Modality in the Grammar of Modern Mayan Languages

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This paper presents a first attempt of a comparative study of expression of modal meanings in the grammar of modern Mayan languages. There is no separate category of tense in the grammar of almost all modern Mayan languages; so modality along with aspect are main semantic domains expressed by the verbal grammar. This paper is dedicated to the study of grammatical means used to express modal meanings in the Mayan languages, as well as the distribution of these means. Particular attention will be focused on the categories of imperative and irrealis.

Keywords: *grammar, imperative, irrealis, Mayan languages, modality*

1   Introduction

The Mayan family is one of the most closely studied language families of Central America. The main reason for that is quite simple: these languages have been attracting scientists' attention for a long time due to the hieroglyphic writing on steles, monuments, pottery of ancient times. Historical interest called forth linguistic interest, but Mayan writing system resisted decryption attempts for a long time. Only in the middle of the 20th century Russian scientist Yuri Knorosov reached some success. But the interest, the Mayan languages presented, did not fade away ever since, quite the contrary, it has considerably increased. The linguists obtained the rare opportunity to observe the development of language family in the diachrony. The comparative, historical and typological studies of different linguistic fields are appearing constantly. One of them, dedicated to the expression of modal meanings in the grammar of modern Mayan languages, is presented in this paper. It should be considered a first step in the comparative and typological study of modality in Mayan languages. In this study we only consider the basic features of the grammar of Mayan languages; we do not separately analyze any particular language or any sub branch of the family. These problems remain open for future investigations.

This paper consists of three main chapters. Chapter 2 describes imperatives as a part of grammatical category of mood in modern Mayan languages. Chapter 3 deals with the category of irrealis and provides some typological reasons for its separation from the category of mood into an independent grammatical category. Analyses of original texts, written in the Tzotzil language (a dialect of Zinacantan), taken from the collection of Laughlin (1977), gave the material for examination of the category of irrealis. Chapter 4 covers the study of structure and semantics of the TAM-category (the common category of time, aspect, and mood) in Mayan languages. Here, the main attention is focused on Yucatec, because this language is quite well-classified and has a very wide system of TAM-markers. Generally, this paper is based on the analysis of three Mayan languages: Quiche, Tzotzil, and Yucatec; yet sometimes we also use the data of other languages of the family: Jakaltek, Mam, Q'eqchi', Tzutujil, Tzeltal, Sakapultek, Chol.

1.1 Mayan languages

Languages of the Mayan family are spoken in the south of Mexico, Belize, and Guatemala. The family consists of six branches (Yucatecan, Huastecan, Mamean, Quichean, Kanjobalan, Cholan – see figure 1) and approximately 30 languages; this number varies according to the differentiation between separate languages and their dialects. More than 6 millions people speak different languages of the Mayan family nowadays. The most widespread languages are Quiche (Guatemala), Yucatec (the Yucatan peninsula, Mexico) and Cakchiquel (Guatemala). Some of the languages, such as Lacandon, Mocho, Itza', are on the edge of death (Lewis 2009). By now, only two Mayan languages are considered to be dead: there are no more speakers of Chicomuceltec and Cholti'.
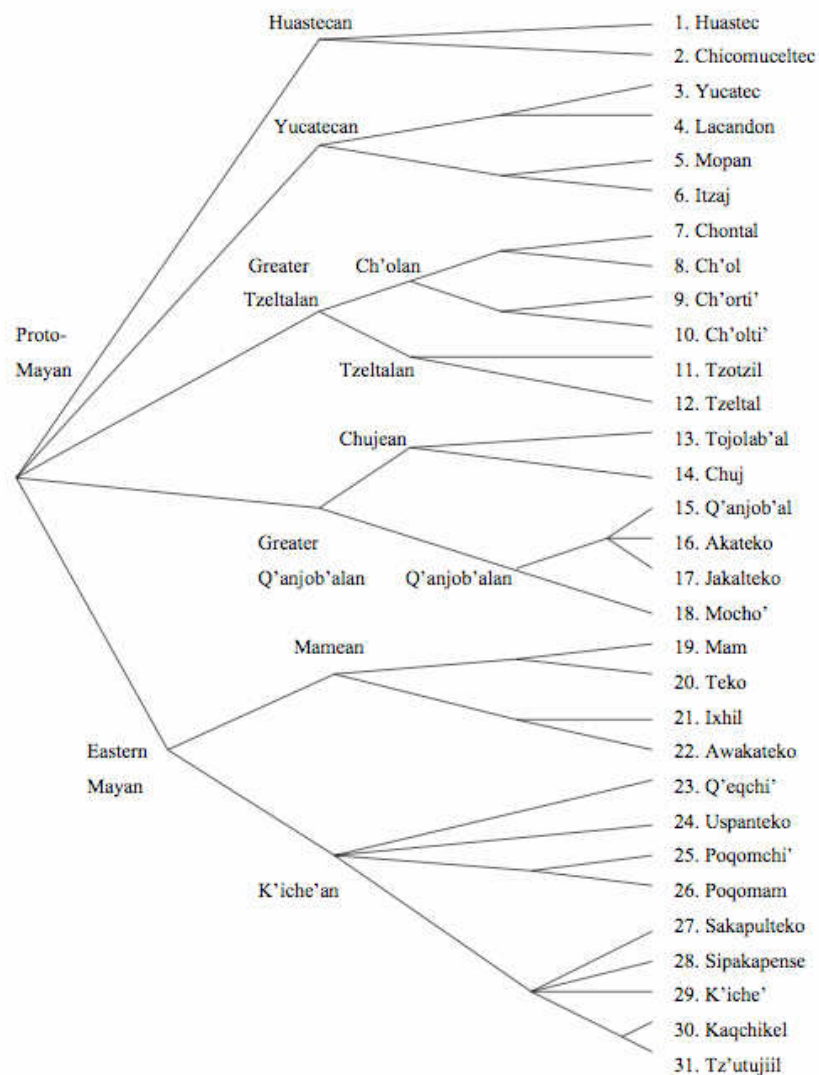

