

Negation in Atayal and Mandarin: A Comparison

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1. *Introduction*

Both Atayal (Formosan Austronesian) and Mandarin have multiply distinct forms of negation. Mandarin possesses *mei* (*you*), *bu*, and *bie*, and Atayal possesses *ʔini*, *yat*, *ʔiŋat*, and *lahi*.¹ We will set aside Atayal *lahi* and Mandarin *bie* since they are used exclusively in Imperative sentences and concentrate upon the more general negative forms, i.e., Atayal *ʔini* and *yat*, and Mandarin *mei* (*you*) and *bu*. (Cf. note 8 for remarks on Atayal *ʔiŋat*.) The following sentences suggest that the two forms of negation in the two languages are parallel in their usage.

- (1) (a) Zuotian wo *mei*(you) chi
yesterday I Neg eat
'I didn't eat yesterday'
- (b) ʔini-ku qanyiq hira
Neg-I eat yesterday
'Yesterday I didn't eat'
- (2) (a) Nimen dou *bu* shi Taiya ren
you.pl all Neg be Atayal person
'You all are not Atayal'

¹ © Lillian Meei-jin Huang & Philip W. Davis 1989. The first author wishes to thank the National Science Council, Republic of China, for generous financial support of the work on Atayal which is represented in part here, and which aid was provided by through grants NSC 77-0301-H003-14 and NSC 78-0301-H003-19. The second author also wishes to record his gratitude to the National Science Council, Republic of China, for their support of him as a Visiting Research Professor (spring 1989), associated with the National Taiwan Normal University.

We wish also to thank Professor Stanley Starosta for comments on an earlier version of this paper presented to The 22nd International Conference on Sino-Tibetan Languages and Linguistics, Honolulu, Hawaii, 8 October, 1989. We remain, of course, solely responsible for any errors of fact or interpretation. The Atayal portion is now incorporated into Huang (1993).

- (b) *Yat* simu Tayan kwara
 Neg you.pl Atayalall
 ‘You all are not Atayal’

The incorrectness of the Mandarin expression of (1a) with *bu*, i.e., **Zuotian wo bu chi*, and the incorrectness of the corresponding Atayal expression with *yat*, **Yat-ku qanyiq hira*, furthers this appearance. And finally, the incorrectness of the Mandarin sentence of (2a) with *mei*, i.e., **Nimen dou mei shi Taiya ren*, and the unacceptability of the Atayal one in (2b) with ?ini, i.e., *?ini simu Tayan kwara, seems to add the finishing proof.

The congruency between the two languages, however, is not complete. For example, where Mandarin must use *bu* in (3a), Atayal may use either ?ini in (3b) or *yat* in (3c):

- (3) (a) *Wobu* xihuan chi yu
 I Neg like eat fish
 ‘I don’t like to eat fish’
- (b) ?ini-ku soya? m-anyiq qulih
 Neg-I like M-eat fish
 ‘I don’t like to eat fish’
- (c) *yat-ku* soya? m-anyiq qulih
 Neg-I like M-eat fish
 ‘I don’t like to eat fish’

And where Mandarin uses *mei* in (4a), Atayal uses *yat* in (4b):

- (4) (a) Tali *mei(you)* chuan guo xiezi
 Tali Neg put.on Asp shoe
 ‘Tali has never worn shoes’
- (b) *Yat* m=in=kucu? Tali
 Neg M=Past=put.on.shoe Tali
 ‘Tali has never worn shoes’

When two unrelated languages exhibit multiple negative expressions, and when the usages of those forms are frequently parallel, such circumstance demands understanding. In this paper, we outline the semantic systems of

negation in Mandarin and Atayal in such a way that the parallels and differences in the usage of the morphology of negation follow naturally. Since negation is less described in Atayal than in Mandarin, we will begin with the former. We will then set the remarks about Mandarin negation against the Atayal, and in this way we may see the Mandarin pattern in a new light.

2. *Atayal*

Atayal is an Austronesian (Formosan) language presently spoken on the island of Taiwan. Geographically, it is one of the more widely spread of the Formosan languages, ranging from Ilan county in the northeast, to Taipei and Taoyuan counties in the north, and southward through Hsinchu, Miaoli, and Taichung counties to Nantou in the central portion of the island.² Atayal is a verb initial language which permits both SO and OS orders; it is not strictly VSO nor VOS. Cf. Huang (1988) and Huang & Davis (Ms.) for a sketch of the major features of the syntax.

There are instances in Atayal in which the two general marks of negation, *?ini* and *yat*, appear to be paraphrases:³

- (5) *?ini* *ɲuray* Tali
 Neg stupid Tali
 ‘Tali is not stupid’
 [Tali bu ben]

- (6) *Yat* *ɲuray* Tali
 Neg stupid Tali
 ‘Tali is not stupid’
 [Tali bu ben]

Yet in other contexts an overt contrast is present in the glosses:⁴

² Atayal (*Kiy Tayan*) is represented in this paper by the dialect as spoken in Wulai, Taipei County, Taiwan. We express here our continuing appreciation to our primary speaker of Atayal, Pastor You, for his constant good humor, patience, and understanding.

³ Egerod (1965:271-72) remarks upon the negative forms only in passing and to note some of their senses:

- (1) *ini?* ‘did not’
 (2) *ijat* ‘will not, do not want’ and ‘have not’

⁴ The Atayal data were first glossed into Chinese, and the English glosses provided here are in turn glosses of that gloss. Where the Chinese may be relevant or instructive as to the

(7) ?ini-ku qanyiq
 Neg-I eat
 'I didn't eat'
 [Wo mei you chi]

(8) Yat-ku qanyiq
 Neg-I eat
 'I won't eat'
 [Wo bu yao chi]

The impression that the temporal contrast may be basic is furthered by the inability of *yat* to occur with *hira* 'yesterday' in (9b):

(9) (a) ?ini-ku qanyiq hira
 Neg-I eat yesterday
 'I didn't eat yesterday'

(b) *Yat-ku qanyiq hira
 Neg-I eat yesterday

and the corresponding inability of *?ini* to appear with *suhan* 'tomorrow':

(10) (a) *?ini-ku qanyiq suhan
 Neg-I eat tomorrow

(b) Yat-ku qanyiq suhan
 Neg-I eat tomorrow
 'I won't eat tomorrow'

The correspondence with time is not, however, absolute, for in (11) we find *yat* in a past time context:⁵

semantics, the original Chinese gloss is added in square brackets.

