AMBALIKA GUHA

ORIGIN OF THE BANGLA MODAL PARA AND ITS SEMANTICS WHEN IT INTERACTS WITH THE PROGRESSIVE

ABSTRACT: The paper aims to probe two broad areas in the semantics of modal para (can) in the Indo-Aryan language Bangla. The argument of the first section of the paper centres around proposing that the Bangla modal para started out as a lexical verb and then gradually developed into a modal. The second section of the paper provides some empirical evidence that illustrates the loss of modality of modal para when it interacts with the Bangla progressive morphology (-ch).

KEYWORDS: para, grammaticalisation, epistemic, root, actuality entailment, inertia world, imperfective paradox, intensional, extensional, sufficiency condition.

0. INTRODUCTION1

The sentence in (1) can mean “in view of the speaker’s knowledge, based on certain evidence, there is a possibility for John to go to the music concert.” And the sentence in (2) can mean “in view of certain circumstance it is necessary for John to take the 9'o clock bus.”

(1) John might go to the music concert.
(2) John should take the 9'o clock bus.

The possibility and the necessity meanings of the sentences in (1) and (2) respectively come from the modals might and should. The prime function of modals is to express the possibilities and the necessities of

---

1 The first section of this paper was co-presented with Bhamati Dash in ICOLSI 2013. The second section of the paper was co-presented with Utpal Lahiri as a poster in GLOW in ASIA X. I am greatly indebted to Bhamati Dash and Utpal Lahiri for their contribution and also the insightful comments of the participants of the conferences. For some productive discussions and comments, I would like to thank Rahul Balusu and the two anonymous reviewers of this paper.

The EFL Journal 8:1 January 2017.
©2017 The English and Foreign Languages University
the occurrence of events. Modal auxiliaries help us to talk about events that do not occur in the actual world, but in some possible worlds. For instance, the possible interpretation we can get from (1) is that given what is known to the speaker, based on certain evidence, John goes to the music concert in some non-actual world which is compatible with the speaker’s knowledge. The sentence in (1) is true even if John does not go to the concert in the actual world.

The interesting property that modal auxiliaries have is that a single modal can deliver varieties of interpretations, or in other words they can indicate various types of possibilities and necessities, as discussed in the vast literature on modal auxiliaries ( Hintikka 1962, Kratzer 1977, Fleishman 1982, Bybee & Pagliuca (1994), Bhatt 1999, Palmer 2001, Hacquard 2006, Hacquard 2009, Hacquard 2010, etc). Let us take the case of the English modal can, which gives three types of interpretations, as shown below.

\[(3) \text{ Mary can run ten miles daily.} \]

i. In view of Mary’s physical ability, she has the capability to run ten miles daily.
ii. In view of Mary’s father’s order, she has the permission to run ten miles daily.
iii. In view of what the speaker knows about Mary’s daily routine, there is a possibility for Mary to run ten miles daily.

The different interpretations of the same modal arise out of contextual factors (mentioned by Kratzer 1977). According to Kratzer, modals quantify over worlds and the contextual factors tie the modals to the worlds they quantify over. Depending on the contexts, the same modal will quantify over worlds that are compatible with certain circumstances of the base world (actual world) and receive root interpretation, or quantify over worlds that are compatible with what is known in the base world and receive epistemic interpretation (Hacquard 2010). In other words, root (non-epistemic) modals express possibilities and necessities based on certain circumstances of the actual world and epistemic modals express possibilities and necessities based on what is known in the actual world.
In Kratzer (1977) it is suggested that the worlds that modals quantify over are contextually determined via ‘conversational backgrounds’, which are of two kinds: the modal base and the ordering source. “The modal base determines the set of accessible worlds that modals quantify over and the ordering source provides an ordering on the worlds of the modal base” (Hacquard 2010:10). “There are two kinds of modal base: the epistemic modal base, which picks out a set of worlds compatible with what is known in the base world; and the circumstantial modal base, which picks out a set of worlds compatible with certain circumstances of the base world” (Hacquard 2010:10). The roots have circumstantial modal base and the epistemic has epistemic modal base. Further, the ordering sources of the roots are deontic, abilitative, teleological and bouletic; and the epistemic modal base combines with only the stereotypical ordering source. The various modal flavours which arise out of a single modal auxiliary are summarized below, as mentioned in Hacquard (2011:1485)

i. **Epistemic modality** expresses possibilities and necessities given what is known to the speaker, based on available evidence.
   e.g.: (In view of the available evidence,) John must/might/may/be the murderer.