Figure 1. The classification of Mayan languages[1] (from Wichmann & Brown 2003)

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[1] The names of the languages are cited here in original (Spanish-Mayan) orthography without changes. In the text of this paper above and below we use the most widespread names which may not correspond to the names at this figure.

1.2   Modality

There are two main modal domains in Mayan grammar, *irreality* and *imperative*. Traditional descriptions provided by the grammar of European languages consider irrealis (or subjunctive) and imperative as values of a common grammatical category of *mood*. The semantic field of modality is complex and, at least, bipolar (traditionally, two types of modality are distinguished: epistemic and deontic). Generally speaking, the difference between these two types is that "epistemic modality has to do with knowledge, <…> while deontic modality has to do with right and wrong according to some system of rules" (Portner 2009, 2). Another way to consider the complex of modality meanings is to see epistemic and deontic modalities "as sub-sets of a more general distinction between speaker-oriented and agent-oriented modalities" (Kroeger 2006, 166).

So, it is also possible to consider irrealis and imperative as values of two different categories within the limits of semantic domain of modality: *irrealis* (that involves "agent-oriented" modality) and *mood* (that involves "speaker-oriented" modality), respectively. In some languages of the family irrealis belongs to the common category of tense, aspect and mood (TAM-category). The difference between these theoretical approaches is shown in the following diagram (see figure 2):
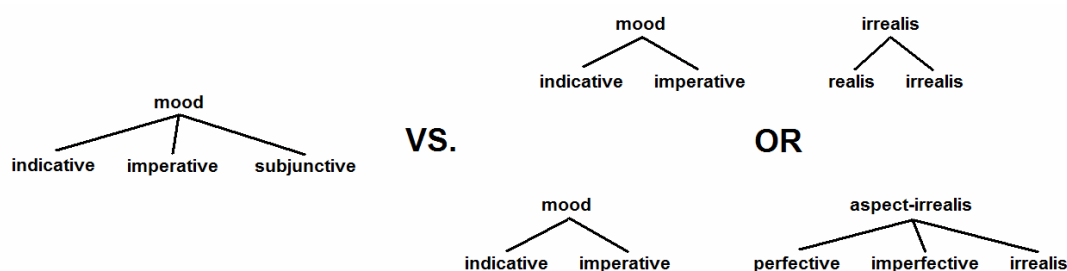

Figure 2: Theoretical approaches to the structure of the modal grammatical categories in the Mayan languages

In this paper, we will accept the second approach, according to which there are two different grammatical categories: *mood* and *irrealis*.

