

Middles and reflexives in Yucatec Maya: Trusting speaker intuition¹

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In this paper we provide a characterization of the middle construction in YM, and show that the apparently unpredictable distribution of middle voice in YM corresponds to a neatly identified, and quite limited, system of *absolute events*, i.e., events in which no energy is expended (Langacker 1987). This strategy is not exploited by other related Mayan languages, which tend to encode all absolute events as simple intransitive verbs. The semantic coherence of middle voice in YM is only discernible by combining analysis of narrative texts and direct elicitation with attention to speaker intuition in a variety of situational contrastive contexts guided by cognitive principles which are known to determine the behavior of middle voice systems in other languages.

1. INTRODUCTION. Middle voice in Yucatec Maya (YM) is well known for being a small portion of the syntax that presents aberrant and unpredictable behavior. Some uses resemble what is found in middle voice in other languages of the world, namely that the event remains in the emotional/physical/mental sphere of the subject. Yet unlike other languages with a middle system, neither the semantic nor the syntactic restrictions seem to follow any predictable pattern (Ayres & Pfeiler 1997; Bohmeyer 2004; Briceño 2004; Bricker 1981, 1998). The goal of this paper is twofold. First, we provide a characterization of the middle construction in YM, and show that the apparently aberrant behavior of middle voice in YM corresponds to a neatly identified, and quite limited, system of *absolute events*, i.e., events in which no energy is expended (Langacker 1987). Such a restricted semantic area is rather uncommon among languages having a middle system. We will suggest that the middle system in YM corresponds to one specific strategy of construing absolute events from transitive active clauses, while other absolute construals follow different patterns. This strategy is not exploited by other related Mayan languages, which tend to encode all absolute events as simple intransitive verbs.

Our second goal for this paper is to show that the subtle nature of middle voice in YM requires not only data derived from direct elicitation and narrative texts, but also attention

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subject acts volitionally and with control on the self, inducing some change. In contrast, middles highlight the subject's affectedness as a consequence of some change-of-state the subject undergoes but does not volitionally control. Thus the reflexive construction in (1a) designates the subject acting deliberately to improve his health (e.g., by taking medicine), while in (1b) the subject's health simply improves with no particular effort.

While the middle/reflexive contrast is clear, the behavior of middle constructions in the system has resisted a clear and systematic representation (Ayres & Pfeiler 1997; Briceño 2004; Bricker 1981, 1988). First, the middle seems to be restricted to a reduced number of verb classes. They can only be derived from transitive CVC verbs (Bricker 1981, 1998; Briceño 2004; Bohnemeyer 2004). Moreover, not all transitive situations can take the middle marker. For example, self-care situations can take the reflexive marker *-ba* as in (2a) and (3a) but not middle marking as in (2b) and (3b):

- (2) a. *t-u-chal-(aj)-ø* *u=ba*
 PERF.TR3S-A3S-refresh-COMP.TR3S-B3S P3S=REF
 'He refreshed himself' (ConChan: 05/20e05)
- b. **ø-cháal-ø-i(j)*
 PERF.INTR-refresh.MID-COMP.INTR-B3S
 Intended reading 'He refreshed'
- (3) a. *t-u-k'os-(aj)-ø* *u=ba*
 PERF.TR3S-A3S-cut.with.scissors-COMP.TR3S-B3S P3S=REF
 'He cut with scissors (his hair)' (ConChan: 05/2005)
- b. **ø-k'óos-ø-i(j)*
 PERF.INTR-cut.with.scissors.MID-COMP.INTR-B3S
 Intended reading: 'He cut with scissors (his hair)'

Middle constructions can be formed with verbs of motion, but verbs of change-of-position like *kul* 'sit' (4a) can only take reflexive marking, as in (4b), not middle marking, as shown in (4c):

- (4) a. *k-u-kul-tal*
 HAB-A3S-sit-INCOMP.INTR
 'He sits down' (ConChan: 05/2005)
- b. *k-u-kul-kint-ik-ø* *u=ba*
 HAB-A3S-sit-CAUS-INCOMP.TR3S-B3S P3S=REF
 'He sits himself down' (ConChan: 05/2005)
- c. **k-u-kíul-tal*
 HAB-A3S-sit.MID-INCOMP.INTR
 Intended reading: 'He sits himself down'

Of particular interest is the fact that middles and reflexives in YM contrast in ways that have resisted a clear explanation. As (5) shows, the closing of a door is an event that can be encoded by either the reflexive or the middle:

- (5) a. *t-u-k'al-(aj)-ø* *u=ba le joonaj-o'*
 PERF.TR3-A3S-close-COMP.TR3-B3S P3S=REF DEM door-DEM³
 'The door shut (by itself)' (ConChan: 05/2005)
- b. *ø-k'áal-ø-ø* *(l)e joonaj-o'*
 PERF.INTR-close.MID-COMP.INTR-B3S DEM door-DEM
 'The door shut' (ConChan: 05/2005)

Moreover, in cases where either the reflexive or the middle construction can be used, the reflexive implies a reading of unexpectedness, as in (6a). Crucially, the middle construction in (6b) would be chosen to depict natural occurrences (e.g., a firecracker bursting in the town plaza during festivities):

- (6) a. *t-u-xik-(aj)-ø* *u=ba le boolador-o'*
 PERF.TR3-A3S-burst-COMP.TR3-B3S P3S=REF DEM firecracker-DEM
 'The firecracker burst' (by itself) (ConChan: 05/2005)
- b. *ø-xíik-ø-ø* *(l)e boolador-o'*
 PERF.INTR-burst.MID-COMP.INTR-B3S DEM firecracker-DEM
 'The firecracker burst' (ConChan: 05/2005)

As far as we know, no previous analysis has acknowledged this contrast. We hope to be able to account for the variety of ways in which middles and reflexives interact in YM. We will also attempt to delineate the semantic area occupied by the middle construction and show how it interacts with other absolute construals in the system.

1.2. THE YM MIDDLE VOICE SYSTEM IN CROSS-LINGUISTIC CONTEXT. We find that middle voice constructions in YM constitute a well-organized and coherent system. In YM *reflexives* codify complex single-participant *energetic* events; i.e., events in which the subject exhibits high degree of control of his actions, while *middles* in Yucatec Maya simplify complex transitive events into *absolute* simplex events. As proposed by Langacker (1987), the contrast between *absolute* and *energetic* events corresponds to the degree of energy profiled in the event. In absolute events the energy being used to carry an action is neutral and is not relevant to the mental representation of the event, regardless of whether the event involves different degrees of energy input. In contrast, the profile of the energy implied or required by an energetic event is crucial for the proper mental representation of the event.