ii. **Deontic modality** expresses possibilities and necessities given a body of laws or rules, i.e., permissions or obligations.
    e.g.: (In view of his parents’ orders,) John may watch TV, but he must go to bed at 8 p.m.

iii. **Abilitative modality** expresses possibilities given the subject’s physical abilities.
    e.g.: (In view of his physical abilities,) John can lift 200 lbs.

iv. **Teleological modality** expresses possibilities and necessities given particular goals.
   e.g.: (In view of his goal to get a Ph.D,) John must write a dissertation.

v. **Bouletic modality** expresses possibilities and necessities given particular desire.
   e.g.: (In view of his desire to retire at age 50,) John should work hard now.
If we notice carefully, we can see that the modal *may* indicates different types of possibilities in (i) and (ii). In (i) “John may be the murderer” the modal *may* conveys *epistemic possibility*, i.e., given what is known to the speaker, based on certain evidence, there is a possibility of John being the murderer. Whereas in (ii) “John may watch TV, but he must go to bed at 8 p.m.” the same modal *may* expresses *deontic possibility* (permission), i.e., in view of John’s parents’ permission, there is a possibility of John watching TV. The different interpretations attached to a single modal auxiliary are not only found in English but also in many other languages. Hacquard (2010) mentions a few such languages, like the French *pouvoir* (can) and Italian *potere* (can) express ability, permission, epistemic possibility, and the Malay modal *mesti* (must) receives both epistemic and deontic interpretations. Similarly, in the Indo-Aryan language Bangla the ability modal *para* (can) is ambiguous among three readings, as can be seen in (4) below.

(4) Antara nach -te par -Ø -e
    Antara dance -INF can -present -3rd per
    “Antara can dance.”

(i) Antara has the ability to dance.
(ii) Antara has the permission to dance.
(iii) There is a possibility for Antara to dance.

The modal *para* has an *abilitative* reading, as shown in (4i). It has a *deontic possibility* (permission) reading, as shown in (4ii). It also has an *epistemic possibility* reading, as shown in (4iii). Hacquard (2013) mentions that most of the languages use a single modal to express various modal interpretations, but there are also many languages where different modal markers are used to determine the meaning. So, universally modals can be categorized into two types: ambiguity and non-ambiguity. The Indo-Aryan Bangla, like French, Italian, and Malay, falls under the ambiguity category. The purpose of this paper is to show under what circumstances the Bangla modal *para* loses its ambiguity.

The paper is organized into two sections. The first section discusses the origin of the Bangla modal *para*, and the second section of the paper elaborates the behaviour of the modal *para* when it interacts with the three types of aspects: perfect, imperfect and progressive.
1. ORIGIN OF THE BANGLA MODAL PARA

1.1. Development of English modals

Modals, apart from expressing necessities and possibilities, also have certain syntactic features which distinguish them from main verbs. Roberts and Roussou (2003) summarizes those syntactic features of modals quite elaborately. Some of those features (and not all) are stated in the following set of instances, which have been borrowed from Roberts and Roussou (2003:36, 37):

i. Modals lack non-finite forms.
   e.g: * To can swim is useful.

ii. Modals cannot be iterated.
    e.g: * He shall must do it.

iii. Modals lack complements of all types (except bare infinitives).
    e.g: * I shall you a penny.

iv. Modals are in complementary distribution with do-support and always precede not.
    e.g: * Do you can speak Chinese?
    * I not can speak Chinese.

However, the English modals are argued (by Lightfoot 1979, Warner 1993, Roberts and Roussou 2003) to have started out as a full-verb and gradually over time they developed into auxiliaries. In Old English and Middle English, the ‘pre-modals’ cunnan (can), sceal (shall), magan (may), willan (will), and mot (must) had some of the properties of a main verb. They had non-finite forms, they could iterate, they could take a direct object as a complement, etc. Eventually the ‘pre-modals’ lost their full-verb meanings as well as the syntactic features (they started out with losing the infinitival form and the argument structure, and then gradually all other verbal properties) and developed into auxiliaries denoting only necessities, obligations, possibilities, wish and desire.