It is important to keep in mind that the glosses, whether Chinese or English, are just that, glosses. The essential aspect of the semantic content is most frequently contained in the speaker's remark about the nonlinguistic contexts to which the utterances are appropriate or inappropriate.

⁵ The prefix *m-* which occurs in (11) and elsewhere in the Atayal is a mark of Agent VOICE. Two other marks of VOICE which appear are *-an* and *-un*, both indicating the Patient in slightly different ways. Cf. Huang & Davis Ms. for details.

- (11) (a) Yat m=in=kucu? Tali
 Neg M=Past=put.on.shoe Tali
 ‘Tali had never worn shoes’
 [Tali mei you chuan guo xiezi]
- (b) *ʔini m=in=kucu? Tali
 Neg M=Past=put.on.shoe Tali

But here the Chinese gloss bears witness to a content which is absent from the English. The appearance of *guo* in this context indicates that Tali did not have the experience of wearing shoes. The Mandarin *guo* appears not to index directly the absence of an experience, but the absence of an occasion which would have led to that experience: *the negation of an opportunity*. The circumstances which prepare for the execution of the EVENT are what are absent in (11).⁶ And, of course, in their absence any performance of the EVENT itself (should it be semantically such as to allow one) is also absent. Although this implication cannot be entirely drawn from the presence of *guo* in the gloss of (11a), it is supported by the speaker’s remarks concerning (12) and (13). Cf. note 4. Such a distinction appears more saliently in the sentence pairs (12)-(13) and (14)-(15):

- (12) ʔini-ku qbaq m-kucu? iqas kucu?
 Neg-I able M-put.on.shoe new shoe
 ‘I don’t know how to wear new shoes’
 [Wo bu hui chuan xin xiezi]
- (13) Yat-ku qbaq m-kucu? iqas kucu?
 Neg-I able M-put.on.shoe new shoe
 ‘I can’t wear new shoes’
 [Wo bu neng chuan xin xiezi]
- (14) ʔini huqin Tali
 Neg die Tali
 ‘Tali did not die’
 [Tali mei you si]

⁶ We shall use terms in all upper case to denote their exclusive application to the area content. Those written only with an initial upper case have their application in the realm of expression.

- (15) Yat huqin Tali
 Neg die Tali
 ‘Tali can’t die (he still has work to do)’
 [Tali bu neng si (hai you gongzuo yao zuo)]

Again, it is the Mandarin gloss and the speaker’s description of the circumstances to which (12) and (13) are appropriate which provide the clue to the contrast. In sentence (12), the speaker has made an attempt to wear new shoes, but for some reason did not succeed, perhaps for lack of knowing how. In (12), it is the act of ‘putting on’ which is negated, but in sentence (13), the speaker has as yet made no such attempt. In this case, an occasion for ‘putting on’ has not presented itself; and now it is because some prior condition was not satisfied that the opportunity for performing the EVENT was not encountered. Perhaps s/he was not allowed (i.e., *bu neng*) to try putting on the shoes; or it could also be that there was no money with which to purchase the shoes, and hence they were not tried on. Again, it is the opportunity which is lacking (negated) in (13) and not the attempt. Likewise in (14) and (15), it is the circumstance which would make it acceptable for Tali to die which distinguishes (15) from (14). That is, in (15) conditions are not yet right for Tali’s demise. The speaker remarks that Tali’s work, for example, is not yet completed. In (14), it may be that Tali has faced death, but has survived. Although the (a)-sentences of (16) and (17) reflect the same contrast as sentences (12) and (13), the extensions of the (a)-sentences in (16b) and (17b) reveal another difference:

- (16) (a) ?ini-ku qbaq m-bazi iqas kucu?
 Neg-I able M-buy new shoe
 ‘I couldn’t buy new shoes’
 [Wo bu hui mai xin xiezi]
- (b) ?ini-ku qbaq m-bazi iqas kucu?
 Neg-I able M-buy new shoe
 baha mswa ijat pila?
 because happen Neg.exist money
 ‘I didn’t know how to buy new shoes because there was no money’
 [Wo bu hui mai xin xiezi yingwei mei you qian]

- (17) (a) Yat-ku qbaq m-bazi iqas kucu?
 Neg-I able M-buy new shoe
 ‘I can’t buy new shoes’
 [Wo bu neng mai xin xiezi]
- (b) Yat-ku qbaq m-bazi iqas kucu?
 Neg-I able M-buy new shoe
 baha mswa iɟat pila?
 because happen Neg.exist money
 ‘I couldn’t buy new shoes because I didn’t have any money’
 [Wo bu neng mai xin xiezi yingwei wo mei you qian]

The difference between (16b) and (17b) lies now also in the speaker's description of how the purchase failed.⁷ The one who utters sentence (16b) went to the store (*Yi jing qu guo* ‘They’ve already gone’, the speaker says.), and then found the money lacking; but in (17b), no one has visited the store at all (*Hai mei you qu* ‘They’ve not yet gone’), because there was no money. Thus, in (16b) the failure occurred at the point of purchase; it was that EVENT itself which is negated by the lack of money. But in (17b), the participants already are aware of the lack of money, and the stage setting activity of going to the store fails to materialize. The scenarios of (16b) and (17b) are effectively equivalent, although the enterprise which (17b) describes never reaches the point at which the EVENT *bazi* ‘buy’ may be said to have had an opportunity to fail. The historical paths of the common effects of (16b) and (17b) differ, with the negation lying at different points along those paths. We may use Figure 1 to illustrate the distinction. The two lines represent the course of events. At point **A**, two alternative paths are presented, one leading to the named EVENT, and one not. If circumstances are such that historical experience bypasses the occasion of the EVENT then *yat* is appropriate. But if history leads us directly to the EVENT, which is then not executed at that point, *ʔini* is appropriate. Sentence (16b) can now be seen to fail at **B**. The potential purchaser gets right up to the point of buying the shoes, and then — discovering the lack of money — does not. Sentence (17b) indicates a failure at **A**. Because money is known to be lacking beforehand, no effort is made towards the purchase of the shoes

⁷ The Mandarin equivalents of these Atayal sentences (16b) and (17b), which are those of the Atayal speaker, are not completely grammatical in the sense used here. That is, *bu hui* and *bu neng* index a future time in Mandarin, yet it is clear from the context that the speaker intends a past time.

