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Locative construals: topology, posture, disposition, and perspective in Secoya and beyond

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Abstract: This study has two aims. First, it lays out the synchronic patterning of four constructions that express static location in Secoya (Tukanoan). Each construction licenses different semantic verb types: topological verbs, postural verbs, an existential verb, and a copula. Second, this study explores the different construals encoded by these constructions and highlights the ways speakers use them creatively to elaborate on stage-level properties adjacent to location in locative utterances. Data collected from six speakers using visual stimuli reveal that each of the constructions elaborates on specific aspects of locative scenes. Responses for typical/atypical scenes, negative polarity statements, and frequency patterns show that speakers can choose conceptualizations that favor Ground geometry, Figure posture, more complex Figure dispositions, or marked perspectivizations. Similar phenomena are observed in other Amazonian languages. These results raise difficulties in identifying a basic locative construction, suggesting that Secoya may not fit squarely into any type in existing typologies of spatial expression (e.g., Ameka and Levinson 2007). Additionally, the Secoya system raises questions about the relationship between conceptual alternativity and the notion of “basicness” with respect to construal types.

Keywords: Amazonian languages; conceptual alternativity; construal; location; Secoya

1 Introduction

This paper deals with the syntactic patterning of constructions that encode static location in Secoya (Tukanoan), an Amazonian language of Peru/Ecuador. It aims to identify the language’s means to predicate location, and to analyze their semantics and consequences for construal. We then assess Secoya’s relationship to

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current typological models. Using a set of elicitation tools (Ameka et al. 1999) supplemented with pictures that portray local scenes, we examine the typical and preferred full-clause responses to a “Where is X?” question. One of the main findings is that Secoya has a rich system for predicating location, including four construction types understood as schematic form-meaning pairings which encode different construals of locative scenes. The main finite verb in those constructions can be: a topological verb (1), a postural verb (2), an inverse-locational (existential; see Section 4) verb (3), and a copula (4).

- (1) a. *tsōki-tara-pi-pi mesa ñmihe-ne tui-ko*
 tree-stick-CLF:CYL-NOM table top-LOC be.on-3SG:F:IPFV:DE
 ‘The stick is on the table’ {Picture 6}
- b. *doʔro-wi-re kã-me-pi aɖa-ko*
 basket-CLF:CONT rope-CLF:FIL-NOM be.in-3SG:F:IPFV:DE
 ‘The rope is in the basket’ {Picture 27}
- (2) a. *kʔatao ñmihe-ne k̃na-wĩ-pi nika-ko*
 rock top-LOC bottle-CLF:CONT-NOM stand- 3SG:F:IPFV:DE
 ‘The bottle is (standing) on the rock’ {Picture 10}
- b. *ɖɛha-re pelota-pi-pi ũi-ko*
 ground-LOC ball-CLF:SPH-NOM lie-3SG:F:IPFV:ED
 ‘The ball is (lying) on the Ground’ {Picture 7}
- (3) *kã-me-pi kʔatao-re k̃ʔo-hi-ko-pi paʔi-ko*
 rope-CLF:FIL-NOM rock-LOC squish-DUR-NZR.F-NOM exist-3SG:F:IPFV:DE
 ‘On the rock is the squished rope’ {Picture 3}
- (4) *tsōki-ɖɛi kapi-maka-re tio-tsi-ko-a-Ø kwaʔkoro*
 tree-CLF.TREE branch-DIM-LOC be.placed-CPL-NZR.F-COP-3SG.F,DE ceramic.pot
 ‘The ceramic pot is placed on a little branch’ {Picture 48}

The Figure tends to be marked by the nominative *-pi*, and the Ground is marked by the locative postposition *-re/-ne*. The predicates in (1), (2), and (3) occur as the sole inflected verb of a finite clause. However, in (4), the copula must co-occur with nominalized verbs. There are two generic topological verbs, *tuiɖe* ‘be on’ (1a) and *aɖaɖe* ‘be in’ (1b), which partially elaborate Ground geometry. The postural verbs (derived from verbs of human posture according to a broad set of distinctions) elicited with the stimuli include: *nikaɖe* ‘standing’, *ñuiñe* ‘sitting’, *ũiñe* ‘lying’, and *deʔeɖe* ‘hanging’. They serve to partially elaborate Figure position or orientation. Four verbs that express disposition (Figure placement/configuration according to a fine-grained set of distinctions), *wawaɖe* ‘floating’, *doiɖe* ‘leaning’, *tsiʔiɖe*

‘attached’, and *huiɕe* ‘hooked’ are used for the same purposes but are more semantically restricted with respect to Ground and/or Relation. The existential verb *paɽiɕe* (3) asserts inverse-locational predication—that is, it expresses location from a marked Ground-to-Figure perspective (cf. Creissels 2019). Finally, there is one copula construction involving the particle *-a* (4), which combines with topological verbs, postural verbs, and a large set of dispositional verbs.

Constructions involving postural verbs and generic topological verbs are the dominant strategies for encoding location. Figure, Ground and Relation are not predictive of construction type per se, although some combinations of the three parameters favor the use of particular constructions. Quantitative analysis of a total of 470 responses revealed that, within the topological category, the most common verb is ‘be on’, which can be used for nearly all Relation types and Figures, including prototypical and atypical Relations. This suggests that the semantically general ‘on’ notion expressed by this verb is immanent (as defined by Langacker 2008) in the spatial meanings of other verbs used in more restricted contexts. In contrast, ‘be in’ entails partial schematic elaboration of the Ground as a container. Speakers use postural verbs to specify more schematic positional elements of the Figure, but these verbs are partially specialized compared to ‘be on’. The existential verb is employed for inverse-locational predication.

A language with such a range of possibilities to express location invites several questions regarding the synchronic patterning of the constructions:

- Can a single language have multiple “preferred” conceptualization types from which speakers can draw to profile different aspects of location?
- How does a language like Secoya fit within current typologies of location that rely on identifying a preferred “Basic Locative Construction” (i.e., Ameka and Levinson 2007)?

These questions guide the discussion in the next sections of the paper. As will be demonstrated, Secoya shows that speakers of a single language can draw on multiple “basic” conceptualization types to profile specific aspects of locative scenes. However, quantitative analysis suggests that ‘be on’ may be developing into a semantically generalized locative predicate. Overall, we conclude that the difficulty of choosing a single Basic Locative Construction (BLC) for Secoya reflects a high degree of conceptual alternativity regarding location.

2 Static location in Amazonia

According to Grinevald (2006: 38), a typical inventory of postural verbs in Amazonian languages includes four items: *standing*, *sitting*, *lying*, and *hanging*,

Table 1: Locative verbs in some Amazonian languages.

Language	Family	Locative verbs
Sikuani	Guahobian	Four postural, several less grammaticalized
Trumai	Isolate	One copula, six postural
Yuhup	Makú	Four postural
Ese'eja	Takanan	Four postural
Kotiria	Tukanoan	Four postural, two topological
Tanimuka	Tukanoan	10 postural, three dispositional
Máihiki	Tukanoan	Four postural, three topological, two dispositional

which coincides with Newman’s (2002) predictions for languages more generally. This type of system is found, for example, in Sikuani (Guahiboan, Queixalós 1998: 197). Yet in this case the postural verbs have also grammaticalized into aspectual and modal auxiliaries, and interact with other less grammaticalized postural verbs in complex ways (Queixalós 1998: 297–304). Trumai (Isolate, Guirardello-Damian 2007), deviates from the four-postural-verb pattern. It employs a general copula, but appears to be developing six postural verbs.

However, more recent research has revealed that many Amazonian languages have a rich inventory of both lexical items and constructions dedicated to the semantic elaboration of location (Guillaume and Valenzuela 2018; Ospina Bozzi 2013; Overall et al. 2018), as summarized in Table 1.