³ Demonstratives in YM take an initial and a terminal particle. For sake of simplicity we limit ourselves to marking both as DEM.

This contrast is evident in French: absolute events in the composite past tense take the auxiliary *être* ‘be’. In verbs like *aller* ‘go’, *venir* ‘come’, and *arriver* ‘arrive’, no speed or manner of locomotion is put forward, and *être* is the proper auxiliary. Energetic verbs, however, take the auxiliary *avoir* ‘have’, and present the opposite configuration: they profile speed and manner of locomotion, as in *courir* ‘run’, *nager* ‘swim’, *voler* ‘fly’, and so on. A similar contrast can be seen in a variety of languages. Langacker hypothesizes that the three morphological classes of Cupeño, as reported by Hill (1969), correspond to the same contrast. Verbs with the suffix *-ine* are volitional and active, while those marked with *-yaxe* tend to have the opposite properties. As opposed to these polar suffixes, verbs with zero-marking are energy-neutral; these include most verbs for states of mind (e.g., ‘be angry’), natural bodily processes (e.g., ‘see’), and the behavior of plants, animals, inanimate subjects, and the weather (e.g., ‘bloom’, ‘rain’). In Cupeño, zero-marked forms refer predominantly to processes that run according to the normal, expected course of events as they are conceived of in the physical domain or in the cultural sphere. Actions that involve considerable input of energy, like hunting and skinning, may still count as absolutes because they are part of Cupeño everyday culture.

The behavior of the Spanish clitic *se*, traditionally analyzed as reflexive, has been analyzed in terms of a similar contrast (Maldonado 1988, 1999, 2009). Verbs of motion in Spanish (e.g., *subir* ‘go up’, *bajar* ‘go down’, *salir* ‘go out’, *ir* ‘go’) may be used as plain intransitives if they simply describe the path followed by the subject, without consideration of manner, speed, or degree of energy input. When speed and energy are profiled, however, the clitic *se* must be used; the event is seen as rapid sudden and energetic. Thus, if one goes up a mountain, one might say *subí la montaña* ‘I went up the mountain’, using a plain intransitive form. On the other hand, if a rat suddenly comes into a room, a frightened speaker who jumps on the sofa would likely use the reflexive to say *me subí al sofá* ‘I got (i.e., jumped, leaped) on the sofa’, indicating the sudden quality of the movement. In Spanish the clitic *se* marks energetic events and follows general tendencies of middle marking for languages that have such a system. Middle marking in YM does not follow those tendencies. We provide an account below for YM’s exceptional middle marking.

In YM, we find that middle voice constitutes a strategy to derive absolute events from energetic ones. Absolute middles contrast with reflexives precisely in that the former do not profile energy, but they derive simplex events from complex ones. The contrast between complex and simplex events is determined by the degree of control of the subject over the depicted action. On the one hand, complex events involve an agent acting on him or herself volitionally, much in the same way that transitive constructions involve an agent acting upon a theme. Simplex events, on the other hand, are restricted to changes of state undergone by a thematic subject. In simplex events, the subject is, in most cases, an experiencer undergoing some change of state. If these assumptions are supported by the data, we can explain both the unpredictable distribution of middles in YM and the surprising similarities between middles and root intransitive verbs. We claim that, as opposed to the close relationship between middle and reflexive voices found in many languages, YM middles and reflexives do not overlap. In fact, in certain contexts, the two constructions are mutually exclusive. The constructions we examine are not simply syntactic ensembles, but rather respond to specific semantic and pragmatic conditions implied by the complex representation of such constructions.

From a typological perspective, Kemmer (1993, 1994) has identified a set of situations where the middle tends to occur across languages. Table 1, adapted from Kemmer (1993), is a sample of situations in which we may expect to find middle marking.

The semantic areas where the middle tends to occur can be characterized in more general terms: motion (translational motion, non translational motion, and change in body posture), change of mental state (cognition, emotive speech, and emotion), and spontaneous events and self-directed actions (direct and indirect body care). Of all these categories, the one that fluctuates between middle and reflexive marking across languages is that of self-directed actions; the other three tend to receive middle marking. As we show, the middle system in YM presents restrictions not commonly found in middle systems of other languages. Although it is well known that self-care situations vary between reflexive and middle marking from language to language, typical cases of translational and non-translational motion, in which we expected middles, did not follow the expected pattern, while spontaneous events and other cases derived from transitive verbs did take middle marking. In some texts, an intransitive or a middle construction contrasted with a reflexive construction with no evident difference in context. Only after checking with our consultants about the possible interpretation of the contrast were we able to come up with the correct analysis for each context. As we shall show in the conclusion section, the analysis of the middle system in YM was only possible through a detailed consideration of the interaction between middles, intransitives, and reflexive constructions in pragmatic context.

TABLE 1. Basic middle voice situations

Grooming or body care	
Latin	<i>lavor</i> ‘wash’
Indonesian	<i>berdandan</i> ‘get dressed’
Non translational motion	
Kanuri	<i>tàn-t-în</i> ‘stretch one’s body’
Latin	<i>revertor</i> ‘turn’
Change in body posture	
Indonesian	<i>berlutut</i> ‘kneel-down’
Guugu Yimidhirr	<i>dagaadhi</i> ‘sit down’
Translational motion	
Pangwa	<i>i-nu-xa</i> ‘climb up’
Guugu Yimidhirr	<i>madhaadhi</i> ‘climb up’
French	<i>s’en aller</i> ‘go away’
Indirect middle	
Turkish	<i>edin</i> ‘acquire’
Cl. Greek	<i>ktasthai</i> ‘acquire for oneself’
Emotion middle	
Guugu Yimidhirr	<i>dumibaadhi</i> ‘get a shock or fright’
Mohave	<i>mat iθa:v</i> ‘be angry’
Hungarian	<i>bánkod</i> ‘grieve, mourn’
Emotive speech actions	
Latin	<i>queror</i> ‘complain’
Cl. Greek	<i>olophyresthai</i> ‘lament’
Turkish	<i>dövün</i> ‘lament’
Cognition middle	
Indonesian	<i>berpikir</i> ‘be cogitating’
Pangwa	<i>-isala</i> ‘think over, consider’
Spontaneous events	
Indonesian	<i>berhenti</i> ‘come to a stop’
French	<i>s’evatiouir</i> ‘vanish’
Hungarian	<i>keletkez-</i> ‘originate, occur’

1.3. METHODOLOGY. We first noticed the behavior of the reflexive marker *-ba* in 2004 during our fieldwork in Ekmul (Yucatán). We found that several types of intransitive verbs (positionals, de-adjectivals, and those with inanimate subjects) would take an unexpected reflexive marker in some contexts. We then checked for dialectal differences among speakers of Tixkokob and Holcá (Yucatán), where we also found *-ba* occurring in more verbs of the same classes as those we had seen in Ekmul.

