CHAPTER 2

Counterfactuality in Palestinian Arabic

2.1 Introduction

In this chapter, I explore the distribution of tense, aspect and mood morphology in Palestinian Arabic (henceforth, Palestinian) counterfactual conditionals in order to account for the generation of counterfactuality and its ingredients, as well as the syntax and semantics thereof.

In §2.2, I introduce the temporal and aspectual ingredients that are relevant for the formation of counterfactual structures. In §2.3, I introduce different verbal constructions and combinations of tense and aspect morphemes. The readings that are associated with each construction are then compared with the readings that result from the addition of the past tense morpheme kaan on top. A puzzle arises. Solving the puzzle amounts to accounting for why some of the resultant readings are purely temporal, some counterfactual, and some ambiguous between the two. To be able to do so, we look at the distribution of tense and aspect in and out of counterfactuals, in §2.4. In this section,

1Some parts of this chapter were presented at the Linguistics Seminar at the Hebrew University of Jerusalem (March 2009), Workshop on Imperfective at Yale (April 2009), Workshop on Tense and Aspect in Lisbon (June 2010 with Hedde Zeijlstra), Philosophy of Language and Semantics Seminar at the University of Chicago (December 2010), and WCCFL19 (April 2011 with Claire Halpert). Thanks to the audiences there, especially Anastasia Gianakidou, Angeliek van Hout, Anmita Mittwoch, Ashwini Deo, Chris Kennedy, Edit Doron, Ivy Sichel, Jaqueline Guéron, Jason Merchant, Nora Boneh, and last but certainly not least Sabine Iatridou. The parts of this chapter that were presented at the workshop on tense and aspect in Lisbon appeared in the Journal of Portuguese linguistics as Karawani and Zeijlstra (2013b). Special thanks to Sam Alkatib and Hanin Karawani for sharing their intuitions and grammaticality judgements with me.
I provide a structural analysis of the morpho-syntactic elements interacting to achieve CF meaning as well as a semantic analysis of those elements. In particular, I suggest a reinterpretation of past tense morphemes that display a dual function in yielding both temporal and counterfactual interpretations in terms of non-actual veridicality—following Karawani and Zeijlstra (2010). The discussion in this section enables us to devise a syntax for counterfactual constructions in Palestinian Arabic, in §2.5. In §2.6, I discuss a puzzle regarding counterfactual habits in Palestinian that make Palestinian counterfactuals look less transparent than concluded in the preceding sections. In §2.7, I compare and contrast different counterfactual strategies with respect to the strength of the counterfactuality they introduce. §2.8 summarises and concludes while trying to position Palestinian within the typology of counterfactuals.

2.2 Introducing Ingredients

2.2.1 Conditional Complementizers

Palestinian Arabic has two conditional complementizers, iza and law:  

\[ (65) \]

\begin{tabular}{ll}
\textbf{a.} & iza hiyye fi l-bet (hala?), ...
\end{tabular}

\begin{tabular}{ll}
if & she in the-home now
\end{tabular}

\begin{tabular}{ll}
& ‘If she’s at home now, ...’
\end{tabular}

\begin{tabular}{ll}
\textbf{b.} & iza hiyye *(kaanat) fi l-bet (hala?), ...
\end{tabular}

\begin{tabular}{ll}
if & be.pst.3SF in the-home (now)
\end{tabular}

\begin{tabular}{ll}
& ‘If she were home (now), ...’
\end{tabular}

\begin{tabular}{ll}
\textbf{c.} & law hiyye (kaanat) fi l-bet (hala?), ...
\end{tabular}

\begin{tabular}{ll}
if & be.pst.3SF in the-home (now)
\end{tabular}

\begin{tabular}{ll}
& ‘If she were home (now), ...’
\end{tabular}

For the time being, the counterfactual conditionals in (65b) and (65c) will be treated on par, but as this dissertation progresses we will see that semantic differences exist between iza kaan and law kaan. While I will not make any claims

\footnotesize{In fact there is a third conditional complementizer: in. iza and in appear to be dialectal variants, and exhibit the same distribution. In this chapter, I focus on iza, but in all the examples iza may be substituted by in.}
regarding semantic differences between *iza kaan* and *law*, I will argue that *law kaan* is different from both in that counterfactual conditionals introduced by *law kaan* include two elements that contribute to counterfactual meaning: *law* as a counterfactual complementizer, and the optional *kaan*. Because only one element is necessary for introducing counterfactuality, the redundancy in employing two elements results in the strengthening of the CF inference – making the counterfactuality introduced by the conditional more difficult to cancel.

