To 'put' or to 'take'?

Verb semantics in Tzeltal placement and removal expressions

Penelope Brown
Max Planck Institute for Psycholinguistics

This paper examines the verbs and other spatial vocabulary used for describing events of 'putting' and 'taking' in Tzeltal (Mayan). I discuss the semantics of different 'put' and 'take' verbs, the constructions they occur in, and the extensional patterns of verbs used in 'put' (Goal-oriented) vs. 'take' (Source-oriented) descriptions. A relatively limited role for semantically general verbs was found. Instead, Tzeltal is a 'multiverb language' with many different verbs usable to predicate 'put' and 'take' events, with verb choice largely determined by the shape, orientation, and resulting disposition of the Figure and Ground objects. The asymmetry that has been observed in other languages, with Goal-oriented 'put' verbs more finely distinguished lexically than Source-oriented 'take' verbs, is also apparent in Tzeltal.

1. Introduction

Languages vary in the ways in which they categorize events, in the granularity with which they divide up a particular semantic domain, in the kinds of distinctions that make a semantic difference warranting a distinct lexical item, and in the location in the clause where particular spatial information is encoded (Talmy, 1985, 2000; Majid & Bowerman, 2007). One important domain worthy of systematic exploration in this regard is events of caused motion, here operationalized as events of putting small manipulable objects and bodyparts into places and removing them from places (henceforth 'placement/removal' or 'put'/'take' events). These are often the basis for universalistic claims: for example, Gleitman (1990:30), in support of her claim for universal alignments of syntax and semantics, argues for the universal naturalness of three arguments for 'put' verbs (a putter, a puttee, and a location). Similarly, Goldberg, Casenhiser and Sethuraman (2004) propose that across languages, 'put' is the canonical verb that best represents the meaning of the caused motion construction ("x CAUSES

Y TO MOVE Z"). Previous comparative work on this semantic domain has shown that there are crosslinguistic patterns in the asymmetries with which Source-oriented and Goal-oriented events are construed (Ikegami, 1987; Lakusta & Landau, 2005), with for example 'put' verbs tending to be more finely differentiated than 'take' verbs (Regier, 2007).

This paper examines the expression of putting and taking events in the Mayan language Tzeltal. Based on the responses of 12 consultants to a standardized set of videoclips depicting a variety of placement and removal events (see the introduction to this volume, and Bowerman, Gullberg, Majid & Narasimhan, 2004), I analyse the Tzeltal verbs used for describing these kinds of events, the other spatial vocabulary principally implicated in the descriptions (directionals, relational nouns), and the main constructions employed. The focus is especially on how these kinds of events are construed, and the role in this construal of semantically general placement verbs (e.g., *ak'* 'give/put', *tzak* 'grasp/take in hand' and *lok'es* 'extract, take out'), in contrast to placement verbs that are semantically specific, lexically differentiating events on the basis of characteristics of the geometric properties of the Figure, the Ground, and spatial properties of their relation.

To preview the conclusion, it will be shown that most of the Tzeltal verbs drawn upon for description of placement events are not specific to placement – the roots are usable for many other kinds of events. Instead of having a dedicated set of verb roots for placement, Tzeltal has a more general semantic domain of spatial configuration that encompasses both caused motion events and locative states: with the same set of verb roots used in different "constructions" one can talk about BEing in a spatial configuration or GETting-INTO a spatial configuration. With a largely distinct (and distinctly smaller) set of verbs, one talks of REMOVing something from a Ground location, with the spatial configuration at the Source often irrelevant to the verb used (except for events involving extraction from tight fit or peeling off a surface). In other words, events of putting and taking do not constitute a semantic domain that is clearly distinguished from other kinds of transitive events in Tzeltal.

In this semantic arena of caused placement/removal, just as has been found for locative expressions (Brown, 1994, 2006; Bohnemeyer & Brown, 2007), Tzeltal is a 'multiverb language', with a tendency to use many verbs to distinguish different placement events depending on the spatial details of the Figure, the Ground, and the resultant spatial arrangement. But unlike positional-verb languages like Dutch and Yélî Dnye (cf. Ameka & Levinson, 2007, and Levinson & Brown, this volume), Tzeltal does not rely on a small closed set of verbs (e.g., 'sit'/'stand'/'lie'). Tzeltal is a language with a large open set of verbs, not dedicated just to placement events, that are drawn upon to describe the variety of spatial arrangements involved in placement events with different kinds of Figures and Grounds. Placement in Tzeltal is very often conveyed via constructional meaning, with transitivizing morphemes (and frequently, directionals) bringing in the placement meaning to verb roots that do not inherently encode placement semantics.

2.   Method

Twelve Tzeltal consultants (7 male, 5 female, with ages ranging from about 30 to about 55) responded to a standardized elicitation tool (Bowerman et al., 2004) consisting of 63 short video clips depicting events of putting an object (or a bodypart) on/in/at or removing it from some Ground location (see the introduction to this volume for details about the stimuli and the elicitation procedure). With two of the consultants, additional elicitation probed for the range of possible responses to the stimuli, in order to establish the range of events for which the most general placement verbs could be used.

Descriptions of the depicted events were tape recorded, transcribed, and coded for verb usage, construction type, and type of event (whether it was 'put', 'take', or symmetric 'putting' and 'taking' (e.g., 'give/receive') that were depicted in the clip). Two analyses were undertaken: (1) of all spontaneously produced and elicited responses to the elicitation videoclips (giving an indication of the range of verbs applicable to these events), and (2) of the *first* responses spontaneously provided by consultants.[1]

3.   Linguistic resources for placement events in Tzeltal

Tzeltal is a Mayan language spoken by about 280,000 people in southeastern Mexico. It is a verb initial, headmarking, mildly polysynthetic language with free nominal ellipsis, and with obligatory aspect marking and obligatory ergative/absolutive crossreferencing of core arguments on the verb. Spatial information is carried principally in verbs, directionals, auxiliaries, and relational nouns (see Brown, 2006 for details). The present work was conducted in the rural community of Tenejapa, where most families are still subsistence farmers and many are effectively monolingual in Tzeltal. Tzeltal is the language of the home and the local community; Spanish is used in interactions with the outside world and in school. Young people are increasingly becoming bilingual in both.