2   Imperative

In some languages of the Mayan family there are no markers of imperative meaning, which means they have no category of mood at all, because indicative meaning never bears any special markers in Mayan languages. For example Quiche and Sakapulteko. There are no special markers of imperative contexts in these languages, so the markers of imperfective aspect are used instead. See example (1a) with transitive verb 'to wrap up'. This marker may be accompanied by the suffix of irrealis, as it could be seen in (1b) with intransitive verb 'to walk'.

(1) a. *K-a-pis*   *chupam*   *ri*   *tojb'al*   *a-q'ij*   (Quiche)
       IPFV-2SG.ERG-wrap.up   inside   DEF   price   2SG.POS-day
       k-ya'   *ch-a-we.*[2]
       IPFV-give   that-2SG.POS-for[3]
       'Wrap up the payment you will be done.'

                                         (Camajá Cabrera 2002, 47)

      b. *K-at-b'in-aq*!
       IPFV-2SG.ABS-walk-IRR
       'Walk!'

                                         (Mó Isém 2007, 184)

There are no differences between positive imperative and negative imperative (prohibitive) sentences. In fact, imperative sentences don't differ from the similar indicative sentences in Quiche. Compare the structure of verb forms (aspectual prefix + prefix of number and person of the subject + verbal root) in examples (1a) and (2).

(2) *Ri*   *a*   *Xwan*   *x-u-pis*   *ri*   *me's*   *chupam*   (Quiche)
     DEF   MASC Juan   PFV-3SG.ERG-wrap.up   DEF   cat   inside
     ri   *rex-taq*   *u-xaq*   *che'.*
     DEF   verde-PL   3SG.POS-leaf   tree
     'Juan wrapped up the cat in the green leafs.'

                                         (Camajá Cabrera 2002, 47)

However, most of the Mayan languages do have the grammatical category of mood presented by *imperative* and *indicative* moods. As it was mentioned before, indicative mood is always unmarked. So our task, as far as the category of mood in Mayan grammar is concerned, is to examine the imperative mood and its different markers, which are used depending on the transitivity of a verb. For example, in Tzotzil imperative is expressed by the suffix *-o* with transitive verbs and by the suffix *-an* with intransitive ones. Compare the forms of the verbs *mala* 'wait' and *chotol* 'sit down' in example (3).

(3) *Mo'oj,*   *mu*   *x-a-ti'-on,*   *mala-o*   *j-likel-uk,*   (Tzotzil)
     no   NEG   IPFV-2.ERG-eat-1.ABS   wait-IMP   one-moment-DIM
     chotl-an-ik.
     seat.down-IMP-PL
     'No, don't eat me! Wait a minute! Sit down!'

                                         (Laughlin 1977, 48)

Moreover, for instance Jakaltek and Mam each have only one imperative suffix, used either with transitive or intransitive verbs. In other cases imperative meaning is expressed by pure verbal stem or by a marker of irrealis. So, in Jakaltek, one of the

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[2] The orthography of language examples remains the same as in the cited source.

[3] Abbreviations: 1 – first person; 2 – second person; 3 – third person; ABS – absolutive; APPL – applicative; DEB – debitive; DEF – definitive; DIM – diminutive; DIR – directional; ENCL – enclitic; ERG – ergative; EVID – evidential; HORT – hortative; IMP – imperative; INDEF – indefinite; INF – infinitive; IPFV – imperfective; IRR – irrealis; LOC – locative; MASC – masculine; NEG – negative; OPT – optative; PAS – passive; PAST – past tense; PFV – perfective; PL – plural; POS – possessive; POSS – possessive noun; PTCP – participle; Q – question marker; QUANT – quantifier; REM – remoted; SG – singular.

languages of the Kanjobalan branch, if a verb is transitive, just its pure stem without any aspectual, modal or personal affixes is used to mark imperative meaning. (See examples (4a,b)).

(4)   a.   *Hal   hun-uj   tzoti'   w-et   an*!   (Jakaltek)
            say   one-INDEF word   1SG-to   1.POS
            'Say a word to me!'

                                                                    (Grinevald Craig 1977, 70)

      b.   *Oc-aŋ,   pisy-aŋ.*
            enter-IMP   sit.down-IMP
            'Come in and sit down.'

                                                                    (Grinevald Craig 1977, 70)

The opposite case could be found in the Mam. A finite verb form without aspect affixe is used there to mark imperative meaning in case with intransitive verbs. (Compare examples (5a,b)).

