

Revisiting *again*: The view from Kutchi Gujarati

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Abstract:

This paper discusses the interpretive behaviour of Kutchi Gujarati *pacho* ‘again’. It puts the Kutchi Gujarati facts in perspective with previous semantic analyses of AGAIN in other languages, in particular English, but also older varieties of English and German. We argue that the two predominant and competing semantic analyses of AGAIN both apply simultaneously to Kutchi Gujarati *pacho* in order to account for the range of readings it gives rise to.

Keywords:

again, repetitive, restitutive, counterdirectional readings, Kutchi Gujarati

1. Introduction

There is a considerable amount of semantic research on the English adverb *again* and its cross-linguistic counterparts (cf. McCawley (1968), Dowty (1979), von Stechow (1996), Fabricius-Hansen (2001), Jäger & Blutner (2000), Beck (2005), Gergel & Beck (to appear), among many others). Much of it is inspired by an interesting ambiguity that sentences with AGAIN give rise to (we use small caps to indicate that we are referring to English *again* as well as its counterparts in other languages). An example of the ambiguity is given in (1), which has the two readings in (1’), a so-called ‘repetitive’ reading and a so-called ‘restitutive’ or ‘counterdirectional’ reading. In (2) we provide contexts in which the sentence on the two readings can be used; (2a) is a context that gives rise to the reading in (1’a), and (2b) is a context that gives rise to the reading in (1’b).

(1) Leo jumped up again.

- (1’) a. Leo jumped up, and he had done that before. *repetitive*
b. Leo jumped up, and he had been up before. *restitutive/counterdir.*

- (2) a. The bell rang, and Leo jumped up. [...] A knock came on the door, and he jumped up again.
b. Leo slowly sat down in his favourite armchair. A knock came on the door, and he jumped up again.

More detailed paraphrases of the two readings that are stated in (1’) are given in (3). Note that (1’b) conflates two readings that are stated separately in (3b) and (3c). In (3b), the *jumping up* event is preceded by an event in the opposite direction (i.e. by a *sitting down* event); in (3c), no such ‘counterdirectional’ event is, strictly speaking, presupposed.

- (3) a. (1) presupposes that Leo had **jumped up** before. *repetitive*
If that is the case, (1) asserts that Leo jumped up.

- b. (1) presupposes that Leo had **sat down** before. *counterdirectional*
If that is the case, (1) asserts that Leo jumped up.
- c. (1) presupposes that Leo had **been up** before. *restitutive*
If that is the case, (1) asserts that Leo jumped up.

It is uncontroversial that *again* has a repetitive reading, (1'a), adding the presupposition that what is described in the sentence has occurred before. The second, non-repetitive reading, (1'b), is generally referred to as the restitutive/counterdirectional reading, because the two types of analysis available for this reading are different in terms of how they characterise it: There is a lexical ambiguity analysis, represented by Fabricius-Hansen (2001), according to which *again* has two meanings, a repetitive meaning, (3a), and a counterdirectional meaning, (3b). The latter adds the presupposition that earlier, the reverse of what is described in the sentence has occurred. The alternative approach, known as the *structural ambiguity analysis* (cf. von Stechow (1996)), argues that there is only repetitive *again*, but it can modify different constituents in the structure: either the predicate as a whole is repeated, or only its result state is restored, cf. (3c).

The two analyses, the lexical ambiguity analysis and the structural ambiguity analysis are usually seen as competitors, and arguments are brought forth favouring one analysis over the other (cf. also Jäger & Blutner (2000), von Stechow (2003), Beck (2005)). In this paper, we argue that both analyses must apply simultaneously in Kutchi Gujarati, an Indo-Aryan language. We show that sentences with Kutchi Gujarathi *pacho* 'again' permits more readings than Present Day English *again*, which can only be understood with the richer inventory of interpretive possibilities that the combination of both theories gives us.

In section 2 we introduce the semantic background: the two theories of AGAIN as well as some core arguments brought forth in the debate surrounding them. Kutchi Gujarati and its variant of AGAIN, *pacho*, are introduced in section 3. We show that a reading that is strictly speaking counterdirectional can be distinguished truth-conditionally from a restitutive reading proper, given the right kind of predicate. On the basis of the empirical scope, we argue that both analyses are needed. We introduce a tentative analysis regarding the compositional interpretation of *pacho*. Section 4 introduces further issues to be considered in this discussion, in particular, further readings of *pacho* and word order effects in Kutchi Gujarati that relate to *pacho*. Conclusions and consequences are presented in section 5.

2. Semantic background

In this section, we first summarize the lexical theory (subsection 2.1) and then the structural theory (subsection 2.2). Subsection 2.3 explains why two such different theories are both plausible, given that they end up describing the same overall situations. Then we turn to some of the more indirect arguments brought forth for one theory over the other (subsections 2.4 and 2.5), which will play a role for our discussion of Kutchi in section 3.

2.1. The lexical ambiguity theory

Fabricius-Hansen (2001) is the representative of the lexical ambiguity theory that we discuss here. The basic idea is that in addition to an adverb *again* with a repetitive reading, there is an

adverb *again* with a counterdirectional reading. This causes the ambiguity in (4), repeated from above.