This diachronic development of the English modals is a manifestation of grammaticalization. Grammaticalization is referred to as a case of reanalysis of a lexical category into a functional category (as mentioned
by Hopper & Traugott 1993, Roberts and Roussou 2003). Thus, “the well-known development of the English modal auxiliaries is a fairly clear case of grammaticalization in which what were once fully verbal elements underwent a category change and became auxiliaries” (Roberts and Roussou, 2003:36). An instance of grammaticalization can also be noticed in the development of the Bangla modal para, which is discussed in detail in the next sub-section.

1.2. The Bangla modal para as a main verb

The modal use of para is fairly regular as it has interpretations which arise out of three different modal flavours (already seen in (4) and repeated in (5)).

(5) Antara nach -te par -Ø -e
    Antara dance -INF can -present -3rd per
    “Antara can dance.”
   i. Antara has the ability to dance.
   ii. Antara has the permission to dance.
   iii. There is a possibility for Antara to dance.

Now, para also seems to behave like a predicative verb as it shares some syntactic features of a main verb. The first evidence is that para can select a nominal complement, as shown in (6) below.

(6) Antara anko -Ta par -Ø -e
    Antara sum -Cla can -present tense -3rd per
    “Antara has the ability to do the sum.”

In (6), para is the main lexical verb of the sentence with the meaning ‘ability to do’. In fact, the sentence in (6) can be true iff Antara has at least once done the sum. The Bangla modal para takes a nominal complement in (6) as it is clear by the classifier –Ta affixed to the complement anko (sum). Now, one might argue that there is an implicit kor (do) in (6) which is the predicative verb in the sentence and para is just the modal auxiliary, as can be seen in (7).

(7) Antara anko -Ta kor -te par -Ø -e
    Antara sum -Cla do -INF can -present tense -3rd per
    “Antara can do the sum.”
Definitely in (7) para with the overt presence of kor (do) is the modal as it expresses three different interpretations arising out of different modal flavours; (i) Antara has the ability to do the sum (abilitative), (ii) Antara has the permission to do the sum (deontic), (iii) there is a possibility for Antara to do the sum (epistemic). Now, if para is a modal with an implicit predicate kor in (6) then the sentence in (6) should entail all the three possible readings, i.e., ability, deontic permission, and epistemic possibility. On the contrary, (6) can in no circumstance mean “Antara has the permission to do the sum” and “it is possible for Antara to do the sum.” The only reading that is available in (6) is the ‘ability to do’ reading. Also when the implicit predicate is made explicit, as in (7), all the readings of the modal para resurface. This loss of the deontic and epistemic reading cannot be explained if para is a modal with an implicit main predicate kor in (6). Again, the loss of deontic and epistemic readings by itself cannot be an argument for positing the claim that para is not a modal but a main verb in (6). Hacquard (2010) mentions that epistemics are interpreted higher (i.e., higher than tense, aspect, negation and takes a TP complement) and roots lower (i.e., lower than tense, aspect, negation and takes a VP complement) in the construction. So, one might argue that the modal para in (6) merges at the lower position and takes an implicit VP complement, and gives only the ability reading. But it is unclear how this argument accounts for the loss of epistemic and deontic (which is also a root modal) readings only when the VP complement of the modal para is implicit. Further, one would also have to explain how the implicit predicate verb, when made explicit, licenses all the modal readings. What we can notice from (6) is that para in the absence of overt kor has the meaning of ‘able to do’. It can be argued that when para is used as a main verb it is in complementary distribution with kor. Thus, when kor occurs morphologically in a sentence like (7), para can no longer stay as the main verb and instead becomes a modal auxiliary with a full range of modal flavours.

There is further evidence that will show that the modal para is used as main verb with the meaning ‘to try’ or ‘to do’ and loses its deontic permission and epistemic possibility readings. This evidence comes from the occurrence of para in the infinite form as the verb of an embedded clause. In (8) when para is inflected for the non-finite form –te, the possible meaning that it has is either ‘to try’ or ‘to do’, as can be seen below.
Another supporting piece of evidence for *para* being a lexical verb can be seen in the occurrence of *para* in complex predicate constructions, where *para* is the V₁ and is glossed as ‘do’. This can be witnessed in the following data:

(9) Antara anko-Ta per-e gE -l -o
    Antara sum -Cla do -PART go -PST -3rd per
    “Antara did the sum.”