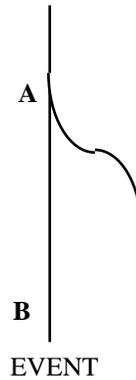


Figure 1: *IMMEDIATE & REMOTE negation in Atayal.*

and experience flows along another track on which 'buy' is not an option. Similarly, sentences (12) and (14) require a negation at **B**; in (12) an attempt to put the shoes on may have failed, and in (14) an illness is overcome. The parallel sentences (13) and (15) denote a failure at a greater distance from the actual occurrence of the EVENT. There was no attempt made to put on the shoes in (13) and no illness overcome in (15). The sentences of (18) and (19) provide another illustration of the contrast between a direct negation (at **B**) and an oblique one (at **A**):

(18) ?ini-ku qbaq m-qwas
 Neg-I able M-sing
 'I can't sing'
 [Wo bu hui chang ge]

(19) Yat-ku qbaq m-qwas
 Neg-I able M-sing
 'I can't sing'
 [Wo bu neng chang ge]

In (18), the singing will not take place because the speaker has no ability to sing; but in (19), lack of talent is not the intervening factor. The speaker cannot sing because s/he has become too shy because there are too many people present. Other circumstances to which (19) is appropriate include the microphone failing to function or the singer contracting a sore throat. The cause lies not in the source of the song (the singer, **B** in Figure 1), but externally in

the surrounding environment (**A** in Figure 1). In (18), the ability which is denied is that which would have realized the performance at **B** in Figure 1; in (19), the failure is a more remote one (**A** in Figure 1) in the en(dis-)abling conditions.

The absence of opportunity can be also detected in negations of nouns, e.g.

- (20) (a) Tayan Tali
Atayal Tali
'Tali is Atayal'
- (b) Yat Tayan Tali
Neg Atayal Tali
'Tali is not Atayal'
- (21) *ʔini Tayan Tali
Neg Atayal Tali

and in this pair:

- (22) Yat squliq balay Tali
Neg human very Tali
'Tali is not a good person (lit. not very human)'
[Tali bu shi zhen zheng de ren, mei liangxin]
- (23) *ʔini squliq balay Tali
Neg human very Tali

Since being Atayal or being human is not directly demonstrated by a performance (as *qbaq* 'able [to sing]' may be), the negations by ʔini in (21) and (23) fail, for it is the very **occasion** of performance which ʔini must directly deny. On the other hand, however, since *yat* negates an opportunity (or some preparatory or felicity condition) rather than the execution itself, it succeeds with *Tayan* 'Atayal' and *squliq* 'human' where ʔini fails.

This pattern suggests that predicates which are more STATIVE, or predicates which simply identify what an object is, without becoming it, will therefore appear only with *yat*. This seems to be the case. We might then suppose that those EVENTS which are ACTIVE or transitory will avoid occurrence with *yat* and combine only with ʔini. But this is only partially true, since, as we saw in (7) and (8), *qanyiq* 'eat' may occur with both negatives. The possible conflict

between *yat* (which signals only the negation of an opportunity and not the negation of the performance as does ?ini) and the EVENT *qanyiq* 'eat' is avoided by projecting the EVENT into the future — thus removing/negating the possibility of its performance — or by otherwise interpreting the utterance such that the ACTIVE EVENT has not had occasion to be performed. This accounts for the association of *yat* with Future time and for the association of ?ini with Past time, which we observed in (7)-(10). The semantics of time is not inherent in these negative forms; it is simply one way in which their semantics of IMMEDIATE and REMOTE may be played out. Similar temporal deflections of the non-performance from an EVENT occur in (13), (15) and (19). Where a temporal or other postponement of the EVENT's occasion cannot be maintained, *yat* will not be a possible negation. The Perfective *wan* is an example of this, as are the Proximal Imperfective *nyux* and the Distal Imperfective *cyux*:

- (24) (a) Wan saku p-kucu? iqas kucu?
 Prf I P-put.on.shoe new shoe
 'I wore/put on new shoes'
- (b) Wan saku ?ini p-kucu? iqas kucu?
 Prf I Neg P-put.on.shoe new shoe
 'I still haven't worn new shoes'
 [Wo hai mei you chuan xin xiezi]
- (c) *Wan saku yat p-kucu? iqas kucu?
 Prf I Neg P-put.on.shoe new shoe
- (25) (a) Wan saku m=in=kucu? iqas kucu?
 Prf I M=Past=put.on.shoe new shoe
 'I've already put on new shoes'
 [Wo yi jing chuan shang xin xiezi]
- (b) Yat saku m=in=kucu? iqas kucu?
 Neg I M=Past=put.on.shoe new shoe
 'I have never worn new shoes'
 [Wo mei you chuan guo xin xiezi]
- (c) *Wan saku yat m=in=kucu? iqas kucu?
 Prf I Neg M=Past=put.on.shoe new shoe

- (26) (a) Nyux-ku m-anyiq
 Imprf-I M-eat
 'I'm eating'
 [Wo zai chi]
- (b) Nyux-ku ?ini qanyiq na
 Imprf-I Neg eat Prt
 'I'm still not eating now'
 [Wo hai mei you zai chi fan]
- (c) *Nyux-ku yat qanyiq na
 Imprf-I Neg eat Prt
- (27) (a) Cyux m-huqin Tali
 Imprf M-die Tali
 'Tali is dead'
- (b) Cyux ?ini m-huqin Tali
 Imprf Neg M-die Tali
 'Tali is not dead yet (but he will be)'
 [Tali hai mei you si]
- (c) *Cyux yat m-huqin Tali
 Imprf Neg M-die Tali

All these aspectual marks denote the realization of an EVENT, either as Imperfective (in mid-course) or Perfective (accomplished), and the REMOTE semantics of *yat* contradicts this. *Wan*, *nyux*, *cyux* place the historical course of events at B in Figure 1, and *yat*, which signals a more distant relation to the actual performance of the EVENT, is incompatible with this.