(5)   a.   *B'li-m-a   aq'uuntl ky-uk'a   xjaal*!   (Mam)
            know-IMP-2SG work   3.POS-with person
            'Ask about the work with the people!'

                                                                    (England 1983, 174)

      b.   *Txi'-ya   b'eeta-l*!
            go-2SG   walk-INF
            'Go walk!'

                                                                    (England 1983, 173)

Such difference between transitive and intransitive verbs in the way of expressing imperative can be explained by the ergative strategy of person marking in most of the Mayan languages. As suggested in (Dixon 1979), a language has a "true universal concept of (deep) subject <…> formed by grouping agent-like argument of a transitive verb and the single actant of intransitive verbs" (Manning 1996, 7), that can also be called as logical subject.

> The logical subject is the highest argument at argument structure of the basic form of a predicate. <…> For semantic reasons certain grammatical processes will universally pick out this notion of (deep) subject regardless of the surface pivot of the language. This is because it is the (deep) subject that can control events. These processes include deciding the addressee of imperatives… (Manning 1996, 7)

Thus, the presence of two different imperative markers in the Mayan languages, distribution of which depends on the transitivity of a verb, can be explained by the different marking of agents of transitive verbs and single arguments of intransitive verbs in ergative and accusative languages.

As could be concluded, some Mayan languages of the Quichean branch do not have category of mood at all, since there is no difference between imperative and indicative sentences in these languages. Yet there is another group of the languages that do have this difference; the grammatical category of mood in these languages is presented by indicative and imperative. Some languages, such as Jakaltek or Mam, that fall out of this differentiation could be symbolically placed between these two groups. They present specific theoretical interest. From all evidence, in these languages the

transitive and intransitive verbs have quite significant difference from grammatical point of view. For example, in Mam transitive verbs do have a category of mood, while intransitive verbs do not.

3   Irrealis

Not all linguists admit typological adequacy of the term *irrealis*; see, for example, critical opinions in (Bybee 1998). This scholar considers this term too ambiguous to be satisfactory for linguistic typology. Yet nowadays the term becomes conventional and is used more and more widely. As far as the Mayan languages are concerned, the category of irrealis is of great importance.

Irrealis is a highly heterogeneous category that embodies a variety of semantic features. Elliott (2000: 66) defines it as follows: "…an *irrealis* proposition prototypically implies that an event belongs to the realm of the imagined or hypothetical, and as such it constitutes a potential or possible event but it is not an observable fact of reality". A wide range of grammatical meanings could fall (or not fall) under this definition. Therefore the aim of typologists is to make a universal list of meanings that are marked by the category of irrealis in the languages of the world and to explain exceptions to this rule. We will describe the usage of irrealis markers in Mayan languages and compare it with typological pictures obtained via comparative studies of this category, such as (Bugenhagen 1993), (Bowern 1998), or (Elliott 2000), in order to argue that irrealis in the Mayan languages has some specific semantic and morphosyntactic features which make Mayan irrealis dissimilar to the same category in other languages.

In Mayan languages irrealis is mostly used to express one of the following meanings: negation (6), imperative (7), desire (8), purpose (9), counterfactual condition (10); (see examples from different languages below).

(6)   *M-ix   utz   ta.*   (Tzutujil)
NEG-2PL:all   good   IRR
'You all aren't good.'

(Miestamo 2007, 562)

(7)   *K-at-war-oq*!   (Sakapultek)
IPFV-2SG.ABS-sleep-IRR
'Sleep!'

(Mondloch 1981, 83)

(8)   *K-w-aaj   nu-to'-iik.*   (Quiche)
IPFV-1SG.ERG-want   1SG.ABS-help:PAS-IRR
'I want someone to help me.'

(López Ixcoy 1997, 138)

(9)   *X-ul   in-atin-q.*   (Q'eqchi')
PFV-come   1SG.ABS-bathe-IRR
'I came to bathe.'

(Zavala 1993, 85)

(10) *Ati   j-mil-ik-ot-e,   ch'abal-ot   xa.*   (Tzotzil)
      if   1.ERG-kill-IRR-2.ABS-ENCL   not.exist-2.ABS   already
      'If I had killed you, you would not have existed yet.'