(10) Antara ranna-Ta per-e phel -ech -e
    Antara cook -Cla do -PART throw -Perf -3rd per
    “Antara has done the cooking.”

(11) Antara anko -Ta per-e uth -ech -e
    Antara draw -Cla do-PART rise -Perf -3rd per
    “Antara has managed to do the drawing.”

Thus, based on the above three pieces of evidence it can be suggested that *para* like the English ‘pre-modal’ also started out as a lexical verb. When *para* is used as a predicative verb the meaning it has is “ability to do” (as shown in (6)), “to try/do” (as shown in (8)), or “manage to do” (as shown in (11)). Gradually the uses of *para* as a main verb have become restricted and the speaker judgments about *para* being used as a main verb have become uncertain, though they are never considered as ungrammatical usages. The ‘ability’ implication in the meaning of the verb *para* led to the use of *para* as an ability modal and eventually the use extended to the epistemic and deontic modal flavours. Though *para* has acquired modal readings, it is still a verb in the sense that the entire range of tense-aspect-person agreement morphology is inflected on it (as shown in (5) and also discussed in the next section).

The modal *para* loses its epistemic and deontic readings not only when it is used as a verb, but also when it is used as a modal. This happens when the modal *para* is inflected with overt aspect (perfect and progressive) morphology. The next section presents such instances where the propositions expressed by the complements of the modal *para* occur in the actual world and not in some possible world.
2. THE BANGLA MODAL PARA IN INTERACTION WITH THE ASPECTS

2.1. ‘Actuality Entailment’ and its operational logic

Bhatt (1999) shows that the ability modal is ambiguous between two readings: ‘managed to’ and ‘had the ability to.’ This can be illustrated in the following two interpretations derived from the sentence in (12), which is taken from Bhatt (1999:173).

(12) John was able to eat five apples in an hour.
   a. Yesterday, John was able to eat five apples in an hour. (past episodic)
   b. In those days, John was able to eat five apples in an hour. (past generic)

The ability modal in (12a) has the ‘managed to’ reading and in (12b) it has the ‘had the ability to’ reading. Bhatt suggests that in languages with a morphologically overt aspectual distinction (like French, German, Hindi), the perfective aspect on the ability modal gives the ‘managed to reading’ and the imperfective aspect on the ability modal gives the 'had the ability to' reading. He shows that when the perfective aspect is inflected on the ability modal it forces the proposition expressed by the complement of the modal to occur in the actual world, and not in some possible world. This can be observed in the following data which is in Hindi and cited in Bhatt (1999:176):

(13) Yusuf havaii-jahaaz uraa sak-aa (# lekin us-ne
     Yusuf air-ship fly can-pfv but he-erg
     havaii-jahaaz nahii uraa-yya)
     air-ship      NEG fly-pfv
     ‘Yusuf could fly the airplane, but he didn’t fly the airplane.’

The sentence in (13) can only mean that ‘Yusuf managed to fly the plane’. Thus, the cancellation of the assertion in (13) stands out to be a contradiction. An uncancellable implication of the ability modal when inflected with the perfective gives rise to what Bhatt terms an ‘actuality entailment’. Now, the question that arises is how the perfective aspect can remove the modality of the ability modal? Bhatt (1999) argues that the ability modal is not a modal but an implicative predicate with the
meaning ‘manage to’. He mentions that this implicative verb reading of the ability modal is only available in non-generic (perfective and perfect) contexts. Thus, he shows that the ‘actuality entailment’ cannot be derived when the ability modal is inflected with the imperfective (generic) aspect, as can be seen in (14) below.

(14) Yusuf havaii-jahaaz uraa sak-taa thaa
    Yusuf air-ship fly can-impfv be.past
    (lekin vo havaii-jahaaz nahii uraa-taa thaa)
    but he air-ship NEG fly-impfv be.past
    ‘Yusuf was able to fly airplanes, but he didn’t fly airplanes.’
    (Bhatt 1999:176)

Bhatt suggests that the modal reading of the ability modal arises from a generic operator, i.e., the imperfective. According to him, the imperfective brings in an additional layer of modality (genericity) which removes the actualization effect from the ability modal and gives only the ‘had the ability to’ reading.