Because we had been working primarily with consultants and had not yet investigated texts, we suspected that perhaps these constructions were restricted to informal spoken language. We then examined written narrative texts, where we found similar unexpected reflexive marking on intransitive verbs. At this point we began to suspect errors in our data, so we double-checked our data in 2005 with Doña Consuelo Chan from Holcá. Our data thus confirmed, we then began to formulate hypotheses about the syntactic and pragmatic environments that might trigger the unexpected use of *-ba*.

In 2007 we returned to the field to test our hypotheses by presenting speakers with contrasting contexts for intransitives, middles, and reflexives. For example, we found in text data that ‘kneel’ could be expressed with both an intransitive and a reflexive construction, and we inferred that the latter implied fast motion. Based on the examples we had for ‘kneel’, we created hypothetical situations involving other actions (e.g., moving out of the path of a projectile) and invented examples to discover which constructions would be grammatical in particular contexts. Speaker intuitions about subtle semantic and contextual differences proved invaluable to us. In some cases, speakers provided hypothetical scenarios (such as practical jokes) in which our invented examples could be considered grammatical. These subtly contrastive contexts allowed us to formulate the analysis presented here about the behavior of middles in YM, and we provide many of our ungrammatical invented examples in this paper to illustrate the analysis.

The remainder of this paper is organized as follows: section 2 provides some basic YM structural information relevant for the analysis. In Section 3 we show how reflexive, plain intransitives, and middles contrast, and we offer an account of the distribution of their semantic space. We propose that the distinction between middles and reflexives is determined by the contrast between absolute and energetic events. Given this account, we also offer an explanation for reflexive constructions that designate unexpected events. In section 4 we conclude and suggest some further considerations about the absolute/energetic contrast as pertaining to the function of middle voice marking.

2. BASIC STRUCTURAL INFORMATION ABOUT YM. Yucatec Maya is an ergative language with a split system in intransitive verbs. The split is determined by aspect: in the imperfective aspect the alignment is accusative, with the intransitive subject marked like the subject of a transitive clause. As examples (7a, b) show, the subject pronoun takes the (A series) first person ergative pronoun *in-*.

(7) Imperfective

a. *táan in-wen-el*

DUR A1S-sleep-INCOMP.INTR

‘I am sleeping’ (ConChan: 05/2005)

b. *táan in-ween-s-ik-ech*

DUR A1S-sleep-CAUS-INCOMP.TR3S-B2S

'I am putting you to sleep' (ConChan: 05/2005)

On the other hand, perfective aspect causes ergative alignment. The subject in (8) takes the (B series) second person absolutive marker *-ech*, which corresponds to the object marker of a transitive clause:

(8) Perfective

(j)=*wen-ø-ech*

PERF.INTR=sleep-COMP.INTR-B2S

'you slept' (ConChan: 05/2005)

As will be evident from the vast majority of our examples, middle voice is usually marked in the perfective aspect.

In YM there is a three-way contrast between transitive, reflexive, and middle constructions. (9a) and (10a) show the transitive base from which both reflexives and middles are formed. The reflexive takes the possessive prefix linked to the reflexive marker *-ba* as in (9b) and (10b), while the middle construction is encoded by lengthening the nuclear vowel of the verb with a high tone as in (9c) and (10c):

- (9) a. *leken u-ts'am-(i)k-ø* (l)e luuch-o' le máak-o'
 when A3S=submerge-COMP.TR3S-B3S DEM bowl-DEM DEM person-DEM
k-u-jóok-ol uy⁴ óom ja'-o'
 HAB-A3S=go.out-INCOMP.INTR P3S bubble water-DEM
 'when that person sinks the bowl in the water, the bubble comes up'
 (ConChan: 11/2007)

- b. *t-u-ts'am-(aj)-ø* *u=ba*
 PERF.TR3S-A3S-submerge-COMP.TR3S-B3S P3S=REF
ichil ja' le paal-o' chéen báaxal
 inside water DEM child-DEM only play
k-u-meen-t-ik-ø
 HAB-A3S-do-APL-INCOMP.TR3S-B3S
 'the child submerges in the water he goes in just to play'
 (ConChan: 11/2007)

⁴ The [y] or [w] is an epenthetic glide which is introduced in coda position to avoid an undesired vocalic sequence.

- c. \emptyset -*ts'áam- \emptyset - \emptyset* (I)e *nook'-o'*
 PERF.INTR-submerge.MID-COMP.INTR-B3S DEM clothing-DEM
- yáan u-p'o'-ik- \emptyset* *sáama(l)*
 OBL A3S-wash-INCOMP.TRS.B3S tomorrow
 'the clothes submerged in the water, she has to wash them tomorrow'
 (ConChan: 11/2007)
- (10) a. *yáan a-sats'-(i)k- \emptyset* (I)e *suum-o'*
 OBL A2S-pull-INCOMP.TRS-B3S DEM rope-DEM
- ka a-k'ax-(i)k- \emptyset* (I)e *ba'alche-o'*
 then A2S-tie-INCOMP.TRS-B3S DEM animal-DEM
 'you have to pull the rope to then tie the animal' (ConChan: 11/2007)
- b. *leken uy-áaj-al* (I)e *miis-o'*
 when A3S-wake.up-INCOMP.INTR DEM cat-DEM
- t-u-sats'-(aj)- \emptyset* *u=ba*
 PERF.TRS-A3S-stretch-COMP.TRS-B3S P3S=REF
 'when the cat wakes up it stretches out' (ConChan: 11/2007)
- c. *le nook'-o'* *\emptyset -sáats'- \emptyset -i(j)*
 DEM garment-DEM PERF.INTR-strech.MID-COMP.INTR-B3S
 'the clothes stretched' (ConChan: 05/2005)

The contrast is clear. Transitives involve an agentive subject acting on a thematic object. Reflexives resemble transitives in having two distinguishable participants (Kemmer 1993), but the agent acts on a coreferential theme. Middles, however, are quite different. These involve an event where the thematic subject simply undergoes some change. What is not as clear is the precise point at which the two coreferential participants become a single inseparable participant undergoing change. In the next section, we do, however, discuss the general restrictions on coreferentiality in YM that help locate the 'breaking point' between reflexive and middle constructions.