(Haviland 1981, 338)

It is important to note that if the condition applies to present or future tense and therefore is not counterfactual, the marker of irrealis doesn't appear. (Compare examples (10) and (11)).

(11) *A   timi   o   bu   k-il-e   ta   j-ti',*   (Tzotzil)
      EMPH   if   REL where 1.ERG-see-ENCL   IPFV   1.ERG-eat
      xi   ti   bolom-e.
      3.ERG.PFV:say   DEF   tiger-ENCL
      'If I see him anywhere, I'll eat him, – said the tiger.'

(Laughlin 1977, 52)

Two other meanings that are present in some Mayan languages could be added to this list of meanings expressed by irrealis: approximateness and indefiniteness. In (12) approximateness is expressed by the suffix of irrealis added to a numeral, and in (13) the indefinite pronoun is formed by means of the suffix of irrealis.

(12) *Ak'-b-o-n   ox-eb-uk   peso.*   (Tzeltal)
      give-APPL-IMP-1.ABS   three-QUANT-IRR   peso
      'Give me about three pesos.'

(Polian 2007, 21)

(13) *I-bat   s-k'el-b-el   s-na   ti   oy   k'us-uk*   (Tzotzil)
      PFV-go   3.ERG-look-APPL-PTCP   3.POS-casa   if   exist   what-IRR
      y-u'un.
      3.POS-POSS
      'They went to look at his house [to see] if he had anything.'

(Laughlin 1977, 154)

In many cases irrealis is "quasi-obligatory" and under certain conditions can (or even must) be omitted. So, in Tzutujil irrealis is never used in the contexts of verbal negation if a verb occurs in imperfective aspect, while it is obligatory with a verb in perfective aspect. (Compare examples (14a,b)).

(14) a.   *Ja   ch'ooy   ma   t-uu-tij   ja   kéeso.*   (Tzutujil)
            DEF   rat   NEG   IPFV-3.ERG-eat   DEF   cheese
            'The rat isn't eating / won't eat the cheese.'

(Dayley 1985, 321)

      b.   *Ja   ch'ooy   ma   x-uu-tij   ta   ja   kéeso.*
            DEF   rat   NEG   PFV-3.ERG-eat   IRR   DEF   cheese
            'The rat didn't eat the cheese.'

(Dayley 1985, 321)

Interesting fact of "quasi-obligatoriness" of irrealis is presented in the Tzotzil language when we face the need to express desire. There are many ways to express desire

in Tzotzil, and most common involve the use of the particle *chak* and the verb *k'an*. With the particle *chak* irrealis is normally used, but is expressed by the special suffix with intransitive verbs and by the absence of aspectual prefix with transitive ones (this distribution of the markers of irrealis can be observed in Tzotzil in many contexts), as it is shown in examples (15a,b).

(15) a. *Batz'i chak vay-ik-on,   xi   la   ti*   (Tzotzil)
  really   want sleep-IRR-1.ABS   3.ERG.PFV:say EVID   DEF
  antz-e.
  woman-ENCL
  'I'd like to get to sleep, said the woman.'

  (Laughlin 1977, 181)

  b. *Ak'-b-o-n   tal   j-p'ej-uk   li   lo'bol-e,*
  give-APPL-IMP-1.ABS DIR   one-QUANT-DIM   DEF   fruit-ENCL
  chak j-lo'   k-a'i.
  want 1.ERG-eat   1.ERG-feel
  'Give me a fruit. I feel like eating one.'

  (Laughlin 1977, 40)

The rule of irrealis usage with the verb *k'an* is more complex. Haviland (1981) suggested, that the suffix of irrealis is used with the verb *k'an* only when this verb is preceded by the particle *ak'o* 'let (+ inf.)'. (Compare examples (16a,b)). This particle diachronically consists of the verb *ak'* 'to give' and the imperative transitive suffix *-o*, and irrealis is used with any form of this verb, not only imperative. (See examples (16b,c)).

(16) a. *Aa   mi ch-a-k'an   ch-a-kel   l-av-ajnil-e?*   (Tzotzil)
  ah   Q   IPFV-2.ERG-want   IPFV-2.ERG-look   DEF-2.POS-wife-ENCL
  xi   la.
  3.ERG.PFV:say EVID
  '"Ah, do you want to see your wife?" – he asked.'