Not only do Amazonian languages have a larger set of postural verbs, but many also have topological and dispositional verbs. For example, Yuhup (Makú) has quite a complex system to express static location: Ospina Bozzi (2013: 152–159) documents four verbs that express posture (*~ket* ‘standing’, *wob^m* ‘sitting’, *jet* ‘lying’, and *~peb^m* ‘squatting’), and four others that encode disposition (*~ka?* ‘suspended’, *cudⁿ* ‘inserted’, *tu?* ‘immersed’, and *~dak* ‘attached’). Yuhup also has eight prefixes to specify the disposition of the Figure, and complex predicates to describe activities realized in specific orientations and positions. Similar facts are observed in Takanan languages such as Ese’eja. Vuillermet (2017) discusses path and posture verb compounds. The language has four postural verbs: *ani-* ‘sit’, *neki-* ‘stand’, *haa-* ‘lie’ and *ba’e-* ‘float, hang’ which combine with four path verbs: *dobi-* ‘go in’, *kuaya-* ‘go out’, *sowa-* ‘go up’ and *’oke-* ‘go down’, as well as other more lexicalized combinations such as *haa-sowa-* ‘lie-go up’ and *haa-’oke-* ‘lie-go down’ (Vuillermet 2017: 195).¹

1 Another feature in the domain of location attested in several Amazonian languages of the Pano family is body-parts prefixes to signal the locative orientation of the Figure. See, Fleck’s (2003: 342–344) description of Matsés.

Within Tukanoan, most of the languages have both postural verbs and topological verbs. Kotiria, for instance, uses five postural verbs (*duku* ‘standing’, *duhi* ‘sitting’, *~khoa* ‘lying’, *yosa* ‘hanging’, and *~wa’a* ‘leaning’) and two topological verbs (*pisa* ‘be on’ and *~sa* ‘be/move inside’ (Stenzel 2013: 204). In a different Tukanoan branch, Tanimuka has 10 postural verbs: *rúḥá* ‘sitting low down’, *túyúa* ‘sitting high up’, *róḥa* ‘sitting high up (round figures)’, *~pájá* ‘lying low down’, *ḥejúa* ‘lying high up’, *~ríká* ‘standing’, and *báájua* ‘hanging concave’, *ḥíyúa* ‘hanging convex’, *téḥa* ‘hanging horizontal’, and *bíyúa* ‘hanging-dangling’. In addition, Tanimuka has three dispositional verbs: *~hí’bá* ‘attached’, *~habé* ‘inserted’, *~jubé* ‘floating’ (Eraso 2015: 363–372). Thus, Tanimuka is sensitive to Figure position.

In the Western Tukanoan branch, Máíhíki displays somewhat parallel patterns to those documented in Secoya. This language has four postural verbs: *níká* ‘stand’, *ñùí* ‘sit’, *úí* ‘lie in open space’, *níí* ‘stand on four legs’ and *tái* ‘float on water’. There are three positional verbs, which in our analysis would be topological verbs: *túi* ‘be on’, *ájà* ‘be contained’ and *bé* ‘be completely contained’. Máíhíki also has dispositional verbs, which the author calls contact verbs, including *hùí* ‘be through’ and *síí* ‘be attached’ (Neveu 2013: 21–22). An important difference between Secoya and Máíhíki is regarding the pragmatic conditions under which the existential *bàí*, the cognate to Secoya *paʔi*, is used. According to Neveu (2013: 59), the inverse-locational predicate is used when the Figure is not visible to the speakers; in contrast, posture verbs are used for visible Figures. Figure visibility does not play a role in the use of either the posture verbs or the inverse-locational verb in Secoya (see Section 6).

The picture emerging from Amazonia suggests that many languages possess larger verb inventories for locative predication than previously believed. Furthermore, they display constructional complexity to profile nuances of interwoven locative semantic notions. That said, Amazonian languages are not yet well represented in cognitive research or typologies of location. The detailed language-specific analysis offered here opens new perspectives to assess areal trends, and will hopefully contribute to the study of spatial representation and diachronic typological research.

3 The Secoya and their language

The *Airo Pái* (‘people of the forest’) live in Peru and Ecuador. Within Peru, 638 Secoyas live in nine villages located along tributaries of the Putumayo River (INEI 2017). Secoya belongs to the Tukanoan family, which consists of about 29 languages (Chacon and Michael 2018). The linguistic literature on Secoya is very limited, and

Table 2: Person markers for direct evidence.

	IMPERFECTIVE	PERFECTIVE (bimoraic verbs)	PERFECTIVE (monomoraic verbs)
3 SG:M	-hi	-pi	-hiʔi
3 SG:F	-ko	-o	-koʔi
NON 3SG	-ɟʒi	-wi	-iʔi

Table 3: Person markers in the copula construction.

	IMPERFECTIVE
3 SG:M	-pi
3 SG:F	-∅
NON3SG	-ʔi

most work focuses on Ecuadorian Secoya.² The only current documentation and/or description of Peruvian Secoya is Vallejos’s work (Vallejos 2013, 2021).

Secoya is sensitive to the properties of objects in several domains, including nominal classification, plural marking, and the grammar of location. It is a head-final language with relatively flexible constituent order. It is primarily suffixing, and exhibits moderate agglutination and fusion. Secoya obligatorily marks verbs for subject person, number, gender, tense and aspect. These paradigms are organized according to direct/indirect evidence, which seems to correlate with assertive/non-assertive epistemic modality. The language also exhibits tail-head linkage and switch reference strategies. Case marking is not obligatory but driven by pragmatic considerations, and some markers are polysemous. For example, the postposition *-re* can code the accusative, the dative, or the generic locative phrase. Their appropriate interpretation depends on the context.

Secoya has four sets of subject markers: the direct evidence, indirect evidence, dependent verb, and copula paradigms. The first and last paradigms, given in Tables 2 and 3 respectively, are most relevant for our purposes.³ Note that there are two paradigms for perfective aspect. Following Bruil’s (2018) analysis for Siona, we analyze them as the monomoraic and bimoraic verb paradigms (cf. *i*-verbs, Schwarz 2018).

² Fieldwork on Ecuadorian Secoya was conducted by Summer Institute of Linguistics missionaries between 1955 and 1960 (e.g., Johnson and Levinsohn 1990 is a grammatical sketch). More recent efforts are being led by Schwarz (2018).

³ While the forms in Table 3 are the same in both Aguarico Secoya and Putumayo Secoya, their meaning is slightly different. In Aguarico Secoya, they encode 2/3SG.M, 2/3SG.F (Schwarz 2018: 199).

The work presented here is based on fieldwork conducted in Peruvian Secoya communities between 2006 and 2018. The corpus contains data from 26 speakers, and consists of 14,580 words of elicited sentences, personal narratives, traditional stories, written texts (books produced by teachers), and structured elicitation using four types of stimuli.⁴ The data were compiled and analyzed with Fieldworks Language Explorer (FLEX). More details about the dataset collected specifically for this study are given in Section 5.

4 Conceptualizations of space

Languages permit the expression of location using highly diverse morphosyntactic means; but they also differ extraordinarily in the types of *conceptualizations* reflected by speakers' expression of spatial properties. These properties have been organized into different semantic categories by various authors, but most accept a primary distinction between “static” spatial concepts such as shape and location and “dynamic” concepts such as motion and placement (Talmy 1985; Levinson and Wilkins 2006 call these categories “stasis” and “kinesis”). Bohnemeyer (2017) further divides the “static” category into “individual-level” or less-mutable object properties (shape, size, dimensionality) and “stage-level” or more-mutable properties (location, orientation, disposition). We adopt this distinction, as well as that between posture and disposition: both point to the same general concept (the present configuration of an object and thus a kind of “manner” of being in a location), but posture relies on broad categories related to object shape while disposition includes more semantically fine-grained distinctions. As the present paper will demonstrate, individual-level and stage-level meanings are deeply intertwined in the grammatical strategies used to predicate location in many languages, including Secoya. However, before describing the details of locative constructions in Secoya, it will be necessary to present some key concepts related to spatial conceptualization and expression that have guided the present research and the interpretation of its results.

4.1 Figure and Ground

The locative function of language is fundamentally relational: the location of objects and spaces must be expressed in relation to other objects and spaces. The

⁴ The stimuli used include video clips (Ishibashi et al. 2006), picture series (Ameka et al. 1999), story cards (Amías et al. 2003), and a guide to Amazonian flora and fauna.

object being located is called the Figure (theme, trajector), while the point of spatial reference is called the Ground (landmark). When referring to physical objects, the Ground is generally larger and less conceptually moveable than the Figure. Figure–Ground relationships also differ between and within languages in terms of the schematic elaboration or simplification of the objects’ geometries. Talmy (1985) originally claimed that locative constructions using closed-class grammatical material presuppose or elaborate upon Ground geometry, while the Figure is construed as geometrically simplified and point-like. This is true for grammatical strategies using semantically general adpositions as well as those involving large-set “dispositional” classes of the type found in Mayan languages, which constitute a lexical class at least as much as a grammatical one. However, this proposed Figure–Ground asymmetry does not always hold: for example, the English preposition ‘around’ schematizes the Figure as tensile or circular, and small-set postural verbs often sort Figures into categories based on physical attributes (e.g., shape, presence/absence of a base or axial extension; Ameka and Levinson 2007). This asymmetry does not hold in Secoya either, especially in constructions with postural verbs.