3. REFLEXIVES AND MIDDLES IN YUCATEC MAYA. There is a general restriction in YM that only one entity may be coreferent with the subject. Thus YM has no indirect reflexives like those commonly found in some Indo-European languages, in which the two coreferent elements are in a part/whole relationship. This is the case for Spanish: consider *Adrián se lavó la cara* 'Adrián washed his face', in which *se* 'REF' and *cara* 'face' are coreferent with *Adrián*. In YM a named body part precludes the reflexive marker *-ba*, as in (11a). Conversely the presence of the reflexive *-ba* (11b) precludes the use of *ook* 'foot'. The ungrammaticality of example (11c) shows that coreferential parts and wholes are mutually exclusive:

- (11) a. *yáan a-ts'ak-(i)k-ø* *aw ook k-a-pat-(i)k-ø*
 OBL A2S-cure-INCOMP.TRS-B3S P2S foot HAB-A2S-wait-INCOMP.TRS-B3S
a-biin páak
 A2S-go weed.out
 'you have to wait and heal your foot to go and weed out (the field)'
 (ConChan: 11/2007)
- b. *pwes le máak-o' miná'an taak'in ka tujuuna*
 well DEM person-DEM nothing money then only
t-u-ts'ak-(aj)-ø *u=ba*
 COMP.TRS-A3S-heal-COMP.TRS-B3S P3S=REF
 'well, that person does not have money thus he cure himself'
 (ConChan: 11/2007)
- c. **k-in-ts'ak-ik-ø* *in=ba inw ook*
 HAB-A1S-heal-INCOMP.TRS-B3S P1S=REF P1S foot
 Intended reading: 'I cure myself on the foot'

Although it is possible to find cases where both middles and reflexives seem to overlap, a review of the whole system shows that in fact the area covered by middles is quite restricted. It should not be surprising, then, to find self-affecting actions encoded only by reflexives. To the extent that the subject actually acts on him or herself, the reflexive is the natural option, as shown in (12a). The possibility of using the middle construction in self-affecting actions is banned in YM, as can be seen from (12b):

- (12) a. *chéen k-u-laj-ik-ø* *yaana(l) máak-o'ob*
 only HAB-A3S-slap-INCOMP.TRS-B3S another person-PL
leti'-e' ma' t-u-laj-(i)k-ø *u=ba*
 PE3S-DEM NEG DUR-A3S-slap-INCOMP.TRS-B3S P3S=REF
 'he only slaps other people, he doesn't slap himself' (ConChan: 11/2007)
- b. **ø-láaj-ø-i(j)*
 PERF.INTR-slap.MID-COMP.INTR-B3S
 Intended reading: 'he slapped himself'

The same restriction takes place in grooming verbs. Only the reflexive is available to encode self-care actions, as can be seen from the consistent use of the reflexive marker *-ba* in (13a), (14a), and (15a) and the ungrammaticality of their middle counterparts in (13b), (14b), and (15b):

- (13) a. *le máak-o' bul k'iin t-u-meyaj-ø*
 DEM person-DEM all day DUR-A3S-work-INCOMP.INTR
leken k-u-xu(l)-(i)k-ø t(i')-u taanaj-e'
 when HAB-A3S-finish-INCOMP.TR3S-B3S in-P3S house-DEM
k-u-chal-(i)k-ø u=ba
 HAB-A3S-rinse-INCOMP.TR3S-B3S P3S=REF
 'that person is working all day, when he finishes he washes at home'
 (ConChan: 11/2007)
- b. **ø-cháal-ø-i(j)*
 PERF.INTR-rinse.MID-COMP.INTR-B3S
 Intended reading: 'he rinsed himself'
- (14) a. *le x-ch'úupal-o' t-uy-il-aj-ø u taatá*
 DEM FEM-girl-DEM PERF.TR3S-A3S-see-COMP.TR3S-B3S P3S father
t-u-k'os-(i)k-ø u=ba
 PERF.TR3S-A3S-cut.with.scissors-COMP.TR3S-B3S P3S=REF
 'the girl saw that her father is cutting his hair' (ConChan: 11/2007)
- b. **ø-k'óos-ø -i(j)*
 PERF.INTR-cut.hair.MID-COMP.INTR-B3S
 Intended reading: 'he cut his hair'
- (15) a. *uláak' k'iin-e' t-uy=il-aj-ø*
 another day-TOP PERF.TR3S-A3S=see-COMP.TR3S-B3S
táan u-ts'ik-ik-ø u=ba u ts'uulil-o'
 DUR A3S-shave-COMP.TR3S-B3S P3S=REF P3S boss-DEM
 'another day he saw that his boss was shaving' (Mono: 518)
- b. **ø-ts'iik-ø-i'(j)*
 PERF.INTR-shave.MID-COMP.INTR-B3S
 'he shaved himself'

The way grooming actions are encoded may shed some light on the restricted properties of middle voice in YM. Grooming actions are commonly marked by middles in languages that have such a system, however in YM they are only expressed as reflexives, as shown in (13a), (14a), and (15a). Interestingly, grooming verbs in YM can also take antipassive marking, as in (16) and (17). Like reflexives, antipassives are operations imposed on the object rather than on the subject. In the antipassive construction, the object becomes non-specific and thus the event becomes generic:

- (16) *ba'ax t-u-meen-t-aj-ø le x-ch'úupal*
 what PERF.TR3S-A3S-DO-APL-COMP.TR3S-B3S DEM FEM-girl
tu'ux j-blín-ø-ø-o' chéen ø-k'óos-naj-i(j)
 where PERF.INTR-go-COMP-B3S-DEM only PERF.INTR-cut.AP-COMP.INTR-B3S
 'What did the girl do where she went? She only cut with scissors (hair)'
 (ConChan: 11/2007)

- (17) *káaj u-bat-ik-ø ø-laaj-naj-i(j)*
 start A3S-fight-INCOMP.TR3S-B3S PERF.INTR-slap.AP-COMP.INTR-B3S
le x-ch'úupal-o' káal-chaj-i(j) ka laaj-naj-i(j)
 DEM FEM-girl-DEM drunk-COMP.INTR-B3S then slap.AP-COMP.INTR-B3S
 'She started to fight with him and slapped (him). That girl got drunk and then she slapped (him).' (ConChan: 11/2007)

Middles constitute operations imposed on the subject as a theme, and thus the possibility of encoding grooming actions is simply blocked. The (invented) middle forms **láaj* and **k'óos* are not possible in YM. Verbs of motion behave similarly.