3.1   Predicating placement events in Tzeltal

The primary locus for placement information in Tzeltal is the verb. Tzeltal has just one semantically general 'put' verb, *ak'*, which is even more general than English *put*, as it encompasses both 'put' (inanimate goal) and 'give' (animate recipient) meanings. There is also one general 'insert' verb: *otz-es* 'enter-CAUS'. There are two relatively general 'take' verbs: *lok'-es* 'extract [lit.: exit-CAUS]', and *tzak* 'grasp in hand' which in collocation

---

1.   By 'first response' I mean the consultants' first accurate response to the target event. In a few cases target events were initially misconstrued (e.g., putting a stone in one's pocket was construed as taking the stone out of the pocket), whereupon consultants were prompted, and the 'first response' is the first description offered to the event as intended to be construed.

with a directional (e.g., *tal* 'coming', *bel* 'awaywards', *lok'el* 'exiting') indicates a 'take' event. In addition, there is a large repertoire of 'dispositional'[2] verb roots that are not specific to placement events, but can be used either transitively to mean 'put (it) into a particular spatial disposition' or statively to mean 'be in that disposition'. Some of these can make a second distinction, with the transitivized form (with an infixed *-j-*) used for 'putting' events and the bare root followed by a directional for 'taking' events (for example, *pajchan* 'place it bowl-shaped sitting' = 'put', in contrast to *pach lok'el* 'carry/ hold it bowl-shaped upright exiting' = 'take away', or *lejchan* 'place it flat-lying (of a 2D nonflexible object)' = 'put', vs. *lech bel* 'hold/carry flat-lying object awaywards' = 'take it away'). Many such semantically specific verbs were used to describe the events depicted in our stimuli: a total of 66 distinct verbs were used for 'putting' events and 22 for 'taking' events in the responses to the elicitation clips.[3] (A glossary of these is provided in the Appendix). The variety of verbs reflects the high level of semantic granularity with which 'put' events are differentiated, in contrast to 'take' events.

The examples just given exemplify a second resource for expressing placement events: directional adverbials grammaticized from motion verbs, which directly follow the verb. These are drawn from a small closed set, and are often used to indicate the direction (or 'path') of the object's movement; indeed they are often the only overt indication that movement has occurred (e.g., *tzak lok'el* 'grasp-in-hand exiting', meaning 'take [it] out [of containment']). Directionals allow verbs that are not semantically 'put' or 'take' verbs to apply to placement events, for example *jop tal* 'pile [particulate things, e.g., a handful of beans or rice] coming' meaning 'put [them] down' vs. *jop bel* 'pile going/awaywards' meaning 'take [particulate things] away'.

There are also multiple resources drawn upon to (optionally) form the Ground-denoting phrase (to Goal or from Source) in a placement predication. There is one generic preposition in Tzeltal, *ta*, which can combine in a prepositional phrase with either the Source or the Goal (or the Instrument). It carries no spatial information about the placement event. It is not possible to encode both Source and Goal (or Instrument) in the same clause; one must use separate clauses, as in (1). (In the examples, the code in brackets refers to the eliciting videoclip (see introduction to this volume). The relevant spatial expressions – verb roots and directionals – are in boldface).[4]

---

2.   This large class of verbs includes positional roots which cannot be used without derivation into a transitive, intransitive, or stative form as well as 'bivalent' roots which can be used alone transitively. All of these share the property of taking a -Vl suffix to create a stative form. See Bohnemeyer and Brown, 2007 for the grammatical details.

3.   Eighty verb roots were used in the task. Eight of these were used for both 'put' and 'take' events, the meanings in most instances differentiated with directionals (see 3.1, and examples in 3.2, below).

4.   The three-number code in Tzeltal examples indicates the eliciting videoclip; the complete list of clips is provided in Narasimhan, Kopecka, Bowerman, Gullberg & Majid, this volume. Grammatical abbreviations in Tzeltal glosses include: 1, 2, 3E = lst, 2nd, 3rd person ergative; 1,2,3 A = lst, 2nd, 3rd person absolutive, 1plincl = lst plural inclusive, 1plexcl = lst plural

(1)   (052, push suitcase from car to tree)
      la   s-wes-0   bel   mochila,
      CMP 3E-slide-3A   DIRgo   suitcase,
      ba   y-ak'-0   ta   y-ok   te'
      AUXgo 3E-give/put-3A   PREP 3E-base tree
      'He slid the suitcase away [from behind the car], he put it at the base of the tree.'

Relational nouns are optionally used to make the exact spatial relation of the Figure object to the Ground object explicit (e.g., 'to/from/at the *base* of the tree' (Ex.1), 'to/from/at the *inside* of the tree' (Ex.4)).

Putting the verb complex together with the Ground phrase gives us the expression typically used to encode placement events. This can be summarized as in the template shown in (2), which is applicable to both 'put' and 'take' events (examples (3) and (4), respectively) showing how spatial information about placement is distributed across several elements in the clause:

(2)   ASPECT   ERG-Verb.stem-ABS (DIR)   PREP.   GROUND (FIGURE)

(3)   (129, put suitcase out of room)
      la   y-ak'-0   ochel   ta   y-ut   na   te   kaxa=e
      CMP 3E-give/put-3A   DIRenter PREP 3E-inside house ART box=CLI
      'He put the suitcase in the house.'

(4)   (135, take pen out of hole)
      la   s-tzak-0   tal   lok'el   ta   y-ut   te'   (te lapis=e)
      CMP 3E-grasp-3A   DIRcome DIRexit PREP 3E-inside tree   (ART pen=CLI)
      'He took it (the pen) out from inside the tree.'

The syntactic treatment of the Figure and Ground constituents is relatively fixed. There is no provision for argument structure alternations in this Tzeltal structure, i.e. no way, for example, to alternate between 'he put the cup (on) the table' and 'he put the table (with) the cup', although the item in focus can be changed by preposing one of the noun phrases (e.g., 'The cup, he put it on the table.')

3.2   Constructions used to describe placement events

Six constructions, listed below, dominated in the 'put/take' descriptions elicited with our video stimuli. Among these the first two – move-(it)-to-location, and simple

---

exclusive; ART = definite article, ASP = neutral aspect, AUX = auxiliary, ICP = incompletive, CMP = completive, CAUS = causative suffix, CL = classifier, CLI = clause-final clitic, DEIC = deictic particle, DIM = diminutive, DIR = directional, DIT = ditransitive, IMP = imperative, NOM = nominalizer suffix, PERF = perfect, PREP = preposition, PT = particle, RECIP = reciprocal, RELN = relational noun.

transitive (just a transitive verb with optional directional(s), but no location phrase) – were overwhelmingly predominant in the descriptions.

1. *Transitive Move-to-Location*

> (5) (001, cup on table)
> la   s-*pajchan-0*   ta   **ba** mexa
> CMP 3E-set.down.bowlshaped-3A PREP top table
> 'S/he set down (a bowl-shaped object) on the table top.'

When the Ground has already been introduced, the prepositional phrase may be replaced by deictic 'there', and one or more directionals may follow the verb indicating direction of motion of the Figure object:

> (6) (024, head in bucket)
> la   s-*xoj-0*   **ochel** s-jol   tey   a
> CMP 3E-insert-3A DIRenter 3E-head there DEIC
> 'S/he put in her head entering there.' [in bucket]

An auxiliary may precede the verb, indicating direction of motion (coming/going) of the agent:

> (7) (011, apple in bowl)
> tal   y-*ak'-0*   mantzana tey   a   ta   setz
> AUXcome 3E-give/put-3A apple   there DEIC PREP bowl
> 'He came and put an apple there in the bowl.'