In addition to allowing speakers to locate objects within physical space, many linguists (e.g., Langacker 2008; Yamanashi 2015) consider locative expression to be a kind of reference-point phenomenon that allows interlocutors to establish mental contact with a referent. In other words, the Ground specified in a locative utterance represents not only a larger or less-moveable entity in the real world but a more conceptually or discursively salient referent as well. This conceptual reference-point serves an anchoring function in the information structure of the utterance, and thus advances interlocutors toward the implicit discursive goal of intersubjective alignment or “joint focus of attention” (Diessel 2006). Langacker also argues that this conceptual relationship underlies the structural notion of grammatical relations: namely, “a subject is a nominal that codes the trajector of a profiled relationship; an object is one that codes the landmark” (2008: 365). Secoya locative expressions conform to this characterization, as the Figure is coded as subject and the Ground as object in the locative constructions described here (see Section 6).

4.2 Space and construal

In predicating the location of a Figure relative to a Ground, speakers must choose between plain-locational and inverse-locational predicates (Creissels 2019). The distinction is one of speaker perspective: both predicate types specify a Figure–Ground Relation within a particular FoR, but the former adopts a Figure-to-Ground

perspective while the latter moves conceptually from Ground to Figure. Creissels considers the Figure-to-Ground perspective to be unmarked, and claims that perhaps half of the world's languages do not have a grammaticalized inverse-locational predicate type. In these cases, the distinction is made via other strategies such as changes in constituent order (which likens the distinction conceptually to topic/comment relations). He also notes that inverse-locational predication is semantically distinct from existential and presentational predication in its inherent specification of a Figure–Ground relationship. Secoya has a construction dedicated to inverse-locational predication (see Section 6.4).

Newman (2002) notes that verbs for sitting, standing and lying as human activities are extended to inanimate referents to express location in many languages, and claims that the identification of an object or object-type with one of these posturals can depend not only on intrinsic properties of the object (i.e., individual-level properties such as shape) but on the *active zone* of the locative scene as well (Langacker 1987). This refers to the conceptually salient object part that is directly involved in the spatial relationship between the Figure and the Ground: for example, the active zone of a verb for standing is the base of a vertically extended object, which corresponds to the feet/legs of a standing human referent. This notion plays a role in the use of postural verbs in Secoya, in particular of lying and standing.

Central to the understanding of how all of the separate elements described above work together to create spatial meaning is the notion of construal, or the framing of semantic content such that certain elements are specified, elaborated or foregrounded while others are unspecified, unelaborated or relegated to the background. This is achieved through the implementation of construal operations such as profiling, bounding, focusing, anchoring and perspectivization. Crucially, none of these operations fundamentally changes the content of an utterance; instead, what is affected is the interlocutors' "particular way of viewing" that content (Langacker 2008: 55). It follows, then, that the same content can be construed in several different ways. This phenomenon, known as "conceptual alternativity" (Talmy 2000: 14) or "variable construal" (Langacker 2008: 142), bears heavily upon the discussion to follow, as the four Secoya locative constructions described here represent alternative ways of construing the same conceptual content.

4.3 Spatial expression and typology

Discussion of the grammatical means for expressing location in a given language is usually centered around the notion of the Basic Locative Construction (BLC),

understood as “the predominant construction used in response to a Where-question” (Levinson and Wilkins 2006: 15). Languages generally have multiple strategies for predicating location, but the BLC stands out as the construction that appears most often where: the locative scene involves a smaller or more moveable entity next to or supported by a larger or less moveable entity; the scene does not involve atypical spatial relationships such as encirclement, penetration or lateral support; the polarity of a locative statement is reversed; and the location of a Figure relative to a Ground is posed as a question.

Conceptually speaking, the BLC should correspond to the default construal, or most conventionalized framing, of Figure–Ground relationships in locative scenes. Its status as a conceptual default (where countless other construal types are possible) is due to its high degree of entrenchment in the minds of speakers, which is in turn the result of a high frequency of use. As a locative construction becomes more frequent, it enters a kind of positive feedback loop: higher frequency results in greater entrenchment of the attendant construal, which then leads to greater accessibility to speakers and even higher frequency. A construction that comes to represent the most conceptually basic construal as defined by the above criteria may be identified as the BLC. The formula of one BLC per language is at the foundation of considerable research on spatial expression, from compilations of case studies to structural and semantic typologies (e.g., Ameka and Levinson 2007; Levinson and Wilkins 2006). However, as the results of this study will show, pinpointing a single BLC – and hence a single default construal – is not entirely straightforward for some languages, including Secoya.

Ameka and Levinson (2007) propose a typology of locative predicates in Basic Locative Constructions (BLCs) comprised of four types: Type 0 has no verb in the BLC, and the locative meaning is expressed by adpositions or case markers; Type I entails a single locative verb, usually a copula or an existential; Type II languages have a small set of 3–7 locative verbs that generally presuppose some physical aspect of the Figure (e.g., axial extension); and Type III languages contain large sets of verbs (8–100+) that assert Figure shape, configuration or disposition. Type II locative verbs are true posturals: that is, they are semantic extensions of human posture verbs such as ‘sit’, ‘lie’, ‘stand’, and ‘hang’, though they may include simple locatives that elaborate some feature of the Ground (e.g., deictic levels). Type III verbs, on the other hand, can make much more fine-grained semantic distinctions concerning the present physical state of the Figure than posturals can. Another crucial distinction is that these “dispositionals” assert rather than presuppose physical properties of the Figure. This means that Figure objects do not have a canonical or default disposition, and so these verbs cannot serve a sortal function in characterizing nominal concepts as postural verbs often do.

Table 4: Speaker sample.

Speaker	Gender	Age	Village	Occupation	L1	L2
EC	F	19	Bellavista	Student	Secoya	Spanish
MS	F	22	Bellavista	Housewife	Secoya	Spanish
MC	F	29	Bellavista	Housewife	Secoya	Spanish
NV	F	33	Bellavista	Housewife	Secoya	Spanish
RM	M	34	Guajoya	Teacher	Secoya	Spanish
GV	M	40	Lagarto Cocha	Teacher	Secoya	Spanish

5 Data collection

As indicated before, the total Secoya population in Peru is made up of 638 individuals living in nine villages clustered together in a relatively remote area. Fieldwork in remote locations poses certain limitations on the implementation of experimental methodologies. Stimuli sets are not always culturally appropriate, and it is often necessary to transcribe and annotate data by hand instead of using equipment that relies on electricity or internet connectivity. We identified six Secoya speakers within an age group willing to be recorded while interacting with visual stimuli. Participants included four females and two males from three villages, all of whom speak Secoya as a first language. The presence of Spanish in the villages is recent, and the majority of the population is monolingual in Secoya. The participants have varying command of Spanish, but the data do not show differences between speakers based on Spanish proficiency. The demographic background of the speakers is shown in Table 4.

To collect the data, Vallejos used the Picture Series for Positional Verbs (PSPV) designed by Ameka et al. (1999), in which the Figure, Ground, and Relation are controlled.⁵ The original set of 68 photos show nine Figure objects (bottle, ball, rope, stick, cloth, cassava, pot, and beans) in various positions relative to the Ground (floor, table, tree, basket, rock, tree stump, and ground), showing different types of position Relations (in, on, standing, hanging, leaning, lying, dangling over, around, across, fixed in), in two different Backgrounds (inside and outside). We added 20 pictures taken in Secoya villages which portray additional Figures (e.g., bread, meat, fishing net) and new Grounds (e.g., fire,

⁵ This set is different from the Topological Relations Picture Series (BowPed), which has proven to be difficult to employ in Amazonian contexts. The Máihiki, for example, could not identify several Figures depicted in the cards, such as dog-bed, fish-bowl, balloon, telephone, etc (Neveu 2013: 5).

water, fence, canoe) out of concern for the ecological validity of the study (Moore et al. 2015).⁶

At the beginning of each elicitation session, there was a short period of training using comparable pictures and Where-questions in order to guide speakers to describe Figure location. Since the desired response includes stating the Figure overtly, we avoided asking “Where is the ball?”, for example, which in Secoya would naturally invite a response like “on the table.” Instead, we pointed to each Figure in the stimuli with a pencil, and the consultant described the Figure’s location in relation to the Ground object. The PSPV, by design, does not allow for freedom of construal in terms of the choice between Figure and Ground; as such, there was not a single instance of Figure–Ground reversal on the part of participants.⁷

The 88 pictures were printed and compiled as a picture book. The consultants were shown each image and answered at their own pace. When the speaker paused, the researcher turned the page. If they were confused about a picture, the researcher helped identify the object (e.g., beans; see Section 7.1). The order of the images was the same for all the consultants. The recording sessions lasted an average of 13 min; each recording was saved as a WAV file and transcribed, translated and morphologically parsed by the first author in collaboration with language consultants.