Cross-linguistically, situations involving the subject's change-of-position are often marked as middles. This is to be expected, because self-induced action is only observable in the change-of-position itself; the energy expended is not externally evident, since the energy necessary to impose the change of position is applied internally. We do not 'see' our legs acting on a body part when sitting down or standing up. Interestingly, as with verbs of grooming, change-of-position verbs in YM take reflexive marking, not middle marking. This suggests that the YM middle system covers a restricted semantic area within the range of possibilities normally covered by middle voice in most languages having such a system.

Of particular interest is the fact that in YM there are two ways to encode change of position. The reflexive construction contrasts with root intransitive verbs to highlight different views of the same event. Note the contrast between (18), where the intransitive *kul* 'sit down' depicts a routine action, and (19), where the reflexive shows a high degree of control. In (18) the subject Hees simply sits down to see the king:

- (18) *ka kul-laj-ø Hees (uy)-il-(aj)*
 then sit-COMP.INTR-B3S Hees A3S-see-COMP.TR3S
bix uy ok'ol-ø le réey-o'
 how A3S cry-INCOMP.INTR3S DEM king-DEM
 'then Hees sat to see how the king would cry' (Hees: 262)

In (19), drawn from another story, the subject's change of position is not simply a routine action, but is instead a strong reaction to noise that awakens the main character. He sits up quickly to see what is going on:

- (19) *ka chil-laj-ø wenel... ka t-uy-u'u-b-(aj)-ø*
 then lay-COMP.INTR-B3S sleep then PERF.TR3S=A3S=hear-PASV-COMP-B3S
- u yúuch-ul áakan te' tu'ux yan-o'...*
 A3S happen-INCOMP.INTR shout there where be-DEM
- k-u-kul-kint-ik-ø u=ba***
 HAB-A3S-sit.down-CAUS-INCOMP.TR3S-B3S P3S=REF
 'then he laid down to sleep and then he heard a scream right where he was and he got up right away' (Flojo: 110)

The use of the intransitive verb corresponds to background information, i.e., normal occurrences with no special relevance for the specific context of the event. In contrast, the reflexive construction can be used to foreground events, and especially to profile an energetic event. In these cases a causative marker is also used, which renders the construction transitive. In (19), the character's action of sitting up in reaction to a noise is of special relevance to the story. The contrast is corroborated in (20) by the intransitive verb *xol* 'kneel' in (20a) and the reflexive version with *-ba* in (20b):

- (20) a. *ka xol-(l)aj-ø le ko'olel-o'*
 then kneel-COMP.INTR-B3S DEM woman-DEM
- ka jo'op' u-payalchi'*
 then start A3S-pray
 'then the woman knelt down and started to pray' (ConChan: 11/2007)
- b. *ka t-uy-il-aj-ø jun=túul nuxi' ooch*
 then PERF.TR3S=A3S-see-COMP.TR3S-B3S one=CL old fox
- ka t-u-xol-kint-aj-ø u=ba*
 then PERF.TR3S=A3S-kneel-CAUS-COMP.TR3S-B3S P3S=REF
 'then he saw the old fox and he knelt fast' (Flojo: 122)

In (20b) the action of kneeling is done quickly, in order to avoid being seen by the fox; here the action is marked with reflexive morphology. A routine instance of kneeling, e.g., in church as in (20a), simply requires an intransitive verb.

Verbs deriving from adjectives contrast with reflexives in the same way that root intransitives do. While the reflexive construction depicts an energetic event, the de-adjectival intransitive verb encodes a neutral absolute event. In (21a) the absolute intransitive encodes a natural and effortless change of body temperature; in contrast, the reflexive form

in (21b) encodes a controlled situation where the subject purposefully lowers his or her temperature before going out into the open air.⁵

- (21) a. *ø-siis-chaj-ø* *tumen* *ø-chil-laj-ø*
 PERF.INTR-cold-COMP.INTR-B3S because PERF.INTR-lying.down-COMP.INTR-B3S
lu'um
 ground
 'he got cold because he was lying down on the floor' (ConChan: 05/2005)
- b. *leken áaj-ak-e'* *yáan* *a-siis-kunt-(aj)-ø* *a=ba*
 when stand-SUB-DEM OBL A2S-cold-CAUS-COMP.TRS-B3S P2S=REF
utia'al *a-bin* *meyaj*
 for A2S-go work
 'when you wake up, cool off before you go to work' (ConChan: 11/2007)

Control is even more evident in the case of getting sick. In the reflexive construction in (22b) the subject volitionally makes himself sick in order to avoid going to work. The absolute intransitive in (22a) is a spontaneous uncontrolled event:

- (22) a. *le* *ko'olel-o'* *ø-k'oja'an-chaj-i(j)*
 DEM woman-DEM PERF.INTR-get.sick-COMP.INTR-B3S
k'abeet *u-biin-ø* *jo'*
 necessary A3S-go-INCOMP.INTR Mérida
 'The woman got sick, she needs to go to Mérida' (ConChan: 11/2007)
- b. *t-u-k'oja'an-kunt-(aj)-ø* *u=ba*
 PERF.TRS-A3S-sick-CAUS-COMP.TRS-B3S P3S=REF
ti'olal *ma' u* *bin-ø* *meyaj*
 in.order.to NEG A3S go-INCOMP.INTR work
 'He got sick to avoid going to work' (ConChan: 05/2005)

Let us now observe the behavior of middle constructions in YM. Recall that the middle construction marks absolute events, i.e., changes of state that are not controlled by the thematic subject, while the reflexive construction reflects an energetic version of the same basic event. One can simply get better, as in the middle construction (23a), or volitionally take action to improve one's physical state, as the reflexive examples in (23b) and (23c) illustrate:

⁵ In Mexico there is the belief that a sudden change of body temperature may cause a serious illness (eye paralysis, pneumonia, and so forth).