- (4) a. Leo jumped up again.
- b. (4a) presupposes that Leo had **jumped up** before. *repetitive reading*
If that is the case, (4a) asserts that Leo jumped up.
- c. (4a) presupposes that Leo had **sat down** before. *counterdir. reading*
If that is the case, (4a) asserts that Leo jumped up.

Example (5) specifies a lexical entry for repetitive *again* (we use a Heim & Kratzer (1998) style framework and representation throughout). The adverb is a modifier of a property of events, type $\langle v, t \rangle$, and it is adjoined to VP, which denotes a property of events. Furthermore, it adds the presupposition that the property is true of an earlier event. (6) illustrates application of the lexical entry to our example. Details aside, this reading and its derivation are essentially uncontroversial.

- (5) $[[\text{again}_{\text{rep}}]] = \lambda P . \lambda e : \exists e' [e' < e \ \& \ P(e')] . P(e)$
“Such an event has happened before.”
- (6) a. $[_{VP} [_{VP} \text{Leo jump up}] \text{again}_{\text{rep}}]$
b. $[[[_{VP} \text{Leo jump up}]]] = \lambda e . \text{jump_up}(e)(L)$
c. $[[[_{VP} [_{VP} \text{Leo jump up}] \text{again}_{\text{rep}}]]] =$
 $\lambda e : \exists e' [e' < e \ \& \ \text{jump_up}(e')(L)] . \text{jump_up}(e)(L)$
“Once more, Leo jumped up.”

In (7), we provide a parallel lexical entry for AGAIN on its other, counterdirectional reading. This also modifies a property of events, however it differs from the lexical entry in (5) in that it adds the presupposition that the counterdirectional property P_C is true of an earlier event. As before, this adverb modifies a VP, as shown for our example in (8).

- (7) $[[\text{again}_{\text{ctrdir}}]] = \lambda P . \lambda e : \exists e' [e' < e \ \& \ P_C(e')] . P(e)$
“An event of the opposite kind has happened before.”
- (8) a. $[_{VP} [_{VP} \text{Leo jump up}] \text{again}_{\text{ctrdir}}]$
b. $[[[_{VP} \text{Leo jump up}]]] = \lambda e . \text{jump_up}(e)(L)$
c. $[[[_{VP} [_{VP} \text{Leo jump up}] \text{again}_{\text{ctrdir}}]]] =$
 $\lambda e : \exists e' [e' < e \ \& \ \text{sit_down}(e')(L)] . \text{jump_up}(e)(L)$
“Leo jumped back up.”

In a nutshell, according to this theory, the ambiguity arises because *again* is lexically ambiguous, i.e. there are two distinct lexical entries for AGAIN. The lexical ambiguity theory predicts that an ambiguity arises whenever a predicate is modified that makes a counterdirectional predicate accessible (cf. *fall* vs. *rise*, *open* vs. *close*, *leave* vs. *return*, ...).

- (18)//////////-----//////////----->
 door open | door closed | door open
 door closing Otto opens door

The two theories are thus hard to distinguish in terms of predictions about truth conditions. More subtle arguments in favour of one theory over the other are generally discussed in the literature, and we present two such arguments below. We limit ourselves to those arguments that have a bearing on the discussion of Kutchi Gujarati in section 3.

2.4. A word order argument in favour of the structural theory

Von Stechow (1996) presents a word order argument in support of the structural ambiguity theory, based on the German data in (19)-(20); as indicated, (19) is ambiguous, whereas (20) only has the repetitive reading, (21a) and lacks a restitutive/counterdirectional reading, (21b).

- (19) ... weil Otilie die Tür **wieder** öffnete.
 ... because Otilie the door again opened
 ‘... because Otilie opened the door again.’ (*rep., rest./ctrdir.*)

- (20) ... weil Otilie **wieder** die Tür öffnete.
 ... because Otilie again the door opened
 ‘... because again, Otilie opened the door.’ (*rep. only*)

- (21) a. Once more, Otilie brought it about that the door was open. (*repetitive*)
 b. Otilie brought it about that the door was once more open. (*rest./ctrdir.*)

Von Stechow makes the following observations. When *wieder* ‘again’ follows the direct object, (19), both a repetitive and a counterdirectional/restitutive reading are possible. When *wieder* precedes the direct object, (20), only a repetitive reading is possible. Now, observe that for the structural theory, restitutive AGAIN modifies a smaller constituent than repetitive AGAIN. Restitutive AGAIN needs to look inside a predicate and combine with just the result-state-denoting constituent (a small clause SC in the structures that we provided). It seems that when AGAIN is as high in the surface structure as in (20), this is no longer possible, and only a repetitive reading is available. Von Stechow accounts for the data follows. He suggests that the direct object moves obligatorily to a fairly high position in the overt syntax, say, SpecAgrOP. When *wieder* follows the direct object, it can either be in a VP adjoined position or it can adjoin to the SC, as shown in (22a). In this case, both readings are possible. By contrast, when *wieder* precedes the direct object, it is higher in the structure than VP, and hence too high to give rise to a result state modifying reading. In this case, only the repetitive reading is possible. The relevant structure is given in (22b). Note that it is a built-in feature of the structural theory that only a repetitive reading can arise when AGAIN is high in the structure. The restitutive reading requires a low position for AGAIN.