2. *Simple Transitive (with no location phrase)*

> (8) (111, take 'apple' from box)
> la   s-*tzak-0*   **tal**   **lok'el** mantzana
> CMP 3E-grasp-3A DIRcome DIRexit apple
> 'He took the apple out.'

The simple transitive construction is used in the 'put/take' descriptions especially for events of putting on/taking off clothing:

> (9) (126, take off sock)
> la   s-*lok'-es-0*   s-potz-il   y-akan
> CMP 3E-exit-CAUS-3A 3E-wrap-NOM 3E-foot
> 'He took off his sock.'

> (10) (026, boot on foot)
> la   s-*lap-0*   xan **ochel** s-bota=e
> CMP 3E-put.on-3A again DIRenter 3E-boot=CLI
> 'He put his boot back on.'

An instrument is sometimes mentioned:

(11)   (105, take beans from flat surface)
       la   s-jop-0   *bel   ta   s-k'ab*
       CMP 3E-gather.in.hand-3A DIRgoing PREP 3E-hand
       'He gathered (them) away with his hand.' [pile of beans]

The four other constructions, used in more restricted contexts in the elicited data, are as follows:

3. *Ditransitive*
Ditransitive is used especially for transfer of objects between humans:

(12)   (022, give cup to someone)
       la   y-ak'-be-0   *te   j-tul*   *ach'ix=e*
       CMP 3E-give/put-DIT-3A ART CLone-CLhuman girl=CLI
       'He gave (it) to her, the one girl.'

But the ditransitive construction is not obligatory for *ak'* even in its 'give' sense when a human recipient is involved; in fact no Tzeltal verb root is obligatorily ditransitive (Brown, 2007b).[5]

4. *Reciprocal*
The reciprocal is used especially for events of transferring an object between two persons; this was the dominant way of describing events where one person gave/took away a drink can from another:

(13)   (122, take coke can from someone)
       la   y-ak'-be-0   *s-ba*
       CMP 3E-give/put-DIT-3A 3E-RECIP
       'They gave it (to) each other [one gave, one received].'

This use of a reciprocal to describe unidirectional events is not uncommon across languages (Evans, Gaby, Levinson & Majid, 2011).

5. *Intransitive*
The intransitive construction is used especially for events where the object transfer was accidental:

(14)   (021, spill water on table)
       0   mal-0
       CMP spill-3A
       'It [water] spilled.'

---

5.   Transitive and ditransitive constructions are both also possible with *ak'* in its 'put' sense (inanimate goal), (e.g., transitive *la y-ak' jun ta mexa* 'he put the book on the table', vs. ditransitive *y-ak'-oj-be ta patna* 'he has put it for her at the back of the house'). So the ditransitive does not disambiguate *ak'* in these two senses.

An agent may be indirectly indicated with the relational noun *yu'un*:

(15) (113, knock over bucket so blocks spill out)
      ay   bi   0   tujkiy-0   y-u'un   tey   a
      EXIST something CMP spill.particulate.things-3A 3E-RELN there DEIC
      'There's something that spilled out there due to it/him.'

6. *Nominalization*
A final construction employed in response to our elicitation stimuli is nominalization
of the action (used predominantly with passives):

(16) (018, flower in hair)
      la   y-ich'-0   xoj-el   ala nichim ta   y-ala   jol
      CMP 3E-receive-3A insert-NOM DIM flower   PREP 3E-DIM hair
      'The little flower got inserted [lit.: received insertion] in her hair.'

Tzeltal speakers construe the placement and removal events depicted in our stimuli
from a variety of perspectives, and a wide range of verbs – more than 80 – were em-
ployed in describing the stimuli presented in the task. The next section considers the
use of relatively general verbs vs. semantically specific verbs in the different events,
looking at consistency of verb usage across speakers in descriptions of 'put' vs. 'take'
(4.1), frequency of verb usage and the range of events individual verbs can encompass
(4.2), the semantics of specific verbs (4.3), and asymmetries in the linguistic treatment
of 'put' vs. 'take' events (4.4).

4.   Verb semantics: Specific or general?

In this section I look at patterns of possible vs. actual verb usage in responses, the con-
sistency of verb use across speakers when describing a given event, and the frequency
of verb use across all speakers and all depicted events. A different pattern of verb se-
mantics in descriptions of 'put' vs. 'take' events can be seen; these will be taken up
separately. Finally, I consider the issue of what kinds of semantic distinctions charac-
terize 'put' descriptions in contrast to descriptions of 'take' events.

4.1   Verbs used to describe placement and removal events

Let us first consider all the verbs usable across the range of 'put' events presented in the
stimuli clips.

4.1.1   *'Put' events*[6]
Looking first at possible uses of the semantically general placement verb *ak'* 'put/give',
we find that, of the 35 elicitation clips which were construed by Tzeltal speakers to

---

6.   I include with the 'put' responses four honorary placement events that were generally inter-
preted by consultants as Goal-oriented events: 112 dump out blocks, 113 spill blocks from

depict 'put' events, all but 8 could take *ak'*. The eight which consultants agreed could not take *ak'* are events with one of the following properties: (i) events where the action was depicted as unintended (009, accidentally drop book, 021, spill water accidently), (ii) where the action was done in a non-prototypical manner (010, toss book on floor, 017, stuff rag into car exhaust), (iii) where the scene involved bodypart insertions (023, hand in hole, 024, head in bucket) or putting on clothing (026, boot on, 033, coat on). In the last two cases *ak'* is pre-empted by the dedicated put-on-clothing verb, *lap*.

Despite the wide applicability of *ak'* 'put/give' to placement events, if we look at consultants' actual usage as shown by their first spontaneous responses to the elicitation clips, we find that in only 9 of the 35 events was *ak'* actually preferred (where it was the verb offered more often than any other verb by the 12 speakers). For the animate 'giving' scene (022, give cup to someone), the ditransitive *ak'be* or the reciprocal *ak'be sba* is the unanimous response across all 12 speakers (and in addition, as we shall see, for the 'take' scene 122 (take cup), 7 out of 12 consultants used *ak'* with the reciprocal until pressed for an alternative focussing on the recipient). The other events tending to take *ak'* are (in decreasing order of preferredness) shown in Table 1. For one of these events there was actually a 'draw' between *ak'* and another verb: for 006 (put box up onto shelf) 5 speakers used *ak'* but 5 other speakers preferred the specific verb *kajan* 'mount on').

The general verb *otzes* 'make-enter' was preferred for only one scene (it was used by six consultants for clip 023, put hand into hole in tree). For other events, *otzes* was used only once each, in clips 012, drop apple into bag, 017, stuff rag into car exhaust, 024, put head into bucket, 025, put hat on head, showing that despite its general semantics it is not regularly used as a general-purpose 'put in' verb.

