblique core arguments for passivization, but accusative EPs do. In regular applicative clauses, the applied argument (usually a human or animate beneficiary) serves as the passive subject. However, in applicative EPCs, the possessor and the possessee remain the same. Therefore, the most common situation for Yaqui EPCs does not involve the ‘raising’ or ‘promotion’ of the external possessor to a direct core argument

with morphosyntactic privileges, since the external possessor does not outrank an accusative theme for passive voice.

6. Final comments

External possessive constructions are interesting because they preserve a possessive interpretation even though there is no possessive marking. Yaqui EPCs involve several contributing factors, including (i) the asymmetric relation between a possessor and its body part or close possession, (ii) the prominence of the possessor as a salient/affected participant, (iii) and the sense of location. There are three EPCs: applicative possession, nominative possession, and splitting possession. In all these constructions, the possessor and the possessee serve as two independent constituents and there is no possessive verb. Yaqui EPCs satisfy the tendencies of a semantically prominent participant (beneficiary or affected animate possessor), but the external possessor does not access additional syntactic privileges, e.g., passive subject. This is true for dative, locative, and applied accusative EPs. Unlike typical EPCs in many other languages, it seems that Yaqui prefers to ‘demote’ both the possessor and the possessee. Therefore, Yaqui not only shows multiple-object construction, but also multiple-oblique constructions involving an inherent possessor-possessee relationship.

The locative marking on both the possessor and the possessee is a completely novel marking structure heretofore undocumented in Yaqui grammar. Haspelmath (1999: 123-124) also discussed a few northern European languages with locative EP constructions (the adessive ‘at’ in Irish, Finnish, Estonian, and Russian; the superessive ‘on’ in Nordic), and suggested that ‘the locative markers resemble the dative case in that they are dependent-marking elements signaling a non-nuclear grammatical relation [...] but this pattern, too, is peculiar to Europe’. In this paper I have shown that locative possessors are also a valid and productive coding in other languages of the world and are thus peculiar in terms of coding but not in terms of geography.

Corpus

- Buitimea, Cresencio. 2007. *Pesio betana nottiwame. Regreso de Hermosillo*. Hermosillo: Unison.
- Estrada, Zarina, Buitimea, Cresencio, Gurrola, Adriana, Castillo, María Elena & Carlón, Anabela. 2004. *Diccionario yaqui-español y textos*. H: Plaza y Valdez & Unison.
- Félix, Rolando. Ms. *Historia de vida CB*.
- Guerrero, Lilián. 2019. Historia de vida de Don Fermín. *Tlalocan* 24: 225-321.
- Guerrero, Lilián. 2020. *U ili taabu into u go 'i* 'El conejo y el coyote'. Uto-Aztecan Narratives, T. Thornes & G. Salido (eds). *Texts in the Indigenous Languages of the Americas-International Journal of American Linguistics* 5: 144-162.
- Guerrero, Lilián. Ms. Historia de vida Lalo (HVL).
- Johnson, John. 1962. *El idioma yaqui*. Mexico City: Instituto Nacional de Antropología e Historia.
- Silva, Carlos. 2004. *HVHilario*.
- Silva, Carlos *et al.* 1998. *Jiak nokpo etejaim. Pláticas en lengua yaqui*. Hermosillo: Uson.

Stimuli

- Ameka, Felix K., De Witte, Carlien & Wilkins, David. 1999. Picture series for positional verbs: Eliciting the verbal component in locative descriptions. *Manual for the 1999 Field Season*, D. Wilkins (ed.), 48-54. Nijmegen: Max Planck Institute for Psycholinguistics.
- Bohnenmeyer, Jürgen. 2001. Motionland. *Manual for the field season 2001*, S.C. Levinson & N.J. Enfield (eds), 93-94. Nijmegen: Max Planck Institute for Psycholinguistics.
- Bohnenmeyer, Jürgen, Bowerman, Melissa, & Brown, Penelope. 2001. Cut and break clips. *Manual for the field season 2001*, S.C. Levinson & N.J. Enfield (eds), 90-96. Nijmegen: Max Planck Institute for Psycholinguistics.
- Bowerman, Melissa & Pederson, Eric. 1993. Topological relations pictures. *Manual for the Space Stimuli Kit 1.2*. E. Danziger & D. Hill (eds), 40-50.