- (22) a. [Otilie [_{AgrOP} [die Tür] [_{VP} (**wieder**) [_{VP} ∅_V [_{SC} (**wieder**) [_{SC} offen]]]]]]]]
 b. [Otilie [_{AgrOP} **wieder** [_{AgrOP} [die Tür] [_{VP} ∅_V [_{SC} offen]]]]]]]]

It is not clear that syntactic factors should play a role for the lexical ambiguity analysis, since its ingredients are lexical (two meanings for AGAIN) and conceptual (requiring a predicate that makes accessible a counterdirectional predicate). The German facts look like a better fit for the structural theory because that theory generally leads us to expect an influence of structural factors on the ambiguity, and specifically German *wieder* ‘again’ seems to be able to be restitutive only if it is overtly low in the structure, as the structural theory predicts.

2.5. An argument from directional predicates in favour of the lexical theory

In contrast to von Stechow’s argument (presented above), an argument for counterdirectionality can be gleaned from data for which an analysis in terms of a result state is implausible. Note, however, that new arguments for the lexical theory have been based on the insight that the two theories impose different requirements on the predicate in order for the ambiguity to arise. The structural theory requires that there is a result state as a proper part of the composition of the predicate, whose repetition the adverb AGAIN can require. The lexical theory requires no result state, but instead that the predicate contains a direction that can be reversed. Fabricius-Hansen’s well-known *fall/rise* example, in (23), attempted to make this point, based on the idea that there is no result state for *fall*. However, this example was countered by von Stechow, who argues that (24a) should be given an analysis along the lines of (24b), where *fall* has the result state *be lower*.

(23) The temperature was rising all morning, but now it is falling again.

- (24) a. The temperature fell again.
 b. The temperature became [_{SC} lower again].

Gergel & Beck’s (to appear) recent investigation of diachronic English corpora unearthed some predicates combined with AGAIN that differentiate between the two theories, in favour of the lexical theory. Among other relevant examples, Gergel & Beck found the following uses in Middle English (ME) and Early Modern English (EModE). This is illustrated by the data in (25a-c), which are simplified versions of Gergel & Beck’s examples.

- (25) a. I talked **again** to them.
 EModE: ‘I answered them. / I talked back to them.’
 b. She wrote **again** to him.
 EModE: ‘She wrote back to him.’
 c. He loved the queen **again** above all other ladies.
 ME: ‘He returned the queen’s affection. / He loved her back.’

In (25a), the predicate can be classified as an activity according to all the usual criteria, cf. (26b-c), which show that *talk to Darcy* can be modified by *for X* and not by *in X*, and that the progressive *was talking to Darcy* entails the simple past *talked to Darcy*; there is thus no result state involved in its composition, and nothing for AGAIN to modify in order to produce a restitutive reading. The intended reading in (25a) is however easily understood in terms of counterdirectionality, as the paraphrase with *back* indicates.

(26) *no change of state in (25a) (activity predicate):*

- a. Lizzy talked to Darcy.
- b. Lizzy talked to Darcy for an hour / #in an hour.
- c. Lizzy was talking to Darcy. → Lizzy talked to Darcy.

A predicate like *write* in (25b), on the other hand, can be seen as an accomplishment; a corresponding paraphrase is given in (27a). However, the result state of the creation verb *write*, namely ‘a message exists’, is not useful in describing the intended reading of *AGAIN* (see Beck & Johnson (2004) on *AGAIN* with creation verbs). The intended reading is once more understood in terms of counterdirectionality.

(27) *change of state, but plausible result state not helpful in explaining (25b):*

- a. She wrote to him.
= Her writing caused a message to him to come into existence.
- b. She wrote again to him.
≠ Her writing caused a message to him to once more come into existence.

Gergel & Beck conclude that earlier stages of English had counterdirectional *AGAIN*, and that counterdirectional *AGAIN* can be distinguished from restitutive *AGAIN* semantically at least for some predicates. Since the readings in (25) are no longer possible in Present Day English (PDE; see also Schöller (2013)), they furthermore conclude that PDE *again* no longer has a counterdirectional reading. Accordingly, the structural theory has to apply in English today. Nevertheless, the findings of Gergel & Beck constitute an argument in favour of the lexical ambiguity theory in principle: a counterdirectional *AGAIN* in the spirit of lexical ambiguity must have been available in earlier stages of English, even if the lexical ambiguity theory does not apply to Present Day English.

2.6. Section summary

Two competing analyses of the ambiguity of (1) and similar data exist: one in terms of a lexically ambiguous adverb, the other in terms of structural ambiguity inside the predicate. Compelling arguments have been brought forth for either theory. While they are generally perceived as competitors, Gergel & Beck propose to reconcile them over time. Their evidence is a diachronic analysis of *AGAIN* in various stages of English. Kutchi Gujarati, discussed in the next section, allows us to make a much more direct argument, to similar effect.

3. Kutchi Gujarati *AGAIN*

Subsection 3.1 provides some general background on Kutchi Gujarati. Next, in subsection 3.2, we establish the Kutchi Gujarati adverb *pacho* as a member of the family of *AGAIN* adverbs. Subsection 3.3 is dedicated to non-repetitive readings of *pacho* and will provide the crucial data in this paper. The analysis is given in 3.4, followed by a section summary.