Maximum consensus across consultants for 'put' verbs – with all twelve providing the same verb as a first response – was found only in descriptions of three 'put' events. As mentioned, the general verb *ak'* was unanimously preferred for the human exchange events 'give' and 'take' a drink to/from someone (022 and 122). In the majority of cases the construction used was reciprocal ('they gave/put it to each other') regardless of whether the action was one of 'giving' or of 'taking'. For the latter, however, when they were asked, consultants usually conceded that the participants did not really 'give' (*ak'*) it to each other, one of them 'took' (*tzak*) it. Two other events, both of putting on clothing, received unanimous first responses with the verb *lap* 'put on clothing' (these were 026, put boot on foot, and 033, put coat on).

There were just eleven 'put' events (31%) for which there was a quite high degree of agreement across speakers, with 3 or fewer different verbs spontaneously used by different speakers, including the three unanimous (1 verb only) ones mentioned above. These are shown in Table 2, along with the number of consultants who provided the

---

bucket onto floor, 120 pour water out of tin onto ground, 129 put suitcase out of room while staying in room.

Table 1. PUT verbs for each scene where *ak'* 'give/put' is a preferred verb in first responses to target event

Elicitation scene	Preferred verb	Number (%) of consultants using it in first response	Other verbs used to describe scene (in first responses)
022 give cup (to someone)	*ak'be* 'give to him'	12 (100%)	
011 put apple in bowl	*ak'* 'give/put'	9 (75%)	*pejk'an* 'set low down' (1), *pajchan* 'set down (bowl) upright' (1)
005 put a fistful of rice on a table	*ak'* 'give/put'	8 (66%)	*bujsan* 'spill (particulate things)' (3), *jop* 'gather together (particulate things)' (1)
013 flip block off notepad into bowl	*ak'* 'give/put'	6 (50%)	*ch'ay tv* 'make fall' (1), *jip* 'throw' (1), *tik'* 'insert' (2), *kojkon* 'spill/pour' (2)
006 put box up on shelf	*ak'* 'give/put' and *kajan* 'place/make. be. on'	5 each (42%)	*k'ej* 'put away' (2)
019 put stone into pot of water	*ak'* 'give/put'	5 (42%)	*tik'* 'insert' (3), *t'uman* 'insert in liquid' (3), *otzes* 'make enter' (1)
004 put armload of books on table	*ak'* 'give/put'	4 (33%)	*kajan* 'place on top' (3), *latz* 'stack' (3), *pet* 'carry in arms' (1), *pejchan* 'set down (flat thing)' (1)
003 put banana on table with long tongs	*ak'* 'give/put'	4 (33%)	*kojtes* 'make-lower' (1), *kajan* 'place on top' (3), *lut* 'hold between two surfaces' (1), *pejk'an* 'set low down' (1), *mejtzan* 'set down on side' (1), *mojchan* 'set down curving on side' (1)
002 put plastic cup on table with mouth	*ak'* 'give/put'	4 (33%)	*pajchan* 'set down (bowl) upright' (2), *waxan* 'set down (tall thing) upright' (3), *lut* 'hold between two surfaces' (1), *jolta* 'move with head' (1), *ta* 'encounter' (1)

verb in their first responses, to indicate the degree of cross-speaker agreement about the verb most suitable for characterizing these events. Of these, 3 are *ak'* 'give/put' descriptions, including a canonical placement scene (011, put apple in a bowl), a human transfer scene (022, give cup), and a scene (005) where a handful of rice is placed on a table. High consistency is also achieved with *lap* for clothing events, as well as with two semantically specific positional verbs (*tik'* 'insert in container', *lejchan* 'set down flat') and with certain manner verbs (*jip* 'throw', *mal* 'pour/spill').

Table 2. High-consistency 'put' events (verbs used in first responses)

Elicitation scene	Favorite verb	Gloss	Number of consultants using verb as first response
022 give cup to person	*ak'*	'put/give'	12
011 put apple in bowl	*ak'*	'put/give'	9
005 rice on table	*ak'*	'put/give'	8
026 put boot on foot	*lap*	'put on (clothes)'	12
033 put coat on	*lap*	'put on (clothes)'	12
015 put celery in case	*tik'*	'insert into container with small opening'	10
020 pour liquid into container	*kojkon*	'pour, spill'	9
027 hang rope over branch	*jojk'an*	'hang'	8
007 put book on floor	*lejchan*	'set down flat-lying'	7
010 toss book on floor	*jip*	'throw'	7
120 pour water out of tin˙	*mal*	'pour/spill'	7

˙ treated as a 'put' event by consultants

For seven depicted 'put' events there was much less consensus, i.e. a high degree of variability in usage, with 6 or more different verbs used by the different consultants. These include a canonical placement scene (001, cup on table), but also events with the placement noncanonically performed (002, put cup on table with mouth, 003, put banana on table with tongs). Other high-variability events were 014 (candle into holder), 024 (head into bucket), 027 (rope over tree branch), and the winner: 129 (put suitcase out of room while staying in room) described with 10 different verbs used across the 12 consultants!

In trying to make sense of patterns of placement events that take semantically general vs. specific 'put' verbs, we might ask: Is there anything in common across all those depicted events that are describable with the general verb *ak'* 'give/put'? There does not seem to be. Contrary to what one might predict, these events are not all characterizable as canonical placement of small objects by hand, which might be construed as the prototypical 'put' scene. Such canonical events readily take more specific verbs (e.g., *pach tal bojch* 'put bowl-shaped thing'). But certain constraints are clear: *ak'* cannot be used for events where the action is depicted as accidental or uncontrolled, nor for most put-on-clothing events.

4.1.2   'Take' events

The plethora of Tzeltal verbs applied to 'put' events contrasts with consultants' treatment of 'take' events, where a third as many distinct verbs were used and the relatively general 'take' verbs (*tzak* 'grasp in the hand', *lok'es* 'extract') were more widely applicable.

This suggests that speakers construed the 'take' events less readily in terms of the initial Figure/Ground spatial configuration – the Source – associated with the event.

In contrast to the 'put' events, there were many more 'take' events (20, or 80%) described with a high degree of consistency across speakers, where 3 or fewer different verbs were spontaneously used by the different speakers, as shown in Table 3. Directionals form an important part of the 'take' descriptions: two thirds (67%) of the 300 first responses had at least one directional. Their prevalence in 'take' descriptions is evidence that, in Tzeltal, 'take' descriptions are characterized by a distributed semantics (see discussion of Swedish in Gullberg & Burenhult, this volume). Variability in directional usage is also apparent (directionals follow the verbs and are shown in brackets in Table 3 where they varied across speakers). From the options indicated in the table we can see the extreme of this for the scene depicting taking a box down off of a high shelf, where no less than four distinct directionals were used by different speakers. For just 3 events there was a low degree of consistency in verb use across consultants, with 4 or 5 different verbs used; these involved a bodypart as Figure (123, take hand out of hole), extraction from tight fit (114, take candle out of holder) or a noncanonical configuration (131, take saucer off cup).