2.2. ‘Actuality Entailment’ in Bangla: adopting Hacquard’s (2009) approach

The Indo-Aryan language Bangla, like French, German, Hindi, also has morphologically overt aspectual and tense distinctions. In Bangla the present tense is realized via a default null morpheme, the past tense marker is –l, and the future tense is inflected with –b. There are three overt aspectual markers in Bangla. The perfect is marked with –ech, the progressive with –ch, and the imperfective with –t. The Bangla ability modal para, like the Hindi ability modal (as discussed in Bhatt 1999 and also shown in the previous sub-section), when inflected with the perfective\(^2\) morpheme –l and the perfect morpheme –ech, gives rise to the actuality entailment, whereas with the imperfective –t it does not, as can be seen in the data below.

\(^2\) The perfective has a simple past tense interpretation.
In (15) and (16) the cancellation of the assertions gives rise to a contradiction because *para* when inflected with perfective \(-l\) and perfect \(-ech\), the reading that we get is ‘managed to’ and not the ‘had ability to’. The modal interpretation of *para*, i.e., ‘had ability to’ surfaces with the imperfective morpheme \(-t\) (as shown in (17)). It can be argued that the Bangla modal *para*, like the ability modals discussed in Bhatt (1999), is not a modal but an implicative predicate with the base meaning as ‘managed to’ and its modal flavour arises only when it interacts with a generic operator, i.e., imperfective. But, my argument for the ‘actuality entailment’ in Bangla will follow Hacquard’s (2009) proposal. She proposes that it is not the case that only ability modals when they interact with the perfective give rise to the actuality entailment. Hacquard argues, that “the Bhatt effect is found beyond ability modals, and in fact extends to all root interpretations (deontic, teleological,...) of both possibility and necessity modal auxiliaries, but, crucially, not to ‘epistemic’ interpretation of the same modal auxiliaries” (Hacquard 2009:3). This is also true for Bangla modal *para*. When *para*, with a circumstantial modal base and a deontic ordering source, interacts with the perfective and perfect, the ‘actuality entailment’ arises. Whereas, when *para* is embedded under an attitude verb, even though it is inflected with
perfective and perfect morphemes, it does not give rise to the *actuality entailment*. This can be noticed in the following data:

(18) Antara-r baba anumoti daoa-te Antara
     Antara-GEN father permission give-INF Antara
     naach-te par –l  –o
dance-INF can–past-3rd per
(# kintu Antara naach-l  –o  –na)
     but Antara dance-past-3rd per neg
‘Antara was able to dance after her father gave the permission, but she didn’t dance.’

(19) Antara-r baba anumoti daoa-te Antara
     Antara-GEN father permission give-INF Antara
     naach-te per –ech  –Ø  –e
dance-INF can–perf -present-3rd per
(# kintu Antara naach-e  –ni)
     but Antara dance-3rd per neg
‘Antara was able to dance after her father gave the permission, but she didn’t dance.’

(20) Antara-r maa biSas kOr-e je
     Antara-GEN mother believe do-3rd per that
     Antara naach-te par –l  –o
     Antara dance-INF can-past-3rd per
     (kintu Antara naach-l  –o  –na)
     but Antara dance-past-3rd per neg
‘Antara’s mother believes that Antara was able to dance, but she didn’t dance.’

(21) Antara-r maa biSas kOr-e je
     Antara-GEN mother believe do-3rd per that
     Antara naach-te per-ech –Ø  –e
     Antara dance-INF can–perf-present -3rd per
     (kintu Antara naache-e  –ni)
     but Antara dance –3rd per neg
‘Antara’s mother believes that Antara was able to dance, but she didn’t dance.’
In (18) and (19) *para* receives its deontic interpretation from the phrase ‘*anumoti dao-a-te*’ (permission given). One might argue that the implications in (18) and (19) cannot be cancelled as *para* interacts with the perfective –*l* and perfect –*ech* respectively, which in turn forces the event to occur in the actual world. But, why does not the perfective and perfect aspect on the modal *para* in (20) and (21) force the event to occur in the actual world? The implications in (20) and (21) can be cancelled since *para* receives an epistemic interpretation from the attitude verb ‘believe’. Hacquard (2010) states that when a modal is embedded under an attitude verb, it becomes relative to the attitude holder and is interpreted in the attitude-time, which further gives an epistemic interpretation.