3.1. Background on Kutchi Gujarati

Kutchi Gujarati is an Indo-Aryan language spoken in the Kutch district of the Gujarat state in North-West India. On a par with Marwari, Gujarati is generally assumed (cf. Tessitori 1913, 1914–16) to have evolved from Old Western Rajasthani (spoken approximately between 1000 CE and 1500 CE). Kutchi Gujarati transitive clauses exhibit a split agreement pattern triggered by aspect: in the imperfective, the verb agrees with the transitive subject, (28a), in the perfective it agrees with the transitive object, (28b). (In intransitives, (29), the verb always agrees with the subject.) Notably, as in Marwari (and in dialects of Italian, cf. D’Alessandro 2011), adverbs like *pacho* ‘again’ and *velo* ‘early’ also share the verbal agreement for gender and number (*pacho* ‘m.sg’, *pachi* ‘f.sg’, *pachu* ‘n.sg’, *pacha* ‘pl’), as shown in (29).

- (28) a. **Raj** Maya-ne jo-t-o. / **Maya** Raj-ne jo-t-i.
 Raj Maya-acc see-ipfv-m Maya Raj-acc see-ipfv-f
 ‘Raj used to watch Maya.’ ‘Maya used to watch Raj.’
- b. Raj **Maya**-ne jo-i. / Maya **Raj**-ne jo-y-o.
 Raj Maya-acc see-pfv.f Maya Raj-acc see-pfv-m
 ‘Raj saw Maya.’ ‘Maya saw Raj.’
- (29) a. **Ryan** pach-o nach-y-o. / **Maya** pach-i nach-i.
 Ryan again-m dance-pfv-m Maya again-f dance-pfv.f
 ‘Ryan danced again.’ ‘Maya danced again.’
- b. **Ryan** vel-o nach-y-o. / **Maya** vel-i nach-i.
 Ryan early-m dance-pfv-m Maya early-f dance-pfv.f
 ‘Ryan danced early.’ ‘Maya danced early.’

3.2. Basics: *pacho* is a repetitive adverb in the AGAIN family

We investigate Kutchi Gujarati *pacho* as the counterpart of English *again*. In (30)–(33), we begin with some basic examples, in which the predicate is an (undirected) activity, like *dance* in (30), or a state, like *be in Bhuj* in (31), so ambiguity plays no role in these examples.

- (30) Valji **pacho** nachyo.
 Valji again danced
 ‘Valji danced again.’
- (31) John Bhuj-ma **pacho** che.
 John Bhuj-in again is
 ‘John is in Bhuj again.’

As gloss and translation indicate, *pacho* serves to indicate repetition, just like *again* in the same sentences. Also, just like *again*, *pacho*’s contribution is presuppositional. The question in (32) is only appropriate if John was in Bhuj earlier; it inquires if John is in Bhuj now.

- (32) John Bhuj-ma **pacho** che?
 John Bhuj-in again is
 ‘Is John in Bhuj again?’ (*presupposes*: John has been in Bhuj before.)

Similarly, (33) is only appropriate if John was in Bhuj earlier. It asserts that John is not in Bhuj now. Thus *pacho* can be viewed as the counterpart of *again* in Kutchi Gujarati.

- (33) John **pacho** Bhuj-ma nathi.
 John again Bhuj-in is.not
 ‘John is not in Bhuj again.’ (*presupposes*: John has been in Bhuj before.)

3.3. Non-repetitive readings of *pacho*

In this subsection, we test if other readings besides the repetitive reading are possible (as in the case of English *again* and German *wieder*). We begin with an example inspired by the predicates from Gergel & Beck (to appear). The acceptability of (34a) in the context described in (35a) shows that a counterdirectional reading is available for *pacho*.

- (34) a. Valji **pachi** baiman-ne phone kari *only counterdirectional*
 Valji again woman-acc phone did
 b. Valji baiman-ne **pachi** phone kari *only repetitive*
 Valji woman-acc again phone did
 Lit.: ‘Valji phoned the woman again.’

- (35) a. *Counterdirectional reading*:
 A woman phoned Valji and left a message for him. He does not know the woman or her number. Valji phoned the woman back.
 b. *Repetitive reading*:
 Valji phoned a woman, but could not reach her. Valji phoned the woman again.

The predicate *phone* is similar to *talk to* in (25a). The combination with *pacho* allows two different readings, a counterdirectional reading, (35a), in addition to the expected repetitive reading, (35b). Interestingly, word order disambiguates in Kutchi Gujarati, as shown in (34a) vs (34b). We discuss word order effects in more detail in section 4.

In the following examples, we present *pacho* in combination with a predicate that allows us to see whether in addition to a counterdirectional reading a distinct restitutive reading is possible; our findings are affirmative. The predicate is ‘write a letter’ (inspired once more by the diachronic example ‘she wrote again to him’ in (25b)). Let us first take a closer look at English, in (36)-(37). The PDE example in (36) clearly has a repetitive reading, in (37a). In contrast to earlier stages of English, as in (25b), a counterdirectional reading is not accepted, cf. (37b). But note: the predicate is one that makes a result state available, namely that there is a letter in his possession, (37c). This reading differs from the counterdirectional reading; cf. Beck & Johnson (2004) for restitutive readings with creation verbs and double-object verbs.