A final piece to this semantics occurs in such sentences as:

- (28) (a) Yat Tali ?uray
 Neg Tali stupid
 'It's not Tali who is stupid'
- (b) *?ini Tali ?uray
 Neg Tali stupid

In (28a), it is not the case that no one is stupid. There is someone who is; it's just not Tali, and 'stupidity' is not completely denied, only its applicability to Tali. Negative answers to yes-no questions are appropriately framed with ?ini:

- (29) (a) ?ini tʔi turi Tali ga
 Neg run.over car Tali Question
 'Did a car run over Tali?'
 (b) ?ini tʔi ma
 Neg run.over Quotative
 'No, it didn't'

In (29b), it may be that no one was run over since ?ini directly negates the occurrence of the EVENT. The fact that the negation focuses on the EVENT, and nothing more, is indicated by the absence of a mark of VOICE, which would signal the close association of a PARTICIPANT in the EVENT, and in the negation. Cf. (32) below. But in (30b), the negation is only of Tali:

- (30) (a) Tali cyux tʔ-an turi ga
 Tali Imprf run.over-AN car Question
 'Was Tali run over by a car?'
 (b) Yat Tali. Huzin cyux tʔ-an turi
 Neg Tali. dog Imprf run.over-AN car
 'Not Tali. A dog was run over'

In (30b), it is not tʔi, the 'running over', which is negated, but the circumstance/condition which is associated with Tali. Hence, with *Yat Tali*, it will be the case that someone/thing else was so affected. (Cf. also [32b].) In terms of Figure 1, ?ini places the negation at the threshold of the EVENT (at **B**) and denies the EVENT alone and in its entirety; *yat*, however, occupying a more remote position with respect to the EVENT (at **A**), can accomplish its negation without obliterating the EVENT in all possible implementations, e.g. (28a). And to answer a question directly and completely with a single word, we have only two alternatives:

- (31) (a) ?aw
 'Yes'

- (b) Yat
‘No’
- (c) *ʔini

In (31b), the negation of an entire utterance does not focus upon the negation of the EVENT alone, but extends to the accompanying material as well. ‘No’ is not just a denial of the EVENT, but also of the accompanying circumstantial content. Notice that the English of (31b) may be vague in response to (30a). ‘No’ may be uttered if something/someone other than Tali was struck, if Tali was run over by a truck (not a car), or if Tali was not run over, but only brushed by a car. The Atayal answer *yat* is a blanket denial ‘No [nothing of the sort happened]’, which seems to preclude the elusive behavior which English permits. And finally in this pair:

- (32) (a) ʔini misuʔ tʔi hira
Neg I.you run.over yesterday
‘I didn’t run over you (or anyone) yesterday’
- (b) Yat ʔisu tʔ-an-mu hira
Neg you run.over-AN-I yesterday
‘I didn’t run over you (but someone else) yesterday’

the co-occurrence of *yat* with *hira* ‘yesterday’, which sentence (9b) indicates to be impossible, is now seen to exist. The condition which enables it in (32b) is the possibility of there being an alternative negation in place of the negation of the EVENT itself; and it is the alternative patient of the EVENT which allows both *yat* and *hira* to appear with the same verb. It is not the direct denial of the fact of ‘running over [someone]’ which *yat* signals; *yat* negates the more peripheral component of that EVENT ʔisu ‘you’, a component which may undergo substitution (by negation) thus allowing the EVENT of ‘running over [someone else]’ to occur.

The two forms of negation in Atayal seem to be distinguished by how they relate to the EVENT. The negation most IMMEDIATE to the EVENT is effected by ʔini, which focuses directly upon the EVENT and denies only its performance. By contrast, negation by means of *yat* constitutes a negation which is REMOTE from the EVENT; it does **not directly** deny the performance of the EVENT, and the point of its application may be diffused throughout the PROPOSITION and

the non-language context.⁵ *Yat* denies the preparatory conditions, for example,

⁵ Li (1973) notes the presence of two negative formations in Rukai, *kay* and *kaDu(a)*, neither of which shows great similarity to the Atayal forms. Li (1973:227) adopts the terms ‘realistic’ and ‘general’ negative from Ogawa and Asai (1935) to label, respectively, *kay* and *kaDu(a)*. These terms appear close to the use of IMMEDIATE and REMOTE in Atayal, but we see below that this cannot be so. The pattern of the distinction between the two Rukai negative forms differs from that in Atayal, which, in fact, has a third negative form for nouns:

- (1) (a) nyux mami
exist rice
‘There’s rice’
(b) ?iŋat mami
Neg.exist rice
‘There’s no rice’

Rukai employs the equivalent of Atayal ?iŋat in expressing what Atayal expresses by ?ini. Thus, we have (2)-(5), in which the (a)-sentences are Rukai, and the (b)-sentences, Atayal:

- (2) (a) kaDu-a ka cikil (Li 1973:179)
not-exist village
‘There-was-no village’
(b) ?iŋat qalaŋ
Neg.exist village
‘There was no village’
- (3) (a) kaDu-a-aku u-a?ic (Li 1973:227)
not-have-I sleep
‘I-did-not-sleep’
(b) ?ini-ku ?abi
Neg-I sleep
‘I did not sleep’
- (4) (a) kay-naku u-a?ic (Li 1973:227)
Not-I sleep
‘I-do-not-want to-sleep’
(b) yat-ku ?abi
Neg-I sleep
‘I do not want to sleep’
- (5) (a) ku-ani umas ka kay tama-li (Li 1973:204)
that man not father-my
‘That man is not my father’
(b) yat-mu yaba squliq qasa
Neg-my father man that
‘That man is not my father’