For the purposes of this study, the operational definition of a locative expression is one that contains a phrase expressing the Figure and a phrase expressing the Ground. We collected a total of 528 clauses; 57 of them did not contain a locative phrase, and so were excluded. As a result, for the final analysis only 82 of the original 88 stimuli were considered.⁸ Following the protocol given for the stimuli, all tokens were coded for Figure, Ground, Relation type, and Background. In addition, we coded the responses for construction type (copula, postural verb, topological verb or inverse-locational predicate). We also kept track

⁶ The PSVP set is available at <https://doi.org/10.17617/2.2573831>. The 20 additional pictures used in this study are available at <http://dx.doi.org/doi:10.7297/X2862F1P>.

⁷ Picture 87 was construed in two ways: the canoe is floating in the water and the fishing net is in the canoe.

⁸ Six of the pictures added by the field researcher (pictures 70, 72, 73, 81, 84 and 85) did not elicit responses with locative phrases from any speaker. While some responses predicated something other than location (e.g., ‘the canoe is tied up’), others could be considered answers to “Where is X?”. For example, picture 85 portrays cassava bread hanging in a rope outside the house. The six responses were something like “the cassava bread is hanging to dry”, without a locative phrase. When the consultants were asked if adding the location would be acceptable, they explained that it would not be necessary because everyone knows a family’s designated place to dry cassava bread. Thus, the location of the figure is completely inferred from “hanging to dry.” Nevertheless, we excluded all the responses without locative phrases in the name of consistency.

of extra elements expressing additional spatial information, such as the disposition of the Figure.

6 Construction types

Secoya has a rich system for talking about the location of objects. Topological verbs, postural verbs and the inverse-locational predicate occur as finite verbs in clause constructions, along with a subject phrase that encodes the Figure. A total of 25 verbs and a copula were collected with the stimuli. This includes those that appear as the finite, main verb in a clause and those that show up as dependents of

Table 5: Verbs included in this study.

Type	Verb	Gloss	Finite	Dependent
Topological	<i>tuidʒe</i>	‘be on’	205	3
	<i>aɕʒaɕʒe</i>	‘be in’	37	4
Postural	<i>ũiĩe</i>	‘be lying’	75	2
	<i>nikadʒe</i>	‘be standing’	49	1
	<i>deʔedʒe</i>	‘be hanging’	34	2
	<i>ñuiĩe</i>	‘be sitting’	5	5
Dispositional	<i>wawadʒe</i>	‘be floating’	7	0
	<i>doidʒe</i>	‘be leaning’	3	4
	<i>huidʒe</i>	‘be inserted’	2	0
	<i>tsiʔidʒe</i>	‘be attached’	1	7
	<i>tiodʒe</i>	‘be placed’	0	10
	<i>hadʒe</i>	‘be spread out’	0	5
	<i>huidʒe</i>	‘be inserted’	0	4
	<i>ñiĩe</i>	‘be across’	0	3
	<i>tsioĩe</i>	‘be folded’	0	3
	<i>neñaĩe</i>	‘be hanged spreading’	0	3
	<i>hẽĩe</i>	‘be covered’	0	3
	<i>wẽĩe</i>	‘be tied’	0	2
	<i>tsãĩe</i>	‘be resting’	0	1
	<i>kudʒadʒe</i>	‘be introduced’	0	1
	<i>wahidʒe</i>	‘be spilled’	0	1
	<i>ñatoidʒe</i>	‘be extracted’	0	1
	<i>duʔtaɕʒe</i>	‘be aligned’	0	1
	<i>ñekedʒe</i>	‘be mixed by hand’	0	1
	<i>kĩʔoĩe</i>	‘be pressed’	0	1
Inverse-locative	<i>paʔi</i>	‘exist’	16	0
Copula	<i>-a</i>		36	0
			470	68

Table 6: Semantic features of locative verbs.

Predicate		Gloss	Profiled element	Perspectivization
Topological verb	<i>tuidʒe</i>	‘be on’	Ground geometry: surface	Figure to Ground
	<i>aɖʒaɖʒe</i>	‘be in’	Ground geometry: container	
Postural verb	<i>nikaɖʒe</i>	‘standing’	Figure disposition: vertical elongation	
	<i>ũĩĩe</i>	‘lying’	Figure disposition: horizontal elongation	
	<i>deʔeɖʒe</i>	‘hanging’	Figure disposition: suspended from Ground, vertically elongated	
	<i>ñuiĩe</i>	‘sitting’	Figure disposition: non-elongated	
Copula	<i>V-a</i>	disposition/ posture/ topology	Relationship between Figure & Ground	
Inverse-locational	<i>paʔi</i>	‘exist’	NA	Ground to Figure

the copula or other types of locative verb. As seen in Table 5, the overall distribution of verbs is quite asymmetric. The usage patterns of these verbs across different Figures, Grounds, Relation types and speakers are discussed in detail in Section 7.4.

In all construction types, a generic locative postpositional phrase, optionally including relational nouns, encodes the Ground. An additional construction consists of a copula suffixed to nominalized topological verbs, postural verbs, and dispositional verbs. Further elaboration about the locative scene via the addition of nominalized or serialized verbs is possible for all constructions. Animacy plays a role in locative constructions: inanimate entities are always coded as singular regardless of the number of Figures (e.g., two balls are coded by the singular feminine marker *-ko*), leading to a bounded collective reading; animate subjects trigger the singular/plural distinction (e.g., two vultures are coded by the plural subject marker *-ɖʒi*). Table 6 summarizes the features that identify each of them, following the terminology of Newman (2002: 1).

6.1 Topological verb construction

There are two topological verbs in Secoya, both of which presuppose a schematic geometrical aspect of the Ground. The verb *tuiɕe* ‘be on’ indicates *proximity on a vertical axis*, and entails contact between a moveable object and a supporting surface (i.e., the topmost portion of a Ground object). This surface is usually elevated, but this may also be an artifact of the stimuli. Elevation is not a required semantic parameter, as the same verb is used for flat or non-elevated surfaces as long as the Ground is not the ground/floor itself (e.g., Picture 77, which depicts a tortilla on a thin, flat strainer level with the floor). The verb *aɕaɕe* ‘be in,’ on the other hand, denotes *proximity via containment*, the partial or total inclusion of a Figure inside a container Ground.⁹ The function of both verbs is illustrated in (6a-c).

- (6) a. *k2ata-pi-ã-ne* *ika-pi-pi* *tui-ko*
 rock-CLF.SPH-PL:INA-LOC plastic-CLF.SPH-NOM be.on-3SG:F:IPFV:ED
 ‘The ball is on the rocks.’ {Picture 50}
- b. *ã2tso-pi* *do2ro-wi-re* *aɕa-ko*
 cassava-NOM basket-CLF.CONT-LOC be.in-3SG:F:IPFV:ED
 ‘The cassava is in the basket.’ {Picture 53}
- c. *k2ã-me-pi* *do2ro-wi-re* *tui-ko*
 rope-CLF.FIL-NOM basket-CLF.CONT-LOC be.on-3SG:F:IPFV:ED
 ‘The rope is on the basket.’ {Picture 19}

As shown in (6a), the notion of the supporting surface comes from the verb *tui-ko*, while in (6b) the notion of containment comes from *aɕa-ko*. Note that *tui-ko* and *aɕa-ko* often occur with the LOC-marked relational nouns *ĩmihe* ‘top’ and *tsānawi* ‘inside’, respectively, though this is not the strongest pattern. Additionally, *aɕa-ko* tends to occur with nouns that are lexically specified to take the *-wi* classifier. However, *-wi*-marked nouns can operate as Grounds with other verbs as well – including ‘be on’ and the whole set of postural verbs, in which the notion of containment is not relevant. For example, the Ground in (6c) is marked with the same classifier *-wi*, but the verb *tui-ko* schematizes the Ground as a supporting surface rather than a container. The presupposition of Ground object geometry amounts to profiling the Ground as an especially salient or relevant aspect of the locative scene. While both *tuiɕe* and *aɕaɕe* entail a Relationship of proximity between the Figure and the Ground, the only semantic opposition between the two verbs is the binary value of Ground-as-supporting-surface versus Ground-as-container.