Now, the question that arises is why do the modals with a *circumstantial modal base* (and not with an *epistemic modal base*) when inflected with perfective and perfect (and not with imperfective) give rise to the *actuality entailment*? Hacquard (2010) answers this question by arguing that the *actuality entailment* is derived by the relative position of the modal with respect to tense and aspect. In fact it was first mentioned in Cinque (1999) that modals with epistemic interpretation scope above tense and aspect, and the modals with non-epistemic interpretation scope below tense and aspect. Cinque’s (1999) Hierarchy is: *Mod_ighi > Tense > Aspect > Mod_root*

Hacquard (2010) suggests that a modal with a root interpretation is evaluated at the time provided by tense and the modal with an epistemic interpretation is evaluated by the speech time (it can never be back or future shifted). Further, she mentions that aspects come with their own world of evaluation and they quantify over the event variable of the

---

3 Cinque proposes that universally adverbs appear in the specifier position of the clausal functional projections. Here is the complete projection of the Cinque Hierarchy: [frankly Mood-speech act [fortunately Mood-evaluative [allegedly Mood-evidential [probably Mod-epistemic [once T(Past) [then T(Future)]perhaps Mood-irrealis [necessarily Mod-necessity [possibly Mod possibility [usually Asp habitual [again Asp-repetitive(I)]often Asp-frequentative(I) [intentionally Mod-volitional [quickly Asp-celerative(I)]already T(Anterior) [no longer Asp-terminative [still Asp-continuative [always Asp-perfect [just Asp-retrospective [soon Asp-proximative][briefly Asp-durative [characteristically Asp-generic/progressive [almost Asp-prospective [completely Asp-SgCompleitive(I) [tutto Asp-PICompleitive [well Voice [fast/early Asp-celerative(II) [again Asp-repetitive(II) [often Asp-frequentative(II) [completely Asp-SgCompleitive(II) (Cinque 1999:106).

main predicate. Hacquard states that when aspect takes scope over modals (as happens with root modals), its world of evaluation is the matrix world, i.e., the actual world, which in turn forces the event to occur in the actual world. Whereas when aspect takes scope under a modal (as happens with epistemic modals), its world of evaluation is the one provided by the modal, and thus forces the event to occur in the worlds that the modal quantifies over. On the other hand, the actuality entailment is not derived when the modal is marked with the imperfective aspect, even though the imperfective takes scope over the modal. Bhatt (1999) and Hacquard (2009) state that the imperfective gives a generic reading which in turn forces the proposition of the complement of the modal to occur in the world provided by the imperfective, i.e., the ‘generic’ world and not the actual world.

So far we have noticed that the Bangla modal para with a root interpretation when it interacts with the perfective and perfect gives rise to the actuality entailment. But, para with an epistemic interpretation when it interacts with the perfective and perfect morpheme the event does not get actualized. And the same happens when it is marked with the imperfective (as shown in (17)). This interesting behaviour of the modal with overt aspectual markers leads us to the next question: what happens when the modal interacts with the progressive? Does it force the event to occur in the actual world (like perfect does)? Or does it force the event to occur in the world provided by the progressive itself (like the imperfective does)? The next sub-section tries to illustrate the complexities that arise when the Bangla modal para is inflected with the progressive morpheme.

2.3. Interaction of para with the progressive -ch

When the Bangla modal para with a circumstantial modal base is inflected with the progressive –ch, the proposition expressed by the complement of the para occurs in the actual world and not in some world provided by the progressive. This can be observed in the following example:
Antara naach-te par–ch - Ø -e (#
Antara dance –INF can-prog -present -3rd per
kintu naach-ch - Ø -e na)
but dance-prog -present-3rd per neg
‘Antara was being able to dance, but she could not dance.’

(22) entails (23)

(23) Antara nech -ech - Ø -e
Antara dance -perf -present -3rd per
‘Antara has danced.’