The semantically general 'take' verbs *tzak* 'grasp in hand' and *lok'es* 'make-exit' played a significant role in responses.[7] For all but 8 of the 'take' events, *tzak* was considered a possible response. The 8 exceptions where *tzak* is not a possible descriptor are mostly comparable to those where the general 'put' verb is not possible, including clips portraying accidental actions (e.g., 113, spill blocks), non-control over endstate configuration (112, dump blocks, 120, pour out water), extract from tight fit (117, pull rag out of car exhaust, 118, take flower out of girl's hair), an animate Figure or bodypart (123, take hand out of hole), or removal of clothes (126, take off sock, 133, take off coat), which prefer *lok'es* 'take out/off'. The verb *tzak* is also not usable when the act of 'taking' is not done with the hand.

But again, despite the general applicability of *tzak* to most of the 'take' events, there were only 9 events where *tzak* was actually the dominant response (with 6 or more consultants using it as their first response). Two of these received unanimous *tzak* as a first response (111, orange from box, 119, stone out of pot). The others included a number of canonical 'take'-small-object-with-hand events: 101, take cup off table, 106, take box down from shelf, 107, take magazine from floor, 127, 'unhang' rope from branch, 131, take saucer off cup. But they also included two events of extraction from containment: 116, take stone out of pocket, 135, take pen out of hole.

---

7.   Note that neither of these verbs is semantically restricted to placement events: *tzak* can be used to describe stative 'taking in the hand and holding', and *lok'es* can be used more generally for extracting oneself from a situation, for example. But in the data set under consideration here, these were the two verbs most consistently used for describing the 'take' events.

Table 3. High-consistency 'take' events (verbs used in first responses)

Elicitation scene	Favorite verb (boldface) (plus directionals where used)	Gloss	Number of consultants using verb as first response
111 take orange from box	*tzak (tal/lok'el)*	'grasp in hand (coming outwards)'	12
119 take stone out of pot of water	*tzak lok'el*	'take out'	12
101 take cup off table	*tzak (bel)*	'grasp in hand (awaywards)'	11
106 take box down from shelf	*tzak (tal/bel/lok'el/koel)*	'take (it) (coming/away-wards/exiting/downwards)'	10
135 take pen from hole	*tzak (tal/lok'el)*	'grasp (it) (coming/exiting)'	9
127 'unhang' rope from tree	*tzak (tal/lok'el)*		7
133 take off coat	*lok'es*	'extract, make exit'	12
126 take sock off	*lok'es*	'extract, make exit'	9
125 take hat off	*lok'es*	'extract, make exit'	8
102 take cup off table with mouth	*lut*	'hold between two supports (especially mouth)'	11
128 take poster off wall	*toch (bel/lok'el)*	'peel off, remove from tight attachment to surface'	11
104 take armload of books off table	*pet (bel/tal/lok'el)*	'hold/carry in arms (away/coming/exiting)'	9
105 take handful of beans from plate	*jip bel*	'take/hold in hand(s) awaywards (particulate things)'	9
130 take suitcase out of elevator going out with it	*lik (bel/ochel)*	'hold/carry from above by handle'	8
115 take cucumber from recorder case	*nit (tal) lok'el*	'pull out (towards speaker)'	9
117 take rag out of car exhaust	*nit (tal) lok'el*	'pull out (towards speaker)'	7
118 take flower out of hair	*nit (tal/bel) lok'el*	'pull (towards you/awaywards) out'	7
122 take coke can from someone	*ak'be sbaik*	'give each other'	8
103 take banana off table with tongs	*lot'*	'squeeze between forked object'	6
116 take stone out of pocket	*ch'op*	'insert hand into tight fit and pull out (in order to extract something)'	7

The picture for the other relatively general 'take off/out' verb specialized to extraction events is rather different. The verb *lok'es* 'make-exit' was preferred for just 3 events involving removal of clothing: 125, take hat off, 126, take sock off, 133, take coat off. Yet this underestimates the importance of this semantically general verb *lok'es*, which was used by at least some speakers for all but 11 events: namely, the eleven that did not involve tight containment of any kind, but instead portrayed taking objects off of flat surfaces (table, shelf, floor), or out of large containers, or from a human hand. The use of *lok'es* by some speakers indicates that it is a suitable verb for a given scene even though other more specific verbs may also be applicable, and that for not all speakers do the more specific verbs preempt the use of *lok'es*.

In addition, with verbs other than *lok'es*, the directional *lok'el* 'exiting' (based on the same root, *lok'*) was used by at least some speakers in describing all but 7 'take' events (101, 102, 103, 107, 122, 130, 131), meaning that the semantics of 'exiting' is present via this directional *lok'el* in most removal descriptions.

4.2   Verb frequency: 'put' vs. 'take'

A different measure – frequency of usage of particular verbs used in the task and their applicability across the different events – can give us an idea of the semantic breadth of different verbs used in describing 'put' vs. 'take' events. Turning to assess verb frequency, we consider just consultants' first responses to the elicitation stimuli. This will give us a sense of the clustering of events categorized together by a given verb.

For the 'put' events, there were a total of 413 first responses[8] across all speakers and all stimuli, in which 66 different verbs were used. If, as a minimal criterion of a verb's frequency, we take use in at least 20 first responses to the depicted events, we find that only 4 verbs fulfilled this criterion, and these differ in the extent to which frequency reflects applicability cross different events. These high-frequency 'put' verbs are shown in Table 4.

Table 4. High frequency 'put' verbs

Verb	Gloss	Number of uses in first responses	Number of events applied to
ak'	'put/give'	80	19
tik'	'insert into container'	49	11
lap	'put on clothes (except hats, belts')'	25	3
kojkon	'pour, spill'	21	4

---

8.   The total of 413 is less than the total possible of 420 (35 x 12) because seven responses were uninterpretable.

The general verb *ak'* 'put/give', which can apply to most of the 'put' events, was used in 80 (19%) of the first responses. But *ak'* is pre-empted by specialist positional verbs for many events, and for many speakers. The verb *tik'* 'insert into container', a relatively general verb for insertion, is the second most frequent. (This, however, is entirely dependent on our extensional set of events depicted, as *tik'* is restricted to insertion into containers with a discernable entry point or 'mouth'). Another frequent verb, *lap*, is dedicated to putting on clothing (except hats and belts); this was used for 100% of the clothing events portrayed, but for only one other, so frequency does not reflect a large degree of applicability across events in this case. A fourth high frequency verb is *kojkon*, restricted to events of pouring liquid or particulate contents into a container. Note that the semantically general verb *otz-es* 'make-enter' (i.e. 'put in') was not a high-frequency verb; it was used in only 6 first responses across all the stimuli clips.

The rest of the verbs used in the 'put' descriptions are semantically specific verbs, which we will look at more closely in 4.3.