⁹ This verb also has a dynamic sense, as in ‘put in’ or ‘load.’

6.2 Postural verb construction

Four postural verbs were collected: sitting, standing, lying and hanging. The speakers' responses show that certain Figures (e.g., bottles) can collocate with verbs for both standing and lying, depending on their current position or orientation (7).

- (7) *met̥sa-re* *toatsõ* *k̃na-wi-ã-pi* *nika-ko-na,*
 table-LOC three hard.thing-CLF:CONT-PL:INA-NOM stand-SG:F:IPFV-DS
 kahetse-paʔi-wi-ã-pi *ũi-ko*
 four-COLL-CLF:CONT- lie-3SG:F:IPFV:ED
 PL:INA-NOM
 'Three bottles are (standing), four are (lying) on the table' {Picture 46}

Contrary to a typical postural type language, the preferred response to a mixed posture scenario (e.g., Picture 46, which depicts bottles both standing and lying on a table) is to specify the exact configuration of the Figures, as in (7). Yet it is also felicitous to respond with 'be on', to localize the bottles without paying attention to their individual orientations. While two speakers highlight the posture of the Figures, as in (7), four speakers employed 'be on' to describe this picture.

Similarly, the use of the verb 'hang' entails that at least a small portion of the Figure, the active zone, is supported from below, while the remainder extends along a vertical axis due to the pull of gravity. Figures are typically described as hanging if they are in this particular disposition, but these same Figures (e.g., cloth, rope) can be described as lying if the active zone is the entire length of the object extended in contact with the Ground.

- (8) a. *mesa* *ĩmihe-ne* *q̣ari* *kãʔko-kã-pi* *deʔe-ko*
 table top-LOC small cloth-CLF:CLOTH-NOM hang-3SG:F:IPFV:DE
 'A small piece of cloth is (hanging) on the table.' {Picture 49}
 b. *tsõki-tup̃i-re* *kãko-kã-pi* *ũi-ko*
 tree-stump-LOC cloth-CLF:CLOTH-NOM lie-3SG:F:IPFV:DE
 'A piece of cloth is (lying) on the tree stump.' {Picture 68}

In (8a) a piece of cloth is described as hanging from a table, while (8b) the same piece of cloth, which is partially extended, is presented as lying on a tree stump.

The verb *ñuiñe* 'sitting' mostly occurs with Figures of non-elongated (compact) disposition or shape whose active zone is the lowermost portion of their surface area (9a), but it is also occasionally used for elongated Figures in locative scenes where the Ground is the ground itself (9b).

- (9) a. *ãʔtso-wa-ã-pi* *doʔro-wi-re* *ñui-ko*
 yucca-CLF:CONT-PL:INA-NOM basket-CLF:CONT-LOC sit-3SG:F:IPFV:DE
 ‘Yucca roots are (sitting) in the basket’ {Picture 5}
- b. *teʔ-kĩna-wĩ-pi* *dʒeha-re* *ñui-ko*
 one-hard.thing-CLF:CONT-NOM ground-LOC sit-3SG:F:IPFV:DE
 ‘One bottle is (sitting) on the ground’ {Picture 58}

Taken together, the common function of Secoya posturals is to predicate the location of a Figure object while profiling its position or orientation.

6.3 Copula

There is one copula construction used to express location, in which the copula *-a* is suffixed to a nominalized verb denoting disposition or posture. Additional verbs can appear as serialized, nominalized or infinitive forms to further specify or elaborate Figure disposition (see 10a and 10b).

- (10) a. *tsõki-tara-pi* *dʒeha-re* *tsã-ti* *nika-tseʔe-a-Ø*
 tree-stick- ground- introduced- stand-FOC.RES-COP-
 NOM LOC FOC 3SGF.DE
 ‘The stick is just (standing) stuck on the Ground.’ {Picture 53}
- b. *kʔã-me-pi* *kʔatao-re* *wẽ-tsi-ko-a-Ø*
 rope-CLF:FIL-NOM rock-LOC tie-CPL-NZR-COP-2SG.F.DE
 ‘The rope is tied to the rock.’ {Picture 15}

This construction profiles the spatial Relation between the Figure and the Ground. Specifically, it seems to be employed when the Figure’s relationship to the Ground is complex or unusual (such as a stick stuck into the Ground and “standing,” where it would normally be expected to “lie” on the Ground {Picture 38}) or involves attachment (such as a rope twisted and tied around the middle of a rock {Picture 15}). Unlike the other predicates which do not invite this level of semantic detail, the copula occurs with a total of 17 dispositional verbs, plus two postural verbs and both topological verbs (see Table 5). The occurrence of the topological and postural verbs with the copula is semantically distinct from their use as inflected verbs in that the former also entails a resultative reading. This use of copular construction is found in other Tukanoan languages as well (e.g., Tanimuka; Eraso 2015: 79).

Four fully inflected dispositional verbs (floating, leaning, inserted, and attached) were also elicited, though tokens of these were both very rare (13/470) and predictable based on the presence of particular Figures and Grounds. For example, floating and leaning are entirely predictable based on certain Figure–Ground pairs: in Secoya,

unmarked Figure-to-Ground perspectivization. Secoya speakers use the verb *paʔiɖe* ‘be/exist’ in response to Where-questions.¹⁰ The same verb is used in many non-locative constructions, meaning variously ‘exist’ and ‘live’, though we avoid the term “existential” on the grounds of its ambiguity and un informativeness with respect to this construction. When *paʔiɖe* is used in response to a Where-question, the existence of the Figure is not in question – only its location is (see 13a and 13b).

- (13) a. *kʔã-me-pi* *kʔatao-re* *paʔi-ko*
 rope-CLF:FIL-NOM rock-LOC exist-3SG:F:IPFV:DE
 ‘On the rock is the rope./There is a rope on the rock.’
 b. *ɖoko* *daʔka-pi* *hĩtsoe-re* *paʔi-ko*
 yoco juice-NOM pot-LOC exist-3SG:F:IPFV:DE
 ‘In the pot is the yoco juice./There is yoco juice in the pot.’

Unlike the other three construction types, the inverse-locational predicate construction does not profile any aspect of the Figure, Ground or Relation. Rather, the construction is used to invert the episodic perspectivization of the locative scene as a whole. This sometimes occurs when a Figure is in an unexpected or atypical position relative to a Ground, but may serve other purposes related to information structure as well. In these contexts, the ILP construction “competes” with a few postural verbs constructions (i.e., lying, sitting, hanging) as well as the copula construction.

7 Schematicity of constructions and the BLC issue

The four constructions described above are relatively similar in terms of morphosyntactic structure. The topological and postural constructions are differentiated only on the basis of the semantic predicate class that appears in the verb slot. This suggests that these constructions are instantiations of a higher-order schema in a taxonomic network of constructions (Croft 2001; Langacker 2008: 222). However, as Croft points out, “any construction with idiosyncratic morphological, syntactic, lexical, semantic, pragmatic, or discourse-functional properties must be represented as an independent node in the constructional network” (2001: 25). Furthermore, it is standard in the literature on spatial expression to distinguish constructions based on semantic factors in determining the BLC (e.g., Levinson and Wilkins 2006: 15–16). Since each of the four semantic classes of locative

¹⁰ Locative verbs or copulas may come from verbs meaning ‘live, dwell, stay’ Heine and Kuteva (2002: 197). In Amazonia, this is also attested in Matsés (Panoan, Fleck 2003: 972), in Cariban and Arawakan languages (Overall et al. 2018), among others.

predicates (topological, postural, dispositional and inverse-locational) corresponds to a demonstrably unique construal of locative scenes, we consider the locative constructions in which they appear to be distinct.

When a language has several colloquial responses to the “Where is X” question (as is crosslinguistically common), how do we decide which one is the Basic Locative Construction? In those cases, the recommendation is to “examine how [the constructions] were used to describe *stereotypical versus exceptional scenes*, which construction was used in *negative locative statements*, and the *frequency of use* in the stimuli descriptions we asked for” (Ameka and Levinson 2007: 852–853, emphasis ours). We implemented each of these recommendations, and added the criterion of *Where-question formation* (Bohnenmeyer and Brown 2007: 1131) to assess the ability of these constructions to request information about specific aspects of locative scenes.