The dancing event by Antara in (22) occurs in the actual world, which is
evidenced by the entailment relation between (22) and (23). It can be
suggested that in Bangla the actuality entailment is also derived when
the modal para with its root interpretation interacts with the progressive
morpheme. This can also follow from Hacquard’s (2009) argument for
the Preservation of Event Properties, which states that an event or an
individual remains the same across worlds and any alternation requires
some morphological indication from the speaker. She calls it Preservation
of Event Description Across Worlds (PED). Hacquard suggests that the
actuality entailment is possible when the same event occurs both in the
actual world and in the worlds quantified over by the modal. However,
there are other instances of the interaction of the modal para and the
progressive –ch which cannot be accounted under Hacquard’s PED. This
can be seen with the accomplishment predicates:

(24) Antara cake bana-te par-ch -il -o
Antara cake make-INF can–prog –past -3rd per
‘Antara was being able to bake a cake.’

(24) DOES NOT entail (25)

(25) Antara cake bani -ech –il -o
Antara cake make-perf-past -3rd per
‘Antara baked a cake.’

On the one hand the progressive morpheme on the modal para, when
the complement of the modal is an action verb, brings an actuality
entailment (as shown in (22)). Whereas on the other hand, the same
progressive morpheme on the modal para, when the complement of the modal is an accomplishment verb, doesn’t force the object of the accomplishment verb to exist in the actual world (as can be seen in (24) and (25)). Here, what will come into play is the semantics of the progressive and the imperfective paradox.

The purpose of the progressive is to present an event from inside as an incomplete event, an event in progress. Benett and Partee’s (1972) analysis of the progressive suggests that V-ing is true at an interval if and only if (iff) that interval is a subinterval of a larger, later ending interval where V-ed is true. This analysis of the progressive holds for activity verbs but not for accomplishment verbs, and that leads to the imperfective paradox. The imperfective paradox is an observation which states that the progressive marker on an activity verb makes the inference of the simple past from the past progressive valid, like ‘John was walking’ entails ‘John walked’. But this is not true for accomplishment verbs, like ‘John was building a house’ does not entail ‘John built a house.’ It might happen that John started building a house and then it never got completed as John suddenly lost interest in building the house.

Dowty (1979) argues that an event being in progressive at a certain interval implies that it will continue beyond that period and the continuation of that event need not be in the actual world. According to Dowty, V-ing is true at an interval if the event continues beyond that interval and gets fully realized in the inertia worlds. Dowty (1979) suggests that the inertia worlds for the actual worlds at an interval are identical to the actual world up to that interval. His analysis of the progressive gives a modal notion to the progressive. In Dowty’s inertia worlds nothing gets interrupted, everything continues in its normal course. For a sentence like ‘John was crossing the street’ the event of crossing might get interrupted in the actual world where John gets hit by a bus. But in the inertia worlds the event of crossing by John takes its normal course, nothing unusual happens, and the event gets completed. Now, Landman (1992) mentions that if everything continues its normal course

---

4 When the progressive interacts with non-creation accomplishments like “John was walking to the store”, the statement can only be uttered felicitously iff the subject has done it at least once to completion.
of action in the *inertia worlds* then the bus which was coming towards John’s direction also continues its normal course and hits John in the *inertia worlds*, which will finally not let the crossing event by John to get completed. To avoid this problem, Landman (1992) modifies Dowty’s analysis of the *inertia worlds*. He proposes that the notion of an inertia world is not only keyed to a world and an interval, but also to an event. In Landman’s proposal, “the set of inertia worlds for $w$ at $i$ for $e$ is the set of all worlds identical to $w$ up to $i$ and from there on (possibly) differing from $w$ in that in them, $e$ is allowed to follow its natural course, without external interruptions” (Landman 1992:11).

Now, let us go back to the Bangla data in (24) and (25) (repeated in (26) and (27)) where we see that there was some event of baking a cake that was in progress in the past. That event in progress does not necessarily eventually lead to the completion of the baking event and neither does it promise the existence of a cake after the completion of the event of baking in the actual world (as we can see that (26) does not entail (27)).

\[(26)\] Antara cake bana-te par-ch -il -o
Antara cake make-INF can –prog –past -3rd per
‘Antara was being able to bake a cake.’

\[(26)\] DOES NOT entail (27)

\[(27)\] Antara cake bani -ech –il -o
Antara cake make-perf-past-3rd per
‘Antara baked a cake.’