- (36) She wrote him a letter again.

- (37) a. Once more, she wrote him a letter. (repetitive)
 b. #He had written to her, and she wrote a letter back to him. (counterdir.)
 c. Her writing caused him to come to once more have a letter. (restitutive)

The PDE example in (36) is two-way ambiguous, allowing for the readings in (37a) and (37b). We can now ask: What about Kutchi Gujarati? Remember that word order plays a role for the available interpretations. We can thus construct the three contexts in (38b-d) for a translation of English (38a), and test examples such as (39) and (40) in these contexts.

- (38) a. ‘Valji wrote Maya a letter again.’
- b. **Context 1** (verifies repetitive PSP):
 Valji and Maya have been pen pals for years. They write to each other almost every week.
- c. **Context 2** (verifies counterdirectional PSP only):
 Maya met Valji at a film festival last week. She was very attracted to him. After hesitating for a few days, she wrote him a letter. Valji got it on Wednesday.
- d. **Context 3** (verifies restitutive PSP only):
 Maya is Valji’s little sister. Yesterday, she was playing post office. She used a letter from Aunt Odilia for her game, pretending to be sending it or receiving it all day long. But then she accidentally dropped the letter into the fire and it was destroyed. Maya was very disappointed.

What we find is that (39) is accepted in the contexts (38c) and (38d), i.e. it has a restitutive and a counterdirectional reading. In contrast, (40) is only acceptable in the context in (38c), i.e. it only has a counterdirectional reading. This tells us two things: (i) the two readings are truth-conditionally distinct for this predicate, and (ii) both readings exist in Kutchi Gujarati, in addition to the vanilla repetitive reading.

- (39) **paacho** Valji Maya-ne kagar lakhyo. (*restitutive or ctrdir.*)
 again Valji Maya-Dat letter wrote
 ‘Valji wrote another letter for Maya.’ (= he brought one into existence again)
 ‘Valji wrote a letter to Maya in return.’ (= he wrote back)
 ⇒ acceptable in Context 2, and acceptable in Context 3

- (40) Valji **paacho** Maya-ne kagar lakhyo. (*counterdirectional*)
 Valji again Maya-Dat letter wrote
 ‘Valji wrote a letter to Maya in return.’ (= he wrote back)
 ⇒ acceptable in Context 2, but not acceptable in Context 3

In addition to examples like ‘write a letter’, we can look at a creation predicate that does not make a directional interpretation plausible, such as ‘bake a cake’. By doing so, in example (41), we gather further evidence for the restitutive interpretation. Another example, in (42), which is adapted from Beck & Johnson (2004), corroborates the same observation; the idea

here is that the original flag would not have been crocheted, so it is really just the result state ‘Pat has a flag’ that is repeated, as opposed to the event of crocheting it.

- (41) a. **pacho** john cake banavyo (*restitutive*)
 again John cake baked
 ‘John baked a cake again.’
 b. *restitutive context*:
 John came into a temple. There was a cake on the table. He thought it was a prop
 and put his finger in it. The cake was destroyed. John baked a cake again.
- (42) a. **pachu** Sandy Pat-maate dhaja kotar-y-u
 again Sandy Pat-for flag crochet-pfv-n
 ‘Sandy crocheted a flag for Pat again.’
 b. *restitutive context*:
 Pat has a tree house, which she loves. It had a flag, but last week’s storm tore the
 flag off and destroyed it. Pat was very sad. But then her neighbour Sandy
 crocheted Pat a flag again.

We conclude that Kutchi Gujarati *pacho* permits a repetitive reading, a counterdirectional reading and a restitutive reading. Before we move on to an analysis, note that in many examples, the latter two may be indistinguishable truth-conditionally (cf. section 2.3), e.g. in (43) below. In Kutchi Gujarati (just like in ME and EModE, but not PDE), this example would contain a vacuous ambiguity (the restitutive and counterdirectional analyses that lead to the same overall meaning).

- (43) a. **pacho** Reena dharvajo kolyo *restitutive/counterdirectional ?*
 again Reena door opened.
 b. Reena **pacho** dharvajo kolyo *restitutive/counterdirectional ?*
 Reena again door opened
 c. Reena dharvajo **pacho** kolyo *repetitive only*
 Reena door again opened.

We will come back to this point when we discuss the effect of word order in section 4.

3.4. Analysis of basic data

In order to account for purely counterdirectional interpretations (e.g. with verbs like *phone*), Kutchi Gujarati must have a repetitive as well as a counterdirectional lexical entry for *pacho*, (44) and (45). That is, the lexical ambiguity analysis applies in this language.

- (44) $[[pacho_{rep}]] = \lambda P . \lambda e : \exists e' [e' < e \ \& \ P(e')] . P(e)$
 ‘Such an event has happened before.’

- (45) $[[pacho_{ctdir}]] = \lambda P . \lambda e : \exists e' [e' < e \ \& \ P_C(e')] . P(e)$
 ‘An event of the opposite kind has happened before.’