  (Laughlin 1977, 28)

  b. *Ta   j-k'an   ak'o p'ol-ik-uk   li   kalak'-e.*
  IPFV 1.ERG-want   let   breed-PL-IRR   DEF   hen-ENCL
  'I want my hens to breed.'

  (Haviland 1981, 333)

  c. *Mu   xa   s-k'an   x-ak'   il-uk   ti   s-sat*
  NEG   already 3.ERG-want   IPFV-give   see-IRR   DEF   3.POS-face
  un-e.
  then-ENCL
  'He didn't want to show his face now.'

  (Laughlin 1977, 49)

Thus, we could conclude that the category of irrealis in most of Mayan languages is used in following cases:
- negation (not only verbal),
- imperative (sometimes including prohibitive),
- desire,
- purpose,

- counterfactual condition,
- approximateness, and
- indefiniteness.

Elliott (2000: 70) presents the following semantic domains usually covered by category of irrealis in different languages: *potential events*, *conditions* (including counterfactual), *imperative*, *negation*, *habitual*, *interrogation*. The list of all cases which can bear markers of irrealis in the languages of New Guinea could be found in (Bugenhagen 1993). There are fifteen items on the list: *future tense*, *purpose*, *obligation*, *apprehensive*, *habitual*, *hypothetic condition*, *desire*, *imperative*, *doubt*, *present tense*, *counterfactual condition*, *possibility*, *prohibitive*, *negation*, *past tense*. Thus, the Mayan irrealis in general does not present any unexpected usage. It should be noted, though, that it has some special features. Firstly, irrealis in Mayan languages is never used in contexts with habitual meaning. Secondly, the usage of irrealis for the purpose of marking approximateness and indefiniteness in some languages of the family may be considered uncommon.

Bowern (1998) proposes an interesting typological hierarchy of irreal meanings that could be presented in the following way (see figure 3; arrows mean implications):

<pre>
Potential   ←   Counterfactual
    ↑
Jussive   ←   Prohibitive
    ↑
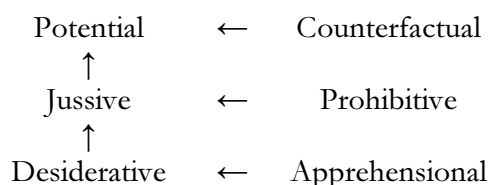Desiderative   ←   Apprehensional
</pre>

Figure 3. Hierarchy of irreal meanings (according to Bowern 1998)

So, if a language marks a particular modality for irrealis then it will mark every positive category further up the hierarchy for irrealis also. If a language marks volition [i.e. desiderative meaning] with the irrealis, then it will also mark potential events and commands [i.e. jussive meaning] for irrealis. (Bowern 1998)

In general, this scheme appears to be correct for all languages of the family. There is only some vagueness with the principal irreal meaning, according to Bowern (1998), – potential. In Mayan this meaning can be expressed in different ways; for example, in Tzotzil, one of the following words is used to express potentiality: a) the word *oyuk* compounded by the existentional predicate *oy* and the suffix of irrealis, b) the verb *t'ak* that is used very seldom, c) the spanish loanwords *pwede* or *pwedes*, d) the particle *chak*, etc. Although irrealis is sometimes (but not always) used in these contexts, presence of loanwords is evidence of outlying position of potential meaning in the semantic structure of the domain of irreality in Tzotzil and in all Mayan languages in general. However, some means of expressing potentiality contain markers of irrealis, so we can consider the irrealis in Mayan languages as follows:

<pre>
Potential   ←   Counterfactual
    ↑
Jussive   ←   Prohibitive
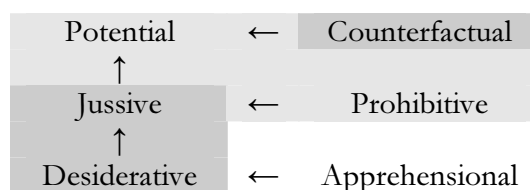   ↑
Desiderative   ←   Apprehensional
</pre>

Figure 4. Irrealis in Mayan languages with regard to the universal hierarchy of irreal meanings

At this scheme the meanings expressed by the category of irrealis in the Mayan languages are marked by the grey color. The color saturation marks the frequency and "universality" of each irreal meaning. It isn't possible to make a universal diagram for all Mayan languages because of significant differences between languages among the family in grammatical meanings marked by irrealis (for instance, not all languages regard negation as an irreal meaning, only few languages mark approximateness by irrealis, etc.). Even the dialects of the same language may differ in the way of using modal categories (irrealis or imperative). So, in some southern dialects of Tzeltal prohibitive is marked by imperative, which is different from northern dialects (Polian 2007). (Compare examples (17a) from Tzeltal of Oxchuk (northern dialect) and (17b) from southern Tzeltal).