Turning to the first responses to 'take' target events for which 20 or more consultants gave the same verb: for the 'take' events there were 300 first responses, and 22 different verbs were used. Only three are high-use verbs (used 20 or more times in consultants' first responses), as shown in Table 5. Two of these are semantically general *tzak* 'grasp in hand' and *lok'es* 'extract'; the other – *nit* 'pull with force' – is semantically specific in the sense of being restricted in manner. Note that there is another relatively general 'take' expression, namely *ich' bel* 'take away', but this was not a frequent verb in this data: it was used in only 3 first responses.

4.3   Semantic specificity in verbs for 'put' vs. 'take'

We have found that semantic specificity characterizes many of the verbs used in the 'put/take' task. But are the kinds of semantic distinctions that these verbs encode comparable across verbs used to describe 'put' events vs. 'take' events? Setting aside verbs which characterize manner of placement (e.g., 'drop', 'slide') or manner of removal (e.g., 'pull', 'carry in arms'), since these are manner-specific in similar ways in both 'put' and 'take' contexts, we may ask: What semantic distinctions are characteristically made in 'put' verbs but not in 'take' verbs?

Table 5. High frequency 'take' verbs

Verb	Gloss	Number of uses in first responses	Number of events applied to
tzak (*tal*) (*bel*) (*lok'el*)	'grasp in hand, take (coming/ awaywards/outwards)'	108	18
lok'-es (*tal*)	'make exit, extract'	56	14
nit (*tal*) *lok'el*	'pull out (coming) exiting'	40	8

As is evident from the glosses provided (see Appendix), 'put' descriptions in Tzeltal place heavy emphasis on the physical characteristics of Figure and Ground and on the endstate spatial arrangement between them. Crucial semantic distinctions (often in combination) include the following:

1. the shape of the Figure: e.g., seated on base/bottom (*najkan*), inverted bowl-shaped thing (*nujan*) or of the Ground (e.g., hole-shaped (*ch'op*, *jotz*), container with an opening (*tik'*);
2. the physical consistency of the Ground: e.g., in water or granular medium (*mul*), immersed in water (*t'uman*);
3. the size and multiplicity of the Figure: e.g., small multiple objects (*jop*);
4. the form of support: e.g., held in hand from underneath (*loch*) vs. from above (*lik*); hanging (*jijpan*) vs. hanging from a point (*jojk'an*) or from an extended horizontal surface (like lips) (*lujtan*) or from a line (*jijpan*); attached with different kinds of adhesive force (e.g., *nap'/najp'an* vs. *nojtz'an*);
5. the spatial orientation of the Figure: e.g., vertically-standing (*tujchan*, *tz'ajpan*, *waxan*), flat-lying (*lejchan*, *pejchan*), lying on its side (*mejtzan*) or curved on its side (*mojchan*);
6. the resultant spatial relationship of Figure to Ground (e.g., vertically-above (*kajan*), tight-fit relation (*ch'ik*, *suk*), encircling (*joyan*), inserted into a stack (*lajtzan*);
7. the vertical level of the resulting state: e.g., *kajan* 'place on, or *toy* 'place high up' vs. *pejk'an* 'place low down'.

In short, the propensity for consultants to opt for a semantically specific verb rather than the general verb *ak'* in describing placement events is related to the extent to which the scene depicted involves a particular manner of holding/carrying objects of particular shapes, and letting go of one's grasp of them such that they end up in a particular spatial configuration at the Ground. When an object being placed has a long-thin axis, for example, speakers' descriptions reliably distinguish whether it is placed upright or horizontally. Liquids are treated differently from solids, and clothing receives its own specialized put-on-clothing verb (*lap*).

Some of the same semantic distinctions can also be made in 'take' descriptions:

1. size and multiplicity of the Figure: e.g., *jop lok'el* 'grasp-small-multiple-things-in-hands awaywards';
2. the relationship of Figure to Ground at the Source: e.g., *botz' lok'el* and *sop lok'el* 'extract from tight fit', *jotz lok'el* 'insert hand into hole and take something out';
3. the form of support for the Figure: e.g., *lik bel* 'lift-something-by-hand-so-it-hangs-below awaywards', *lot' bel* 'pinch-between-two-things awaywards', *lut bel* 'take/carry-between-two-supports-[canonically-mouth] awaywards';
4. the vertical level of the Figure at Source: e.g., *tam* 'recover something from the ground'.

Indeed, as mentioned, some verb roots were used both in 'put' and in 'take' descriptions, the latter distinguished by directionals (e.g., *pach bel* 'hold/carry (bowl-shaped object) awaywards', *sop bel* 'extract from tight fit awaywards'). However, shape, positionality and orientation of the Figure and Ground are largely irrelevant in most of the 'take' descriptions elicited by our stimuli clips.

Thus the semantic granularity with which 'put' events are characterized is radically different from that for 'take' events in Tzeltal. This is reflected in the large number of different verbs used to describe the scenes for 'put', and the variability across speakers, in contrast to 'take'. The specificity of meaning of these 'put' verbs suggests that the verbs elicited in response to the stimuli videos are limited by the nature of the events depicted. Many other Tzeltal verbs not produced in the context of this task can express transitive change of location, for example *bat'es* 'make it move farther away'; *ik' (bel)* 'take (an animate being) away, going with them'; *joch (bel)* 'drag/slide large object (e.g. chair) holding it high up', *wes* 'slide object with whole surface in contact with supporting surface, holding it low down', *wotz* 'extract something from tight fit'. The open-endedness of verbs that can be drawn upon to express 'put/take' events indicates that 'put/take' is not a semantically well-defined domain in Tzeltal.

4.4 The significance of 'put' vs. 'take' asymmetry

In one respect, mentioned in 3.1, Tzeltal lexical resources allow complete symmetry in the treatment of events of putting and taking: for Figure objects of particular shapes, there is the possibility of using a positional root both for the 'put' and the 'take' version of a placement event – as in *lejchan* 'set it down flat-lying' vs. *lech bel* 'take it flat-lying-away'. This is the strategy consistently employed in, for example, Yéli Dnye (see Levinson and Brown, this volume). However, in Tzeltal this strategy is not conventionalized as the standard way to talk about placement events, and it turned out to be a minor pattern in the data collected with the current stimuli set, although this might well differ with different stimuli.

We can see further dramatic differences between the Tzeltal 'put' and 'take' verbs both in the consistency of descriptions across speakers and in the applicability of verbs to a wide variety of events. Considering consistency, 61% of consultants' first responses to the 'take' events showed high consistency, using 3 or fewer verbs, in contrast to only 24% of the 'put' events. In terms of frequency/applicability across different event types, although for both 'put' and 'take' only a few verbs are high frequency (4 'put' verbs and 3 'take' verbs were used as first responses at least 20 times by consultants), the 'take' verbs were generally much more widely applied across different events. Directionals indicating the path of motion also display differential usage in the two event types, occurring in 45% of consultants' first responses for 'put' events, but in 67% of the first responses for 'take'. This asymmetry presumably reflects a higher degree of attention to Path (out of, away from, down from, etc.) in 'take' events, in comparison with a

higher degree of attention to the endstate – the final spatial configuration of Figure and Ground – in 'put' events.