The closest point of identity between the two systems lies in the use of Rukai *kay* and Atayal *yat*; and while there is some overlap between the two languages, they appear to show clearly distinct **systems**. The use of the term ‘general negative’ to designate *kaDu(a)* seems to indicate that ‘general’ in Rukai is not used in the same sense as REMOTE in Atayal. This seems so, because the correspondence suggested by ‘general’ and REMOTE is between Rukai *kuDu(a)* and Atayal *yat* and because the examples above suggest that any actual correspon

the existence of an occasion or some component which is a prerequisite for the EVENT to take place. Thus, in place of being directly denied, the EVENT is more obliquely prevented from occurring. Notice that the distinction between ?ini and *yat* cannot be one of syntactic domains. The negation which is marked by *yat* extends exophorically beyond the bounds of the sentence. Cf., for example, (17) and (19). The contrast between (9) and (10) also makes a syntactic explanation difficult. In (10), the semantic irrealis (and in that sense REMOTE) character of the EVENT's implementation is sufficient to disable ?ini and to require *yat*. By contrast, the realis nature of the EVENT's occasion which is implied by *hira* 'yesterday' in (9) has the complementary effect, disabling *yat* and enabling ?ini. Because the negation of the EVENT by *yat* is indirect and diffuse, the negation may extend holistically to include all the components of the PROPOSITION, e.g. (31b). Or the negation may be only partial; that is, the EVENT may have occurred, but not in the relevant manner described. And in (32b) it is 'you' as the patient of 'I ran over' which is negated; and it may then be not the listener, but a third party who is run over. Thus, in sentences such as (28) it is not *ɲuray* 'stupid' which is denied, but its application to Tali. It may also be the case that the two forms are equivalent in that they signal the failure of some EVENT to take place, e.g. (12) and (13). But they will differ in how that failure comes about.

3. *Mandarin*

We begin by reconsidering the Atayal sentences (18) and (19) and their Chinese equivalents. The sense of 'not being able to' may be explicitly expressed lexically by Mandarin *hui*, equivalent to Atayal *qbaq*. In this case, Mandarin proscribes the use of *mei* while Atayal permits both negatives:

dence between the two languages is between Rukai *kay* and Atayal *yat*, i.e., between 'realistic' and REMOTE.

Jeng (1977) includes only two examples of negative sentences from Bunun (Jeng 1977:84):

- (6) ni sak mahau
not I angry
'I (am) not angry'
- (7) ni ?aipa? batu?
not it stone
'It (is) not a stone'

These are assigned to 'class I verbs' and no mention is made of other expressions of negation. The form *ni* appears to be cognate with Atayal ?ini. Tung 1964 also contains little information of negation in Tsou. Among the negative forms listed in the glossary (Tung 1964:588) are av?a₁ *oa*, *oha*, and o?te, all equivalents of English 'not'.

- (33) (a) Ta *bu* hui chang ge
 he Neg can sing song
 'He is unable to sing'
- (b) *Ta *mei* (you) hui chang ge
 he Neg can sing song

Notice that while Atayal allows a contrast of ?ini and *yat* with *qbaq* in (18) and (19), it is that contrast itself which implies the different senses of 'not being able to'. And while Mandarin cannot equivalently express that because of the asymmetry of (33), Mandarin can approximate a similar contrast as follows:

- (34) (a) Meei-Yu bu neng chang ge
 Meei-Yu Neg can sing song
 'Meei-Yu cannot sing'
 'Meei-Yu couldn't sing'
- (b) Meei-Yu mei neng chang ge
 Meei-Yu Neg can sing song
 'Meei-Yu couldn't sing'

Although the difference between the two may be that negation by *bu* is projected into the future (as with Atayal *yat*), the difference between (34a) and (34b) may also exist in past time. In that context, in (34a), singing did not occur because Meei-Yu lacked the ability; but in (34b), the failure is more likely to have resulted from some external and intervening factor. The interruption illustrated here is also manifest in the perception of pity for Meei-Yu because she was not allowed to sing. That is, the performance was about to take place, but then did not, perhaps, because of an electricity outage. Chao (1968:666) cites this pair:

- (35) (a) Ta bu dasuan lai, ye bu neng gou lai
 he Neg plan come, and Neg come
 'He didn't/doesn't plan to come, nor could/can come'
- (b) Ta mei dasuan lai, ye mei neng gou lai
 he Neg plan come, and Neg come
 'He didn't plan to come, nor was he able to come'

In the past time interpretations of (35), (35a) seems to imply that the subject considered coming but decided not to, and hence did not. In (35b), it may not have crossed the subject's mind to consider coming; thus, he 'didn't plan to come' in the sense that he had no plans at all in that regard. Given this, the contrast is furthered by the alternative expansions of (35) in (36):

- (36) (a) Wo bu dasuan lai, keshi ta yizhi
 I Neg plan come, but s/he continuously
 da dianhua gei wo, suoyi wo lai le
 call telephone to I, so I come LE
 'I didn't plan to come, but [since] s/he called me continuously, I came'
- (b) Wo mei dasuan lai, keshi ta da dianhua
 I Neg plan come, but s/he call telephone
 gei wo, suoyi wo lai le
 to I, so I come LE
 'I didn't plan to come, but [since] s/he called me, I came'