7.1 Stereotypical versus exceptional scenes

Several pictures in the stimuli represented atypical, cognitively complex locative scenes by design. For example, there are configurations in which the Figure is tied to the Ground (Pictures 15 and 36), or larger than and extended over the Ground (Picture 16). In such cases, speakers have several options. For example, for a rope tied around a rock (Picture 15), four speakers used the copula construction, and two used ‘lying’. For a rope tied around a tree stump (Picture 36), three speakers used the copula construction, one used ‘be on,’ one used the inverse-locative predicate and one did not predicate about location. For fabric dangling over a basket (Picture 16), three speakers used ‘be on,’ one ‘be in,’ one used the inverse-locational predicate and another the copula construction. In short, speakers chose several construction types for atypical scenes.

However, many scenes were also atypical from a cultural perspective. Most speakers found it pragmatically odd to see a ceramic pot in a tree (Pictures 29 and 48), although it is common to hang aluminum pots and utensils in trees to dry (Picture 71). Another surprising scene included beans spread on the floor (Picture 11): the researcher had to help all participants identify the beans in this picture. Difficulty may have arisen from the fact that this type of bean does not exist in the region, and beans are not ever thrown on the floor. However, responses for culturally atypical scenes were also varied. For the pot in the tree (Pictures 29 and 48), nine responses included ‘be on’ and three used the copula construction. To talk about the beans on the floor (Picture 11), all speakers used ‘lying’, but when the beans were on the table (Picture 25), all used ‘be on’.

In sum, speakers tend to use different types of constructions for atypical scenes; however, ‘be on’ was one of the options in most cases. We return to the issue of speakers’ variability in responses in Section 7.4.

7.2 Questions

Bohnenmeyer and Brown (2007: 1131) interpret the use of a predicate type in the formulation of Where-questions to be evidence of its basicness with respect to the locative function. We use the ability of predicates to inquire about location as an additional criterion in determining the BLC, since the use of a less basic locative predicate in a question may not necessarily form a Where-question. In Secoya, it is possible to use the ILP, the topological verbs and the postural verbs in information questions to ask about different aspects of the locative scene (14a–c).

- (14) a. *hero-re paʔi-ko-ni kina-wi?*
 where-LOC exist-3SG:F:IPFV-INT hard-CLF.CONT
 ‘Where is the bottle?’
- b. *hero-re tui-ko-ni kinawi?*
 where-LOC be.on-3SG:F:IPFV-INT hard-CLF.CONT
 ‘Where is the bottle (on)?’
- c. *hero-re nika-ko-ni kinawi?*
 where-LOC stand-3SG:F:IPFV-INT hard-CLF.CONT
 ‘Where is the bottle (standing)?’

In the corpus, the verb *paʔi* shows up regularly in locative questions, particularly when requesting information about the location of people. Questions (14b and 14c) would be employed in more specific situations. The question in example (14b) would be used when we are looking for a bottle that must have been placed somewhere; the implication of this construal seems to be that the bottle has been put somewhere by somebody. In contrast, (14c) would be appropriate if we know the bottle we are looking for contains something (e.g., medicine) and should be standing somewhere to preserve its contents – an interactional property of bottles that is salient to speakers. This implication is not present in (14b). The use of three locative constructions in questions supports the notion that Secoya can focus on different components of the locative scene, and that posture is not presupposed but can emerge by implication.

7.3 Negation

An additional strategy to identify the Basic Locative Construction is to reverse the polarity of a clause, since less basic constructions will not necessarily predicate about location when the polarity is reversed. In Secoya, three construction types can be employed to negate Figure location. The elicited examples in (15), which speakers produced with ease, are given in the order in which they were provided.

- (15) a. *kina-wi-pi* *mesa-re* *tui-maʔ-koʔi*
 hard.thing-CLF:CONT-NOM table-LOC be.on-NEG-3SG:F:PFV:DE
 ‘The bottle is not on the table.’
- b. *kina-wi-pi* *mesa-re* *nika-maʔ-koʔi*
 hard.thing-CLF:CONT-NOM table-LOC stand-NEG-3SG:F:PFV:DE
 ‘The bottle is not on the table.’
- c. *kina-wi-pi* *mesa-re* *peo-ko*
 hard.thing-CLF:CONT-NOM table-LOC NEG.exist-3SG:F:IPFV:DE
 ‘There is not a bottle on the table.’

The grammar employed with topological verbs and postural verbs is exactly the same. Example (15a) shows the topological verb ‘be on’ suffixed by the negative marker *-maʔ* followed by *-koʔi*, which encodes third person feminine, perfective aspect, and direct evidence. Recall from previous examples that, in positive polarity clauses, the imperfective *-ko* is highly preferred. The same grammar is shown in example (15b), but with the postural verb ‘standing’. This construction does not seem to be compatible with a bottle on the table lying on its side, for example. In other words, it negates the location, not the posture. Example (15c) illustrates the verb *peoɕe*, the negative counterpart of the ILP *paʔiɕe*, which we analyze as negating the location of the Figure using a Ground-to-Figure perspectivization.

It should be noted that the ILP *paʔiɕe* can be negated. However, in this context, the result is a negative polar question with a positive declarative interpretation, shown in the following constructed dialogue.¹¹

- (16) A: *kina-wi* *hero-re* *paʔi-koʔ*
 hard.thing-CLF:CONT where-LOC ILP-3SG:F:IPFV:IE
 ‘Where is the bottle?’

¹¹ Negative polar questions, also known as assertive questions, are a cross-linguistically common strategy to express weak epistemic modality or to encode “conjectural” information (Bolinger 1957; Shklovsky 2011). For a detailed account of assertive questions in Máihiki, another Western Tukanoan language, see Skilton (2017).

Figure 1: Use of predicates as finite verb of the clause (N = 470).

B: *wiʔe-re* *paʔi-maʔ-ko.*
house-LOC ILP-NEG-3SG:F:IPFV:IE
‘It might be at the house.’ (Lit. Isn’t it at the house?)

The only construction that was not employed to negate the location of an entity is the copula *-a*. When the copula is negated (17), the resulting construction expresses a sort of deontic modality – a negative expectation regarding the Figure–Ground Relationship.

(17) *kina-wi-pi* *mesa-re* *nika-maʔ-ko-a-Ø*
hard.thing-CLF:CONT-NOM table-LOC stand-NEG-NZR.F-COP-3SG:F:DE
‘The bottle cannot be/is not supposed to be on the table.’

The fact that every construction except the copula can be used to negate location adds to the difficulties of selecting one as the BLC. It appears that in languages like Secoya, speakers can choose to highlight different components of locative scenes in both positive and negative polarity constructions as well as information questions. In that sense, all seem to be good candidates for the BLC.

Table 7: Frequency of constructions across speakers.

Construction	EC	MS	MC	NV	RM	GV	Total
Topological	46 (19%)	44 (18%)	36 (15%)	46 (19%)	29 (12%)	41 (17%)	242 (100%)
Postural	18 (11%)	29 (18%)	35 (21%)	25 (15%)	24 (15%)	32 (20%)	163 (100%)
Copula	8 (22%)	3 (8%)	1 (3%)	2 (6%)	21 (58%)	1 (3%)	36 (100%)
Inverse locational	4 (25%)	3 (19%)	4 (25%)	1 (6%)	3 (19%)	1 (6%)	16 (100%)
Dispositional	2 (15%)	1 (8%)	2 (15%)	4 (31%)	1 (8%)	3 (23%)	13 (100%)
verb							

Table 8: Similarity of responses across pictures.

Verbs	Similarity scores					
	Six	Five	Four	Three	Two	One
be on	14	12	10	5	3	4
be in	0	3	2	2	3	2
lying	6	2	2	2	6	10
standing	1	3	2	5	2	3
hanging	1	2	2	3	2	4
sitting	0	0	0	0	3	2
exist	0	0	1	1	1	7
copula	0	1	1	1	0	25

7.4 Patterns of use

In this section, we examine the patterns of use of each type of response. In order to explore the conventionalization of the constructions in this data set – which depicts selected Figure/Ground relations – we quantified: (i) the overall usage of each verb as the finite verb of the clause (Figure 1), (ii) the patterning of the constructions across all six speakers (Table 7), (iii) similarity of responses across speakers (Table 8), (iv) the use of ‘be on’ with respect to other verbs (Figure 2), (v) collocation of verbs with Figures (Figure 3), (vi) collocation of verbs with Grounds (Figure 4), and (vii) use of verbs for different Relation types (Figure 5).