Another kind of asymmetry – the tendency to overtly express the Ground NP – is crosslinguistically much less in taking events (where the Ground is a Source) than in putting events (where the Ground is a Goal) (see the articles on Kuuk Thaayorre by Gaby, on Japanese by Ishibashi, and on Lowland Chontal by O'Connor, this volume). Lakusta & Landau (2005) argued that this propensity for languages to encode Source and Goal phrases asymmetrically is driven by cognitive factors, namely a cognitive bias in favor of Goals. It does seem to be the case in my data, consonant with the argument of Lakusta and Landau, that speakers were much less likely to specify the Source in their 'take' descriptions than to mention the Goal in their 'put' descriptions.

These various aspects of asymmetry in construals of 'put' vs. 'take' events in Tzeltal provide support for the argument that Goal-oriented vs. Source-oriented events are not equivalently salient across languages.

5.   Conclusions

It appears that object placement-dedicated vocabulary is rather limited in Tzeltal. The verb *ak'* 'put/give' is general across putting and giving events, use of *otzes* 'make-enter' is quite limited at least for the set of placement events examined in the present study, and the extracting verb *lok'es* 'take out' is not restricted to object-extraction events (encompassing, e.g., taking bodyparts out of clothing, objects out of containment, people out of school, jail, or office), nor is it applicable to many 'taking' situations. Instead there are many verb roots encoding particular spatial properties of objects and their positions relative to each other that can be used intransitively or transitively. The verbs that can be drawn on for spatial descriptions – including placement – amount to perhaps 450 'dispositional' verb roots (Bohnemeyer & Brown, 2007). With a few exceptions (e.g., *tik'* 'insert into container with distinct entrance point') these dispositional roots do not inherently encode placement semantics (including causation and change of location), but (when transitivitized) they are naturally usable for describing placement events, as well as (with a stative derivational suffix) location and (with an intransitivizing suffix) inchoative come-to-be-in-a-position events. The meanings of 'placement' or 'removal' are constructional meanings: it is the transitivizing morpheme (for placement) and, frequently, directionals (especially for removal) which bring in the placement/removal meaning, not the inherent meaning of the verb root. So it is not the action of putting but the spatial properties and disposition of Figure and/or Ground that is lexicalized in many verbs that get used to describe putting events. Given the non-distinctiveness to placement events of these verb roots, directionals are often critical for distinguishing 'put' from 'take' events.

I have found only a limited role for semantically general verbs (*ak'* 'put/take', *otz-es* 'make-enter') for 'put' events, but a much greater role for relatively general verbs (*tzak*

'grasp in hand', *lok'-es* 'make-exit') for 'take' events. Correspondingly, there were many more verbs, and much more variability, in responses to 'put' than to 'take' stimuli. Tzeltal therefore joins the group of languages (for instance, see chapters on Swedish by Gullberg & Burenhult, Polish by Kopecka, and Lowland Chontal by O'Connor, among others in this volume) that show a distinct asymmetry in the way in which events of putting and taking are expressed, with putting events much more richly lexicalized.

But Tzeltal contrasts with many other languages in its predilection for shape and position specificity in transitive predications. The preference we have described here for semantic specificity in encoding placement events is consistent with findings in a number of other domains in Tzeltal, for example, in verbs of cutting and breaking (Brown, 2007a) and in locative expressions (Brown, 1994, Bohnemeyer & Brown, 2007), suggesting a general principle–one favoring 'theme specificity'–at work in this language. It also raises questions for theories like that of Goldberg (e.g., Goldberg, Casenhiser & Sethuraman, 2004) positing that a very general 'put' verb (*put* in English, presumably *ak'* in Tzeltal) is the canonical verb that most closely represents the meaning of the caused motion construction ("x CAUSES Y TO MOVE Z") in a language. This would not serve the Tzeltal child well as a basic meaning for this construction.[9] Cross-linguistic work on young children's acquisition of 'put' expressions (e.g., Bowerman et al., 2002, Slobin et al., 2010) shows that children home in remarkably early on the kinds of language-specific lexicalization patterns that we have demonstrated here for Tzeltal 'put' and 'take'. While it is perhaps not crosslinguistically frequent to have a multiverb strategy for expressing 'put/take' events, as well as for 'cut/break' events, locatives, and a number of other notional domains (e.g., 'eating' verbs (Berlin, 1967), insertion verbs (Narasimhan & Brown, 2009)), this lexicalization strategy does not seem to be psychologically unnatural or difficult for children to learn.

References

Ameka, F. & Levinson, S. (eds) 2007. *The Typology and Semantics of Locative Predicates: Posturals, Positionals, and Other Beasts.* Special issue of *Linguistics* 45(5–6).

Berlin, B. 1967. Categories of eating in Tzeltal and Navajo. *International Journal of American Linguistics* 33: 1–6.

Bohnemeyer, J. & Brown, P. 2007. Standing divided: Dispositional verbs and locative predications in two Mayan languages. *Linguistics* 45(5–6): 1105–1151.

Bowerman, M., Brown, P., Eisenbeiss, S., Narasimhan, B. & Slobin, D. 2002. Putting things in places: Developmental consequences of linguistic typology. In *Proceedings of the 31st Stanford Child Language Research Forum*, E. Clark (ed.), Stanford CA: CSLI. <http://cslipublications.stanford.edu/CLRF/2002/CLRF-2002-toc.html>

---

9.   See Brown, 2007b for Tzeltal evidence that there is no universal prototypical event type for three-argument constructions.

Bowerman, M., Gullberg, M., Majid, A. & Narasimhan, B. 2004. 'Put' project: The crosslinguistic encoding of placement events. In MPI *Field Manual*, Vol. 9, A. Majid (ed.), 10–24. Nijmegen: Max Planck Institute for Psycholinguistics.

Brown, P. 1994. The INs and ONs of Tzeltal locative expressions: The semantics of static descriptions of location. In *Spatial Conceptualization in Mayan Languages*, J. Haviland & S. Levinson (eds). Special issue of *Linguistics* 32: 743–790.

Brown, P. 2006. A sketch of the grammar of space in Tzeltal. In *Grammars of Space*, S. Levinson & D. Wilkins (eds), 230–272. Cambridge: Cambridge University Press.

Brown, P. 2007a. "She had just cut/broken off her head": Cutting and breaking verbs in Tzeltal. In *'Cutting and Breaking' Events: A Crosslinguistic Perspective*, A. Majid & M. Bowerman (eds). Special issue of *Cognitive Linguistics* 18(2): 319–330.

Brown, P. 2007b. Culture-specific influences on semantic development: Acquiring the Tzeltal 'benefactive' construction. In *Learning Indigenous Languages: Child Language Acquisition in Mesoamerica*, B. Pfeiler (ed.), 119–154. Berlin: Mouton de Gruyter.