However, in order to account for the distinct restitutive reading as well (with predicates like *bake a cake*, *crochet a flag* or *write a letter*), the structural ambiguity analysis must also apply. That is, repetitive *pacho*, (44), must be able to modify a result state denoting SC as well as a VP. We provide the three Logical Forms below that denote the three available readings of Kutchi Gujarati ‘Valji wrote Maya a letter again’. We follow Beck & Johnson (2004) in their analysis of the two-object verb, in which the predicate contains a SC denoting possession. The connection between the verb and the SC is mediated by a CAUSE BECOME component. See the paper of Beck & Johnson for details. The LF for restitutive *pacho* is given in (46). As indicated, we assume that the surface structure does not reflect the scope relations at LF. Since for this reading, *pacho_{rep}* has to modify the result state denoting SC, but occurs higher on the surface, it has to be reconstructed at LF and adjoined to SC.

- (46) **paacho** Valji Maya-ne kagar lakhyo. *restitutive*
 again Valji Maya-Dat letter wrote

Logical Form:

[_{VP} Valji [_{SC} pacho_{rep} [_{SC} Maya HAVE a letter]] lakhyo]
 ‘Valji’s writing causes Maya to come to once more have a letter.’

The LF for repetitive *pacho* is given in (47). In this reading, *pacho_{rep}* modifies the VP. Subject and object are raised out of VP at the surface to produce the word order that we see. We have reconstructed them in the LF for transparency.

- (47) Valji Maya-ne **paacho** kagar lakhyo. *repetitive*
 Valji Maya-Dat again letter wrote

Logical Form:

[_{VP} pacho_{rep} [_{VP} Valji [_{SC} Maya HAVE a letter] lakhyo]]
 ‘Once more, Valji’s writing causes Maya to come to have a letter.’

Finally, the LF for counterdirectional *pacho* is given in (48). For the counterdirectional reading, also, *pacho* modifies the VP. Here also, we assume that the subject was raised overtly (and reconstructed at LF). If we suppose, as we should for consistency’s sake, that the object has also raised to a high position, then here, too, the adverb has to be reconstructed at LF to a lower position than it occupies in the surface syntax.

- (48) Valji **paacho** Maya-ne kagar lakhyo. *counterdirectional*
 Valji again Maya-Dat letter wrote

Logical Form:

[_{VP} pacho_{ctdir} [_{VP} Valji [_{SC} Maya HAVE a letter] lakhyo]]
 ‘Valji wrote Maya a letter in return.’

It is obvious that surface syntax does not match the Logical Form directly in Kutchi Gujarati according to this analysis. Derivation of the above LFs requires raising of argument NPs at the surface structure on the one hand. On the other hand, and more unusually, the adverb’s surface position is also not identical to its LF position. For the restitutive and counterdirectional readings it seems to require reconstruction to a lower position. We come back to this point in section 4 when we discuss word order in more detail.

3.5. Section summary

Sentences with *pacho* can have three distinct readings. (i) States and non-directed activities (*dance, be in Bhuj*) can only have the repetitive reading. (ii) Direction predicates can also have counterdirectional readings (*phone*). (iii) Accomplishment and achievement predicates can have result state modifying (i.e. restitutive) readings. Many of the latter can have both counterdirectional and restitutive readings (*write a letter, open the door*). We show below that the availability of all three readings depends on word order. The range of readings available for sentences with Kutchi Gujarati *pacho* can only be captured if we apply both the lexical and the structural theory at the same time. This is similar to what Gergel & Beck (to appear) claim to be the case for ME and EModE.

4. Further issues

Among the directions for further research opened up by the data and analysis in section 3 are diachronic considerations addressed in subsection 4.1 and the word order issue already visible above, which is addressed in subsection 4.2.

4.1. Other readings of *pacho*

One question for further research concerns the diachronic development of *pacho*, and which of the readings ($pacho_{rep}$ / $pacho_{ctdir}$) emerged first. Looking at Sanskrit, we observe that Sanskrit *punar* (पुनर्) has also been argued (in dictionaries such as Monier-Williams 1872:71-72) to have both readings. Amongst other glosses, Monier-Williams gives the glosses ‘once more’ ($again_{rep}$) and ‘in an opposite direction’ ($again_{ctdir}$) for *punar*. While it is not clear that *pacho* is derived from *punar*, this suggests that the phenomenon is more widespread in Indo-Aryan. Note that both the Kutchi Gujarati stem *pach-* and Sanskrit *punar* also appear to have a temporal use, meaning ‘then’ / ‘now’ / ‘after’; however, while a historical connection seems possible, this variant does not inflect in Kutchi Gujarati, appearing as *pache* ‘then, after’, cf. (50)-(51). It is unclear whether *pache* ‘then, after’ and *pacho* ‘again’ share a common meaning component; an alternative analysis, if they can indeed be shown to be historically connected rather than homonymous.

- (49) Valji Bhuj pach-o g-y-o.
Valji Bhuj again-m go-pfv-m
‘Valji went to Bhuj again.’
- (50) Pache Valji Bhuj g-y-o.
then Valji Bhuj go-pfv-m
‘Then Valji went to Bhuj.’
- (51) Valji Mandvi pache Bhuj g-y-o.
Valji Mandvi after Bhuj go-pfv-m
‘Valji went to Bhuj after Mandvi.’