- (23) a. *bix u beel aw aal*
 how P3S way P2S daughter
ø-ts'áak-ø-i(j) *táan u-meyaj-ø*
 PERF.INTR-cure.MID-COMP.INTR-B3S DUR A3S-work-INCOMP.INTR
 'how is your daughter? she is healed she is already working'
 (ConChan:11/2007)
- b. *sáansamal t-u-ts'ak-(aj)-ø u=ba yéetel xiw*
 everyday PERF.TRS-A3S-cure-COMP.TRS-B3S P3S=REF with herbs
 'everyday he cures himself with herbs' (ConChan: 05/2005)
- c. *le j-meen-o' t-u-ts'ak-ø u=ba*
 DEM MASC-healer-DEM DUR-A3S-cure-COMP.TRS P3S=REF
tujuuna chéen leti'-e' uy-o(j)-(i)k bixi'
 only only PE3S-DEM A3S-know-INCOMP.TRS how
 'the healer cured himself and only he knows how' (ConChan:11/2007)

Likewise, with verbs of translational motion, the middle construction is appropriate if the subject asserts no energy or control. However, if the change of location is the consequence of a controlled action, only the reflexive can be used. When the child goes into the water to get a coin the reflexive marker *-ba* is used (24b), but the middle construction is adequate for cases where the subject simply sinks without control or energy, as would be the case for drowning, as in (24a):

- (24) a. *ba'ax k-u-n j-táal-ø-ø*
 what HAB-A3S-IMM.FUT PERF.INTR-come-COMP.INTR-B3S
ø-bíul-ø-i(j)
 PERF.INTR-sink.MID-COMP.INTR-B3S
 'how is he going to come? he already drowned' (Nazario: 92)
- b. *k-u-pul-(i)k-ø (le) taak'in-e' ichil le*
 HAB-A3S-throw-INCOMP.INTR-B3S DEM money-DEM inside DEM
ja'-o' ka t-u-bul-(aj)-ø u=ba (le)
 water-DEM then PERF.TRS-A3S-sink-COMP.TRS-B3S P3S=REF DEM
paal-a'
 child-DEM
 'the child throws the coin into the water and he dives in to get it'
 (ConChan: 05/2005)

The variety of cases seen so far suggests a general tendency in YM to construe events in an absolute manner in which the expended energy is not profiled. The event may involve no energy at all, as in the case for drowning; in other cases the energy driving the event may simply be part of the basic semantics. In YM current events tend to be expressed in absolute, neutral terms. Absolute events may be encoded in at least three ways: with root intransitive verbs of motion or change of position, with verbs deriving from adjectives, and with middle constructions. We propose that the middle is a construction used specifically to derive absolute events from transitive energetic verbs. These three strategies contrast drastically with the reflexive construction, which encodes energetic events involving only one participant.⁶ While it is true that the reflexive can be used for self-directed actions with a split-represented participant as in (13a), (14a), and (15a), the construction has expanded in YM to include a range of single-participant events in which the action is under the control of the subject.

In the previous examples the subject is consistently volitional and human, but the following examples show that non-human subjects may also be used with the reflexive construction. Note in (25) that the extinguishing of the fire may be conceptualized in two ways, reflected in the choice of either middle (25a) or reflexive (25b) marking:

- (25) a. *káaj-tal* *cháak-e'* *ka* *ø-túup-ø-ø*
 start.INCOMP.INTR rain-TOP then PERF.INTR-go.off.MID-COMP.INTR-B3S

le *k'áak-o'*
 DEM fire-DEM
 'it started to rain, then the candle went out' (ConChan: 05/2005)
- b. *le* *paal-o* *ka* *j-óok-ø-ø* *ichil*
 DEM child-DEM then PERF.INTR-went.in-COMP.INTR-B3S inside

le *áaktun-o'* *ka* *t-u-tup-(aj)-ø* *u=ba*
 DEM cave-DEM then PERF.TRS-A3S-go.off-COMP.TRS-B3S P3S=REF

tujuuna *u* *kíib*
 alone P3S candle
 'the child entered the cave and the candle went out by itself'
 (ConChan: 05/2005)

The contrast is easily explained by our analysis. Since the middle encodes absolute construals, when the flame simply dies as a natural phenomenon the middle marker is the natural choice. However, when the flame dies out against natural expectations, the reflexive marker is used, as in (25b). This is not an isolated example. The contrast is fully established in the language and can be identified given the right context. Another example showing the

⁶ This generalization of course does not apply to reciprocal constructions where *-ba* involves more than one participant. We thank an anonymous reviewer for calling our attention to this matter.

systematicity of the pattern is found in (26), where an identical middle/reflexive contrast takes place. If, for example, one holds a party at which the guests eat a large number of tortillas, one fully expects to run out of corn. Under those circumstances, the lack of corn is a natural expected event which is properly expressed by the middle marker, as in (26a); however if one is hungry and suddenly notices that there is no corn, the contradicting event must be expressed by the reflexive construction, as in (26b):

- (26) a. *mina'an-e' waaj-o' tumen ø-xúup-ø-ø*
 none-TOP tortilla-DEM because PERF.INTR-finish.MID-COMP.INTR-B3S
(l)e ixi'im-o'
 DEM corn-DEM
 'there are no tortillas because we are out of corn' (ConChan: 11/2007)
- b. *ø-liik'-ø-ø le máak-o' ka*
 PERF.INTR-stand.up-COMP.INTR-B3S DEM person-DEM then
t-uy-il-(aj)-ø t-u-xup-(aj)-ø
 PERF.TRS-A3S-see-COMP.TRS-B3S PERF.TRS-A3S-finish-COMP.TRS-B3S
u=ba le ixi'im-o'
 P3S=REF DEM corn-DEM
 'that person stood up and noticed that the corn was gone'
 (ConChan: 11/2007)

One last example illustrates the productivity of this pattern. The spontaneous neutral event gets middle marking, as in (27a), and the unexpected event gets reflexive marking, as in (27b). In both cases the subject is inanimate, and yet only in the reflexive construction can we get a reading of unexpectedness:

- (27) a. *ma' inw=óok-s-(i)k-ø ja' le in*
 NEG A1S=go.out-CAUS-INCOMP.TRS-B3S water DEM P1S
luuch-a' ø-jóol-ø-i(j)
 bowl-DEM PERF.INTR-hole.MID-COMP.INTR-B3S
 'I cannot get any water my bowl has a hole in it' (ConChan: 05/2005)

- b. *ts'o'ok in-náak-al inw ool in-wach'-(i)k-ø*
 finish A1S-fed.up-INCOMP.INTR P1S soul A1S-untie-INCOMP.TR3S-B3S
- (*l*)e *kisin suum-a' t-u-ch'ot-m(aj)-ø-ø*
 DEM demon rope-DEM PERF.TR3S-A3S-twist-COMP.TR3S-B3S
- u=ba tujuun-a'***
 P3S=REF only-DEM
- ‘ I am fed up of untangling this damned rope, it got all twisted by itself.’
 (ConChan:05/2005)