Here, I will argue that the occurrence of the progressive on the modal *para* is possible iff there exists something that has sufficient properties to be called a cake, even if not a completely baked cake. My argument doesn’t follow Dowty or Landman’s analysis of the progressive. Instead it adopts Parsons’ (1989) view of the progressive as an *extensional component* and not an *intensional* one. There are two views of the progressive: (i) *Intensional* view: the progressive relates an event in progress and a corresponding complete event that may be non-actual (Dowty 1979, Landman 1992, Portner 1998, Higginbotham 2004, etc). (ii) *Extensional* view: the progressive turns a complete event into an incomplete event, an event in progress (Parsons 1989, 1990, Van
Geenhoven 2005, Szabo 2008). Parsons (1989) suggests that for a sentence like ‘Mary was building a house’ to be true there at least exists an unfinished house; i.e., a house in progress which can be called as a house, even if not a fully built house.

The argument that I state for the occurrence of the progressive –ch on the Bangla modal para also includes the ‘sufficiency condition’ mentioned in Landman’s (1992) ‘The Part-of Proposal’. This can be illustrated from the following example, mentioned in Landman (1992:13).

(28) This is part of a Roman aqueduct.

Landman’s analysis of (28) follows from Barwise and Perry’s (1983) definition of (28), where they state “This is part of a Roman aqueduct is true iff this (actual entity) partially realizes the type of Roman aqueducts.” Now, Landman (1992) puts a constraint to this definition as he mentions “x partially realizes type X iff x realizes sufficiently much of X”. Landman’s ‘The Part-of the Proposal’ states that “Mary is crossing the street is true iff some actual event realizes sufficiently much of the type of events of Mary’s crossing the street.” Thus combining the Extensional View and The Part-of the Proposal and also the semantics of the circumstantial modal base, the Bangla sentence in (26) will get the interpretation (29).

(29) There was an event in the actual world in the past interval, which in some world compatible with the circumstances of the actual world was a baking of cake event by Antara, and as a result of which there exists some x in the actual world which is sufficiently much of the type cake.

There is another possible argument for what makes the sentence in (26) true, even though there exists no completely baked cake in the actual world. The sentence in (26) can suggest that there exists a cake in progress which the subject has ‘managed to’ bake. The occurrence of para+progressive in (26) while not giving rise to an actuality entailment necessarily shifts the meaning to ‘manage to’. Let us consider a situation where the subject starts baking a cake, but unfortunately she did not get the right proportion/quantity of ingredients and also there was some snag
with the oven in which she was baking the cake. In this given situation the sentence in (26) would have the interpretation that the subject could manage to bake the cake (if not a complete cake but a cake in progress).^5

3. CONCLUSION

Thus summing up the entire discussion of the paper, what we have observed till now is that the Bangla modal *para* with the circumstantial modal base when it interacts with the past tense and perfect aspect, the proposition expressed by the modal *para* occurs in the actual world and not in some possible world. Whereas, when the same modal *para* with its epistemic modal base interacts with the past tense and perfect aspect, the ‘*actuality entailment*’ is not derived. The modal *para* apart from its root readings, also expresses epistemic interpretation only when it is inflected with null present tense and imperfective. The situation with the progressive is a little complicated. The combination of the modal *para* and the progressive also eliminates the epistemic possibility reading and retains the ‘managed to’ reading, though it has been widely discussed in the progressive literature (Dowty 1979, Landman 1992, Portner 1998) that the progressive has a modal component.

REFERENCES


^5For the second argument I acknowledge one of the reviewers of this paper, who proposed the ‘manage to’ interpretation for the *para*+progressive with an accomplishment verb.


**Ambalika Guha** is a Ph.D research scholar at the Department of Linguistics and Contemporary English in The English and Foreign Languages University, Hyderabad. Her research focuses on the phrasal movements in the nominal domain of the Indo-Aryan language Bangla. Her areas of interest include syntax and semantics.

**Ambalika Guha**
guhaambalika64@gmail.com