(17) a.   *Ma   me   x-ok'-at.*   (Tzeltal)
                NEG please IPFV-cry-2.ABS
                'Don't cry.'

                                                                  (Polian 2007, 9)

      b.   *Ma   me   ok'-an.*
                NEG please cry-IMP
                'Don't cry.'

                                                                    (Polian 2007, 9)

Finally, it should be noted that in most of Mayan languages category of irrealis is not fully grammaticalized, it is confirmed by a wide range of cases of "quasi-obligatoriness" of irrealis, as well as by the usage of markers of irrealis with different parts of speech (as in examples (6), (12), (13)). There are different means of expressing irrealis in the Mayan languages: postpositional particles (as in Tzutujil, examples (6), (14b)), affixes (as in Quiche or Q'eqchi', examples (8) and (9)), absence of aspectual marker (as sometimes in Tzotzil, example (15b)). But the set of these means is constant for every specific language; this is the main reason to consider irrealis as a highly heterogeneous, but indivisible morphosyntactic category.

4   TAM-category

One of the most interesting features of the Mayan verbal grammar is a specific interaction between the categories of irrealis and aspect. In rare cases the markers of aspect combine with the markers of irrealis within a single verb form, and it seems to be a universal principle for all languages of the family. In most languages it doesn't apply to imperative contexts. Although in some languages like Tzotzil or Tzeltal this principle seems correct for the category of imperative too. But we have already seen the sentence (1b) in Quiche where the prefix of imperfective combines with suffix of irrealis in the phrase with imperative meaning. So, for many Mayan languages it would be reasonable to consider aspectual, irreal (and sometimes temporal, but not imperative) meanings as values of one common grammatical TAM-category.

Of course, there are some exceptions to this rule. A good example can be provided again by the Tzotzil language. Here in the relative sentences of counterfactual condition the irrealis is used along with the perfective aspect. (See example (18)).

(18) *Ati l-a-k-il-uk*   *volje-e,*   *laj-k'op-on*   (Tzotzil)
     if   PFV-2.ABS-1.ERG-see-IRR yesterday-ENCL finish-speak-1.ABS
     ox.
     not.now
     'If I had seen you yesterday, I would have already spoken to you.'
                                                        (Haviland 1981, 339)

Note, that the use of a verb form without any aspectual prefix is also possible in the same sentence. However, transposition of personal markers is needed, then the sentence will have exactly the same meaning (See examples (18) and (19)).

(19) *Ati k-il-ik-ot*   *volje-e,*   *laj-k'op-on*   (Tzotzil)
     if   1.ERG-see-IRR-2.ABS yesterday-ENCL finish-speak-1.ABS
     ox.
     not.now
     'If I had seen you yesterday, I would have already spoken to you.'
                                                        (Haviland 1981, 339)

The possibility of combining aspect and irrealis markers in a single verb form can be explained in the following way: the relative sentence of counterfactual condition is a nominalization. The conjunction *ati* 'if' consists of the emphatic particle *a* and the definite article *ti* that is always followed by the enclitic *-e*. So, from syntactical point of view there is an emphasized substantive formed by a whole sentence. The use of irrealis with substantives is very common in the Tzotzil language.

A typologically uncommon phenomenon occurs in Mayan languages of the lowland area (Yucatecan branch and some Cholan languages): the TAM-category is usually expressed in two positions at once within a single verb form; see examples (20) and (21). An analogous phenomenon occurs also in some languages of the highland area, but it is not so definite there.

(20) *Choñkol k-ts'ujts'-uñ*   *jiñi* *ñeñe'.*   (Chol)
     DUR   1.ERG-kiss-IPFV   DEF   baby
     'I am kissing the baby.'
                                                        (Coon 2010, 25)

(21) *T-u   búukint-ah hun-p'éel*   *ma'loob nòok'.*   (Yucatec)
     PFV-3.ERG put.on-PFV one-QUANT   good   dress
     'He put on a good dress.'
                                                        (Andrade and Máas Collí 1990)

In these examples we could see two markers of aspect within a single sentence: durative and imperfective in (20), and two perfective markers (the difference in their meanings is not perfectly clear) in (21).