We may wonder why the reflexive construction is employed to express counter-expectations. The answer is simple. As shown above, the subject of a reflexive construction is always a volitional human. If this human subject requirement is not met, this fact *in itself* contradicts the natural configuration of a reflexive construction. We propose that in cases of nonhuman subjects, a reflexive *-ba* construction expressing accidental or unexpected events will occur. The nonhuman subject *-ba* construction is a clear example of iconicity in the sense of Haiman (1980, 1983), in which the structural organization of the construction reflects the semantic-pragmatic content of its use. The simplex event is encoded by middle marking while the more complex type of construal is marked for reflexive. The reflexive encodes situation in which a human volitionally acts on self while the middle marks natural spontaneous events. The complexity of the construal matches the complexity of the marking form. In the case of the unexpected construction the complexity of the construal is even more evident. At the semantic-syntactic level, the non-humanness of the subject goes against the fundamental requirement of a reflexive construction. At the pragmatic level, the construction is used to express situations running counter to expectation, in which inanimate elements are participants and take action. To the extent that non-humans are occupying a position reserved for humans in control, the unexpected construction can be said to be iconic and highly motivated.

There are two mutually complementary explanations for the function of middles. The middle construction, together with other constructions in YM, depicts absolute events, which are energy-neutral, ordinary, and part of everyday life in Mayan culture. The middle contrasts both pragmatically and syntactically with the energetic reflexive construction. YM derives absolute events with middle voice from active transitive and obviously energetic roots. Middles are not just absolute; they are absolutes *contrasting* with energetic events. In other words, the main function of middles is to *contrast* with either an active transitive or with a reflexive construction.

4. CONCLUSIONS. This paper provides a systematic account of middle constructions in YM. In order to explain the behavior of middles, we looked at the behavior of the whole set of related intransitive constructions in the verbal system. The similarities among constructions involving only one participant allowed us to observe that there is a more general contrast between absolute and energetic constructions. Energetic events correspond to transitive active constructions as well as reflexive constructions. In both cases the subject is human and has volitional control over his actions. In the absence of a volitional human sub-

ject the reflexive construction is still energetic, but a new meaning of ‘counter-expectation’ is obtained. This sense of counter-expectation comes from the fact that the subject is non-animate (not energetic) and thus cannot have volitional control over the action depicted by the verb. On the other hand, absolute constructions include several types of intransitive one-participant events derived from different sources: root intransitive verbs, adjectives, and active transitive verbs. Reflexives and middles develop intransitive events from the same transitive stem; the reflexive preserves the energetic configuration of the verb, while the middle derives a verb whose energy is not profiled.

We propose that the three intransitive constructions (root intransitive, de-adjectival, and motion verbs) and found in YM form a more general superclass of absolutes. Supporting this argument is the fact that there are about ten intransitive verbs that exhibit a long vowel with high tone. While syntactically these verbs are unquestionably intransitive, they are shaped phonologically like middles (see Table 2). This mixed representation suggests an important overlap between intransitives and middles.

TABLE 2. Intransitive verbs with a long vowel with high tone

<i>jóok</i> ‘go out’	<i>kóoj</i> ‘arrive’
<i>síij</i> ‘born’	<i>tóop</i> ‘bloom/emerge’
<i>xúuk</i> ‘arrive suddenly’	<i>kíim</i> ‘die’
<i>líik</i> ‘get up’	<i>lúub</i> ‘fall’
<i>p’áat</i> ‘remain’	<i>síij</i> ‘be born’

Interestingly these verbs do not derive from transitive active verbs. To make them transitive, a causative marker *-s* must be inserted, in the same way that transitive verbs are derived from root intransitives. Moreover, to make a reflexive construction the verb must also take the causative marker. In other words, the verb must first become transitive in order to *then* become reflexive. A plain intransitive is shown in (28a). Example (28b) is its reflexive *-ba* counterpart with the causative *-s* marker. From the ungrammaticality of (28c) we know that the causative marker *-s* is obligatory. Similarly (28d) is ungrammatical because it lacks a high toned long vowel:

- (28) a. *ka jo’op’ le cháak-o’ le wakax-o’ (j)-lúub-ø-i(j)*
 then start DEM rain-DEM DEM COW-DEM PERF.INTR-fall-COMP.INTR-B3S
 ‘Then it started to rain and the cow fell down’ (ConChan: 11/2007)
- b. *t-u-lúu(b)-s-(aj)-ø* *u=ba tuyo’olal*
 PERF.TRS-A3S-fall-CAUS-COMP.TRS-B3S P3S=REF in.order.to
ma’ u-ko’och-ol tumen wakax
 NEG A3S-run.OVER.PASV-INCOMP.INTR by cow
 ‘he let himself fall to avoid being run over by the bull’ (ConChan: 11/2007)

- c. **Waan-e'* *t-u-lúub-(i)k-ø* *u=ba*
 Juan-TOP DUR-A3S-fall-INCOMP.TR3S-B3S P3S=REF
 Intended reading: 'Juan lets himself fall (so as not to fall down from the tree)'
- d. **Waan-e'* *t-u-lub-(i)k-ø* *u=ba*
 Juan-TOP DUR-A3S-fall-INCOMP.TR3S-B3S P3S=REF
 Intended reading: 'Juan lets himself fall (so as not to fall down from the tree)'

The behavior of these verbs follows that of absolute root intransitive verbs with a short vowel, as in (29). Note that the causative marker *-s* is required to form the transitive in (29b), and that the same marker is required to make the reflexive construction in (29c):