In (36a), the impression is that the call has more import than in (36b); hence the adverb *yizhi* 'continuously' is comfortable there, but less so in (36b). In (36a), the call persuades, but in (36b), it informs. In (36a), *bu dasuan* is 'didn't plan [to come]', and in (36b) *mei dasuan* is 'had no plans [to come]'. In these examples, negation by *mei* negates the planning (obliterates it entirely), and in the absence of planning there is no plan to do anything at all; but in (36a), it is the specific 'plan to come' which does not exist. But since other manifestations of *dasuan* 'plan' are not negated by *bu* (as they are with *mei*), *dasuan* 'plan' can exist in another implementation, i.e., 'a plan not to come' or 'a plan to do something else'. This potential to change plans is the source of the persuasion in (36a). In (36b), the only potential is to form a plan, not to change one since none existed before, and the impression of the following clause is one of informing. This distinction recalls the Atayal contrast above in (32), in which *ʔini misuʔ tʔi* 'I didn't run over you' implies that no one was run over, while *yat ʔisu tʔ-an-mu* 'I didn't run over you' implies that someone else was hit. As Atayal *ʔini* prevents the EVENT from occurring in any shape, so does Mandarin *mei* in (36b). In (34b), *mei* signals an external occurrence which intervenes to prevent an imminent performance of singing. This suggests that it is a semantically IMMEDIATE negation which achieves this effect in Mandarin as it was in Atayal. The negation by *bu* in (34a) indicates that the requisite for

singing, i.e., ‘ability’, is absent. Thus, the occasion for its occurrence never presents itself in (34a), while in (36a) *bu* permits a partial manifestation of the EVENT. And this recalls the partial negation of semantically REMOTE Atayal *yat*. Cf. (32b). Chao contrasts sentence (35a) with (35b) citing the ‘particular precision’ of the latter with *mei*. Li and Thompson (1981:421) describe the difference between *mei* (*you*) and *bu* in this way:

The difference between *bu* and *mei*(*you*) is a purely functional one: *bu* provides a neutral negation, and *mei*(*you*) negates the completion of an event.

Both Chao’s and Li and Thompson’s characterizations of the semantic contrast suggest that the Mandarin distinction is very close to the IMMEDIATE — REMOTE one we have described for Atayal. The REMOTE semantics of Mandarin *bu* is then to be seen in (37a):

- (37) (a) Ta bu chi rou
 s/he Neg eat meat
 ‘S/He doesn’t eat meat’
 ‘S/He won’t [refuses to] eat meat’
 ‘S/He wouldn’t [refused to] eat meat’
- (b) Ta mei (you) chi rou
 s/he Neg eat meat
 ‘S/He didn’t eat the meat’

where it is not the specific occasion of eating meat which is denied, but meat-eating in principle. The patient *rou* ‘meat’ is more likely to be interpreted as generic in (37a) than in (37b), and (37a) is a way of identifying *ta* as a vegetarian. As with the Atayal sentences (17) and (19), it appears that it is the preparatory condition (the person’s being a carnivore) which is denied in the Mandarin sentence of (37a) with the practical effect that no meat is eaten. But in (37b), it is a specific historical occurrence that is negated. The Atayal association of past time with the IMMEDIATE *ʔini* is repeated in Mandarin with *mei* (*you*). The absence of that restriction characterizes both Atayal *yat* and Mandarin *bu*. A possible shared semantics of IMMEDIATE — REMOTE explains such parallelisms as those of (1) and (2), but leaves the Chinese-Atayal contrasts in (3) and (4) as problems, as well as the Chinese of (38) versus the Atayal of (5)/(6):

- (38) (a) Ta *bu* ben (5) Yat *ɲuray* Tali
 s/he Neg stupid Neg stupid Tali
 ‘S/He is not stupid’ ‘Tali is not stupid’
- (b) *Ta mei(you) ben (6) ?ini *ɲuray* Tali
 s/he Neg stupid Neg stupid Tali
 ‘Tali is not stupid’

The explanation of the divergence between the two languages may take two forms (or three if we must mix them). First, the content of negation may in fact differ between the two languages. Second, the differences in the content of negation between the two languages may be minor, and the contrasting behavior may lie in the differing semantics of what is negated. Thus, if Mandarin permits only one negation of *ben* ‘stupid’ while Atayal allows two, then the difference lies in how the languages can perceive the state of ‘being stupid’, and not in the negation. Atayal has the capacity to interpret the fact of stupidity as focused upon some historical occurrence; and in that context ?*ini* may be used since it then is provided with some pivotal EVENT, the occurrence of which it denies:

- (39) ?ini *ɲuray* Tali. G=n=zyap bzyuq mhyun.
 Neg stupid Tali. Catch=Past=catch pig mountain
 ‘Tali’s not stupid. He caught a mountain pig’
- (40) *Yat *ɲuray* Tali. G=n=zyap bzyuq mhyun.
 Neg stupid Tali. catch=Past=catch pig mountain

Sentences (39) and (40) declare Tali to be not stupid, and then point to a specific occurrence to support the claim. The affix =(i)n= indicates an aspectually Perfective, past time event. The fact that the denial turns upon a single instance acts to make the REMOTE generalized negation by *yat* in (40) difficult to accept. The Chinese pattern of negation in (38) now differs because Mandarin does not permit *ben* ‘stupid’ to be instantiated and focused, thus denying *mei* (you) an IMMEDIATE occasion to negate. (Cf., however, below in [44].) It will also be noticed that the description of the context in which the Atayal sentences of (18) and (19) occur differs from, and in fact seems to contradict, the context in which the equivalent Mandarin sentences of (33) appear. Yet given the background of the similarities between the negative forms of the two languages cited elsewhere above and below, it is likely that the

difference in this case lies not in the negation itself, but again in how each language interprets a happening so that some aspect of it is IMMEDIATE and some other is REMOTE. Atayal sees the surrounding environment in which singing occurs as REMOTE in comparison to the IMMEDIACY of the ability which leads to it; Mandarin, conversely, sees that environment as what is close to the EVENT in that it can impose itself to prevent an imminent performance, and the ability is then REMOTE.