4.2. Word order affects the available interpretations

Let us now take a closer look at which positions of *pacho* give rise to which readings. We begin with data involving simple predicates, for which only the repetitive interpretation is available. (52) and (53) show that *pacho* has to occur after the subject for the sentences to be acceptable.

- (52) a. ***pacho** Valji nachyo.
 again Valji danced
 b. Valji **pacho** nachyo *repetitive*
 Valji again danced
 ‘Valji danced again’

- (53) a. ***pacho** John Bhuj-ma che.
 again John Bhuj-in is
 b. John **pacho** Bhuj-ma che. ?*repetitive*
 John again Bhuj-in is
 c. John Bhuj-ma **pacho** che. *repetitive*
 John Bhuj-in again is
 ‘John is in Bhuj again’

Next, we can consider an example with a directional predicate (e.g. *phone*). As shown in (54), *pacho* has to follow the subject and precede the object for the counterdirectional interpretation, and follow the object for the repetitive interpretation.

- (54) a. ***pachi** Valji baiman-ne phone kari
 again Valji woman-acc phone did
 b. Valji **pachi** baiman-ne phone kari *counterdirectional*
 Valji again woman-acc phone did
 c. Valji baiman-ne **pachi** phone kari *repetitive*
 Valji woman-acc again phone did

This is confirmed by our three-way ambiguous example, ‘write a letter’, in (55). Here, the variants where *pacho* follows the subject and the (indirect) object can only be repetitive, (55c-d). A counterdirectional reading is possible when *pacho* precedes the object and either follows or precedes the subject, as in (55a-b).¹ A restitutive reading is possible only when *pacho* precedes the subject. This is a very surprising fact, since it is the opposite behaviour from German *wieder* ‘again’, whose behaviour in turn is what the structural analysis leads us to expect. As a consequence, *pacho* cannot be interpreted in its surface position in (55a) (see section 3.4).

¹ It is currently unclear to us why a counterdirectional reading is possible in (55a), but not in (54a). However, the distribution of *pacho* seems to interact with information structure, e.g. focus placement, which may affect examples of this type in ways that are currently not fully understood.

- (55) a. **paacho** Valji Maya-ne kagar lakhyo. *counterdirectional or restitutive*
 again Valji Maya-Dat letter wrote
 b. Valji **paacho** Maya-ne kagar lakhyo. *counterdirectional*
 Valji again Maya-Dat letter wrote
 c. Valji Maya-ne **paacho** kagar lakhyo. *repetitive*
 Valji Maya-Dat again letter wrote
 d. Valji Maya-ne kagar **paacho** lakhyo. *repetitive*
 Valji Maya-Dat letter again wrote

Some open questions remain, but we arrive at roughly the following generalizations: (i) when *pacho* follows the object we get the repetitive reading only, (ii) when *pacho* precedes the subject we get a restitutive and a counterdirectional reading, and (iii) when *pacho* follows the subject but precedes the object we get a counterdirectional reading only. With this in mind, we can take another look at example (56). Assuming that the example conforms to the above generalizations, we narrow down possible readings as follows:

- (56) a. **pacho** Reena dharvajo kolyo *counterdirectional or restitutive*
 again Reena door opened.
 b. Reena **pacho** dharvajo kolyo *counterdirectional only*
 Reena again door opened
 c. Reena dharvajo **pacho** kolyo *repetitive only*
 Reena door again opened.

The schema in (57) summarizes our findings regarding word order. Clearly, *pacho* gives rise to a repetitive reading iff it is low in the structure, and to restitutive and counterdirectional readings when it is high. This is a challenge for all existing analyses of AGAIN.

- (57)
- | | | |
|----------------------------|----------------------|-------------------|
| subject | object | verb |
| | | |
| <i>pacho</i> rest./ctrdir. | <i>pacho</i> ctrdir. | <i>pacho</i> rep. |

Looking at the restitutive and repetitive readings together, we observe the following connections between surface structure and Logical Form. Both subject and object move overtly out of VP, at least in the perfective (which we have used in all the relevant examples); for Hindi this has been argued for by Mahajan (1990) and Chandra (2007). Their test is replicated for Kutchi Gujarati in (58) and (59). The idea is that *jaldi* ‘quickly’ surfaces in its scope position. It can adjoin to the VP, in which case it indicates that the event/process occurred at a quick pace; however, it can also adjoin to the IP, in which case it conveys that the event was initiated at a quick pace. Crucially, if the direct object (here: *kam* ‘work’) precedes *jaldi* ‘quickly’, only the reading is possible in which *jaldi* is adjoined to the VP, (58). By contrast, if the direct object follows *jaldi* ‘quickly’, only the reading is possible in which *jaldi* is adjoined to the IP, (59). If we assume that *jaldi* surfaces in its scope position, this means that *kam* ‘work’ must be located in the same position, both in (58) and (59), i.e. in a position above VP and below IP. For convenience sake, we label this position SpecAgrOP, though nothing hinges on this label.