As seen in Figure 1, constructions involving postural verbs and the topological verb ‘be on’ are the dominant strategies for encoding location. However, when we unpack the postural verb category, ‘lying’ and ‘standing’ are the most frequently used, in contrast to ‘sitting’. The category ‘disposition’ ($n = 13$) includes the verbs

Figure 2: Instances in which ‘be on’ competes with other verbs.

Figure 3: Verbs by Relation.

Figure 4: Verbs by Figure.

Figure 5: Verbs by Ground.

‘floating’, ‘leaning’, ‘attached’ and ‘hooked’; individually, they are the least frequently used as the sole finite verb in the dataset.

Table 7 demonstrates that the usage of the different construction types is comparable across speakers, especially of topological constructions and postural constructions, the two most frequent patterns.

However, speakers very often do not use the same verb for a given stimulus. To assess the conventionalization and predictability of the verbs, we explore the amount of variation among responses to a given stimulus. The similarity among responses was captured by coding the number of times speakers used the same verb to describe a picture (see Table 8). If a picture was described by six speakers using the same verb, the picture was given a score of six; if only five speakers used the same verb, the picture was assigned the score five, and so on (see Appendices A and B for a breakdown of responses by stimulus).

As shown in Table 8, there was an important amount of variation in speakers’ responses. All six speakers used the same verb (score six) for only 22/82 pictures (27% of the stimuli). Among all the verbs, ‘be on’ received a score of six for 14 pictures, and a score of five for 12 pictures. As for ‘be in’, it was never used by all speakers for the same stimulus, but was used by five speakers for three pictures. Among the postural verbs, ‘lying’ was used more consistently than the others. All six speakers used ‘lying’ for six pictures, and five speakers used it to describe two pictures. ‘Standing’ and ‘hanging’ were each used by all six speakers to describe only one picture. ‘Sitting’

showed low consistency as it was used by only two speakers to describe three pictures. The copula constructions and the inverse-locational predicate, 'exist', were used in the least systematic way. They were both employed for a wide array of scenarios, but with low degree of similarity among speakers' responses. An interesting finding is that the copula construction was employed only once for 25 pictures. This contributes to our hypothesis that speakers have tools at their disposal to depict Figure–Ground relations in a high level of detail, and that the copula is employed to construe scenes in complex and unique ways.

Because the verb 'be on' is used by all six speakers so frequently, we explored the extent to which it competes with the other verbs. 'Be on' is the sole response for 14/82 pictures (17%), one of the options for 33/82 pictures (40%), and is not a response for 35/82 pictures (43%). When 'be on' is a response, it competes with other postural verbs, the ILP 'exist', the topological 'be in' and the copula (Figure 2). This suggests that 'be on' is becoming more bleached and semantically general.

Figure, Ground and Relation are not predictive of construction type in and of themselves, but combinations of all three parameters favor the use of particular constructions. We found that the most common strategy involves 'be on,' which is used for nearly all Relation types, Figures, and Grounds in the stimuli, including prototypical and atypical Relations, as shown in Figures 3, 4, and 5.

Figure 3 illustrates the use of the eight attested predicates (two topological verbs, four postural verbs, the copula and the inverse-locational predicate) across the 15 Relation types given in the protocol for PVPS (Ameka et al. 1999). Clearly, 'be on' and the copula are the most versatile predicates in terms of the number of Relation types they can express (12 out of 15). The other topological verb 'be in' and the existential are used much less freely, occurring with four and five out of 15 Relation types, respectively. Among the postural verbs, 'be lying' and 'be standing' are used frequently and with eight and six out of 12 Relation types; 'be sitting' and 'be hanging,' on the other hand, are less frequent and occur with only five and four out of 15 Relation types, contrary to both Newman (2002) and Ameka and Levinson's (2007) predictions.

Figure 4 shows the distribution of locative predicates by Figure type (out of 20 in total). The topological verb 'be on' and the postural 'lying' were used with the greatest number of Figure types at 13 and 12, respectively. The copula follows with nine distinct Figures. 'Be in', 'hanging' and the existential occur with six Figures each, while 'sitting' and 'standing' occur with just four and five out of 20 Figures.

Figure 5 shows the distribution of locative predicates by Ground type (out of 20 in total). The topological verb 'be in' occurs with containers, and so it seems to elaborate Ground geometry. In contrast, 'be on' and the postural 'lying' occurred with the highest number of Ground types at 12 each. The copula follows, occurring with nine different Grounds. The ILP and 'be hanging' occurred with six Grounds, while 'sitting'

Figure 6: Secoya locative constructions.

and 'be standing' each occurred with 5. Overall, the results suggest that 'be on' is the most schematic Secoya location-denoting predicate, and that the 'on' notion expressed by this verb is immanent within all of the more specialized predicates.

8 Discussion

8.1 Constructional complexity and conceptual alternativity

The results of this study show that the question of identifying the Basic Locative Construction in Secoya is complex. Languages can show different preferences for coding spatial information in the verbal component of locative utterances (e.g., Ameka 2007). The data discussed here do not suggest a particular commitment to any one semantic component. The fact that speakers frequently make different choices for a given stimulus suggests that these are equally available options. Furthermore, the received wisdom that the BLC is the construction employed in negative-polarity statements does not necessarily prove useful here, as three of the four construction types may appear in negated locative statements. In addition, different types of information about locative scenes can be elicited via multiple verb types in information questions (see discussion in Section 7). From a constructional perspective, the posture/topological/inverse-locational verbs appear as the main predicate in three unique constructions, while the use of dispositionals with a copula constitutes a fourth construction (see Figure 6).

Structurally, the four locative constructions include a noun phrase optionally assigned the nominative marker that indicates the Figure, and a noun phrase assigned a locative postposition that indicates the Ground. In the first construction, the sole inflected verb of the finite clause is one of two topological verbs; in the second construction, it is one of a set of four postural verbs. The third construction has a conjugated copula suffixed to a nominalized verb that indicates either disposition, posture, or topology. The fourth locative construction includes the inverse-locational predicate as the main verb. Semantically, the four constructions profile different aspects of locative scenes, and so represent a palette of alternate construals at speakers' disposal. In the first construction, the focus is on abstract geometrical properties of the Ground. The second construction highlights the posture of the Figure. The third construction is employed for atypical, complex scenes where the focus is on the disposition of the Figure in a given location, and often lends itself to a resultative reading. The fourth construction construes the Figure–Ground Relationship using the marked Ground-to-Figure episodic perspectivization (cf. Creissels 2019). However, the four constructions are not in complementary distribution but interact in various ways. In other words, Figures/Grounds/Relations are not directly tied to specific constructions and, inversely, constructions are not directly tied to specific spatial configurations. In 73% of the 82 stimuli, speakers provide varied responses.

Based solely on frequency of usage, the topological construction is the best candidate for the “unmarked” locative construction at 52% of all 470 responses (44% of which were tokens of ‘be on’). However, the postural verb construction is also highly frequent at 34% of responses, and the choice between the two constructions does not appear to be predictable based on particular attributes of the locative scene. Both are used to describe typical locative scenes and a variety of Figure/Ground relationships, both appear in locative information questions, both can be used in negated locative statements and both are often used by different speakers in response to the same stimulus item. These facts make it difficult to choose one construction as the BLC without losing a large amount of information about Secoya speakers' preferences and tendencies in locative expression.

It could be argued that the sheer frequency of the topological verb construction is grounds for designating it as the BLC. We believe, however, that choosing a construction based on frequency alone is both contrary to the spirit of BLC typology (since the additional criteria used here are endorsed by Ameka and Levinson 2007 and others) and highly reductive with respect to what constitutes “basicness” for speakers. It is to be expected that speakers will have multiple construal types at their disposal for describing locative scenes. Here, though, it is not merely the case that speakers have several options *available* to them, but that they seem to *prefer* different construals based on the aspects of locative scenes that they wish to

highlight. In this sense, the difficulty of choosing a single BLC for Secoya reflects a high degree of conceptual alternativity; that is, the “basicness” of one construction compared to the others is less important than the usefulness of each construction in accomplishing the communicative goals of the speaker. The notion of the BLC is a useful tool for cross-linguistic comparison, but the findings presented here suggest that it might not capture the whole reality of speakers’ preferences for locative strategies or even necessarily the “basicness” of locative construal types.