The same "double marking" also occurs with modal meanings. Moreover, modal markers are sometimes combined with aspectual ones. The number of possible combinations here is highly strict: one specific marker can only combine with strictly definite another one. All the studies dedicated to the problem of modal-aspectual system of the languages of Yucatecan branch still cannot give an answer, why can the markers only combine in one way, and not the other. In these cases some other meanings from

the semantic domain of modality (desiderative, debitive, optative, hortative) can be expressed together with irrealis or aspect. Examples (22a,c) present combinations of optative, hortative, and debitive markers in Yucatec with markers of irrealis (22a) and imperfective (22b,c); note, that other combinations (for example, optative with imperfective or debitive with irrealis) are impossible.

(22) a. *Káa xi'k ti' le noh beeh-o'.* (Yucatec)
OPT go:IRR LOC DEF big road-ENCL
'Let him take the large road.'

(Andrade and Máas Collí 1990)

b. *Ko'x uk'-ik sa'.*
HORT drink-IPFV atole
'Let's drink atole.'

(Blair and Vermont-Salas 1965)

c. *He'l tak in kut-al han-al ti' u mayak-il!*
DEB but 1SG.ABS sit.down-IPFV eat-IPFV LOC 3SG.POS table-DEF
'But I will sit down and I will eat at his table!'

(Andrade and Máas Collí 1990)

Yucatec provides a great variety of modal and aspectual markers, which include some markers with temporal meanings too. In the sentence (23) the marker of past remoted tense is present in combination with the suffix of irrealis.

(23) *Úuch k'oha'nchah-k-ech máasima?* (Yucatec)
PAST.REM be.sick-IRR-2SG.ERG Q
'You've been sick for a long time, haven't you?'

(Blair and Vermont-Salas 1965)

Finally, some particles that express modal meanings can be used together (see example (24) where markers of hortative, optative and irrealis occur in the same sentence), that makes the TAM-system of Yucatec even more complicated.

(24) *Ko'x káa han-ak-o'on ts'o'ok-ol-e' k-a* (Yucatec)
HORT OPT eat-IRR-1PL.ERG finish-IPFV-ENCL IPFV-2SG.ABS
bin.
go
'Let's eat, then you can go.'

(Andrade and Máas Collí 1990)

Thus, in Mayan languages such as Yucatec there is no way to consider irrealis (or mood, because it includes many other modal meanings that all have their own markers that differ from the markers of irrealis) as a grammatical category, separated from the category of aspect and possibly tense. The "secondary" modal meanings as hortative, desiderative, debitive, etc. are not expressed by grammatical means in most of the languages from the Mayan highland area.

5   Conclusions

There are two main modal domains quite separated in the grammar of modern Mayan languages: imperative and irrealis. As far as the category of imperative is concerned, its usage is somewhat reduced in most of the languages of the family and is non-existent in some languages at all. In which case its functions are carried out by the category of irrealis.

As far as the category of irrealis is concerned, we examined two main groups of Mayan languages. These groups are distinguished according to the interaction between irrealis and other verbal categories such as aspect and tense. In the first group that consists of the languages of the Mayan lowland area irrealis, aspect and tense form one common grammatical category (the TAM-category), that is notable for highly complicated internal structure – semantical and syntactical. Some "additional" modal meanings, such as debitive, optative, or hortative, are expressed in the grammar of these languages. In the languages of the Mayan highland area the category of irrealis is much more isolated, but it nevertheless has some specific restrictions on the use in combination with aspectual markers. The Mayan irrealis was analyzed from typological point of view; and this analysis brought to light two specific features: first, irrealis never marks habitual aspect in Mayan languages; and second, it is used quite seldom to mark potential meanings.

A deep, profound study of modality in the languages of Mayan family needs a careful analysis of every language (and sometimes every dialect). This paper only describes some basic features and preliminary results. Such phenomena as TAM-category (its syntactic and semantic structure; interaction of different markers), the category of irrealis (the whole variety of cases of its use in typological), the specific interaction of the categories of aspect and mood (that is apparently closely connected to the general meaning of these grammatical and semantical categories), have not been thoroughly explored yet and present a great material for future analysis.

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