In the sentences of (4), the matter differs somewhat, but the explanation appears generally to be of the same sort. Li and Thompson (1981:428 et passim) in reacting to earlier descriptions of *mei* (*you*) as specifically the negation of the ‘past-tense’, describe *mei* (*you*) as ‘non-completed’. And *le* may not be negated by *mei* (*you*) because the aspectual particle *le*, in their view, is a marker of a ‘bounded event’:

... *-le* expresses perfectivity, that is, it indicates that an event is being viewed in its entirety or as a whole. An event is viewed in its entirety if it is *bounded* temporally, spatially, or conceptually. (Li & Thompson 1981:185)

But further, *le* has no negation at all since it may not appear (co-occur) with *mei* (*you*), nor with any other negative form:

...a verb with the perfective *-le* cannot be negated with either *bu* or *mei*(*you*) ... Rather than saying that *mei*(*you*) ... is the negative form of *-le*, ... it makes sense for us to say that since *mei*(*you*) is the denial of completion, and since *-le* signals a bounded event, they are simply semantically incompatible and cannot co-occur ... our point is that a perfective verb itself cannot be negated. (Li & Thompson 1981:430, 434, and 441)

Atayal presents a similar problem with its Past infix $=i)n=$ in the sentences of (11). In a way similar to Mandarin, the Atayal marker of IMMEDIATE negation $ʔini$ may not deny an EVENT qualified by $=i)n=$; such negation is by *yat*. If $=i)n=$ is compared with Mandarin *le*, then the same non-cooccurrence of IMMEDIATE negation (either *mei* [*you*] or $ʔini$) with a Perfective-like marker (either *le* or $=i)n=$) characterizes both languages. Atayal resolves the negation of such an EVENT, by using the REMOTE *yat*, as in (11a) to deny the prior circumstance which would have permitted the performance of the EVENT. Li and Thompson’s interpretation above of the non-cooccurrence of *mei* (*you*) and *le* seems too extreme, for it now allows no way to negate a sentence such as:

- (41) Meei-Yu chuan le xin xiezi
 Meei-Yu put.on LE new shoe
 'Meei-Yu put on new shoes'

It seems more reasonable to interpret *mei* (*you*) as a possible negation of *le*.⁶

One description of aspect in Mandarin (Huang & Davis 1989) has proposed that *le* and *guo* share a common semantics in opposition to *zai* and *zhe*. All four of these aspectual particles semantically allude to the presence of an 'interruption':

Both *le* and *guo* signal the presence of an interruption, one either congruent with the event [initial] boundary A or [the concluding boundary] B in the case of *le*, or one following the boundary B in the case of *guo* ... The Particles *zai* and *zhe* ... too, imply an interruption, but one that falls (complementarily with *le* and *guo*) into that space between A and B ... (Huang & Davis 1989:152)

When the interruption signaled by *le* and *guo* is realized at the boundary of some EVENT as in (41), and furthermore when the locus of the interruption is the concluding EVENT boundary, then *le* and *guo* seem to match the behavior of an Indo-European Perfective. *Le* may, as Li and Thompson suggest, appear to be Perfective, but it may also demark interruptions which are not marks of the EVENT's Perfective completion. In (42), it is the initial boundary which is selected as the position for interruption (Huang & Davis 1989:138):

- (42) Lisi zuo zongtong le
 Lisi act president LE
 'Lisi has begun to act as president (now)'

The content of *le* diverges even more from the usual concept of Perfective in referring to an interruption which lies outside the EVENT and its boundaries:

⁶ Li and Thompson (1981:430-31) do cite *mei* (*you*) as the 'negative counterpart' of 'an affirmative *-le* sentence', but given their remarks above, it is not clear that the 'negative counterpart of X' is the 'negative of X'. Li and Thompson (1981:431-34) themselves provide data to suggest that *mei* (*you*) is the negative of *le* in that the Southern Min dialects of Chinese are beginning to interpret the *you* portion as the 'negative allomorph' of a 'positive allomorph' *le*. The final indication of this identity is the generalization of *you* from negative to positive utterances displacing *le*. The essential thing in Mandarin is not that *you* be seen as an allomorph of *le* following *mei*, but that the whole (or some part) of *mei* (*you*) plus an EVENT be the negation of that EVENT with *le* (as well, of course, the negation of other EVENTS without *le*). In ensuing discussion, Li and Thompson reject the position that *mei* (*you*) appears 'only as the negative of the perfective *-le*' (Li & Thompson 1981:436). We are in accord on this point.

- (43) Lai le chezi!
 come LE bus
 ‘A bus is coming!’

Sentence (43) denotes the interposition of a sudden realization by the speaker into the stream of things, and not the Perfective realization of *lai* ‘come’. And Chu and Chang (1987:317) have uncovered patterns in which *le* marks “the peak clause of a segment” in discourse. It is the transition / interruption / turning point (which *may* be provided [but not necessarily only] by some EVENT boundary) referred to by *le* which provides the crux which *mei* (*you*) denies. Sentence (44) is an example of this in the absence of an EVENT boundary:

- (44) (a) Meei-Yu gao le san cun
 Meei-Yu tall LE three inch
 ‘Meei-Yu is three inches too tall’
- (b) Meei-Yu mei (you) gao san cun
 Meei-Yu Neg tall three inch
 ‘Meei-Yu is not three inches too tall’
- (c) *Meei-Yu bu gao san cun
 Meei-Yu Neg tall three inch
- (45) (a) Meei-Yu hen gao
 Meei-Yu very tall
 ‘Meei-Yu is tall’
- (b) Meei-Yu bu gao
 Meei-Yu Neg tall
 ‘Meei-Yu is not tall’
- (c) *Meei-Yu mei(you) gao
 Meei-Yu Neg tall

The *le* in (44a) refers to the presence of a transition or boundary between proper/required height and excessive height, which has been exceeded in (44a) by three inches. The negation of (44a), which can only be by *mei* (*you*), then denies that the boundary is exceeded (Meei-Yu is exactly the right height) or

that it is not exceeded by three inches (Meei-Yu is only one inch too tall). The declaration in (45a) that Meei-Yu is tall is negated by *bu* in (45b). The necessary choice of *bu* here cannot follow from the absence of ‘activity’ in (45a), in contrast to its presence in (44a) because there is none in either. Certainly, (44a) and (45a) are equally devoid of ‘happening’. That is, the difference between (44) and (45) has nothing to do with ACTIVE/STATIVE nor with the Perfective aspect. The difference lies in the fact that (44a) provides a focus, a transition, or point needed to sustain the IMMEDIACY of the negation by *mei* (*you*), whereas (45a) does not; hence the incorrectness of (45c).