Nijmegen: Max Planck Institute for Psycholinguistics, Cognitive Anthropology Research Group.

Bowerman, Melissa, Gullberg, Marianne, Majid, Asifa, & Narasimhan, Bhuvana. 2004. Put project: The cross-linguistic encoding of placement events. *Field Manual* Volume 9, A. Majid (ed.), 10-24. Nijmegen: Max Planck Institute for Psycholinguistics.

Chafe, Wallace. 1980. *The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of Narrative Production*. Norwood, New Jersey: Ablex.

Levinson, Stephen C. 2001. Motion verb stimulus, version 2. *Manual for the field season 2001*, S.C. Levinson, & N.J. Enfield (eds), 9-13. Nijmegen: Max Planck Institute for Psycholinguistics.

Mayer, Mercer. 1969. *Frog, where are you?* New York: Dial Books for Young Readers.

Seifart, Franck *et al.* ms. Visual material for dressing and undressing events.

References

Aikhenvald, Alexandra. 2013. Possession and ownership: a cross-linguistic perspective. *Possession and ownership*, A. Aikhenvald & R.M.W. Dixon (eds), 1-64. Oxford: Oxford University Press.

Álvarez, Albert. 2012. Estructuras posesivas en yaqui. *UniverSOS* 9: 115-131.

Belloro, Valeria & Guerrero, Lilián. 2010. Sobre la función discursiva de la posposición de constituyentes en yaqui. *Análisis lingüístico: enfoques sincrónico, diacrónico e interdisciplinario*, R.M. Ortiz (ed.), 71-95. Hermosillo: Uson.

Chappell, Hilary & McGregor, William. 1996. *The Grammar of Inalienability. A typological perspective on body part terms and the whole-part relation*. Berlin: Mouton de Gruyter.

Croft, William. 1994. Voice: Beyond Control and Affectedness. *Voice: Form and Function*, B. Fox & P. Hopper (eds), 89-117. Amsterdam: John Benjamins.

Dedrick, John & Casad Eugene. 1999. *Sonora Yaqui Language Structures*. Tucson: University of Arizona Press.

- Guerrero, Lilián. 2006. *The Structure and Function of Yaqui Complementation*. Munich: Lincom.
- Guerrero, Lilián. 2007. Estructuras argumentales alternativas: las construcciones aplicativas en yaqui. *Mecanismos de voz, cambio de valencia y formación de palabra*. Z. Estrada et al. (eds), 199-228. Mexico City: Plaza y Valdés & Unison.
- Guerrero, Lilián. 2017. On purpose and causal adverbial clauses in Yaqui. *IJAL* 83: 679-718.
- Guerrero, Lilián. 2019a. Grammatical relations in Yaqui. *Argument selectors: A new perspective on grammatical relations*. A. Witzlack-Makarevich & B. Bickel (eds), 433-467. Amsterdam: John Benjamin.
- Guerrero, Lilián. 2019b. Propiedades formales y funcionales de las posiciones en yaqui. *Adposiciones y elementos de su tipo en lenguas de América*. L. Guerrero (ed.), 513-560. Mexico City: UNAM.
- Guerrero, Lilián & Van Valin, Robert. 2004. Yaqui and the analysis of primary object languages. *International Journal of American Linguistics* 70: 290-319.
- Gurrola, Adriana. 2005. Posesión e individuación en yaqui. MA thesis, Universidad de Sonora.
- Haiman, John. 1985. *Natural syntax. Iconicity and erosion*. Cambridge: Cambridge University Press.
- Haspelmath, Martin. 1999. External possession in a European areal perspective. *External possession*, D. Payne & I. Barshi (eds), 109-135. Amsterdam: John Benjamins.
- Haspelmath, Martin. 2006. Explaining alienability contrasts in adnominal possession: economy vs. iconicity. *Syntax of the world's languages 2*, University of Lancaster.
<<http://email.eva.mpg.de/~haspelmt/2006swl.pdf>>
- Haugen, Jason. 2017. Derived verbs of Possession in Uto-Aztecan: Reconstruction and paths of changes. *Anthropological Linguistics* 59(2): 163-204.
- Heine, Bernd. 1997. *Possession. Cognitive sources, Forces, and Grammaticalization*. Cambridge: Cambridge University Press.