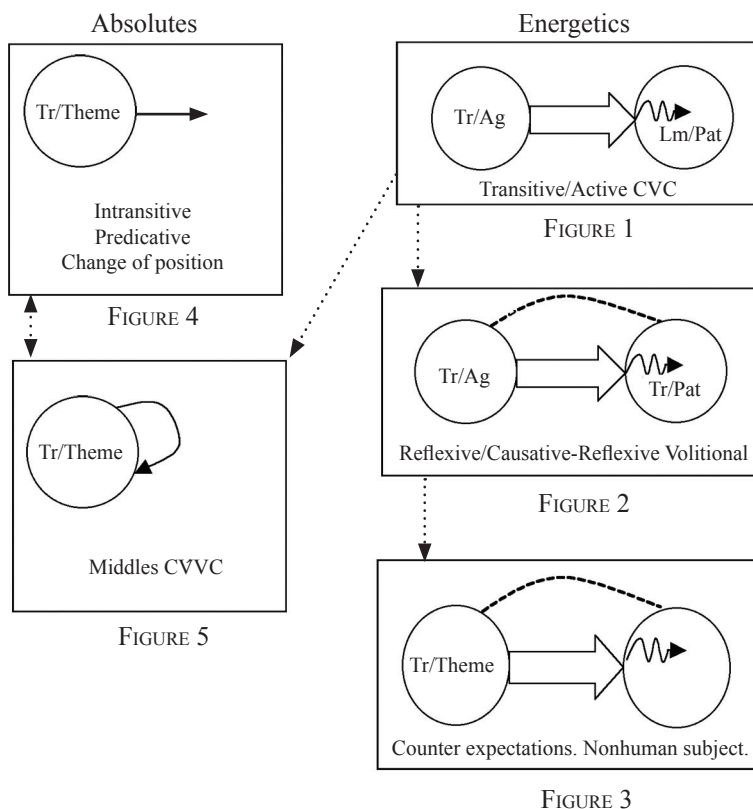
- (29) a. *t-in-wen-el*
 DUR-A1S=sleep-INCOMP.INTR
 'I am sleeping' (ConChan: 05/2005)
- b. *t-in-ween⁷-s-ik-ø* *le paal-o'*
 DUR-A1S-sleep-CAUS-INCOMP.TR3S-B3S DEM child-DEM
 'I am putting the baby to sleep' (ConChan: 05/2005)
- c. *t-in-ween-s-ik-ø* *in=ba*
 DUR-A1S-sleep-CAUS-INCOMP.TR3S-B3S P1S=REF
 'I am going to sleep' (ConChan: 05/2005)

The historical emergence of intransitive verbs with a long vowel and high tone requires independent investigation. For the current study, it is sufficient to say that the existence of these verbs suggests not only a close familiarity between middles and intransitives in YM, but also considerable overlap between the two. They in fact constitute a bigger class of absolutes where only the change of state is profiled leaving aside any potential inducing force.

Figures 1-5 represent a Cognitive Grammar (Langacker 1987, 2000) interpretation of the YM system. On the right are the set of energetic constructions. Subject and object are equated with trajector (Tr) and landmark (Lm) as the first and second most prominent participants in the event. The circle represents a participant, the double arrow stands for the transmission of energy from subject to object and the squiggly arrow represents the change of state imposed by the action. Figure 1 shows the basic representation of a transitive active clause. The reflexive construction in Figure 2 shows the same properties with a dotted line indicating coferentiality connecting subject and object. In Figure 3, all the properties of the reflexive construction are present, but the counter-expectation construction comes from the fact that the subject is a theme instead of an agent. As for the absolute subsystem, we

⁷ For many of these intransitive verbs the short vowel lengthens but maintains low tone when they take the causative marker. This phenomenon is not related to the behavior of the middle construction.

give two representations: Figure 4 stands for a variety of intransitive constructions (root intransitive, de-adjectival and motion verbs), and Figure 5 represents the middle construction. Here the subject undergoes the affectedness imposed by the verb as depicted by the arrow returning to the circle. The subject is a thematic participant unable to exert control of his or her actions.



There has been a general tendency to assume that middle constructions develop historically from reflexives (Faltz 1985; Kemmer 1993, 1994; Lehmann 1995). As already shown in Nava & Maldonado (2005), this is by no means a universal. YM aligns with languages like Tarascan (Nava & Maldonado 2005), Toba (Mesineo 2002), Otomí (Palancar 2004), Balinese (Artawa 1994), and many others in which the middle did not develop from the reflexive construction. While for some languages the middle may be a basic (non-derived) voice, for others it may derive from an alternative base form. The case of YM is particularly interesting as it comes specifically from the transitive active construction. We have suggested in this paper that the middle offers the possibility of seeing the most energetic event in a neutral absolute manner.

While we were collecting data for this study, we were intrigued to find that for some very similar situations either an intransitive or a middle was acceptable, and that in others

either the middle or the reflexive construction could be used with no apparent restriction. Our fieldwork methodology was crucial for clarifying the system. Direct elicitation could only show us that certain events (e.g., healing) could be encoded as either middle or reflexive, but could shed little light on what guided a speaker's choice. From texts, we could find contexts suggesting the specific situation that would license one construction over the other. The same was true for change of position (e.g., kneeling and sitting would take a reflexive marker or an intransitive verb in very similar contexts). However, oral narratives suggested that the reflexive implied intentionality of the subject (e.g., hiding from a fox, looking at a pretty girl, etc.). On the other hand, no example of an emphatically volitional act could be found for the middle or the intransitive construction. Although our intuitions seemed correct, only the speakers' approval validated our claims. In follow-up elicitation, speakers not only approved our hypothesis, but they also created for us the contrastive contexts in which a reflexive could be used for the energetic version of an event, as opposed to the absolute, energy-neutral manifestation of non-reflexive constructions. We concluded that absolute and energetic construals in YM constitute two fundamental cognitive patterns that determine the behavior of intransitive constructions. As determined by the speaker's needs, the natural energy involved in an action may be highlighted to stress the subject's intention to attain a goal.

In recent years special attention has been paid to pragmatic phenomena codified in the grammatical organization of human languages. From two main perspectives put forward by Langacker (1987, 2000, n.d.), Traugott (1988, 1995, 2003), and Traugott & König (1991) it has been acknowledged that the view of the conceptualizer tends to determine the configuration of a grammatical construction. Whether the grammatical formation is determined by a shift from the referential world to the dominion of the speaker, or whether the conceptualizer enters the objective scene to impose a subjective view, what is crucial is that languages create mechanisms to describe situations as seen by the speaker. Middles in Yucatec Maya do not follow typologically common patterns of middle marking. Instead, they impose a view of events in neutral terms. This view is necessary in the system to contrast with the reflexive, a construction that gives special status to the subject's control and intentionality in driving the event. The importance of control for YM is corroborated by speakers' readings of reflexive constructions as accidental, obtained when the subject is unable to exert control over the action. Unlike many Mesoamerican languages that do not allow non-human subjects, YM exploits the reflexive construction to represent situations that contradict basic Maya cultural patterns. Middle, reflexive, and intransitive constructions alternate in YM to let speakers shape their view of an event. The data we were able to account for suggests that the interdependence between active, middle, intransitive, and reflexive constructions in YM not only makes a very efficient communicative system; it also shows that grammar and cognition are shaped in accordance with the richness of culture.

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