The possible co-occurrence of both *bu* and *mei* (*you*) with *zhe* in some varieties of Mandarin, as well as the possibility of *mei* occurring with *zai* (as does *bu*), may provide further insight:

(46) (a) Ta bu na zhe shanzi tiaowu
s/he Neg hold ZHE fan dance
‘S/He refuses to dance with a fan’

(b) Ta mei na zhe shanzi tiaowu
s/he Neg hold ZHE fan dance
‘S/He was not dancing with a fan’

(47) (a) Ta bu zai chi fan
s/he Neg ZAI eat food
‘S/He’s not eating’

(b) Ta mei zai chi fan
s/he Neg ZAI eat food
‘S/He’s not eating’
‘S/He was not eating’

(48) (a) Lisi bu zai kai che
Lisi Neg ZAI drive car
‘Lisi’s not driving’

(b) Lisi mei zai kai che
Lisi Neg ZAI drive car
‘Lisi’s not driving’
‘Lisi was not driving’

In (46a), the distinction of REMOTE in the sense of ‘refusal’ is present in (46b) while the IMMEDIATE negation of the EVENT is indicated by *mei*. In (46a), the focus is upon the negotiation prior to the performance, but in (46b), the focus is upon the execution itself, i.e., REMOTE versus IMMEDIATE, respectively. In the sentences of (47) and (48), there is a sense of ‘incompleteness’ which accompanies the (a)-sentences, and one wants to know what s/he (or Lisi) *is* doing. There is a feeling that they are doing *something*, but not eating or driving. Recall the effect of *bu* in (35) and (36). In the (b)-sentences, there is a sense that the person was supposed to eat or drive, but is not (but also may not be doing anything else in place of that). The proximity of the disruption to the EVENT is then greater in these (b)-sentences (i.e., the ‘supposed to’), and is less in the (a)-sentences. In the (b)-sentences, there is a failure of some targeted EVENT, while in the (a)-sentences, the course of events simply flows along another historical track leading to another outcome. The absence of EVENT boundary or content capable of sustaining some mark of the interruption of *le* then allows the pattern of (49) and (50) parallel to the Atayal of (20) and (21)

- (49) (a) Ta shi Taiya ren
 s/he be Atayal person
 ‘S/He is Atayal’
- (b) Ta bu shi Taiya ren
 s/he Neg be Atayal person
 ‘S/He is not Atayal’
- (50) *Ta mei (you) Taiya ren
 s/he Neg Atayal person

One difference between the two languages in this regard is that Atayal lexical items can be made to signal semantic ‘predicativity’ by placing them in sentence initial position:

- (51) (a) Baq-un-mu raji Tali
 know-UN-I friend Tali
 ‘I know Tali’s friend’
- (b) Raji-ku na Tali
 friend-I Prt Tali
 ‘I am Tali’s friend’

In (51a) *ranji* ‘friend’ is not predicatively used as it is in (51b). Mandarin requires the presence of the copula *shi* to achieve that same semantics. Thus, Atayal can negate a grammatical noun by placing it in sentence initial position, e.g. (22) and (33), and then employing *yat*. Mandarin, lacking this grammatical resource, must place the copula before the noun and then *bu* before that:

- (52) (a) *Bu shi ta zhuang-dao wo*
 Neg be he run.over- I
 ‘It was not him who ran over me (but someone else)’
- (b) *Ta bu shi zuotian zhuang-dao wo*
 he Neg be yesterday run.over- I
 ‘It was not yesterday that he ran over me (but some other day)’
- (c) *Ta zuotian zhuang-dao de bu shi wo*
 he yesterday run.over- DE Neg be I
 ‘Whom he ran over yesterday was not me (but someone else)’

Grammatically, the two languages diverge, but semantically they remain close in that their respective marks of REMOTE negation are employed in this environment. If *mei* (*you*) is seen as the negative of *le*, then the pattern of interaction between negation and the aspectual particles changes. Taking examples (46) - (48) as well into account, we are led to the conclusion that the aspectual particles *le* and *guo* have their negation exclusively with the IMMEDIATE form *mei* (*you*), while *zai* and *zhe* admit both IMMEDIATE and REMOTE negation. It becomes of interest to note that *mei* (*you*) can negate all four aspectual particles (*le*, *guo*, *zai*, and *zhe*) but *bu* can only occur with *zai* and *zhe*. And the relevant question now is ‘What is it that *le* and *guo* have in common which prevents them, but not *zai* and *zhe*, from being negated by *bu*?’ The semantics of IMMEDIATE — REMOTE suggests an explanation in these terms. It is precisely because the interruptions referred to by *le* and *guo* are *congruent* with some break (provided by the EVENT or not) that an IMMEDIATE negation is required; the interruption occurs when that break is underscored and is placed in relief by *le* or *guo* (in a sense made ‘immediate’). With *zai* and *zhe*, the interruption is placed within the EVENT, in the midst of its performance, away from and *not congruent* with its boundaries (or other boundaries). This interruption is framed by the boundaries of the EVENT and permits a conception of the EVENT without reference to some transition or break. Therefore, a

REMOTE negation by *bu* is permitted.

4. *Conclusion*

Atayal and Mandarin, viewed as above, appear very similar in regard to the semantics of negation. Both seem to implement negation following the schema of Figure 1. Differences between the two languages may be attributed to the semantics of the terms involved in the negation rather than being attributed to differences in negation itself. Although it is premature to claim this with certainty, it appears that the Atayal organization of negation differs from the types of negation reviewed by Horn (1989:447-62). The negative form ?ini, which focuses the most narrowly upon the EVENT, appears not to deny the link which is 'the subject-predicate connection' (Horn 1989:504), but the realization of the EVENT in **any** form. The general absence of VOICE from the EVENT in this negation suggests that. Put otherwise (and somewhat inaccurately), such negated utterances do not have subjects of any sort. It is the negative form *yat* which may associate specifically with the link between some PARTICIPANT and the EVENT; but this form may also function in unexpected ways to identify other means by which the EVENT is prevented from occurring. The generally parallel system of Mandarin negation further suggests that, certainly, the semantic variety of negation has not yet been exhausted and that much is left to learn of its content before we attempt to express negation in a restrictively formal (or logical) way.

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