8.2 Typological issues

Secoya also presents certain challenges to Ameka and Levinson’s typology of locative predication (2007), which typifies languages according to their BLCs. First, the language has elements that coincide with each of types I–III in the typology, all of which are used to describe prototypical scenes in response to Where-questions: a semantically generalized verb *tuidze* (and to a lesser extent an existential-like verb; Type I); a small, closed set of postural verbs (Type II); a larger set of disposition-denoting verbs (including ‘float’, ‘lean’, ‘be hooked’, etc.; Type III); and a large open set of disposition-denoting manner verbs that occur in a copula construction (also Type III). Second, while the original typology allows for a subtype of the small-set category (IIb) to contain “Ground-space indicating” (i.e., deictic; 2007: 864) verbs, it does not explicitly make space for topological verbs that profile or elaborate Ground object geometry, a crucial component of the Secoya system (see Section 6).

For comparative purposes, Secoya would seem to coincide most closely with the small-set category (Type II). Many of Ameka and Levinson’s (2007) predictions regarding small-set systems do hold for Secoya: the postural set includes exactly those verbs that are deemed the most likely to occur (‘sit’, ‘stand’, ‘lie’, and ‘hang’); the posturals often appear in the copula construction with a resultative reading; and speakers’ choice between the posturals is governed in part by abstract Figure properties. However, contrary to the typology’s predictions, Secoya’s postural verbs are not used “presuppositionally” and do not serve a sortal function. While axially extended objects such as bottles tend to stand or lie rather than sit (as per the prediction that posturals correlate with abstract Figure properties), objects do not seem to have canonical or presupposed positions. We know this because, in the instances that multiple identical objects are arranged in mixed positions, Secoya speakers specify all of the relevant positions rather than using a single postural to refer to all of the objects. As such, Secoya posturals do not “sort” objects based on their individual-level properties and canonical positions but instead specify their stage-level configurations. These two parameters are inversely tied up with one another: the stronger the “assertional” function of a set of postural verbs in describing stage-level

properties, the weaker the verbs' sortal function according to individual-level properties. Finally, the Secoya small-set system can be subdivided according to two distinct semantic verb types: the topological verbs 'be on' and 'be in' must be included here in addition to the posturals already predicted to occur in Type II systems.

8.3 Diachrony

A look at the synchronic picture of Secoya (as well as other Amazonian languages; e.g., Kotiria, Wa'ikana, Tanimuka, Yuhup, Ese'ejá) reveals that the various locative predicate types are functionally complementary in that they allow speakers to profile different aspects of the same locative scene, and so the choice of one predicate type over another has consequences for conceptual construal. While Ground-denoting topological verb constructions as a BLC component do not have a dedicated place in the current version of the typology, the data presented here suggest that they constitute a subsystem: in Secoya, these verbs are more semantically specified than the vacuous inverse-locational predicate *paʔi*, but considerably more schematic than the disposition-denoting verbs that appear in the copula construction. The versatility of 'be on' (occurring with the highest number of Figures, Grounds and Relation types of any verb in the system; see Figures 3, 4, and 5) could be evidence of this verb's partial progress along a grammaticalization path toward a semantically generalized locative predicate. Even now, though 'be on' still entails some kind of support against the pull of gravity, the variety of Relation types it is used to describe suggests that it has perhaps already become more generalized than is fully illustrated by the English gloss. This observation is also supported by the fact that it competes with every other predicate type (including all four posturals as well as 'be in'; see Figure 2) on one or more stimulus items, a finding which seems to parallel cross-linguistic evidence for the competition/specialization stage of the grammaticalization process (Bybee 2015; Hopper 1991). However, this path of development would have to be tested by means of a more explicitly diachronically-oriented study.

But why would a topological verb be the likeliest candidate to develop into a generalized locative predicate? It is not difficult to imagine that the topological verb 'be on' should in a sense "win out" over postural verbs because topological verbs are already considerably less restrictive than posturals in terms of allowable Figures. Since a larger object supporting a smaller object is a typical feature of most Figure–Ground configurations, the 'on' notion expressed by the topological verb could be considered *immanent* (in the sense used by, e.g., Langacker 2008) in the spatial meanings denoted by the postural verb construction.

9 Conclusions and outlook

The present study was conceived and executed with two goals in mind: to provide a detailed description of the grammatical expression of location in Secoya and to analyze the conceptual construals represented by locative constructions, both of which have consequences for existing typological models. First, we found that Secoya displays four unique constructions to predicate location, each profiling a specific aspect of locative scenes, and that a high degree of conceptual alternativity raises difficulties in the selection of a Basic Locative Construction. Second, Secoya has features that could be associated with Types I, II and III in Ameka and Levinson's (2007) typology of locative predication. Third, from a diachronic perspective, the verb 'be on' may be developing into a semantically generalized locative predicate. The results reported here contribute to the current understanding of spatial expression in Amazonian languages (a topic as yet underrepresented in the semantic-typological literature) and of the role of spatial conceptualization in structuring human language more generally. Additionally, they shed light on both the usefulness of the standard typology of locative predication and its need for adjustment and refinement in certain areas. For instance, the typology should include a topological verb subtype, and could benefit from incorporating a dynamic dimension to help identify grammaticalization paths.

The approach taken here suggests multiple avenues for further research. From a diachronic perspective, paying closer attention to the conceptual-semantic features of specific verbs in a given locative system, to their synchronic patterning, and to their lexical sources would constitute meaningful steps toward the goal of predicting directions of change. Similar studies on other languages of Amazonia may also prove fruitful: there is little reason to imagine that Secoya is unique among the world's languages in having multiple "preferred" locative construction types, and the overview of locative expression in Amazonia given in Section 2 suggests that other languages in the region may show similar patterns. Finally, further cognitive-semantic research (especially on smaller and less-studied languages) may provide insight into the relationship between multiple construal and the notion of conceptual "basicness" of construal types.

Abbreviations

ADE	adessive
COP	copula
CAU	causative
CLF:CONT	classifier container

CLF:CYL	classifier cylinder
CLF:FIL	classifier filiform
CLF:SPH	classifier sphere
COLL	collective
CPL	completive
DE	direct evidence
DIM	diminutive
DS	different subject
DUR	durative
F	feminine
FOC	focus
FOC.RES	restrictive focus
GEN	gender
IE	indirect evidence
IMP	imperative
INC	inchoative
IPFV	imperfective
LOC	locative
M	masculine
NOM	nominative
NZR	nominalizer
PFV	perfective
PL:ANI	plural animate
PL:INA	plural inanimate
REP	reportative
SG	singular
N3SG	non-third-person singular
N2/3SG	non-third-or-second person singular

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Data availability statement: The linguistic data on which this study is based is archived as “Secoya Field Materials” with Survey of California and Other Indian Languages at the University of California, Berkeley (collection 2021-07; <https://doi.org/10.7297/X2QR4VPG>). The Picture Series for Positional Verbs (PSPV) designed by Ameka et al. (1999) that was used to collect the data is available at <https://doi.org/10.17617/2.2573831>.

Appendix A Pictures that elicited similar responses across all six speakers

Verbs	Pictures
be on	6, 19, 21, 23, 24, 25, 26, 34, 37, 43, 47, 54, 61, 86
lying	7, 11, 39, 40, 42, 51
standing	20
hanging	82

Appendix B Pictures that elicited different responses across speakers

	Two responses	Three responses or more
be on	4, 8, 10, 12, 14, 17, 18, 29, 32, 35, 41, 44, 48, 49, 50, 52, 55, 56, 57, 63, 64, 66, 76, 77, 80,	13, 16, 31, 36, 45, 46, 68
be in	5, 22, 27, 53, 62, 63, 87	2, 16, 60, 67
lying	3, 4, 8, 15, 17, 18, 22, 32, 50, 77, 87	16, 28, 45, 46, 65, 68, 69
standing	9, 10, 11, 58, 62,	13, 28, 31, 38, 46, 60, 65, 67
hanging	27, 33, 41, 49, 55, 59, 64, 71, 85	38, 68, 69,
leaning	1	
sitting	5, 58, 79	2, 79
copula	9, 14, 15, 29, 30, 33, 35, 44, 48, 53, 56, 57, 59, 66, 79	13, 16, 28, 31, 36, 38, 45, 60, 65, 67, 68, 69, 79
exist	3, 12, 30, 71, 79, 80, 85	2, 31, 36, 69, 79

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