- (58) Valji kam **jaldi** karyu.
 Valji work quickly do.pfv.n.sg
 ‘Valji did the work quickly.’ (i.e. The work happened at a quick pace.)
- (59) Valji **jaldi** kam karyu.
 Valji quickly work do.pfv.n.sg
 ‘Quickly, Valji did the work.’ (i.e. It did not take long before Valji started the work.)

When *pacho_{rep}* is adjoined to VP (for the repetitive reading), this gives us the surface word order. At LF, all of the movements of the NPs syntactically reconstruct, as in (60). (Note that this is not strictly necessary, as lambda conversion could yield the same interpretation, but we do it for transparency of the LF.)

- (60) Reena dharvajo **pacho** kolyo *repetitive only*
 Reena door again opened.

Surface Structure:

[_{IP} Reena [_{AgrOP} dharvajo [_{VP} pacho_{rep} [_{VP} t_{subj} t_{obj} [_{SC} t' _{obj} t_{kolyo}]] [_V Ø + kolyo]]]]]

Logical Form:

[_{IP} ___ [_{AgrOP} ___ [_{VP} pacho_{rep} [_{VP} Reena ___ [_{SC} dharvajo [_A kolyo]] [_V Ø]]]]]
 ‘Once more, Reena does something that causes the door to come to be open.’

For the surface structure of the restitutive example, we assume for the sake of consistency that all the same movements occur. This entails that restitutive *pacho* occurs in a position that is structurally very high. We can only make sense of this if the adverb got moved to this high position and is reconstructed in the LF, as in (61).

- (61) **pacho** Reena dharvajo kolyo *restitutive*
 again Reena door opened

Surface Structure:

[pacho_{rep} [_{IP} Reena [_{AgrOP} dharvajo [_{VP} t_{subj} t_{obj} [_{SC} ___ [_{SC} t' _{obj} t_{kolyo}]] [_V Ø + kolyo]]]]]
 └──┘
pacho raises

Logical Form:

[___ [_{IP} ___ [_{AgrOP} ___ [_{VP} Reena ___ [_{SC} pacho_{rep} [_{SC} dharvajo [_A kolyo]] [_V Ø]]]]]
 ‘Reena does something that causes the door to come to be once more open.’

Considering counterdirectional *pacho*, we keep the assumptions made above constant and arrive at the derivation in (62).

- (62) Valji **pachi** baiman phone kari *counterdirectional only*
 Valji again woman phone did

Surface Structure:

$$[_{IP} \text{Valji} [\text{pacho}_{\text{ctrdir}} [_{AgrOP} \text{baiman} [_{VP} \text{---} [_{VP} \text{t}_{\text{subj}} \text{t}_{\text{obj}} \text{phone kari}]]]]]]$$

|
pacho raises

Logical Form:

$$[_{IP} \text{---} [\text{---} [_{AgrOP} \text{---} [_{VP} \text{pacho}_{\text{ctrdir}} [_{VP} \text{Valji baiman phone kari}]]]]]]$$

‘Valji phoned the woman in return.’

Both subject and object raise to their respective surface positions. *Pacho*_{ctrdir} needs to modify VP, hence cannot be interpreted in its surface position above AgrOP. We assume once more that it was raised at surface structure and is reconstructed at LF.

The analysis makes adverbs in Kutchi Gujarati an interesting illustration of crosslinguistic variation, when compared to German, where the adverb is interpreted in its surface position. In future research, we need to ask which grammatical property distinguishes adverbs in Kutchi Gujarati from adverbs in German to bring about this difference at the syntax/semantics interface. At the very least, the above analyses show what has to be the case in order for the facts to come out right. Needless to say, however, they raise quite a lot of general questions regarding the mapping between surface structure and Logical Form in Kutchi Gujarati. Some of these questions are independent of the issue of AGAIN, e.g. raising of argument NPs. Others concern AGAIN, but are part of more general ‘bigger’ questions, such as: What is the relation between surface and scope position of adverbs in this language? And what could motivate an adverb like *pacho* to raise at surface structure? We leave these questions for future research.

5. Conclusions

In this paper, we have presented an investigation of *pacho* ‘again’ in Kutchi Gujarati. We have observed that a counterdirectional reading of AGAIN can be distinguished truth-conditionally from a restitutive reading if we use suitable predicates (namely directed creation verbs). Our comparison of Kutchi Gujarati, German and Present Day English has also shown that the availability of a ‘true’ counterdirectional reading is subject to crosslinguistic variation. Kutchi Gujarati thus confirms Gergel & Beck’s (to appear) view that restitutive and counterdirectional readings can be available simultaneously (previously claimed for Early Modern English). The present day adverb *pacho* ‘again’ in Kutchi Gujarati exhibits the same interpretive possibilities as Early Modern English *again*.

Open questions concern the word order facts. Kutchi Gujarati shows that the position of adverbs, and in particular AGAIN, is not fixed in this language. They can raise, so that their surface position is not their scope position. Whether adverb positions are fixed or not is thus a question that needs to be investigated for each language individually. Here, it can be held responsible for the different word order facts in Kutchi Gujarati versus German. What we do not know at this point is what the formal source of this difference could be. Finally, it is also an open question how exactly *pacho* ‘again’ has developed historically; specifically, future research needs to determine its etymological source and whether its meaning is diachronically related to meanings such as ‘after’, or ‘behind’.

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