Evans, N., Gaby, A., Levinson, S.C. & Majid, A. 2011. *Reciprocals and Semantic Typology* [Typological Studies in Language 98]. Amsterdam: John Benjamins.

Gleitman, L. 1990. The structural sources of verb meanings. *Language Acquisition* 1: 3–55.

Goldberg, A., Casenhiser, D. & Sethuraman, N. 2004. Learning argument structure generalizations. *Cognitive Linguistics* 15(3): 289–316.

Ikegami, Y. 1987. 'Source' vs.'Goal': A case of linguistic dissymmetry. In *Concepts of Case*, R. Dirven & G. Radden (eds), 122–146. Tübingen: Gunter Narr.

Lakusta, L. & Landau, B. 2005. Starting at the end: The importance of goals in spatial language. *Cognition* 96: 1–33.

Majid, A. (ed.). 2004. MPI *Field Manual*, Vol. 9. Nijmegen: Max Planck Institute for Psycholinguistics.

Majid, A. & Bowerman, M. (eds). 2007. *'Cutting and Breaking' Events: A Crosslinguistic Perspective*. Special issue of *Cognitive Linguistics* 18(2): 319–330.

Narasimhan, B. & Brown, P. 2009. Getting the INSIDE story: Learning to talk about containment in Tzeltal and Hindi. In *Routes to Language: Studies in Honor of Melissa Bowerman*, V. Mueller Gathercole (ed.), 97–130. Mahwah NJ: Lawrence Erlbaum Associates.

Regier, T. 2007. Attention to endpoints: A cross-linguistic constraint on spatial meaning. *Cognitive Science* 31: 705–719.

Slobin, D., Bowerman, M., Brown, P., Eisenbeiss, S. & Narasimhan, B. 2011. Putting things in places: Developmental consequences of linguistic typology. In *Event Representations in Language: Encoding Events at the Language-Cognition Interface*, J. Bohnemeyer & E. Pederson (eds), 134–165. Cambridge: Cambridge University Press.

Talmy, L. 1985. Lexicalization patterns: Semantic structure in lexical forms. In *Language Typology and Syntactic Description*, Vol. 3: *Grammatical Categories and the Lexicon*, T. Shopen (ed.), 57–146. Cambridge: Cambridge University Press.

Talmy, L. 2000. *Toward a Cognitive Semantics*. Cambridge MA: The MIT Press.

Appendix

Glossary of 'put/take' verbs that describe the object change-of-location subevent, sorted by semantic specificity*

Term	Gloss
Semantically general verbs	
ak'	'give/put'
bislun	'fix, manipulate for a purpose'
otzes	'make-enter'
kajan	'place on/make_be_on'
lok'es *	'make-exit, extract, take out'
poj	'steal, take something away from someone'
tzak	'take in hand, grasp'
Verbs semantically specific about Figure and/or Ground	
botz' lok'el	'pull out from tight fit/containment'
busan	'pile up'
busk'ej IV	'spill, tip out of containment'
busk'in TV	'tip out of containment'
chech	'take something by hand/handle and move it', prototypically another hand (i.e., child's) but also suitcase
ch'ay IV	'fall'
ch'ay koel TV	'drop something (but not from hand)'
ch'ik koel	'insert into tight-fit relation between parallel supports'
ch'oj	'throw, toss'
ch'op/tzop lok'el	'insert hand into holey place' [tree hole, pocket]; +/- take something out with it
ich', ich' bel	'get, take away'
jijpan	'hang'
jip	'throw'
jojk'an	'hang'
jolta	'move something with head'
jop lok'el/bel	'grasp something small and multiple – corn, beans, pebbles – in hand(s) and take it out'
jotz tal lok'el	'insert hand into holey place and take something out'
joyan	'encircle something; hang encirclingly'
kech bel	'carry in both hands, not close to body (contrast *pet*)'
kojkon	'pour liquid/particulates into container'
kojtes	'put something lower down'
k'ej	'put away where it belongs'
latz bel/lajtzan	'put into stacked relation; put stack/pile somewhere'

Term	Gloss
lap	'put clothing on [except hats, belts]; insert'
lech/lejchan	'lie something down flat (nonflexible object)'
lik bel	'lift something by hand so it hangs below and carry it awaywards'
lok' tal IV	'come out, appear'
lop' tal	'insert through, stitch'
lot'	'pinch between two things; does not entail motion'
lujchan tal	'perch it on'
lujtan	'hang/hook it on'
lup	'take (it) out of container (liquid or particulate things)'
lut [†]	'take/carry between two supports (canonically in mouth)'
mal IV	'spill, pour'
mal koel TV	'spill, pour out liquid'
mejtzan	'put something lying on its side'
mojchan	'put something on its side, curved'
muk	'bury, hide'
mul koel	'immerse in water or granular objects'
najkan	'sit something down'
nap'/najp'an	'stick something on with sticky stuff'
nit lok'el	'pull with force, drag out'
nojes	'fill it'
nojtz'an	'stick something on magically, no glue'
nujan	'set down inverted bowl-shaped thing; put on hat'
och IV	'enter'
pach/pajchan	'hold/carry/set down (bowel-shaped upright)'
pak'/pajk'an	'stick onto surface'
pejchan	'put something 2D flat-lying'
pejk'an	'put something low down'
pet [†]	'hold/carry in arms'
sop	'insert (with *ochel*) or extract from tight fit (with *lok'el*)'
suk	'insert stopper into tight fit, narrow opening; also into water?'
tam	'pick up/recover something from ground'
tejk'an	'stand it up'
tik'	'insert in container'
toch	'take/peel off from stuck-on relation'
toy moel	'raise, put high up'
tujchan	'stand something long-thin vertically up'
tujkej IV	'spill, slide sideways off of/out of support'
tujkiy koel TV	'spill something out of container by accident'
t'uman	'put something (relatively small) into liquid so completely immersed'

Term	Gloss
t'uxaj IV	'fall, drop'
t'uxan TV	'make something fall'
tz'aj ochel	'put something into liquid' (~same as *t'uman*)
tz'aman	'put something (relatively large) into liquid, in a container'
tz'ap/tz'ajpan	'insert one end of long-thin thing tightly upright'
tz'in ochel	'insert into tight-fit relation
waxan	'place standing/set down (tall thing)'
wes bel	'slide awaywards'
xoj koel/ochel	'insert single object in container'
xujkin ochel	'put something to the side, e.g., chair, suitcase, with *ochel* indicates into an enclosed space'
yujkej jilel IV	'spilled, tipped out' (~=*mal*)
yujkij TV	'purposely spill, pour'

[*] This table includes the verbs actually produced by consultants in the task; other possible Tzeltal placement verbs that were not used are not included.

[˘] *lok'es* for 'put' was used for the scene depicting putting a suitcase out while staying in the room; one consultant construed this as a 'take' scene.

[†] Most consultants used *lut* or *pet* for the pre-object-motion subevent of picking up the object to be moved, but one used these roots for the object transfer subevent itself.