- Jelinek, Eloise & Escalante, Fernando. 1988. Verbless possessive sentences in Yaqui. *In honor of Mary Hass: From the Hass Festival Conference on Native American Linguistics*, W. Shipley (ed.), 411-431. Berlin: Mouton de Gruyter.
- König, Ekkehard. 2001. Internal and external possessors. *Language Typology and Language Universals*, Vol. 2., M Haspelmath *et al.* (eds), 970-978. Berlin: Mouton de Gruyter.
- Langacker, Ronald W. 1977. *Studies in Uto-Aztecan grammar*, Vol. 1, *An overview of Uto-Aztecan grammar*. Dallas: Summer Institute of Linguistics & the University of Texas at Arlington.
- Lindenfeld, Jacqueline. 1973. *Yaqui syntax*. Berkeley: University of California.
- Lødrup, Helge. 2009. External and internal possessors with body part nouns: the case of Norwegian. *SKY Journal of Linguistics* 22: 221-250.
- McGregor, William. 2009. *The expression of possession*. Berlin: Mouton de Gruyter.
- Muchembled, Fany. 2010. La posesión predicativa en lenguas taracahitas. MA dissertation, Universidad de Sonora.
- Muchembled, Fany. 2014. La posesión predicativa en lenguas yutoaztecas. Phd dissertation, INALCO.
- Palancar, Enrique & Zavala, Roberto. 2013. *Clases léxicas, posesión y estructuras de cláusula compleja en Mesoamérica. Una introducción*. Mexico City: CIESAS.
- Payne, Doris & Barshi, Immanuel. 1999. *External Possession*. Amsterdam: John Benjamins.
- Schaefer, Roland. 1999. On the properties of Emai possessors. *External possession*, D. Payne & I. Barshi (eds), 449-472. Amsterdam: John Benjamins.
- Seiler, Hansjakob. 1983. *Possession as an operational dimension of language*. Germany: Gunter Narr.
- Shibatani, Masayoshi. 1994. An Integrational Approach to Possessor Raising, Ethical Datives, and Adversative Passives. *Berkeley Linguistic Society* 20: 461-486.

- Stassen, Leon. 2009. *Predicative Possession*. Oxford: Oxford University Press.
- Stolz, Thomas, Kettler, Sonja, Stroh, Cornelia & Urdze, Aina. 2008. *Split possession. An areal linguistic study of the alienability correlation and related phenomena in the languages of Europe*. Amsterdam: John Benjamins.
- Van de Velde, Freek. 2010. External possessors and related constructions in Functional Discourse Grammar. *Casebook in Functional Discourse Grammar*, J. L. Mackenzie & H. Olbertz (eds), 154-187. Amsterdam: John Benjamins.
- Velázquez-Castillo, Maura. 1999. Body-part EP Constructions. A Cognitive/Functional Analysis. *External Possession*, D. Payne & I. Barshi (eds), 77-108. Amsterdam: John Benjamins.
- Wierzbicka, Anna. 1988. *The Semantics of Grammar*. Amsterdam: John Benjamins.