2.2.2 Temporal/Aspectual Morphemes

Relevant to our research topic are the temporal morphemes *kaan* and *b-ikuun*; the temporal-aspectual morphemes *b-, ýam, and ruh*; and the subjunctive mood morpheme *?inno* – exemplified in (66).

(66) a. kaan-at fi l-bet
be.PST-she in the-home
“She was at home.’

b. b-tkuun fi l-bet
b-be.IMPFV.3SF in the-home
“She will/must be home.’

c. b-tsaafer fi s-sayyara kul yom/
b-travel.IMPFV.3SF in the-car every day/
b-tirâa’ bukra
b-come.back.IMPFV.3SF tomorrow
‘She travels by car every day/ She comes back tomorrow.’

d. ýam timi la l-3aamîya
PROG walk.IMPFV.3SF to the-university
“She’s walking to the university.’

e. rah tirâa’ bukra
FUT come.back.IMPFV.3SF tomorrow
“She’ll come back tomorrow.’

f. mumkin ?in-ha tirâ3 bukra
maybe SUBJUC-3SF come.back.3SF tomorrow
“She might come back tomorrow.’

The temporal/aspectual/mood morphemes exemplified in (66) carry the feature composition as described in the following.\(^3\)

**kaan:** Past tense auxiliary; specified for [+ Past] (actually [+ NAV] as will be shown)

**b-ýkuun:** Non-past tense auxiliary; specified for [¬ Past]

**b-:** Habitual / Future morpheme; combines with imperfective; specified for [¬ Past]

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\(^3\) For comparison, see Piamenta (1958, 1966, 1979).
2.2. Introducing Ingredients

**Üam:** Progressive morpheme; combines with imperfective

**rah:** Futurate\(^4\) morpheme; combines with imperfective

**Piinno:** Subjunctive mood morpheme; combines with the bare form of the verb, or is on clausal level

The past tense morpheme *kaan* and the non-past tense morpheme *b-ykuun* function as auxiliaries of the verb *to be*; note that *b-ykuun* is actually composed of two morphemes: *b-* and the bare form of the verb. *b-, Üam, rah* and *Piinno* combine with bare verbal forms (including the bare form of the auxiliary). The bare form is bare of tense and aspect, but is morphologically inflected for agreement features (Benmamoun 1999).\(^5\)

A note on glossing convention that I follow is in order. As the habitual, futurate and progressive are the hallmarks of imperfective aspect, when the bare form combines with *b-, Üam, or rah* I add impfv to the gloss of the bare form as in (66b) – (66c). This should not be understood as a claim that the bare form, on its own, is imperfective. As you see in (66f), in the absence of imperfective markers, I gloss the bare form as carrying agreement features only.

### 2.2.3 Inflected Verbs

As is the case in Arabic in general,\(^6\) there are two verbal forms in Palestinian.\(^7\) These forms are traditionally labelled as perfective and imperfective, but I will show that while the former is specified for past and perfective, as exemplified in (67), the latter is a bare form – bare of tense and aspect, but shows up in imperfective or subjunctive environments, as exemplified in (68).

\[(67)\text{ mifjat la l-3aam\textit{fi}a}
\text{ walk.PST.PFV to the-university}
\text{ ‘She waked to the university.’}\]

\[(68)\text{ a. b-/rah/\textit{Üam} timfi la l-3aam\textit{fi}a}
\text{ b-/FUT/PROG walk.IMPFV}
\text{ ‘She walks/ will walk/ is walking to the university.’}\]

\(^4\)The futurate is a semantic category. Futurate sentences refer to scheduled events and the sentences themselves can be in present or past. See Bridget Copley’s (2002) work on this.

\(^5\)Also Benmamoun (2000), but contra Fassi Fehri (1993), who argues that perfective and imperfective are both inflected for tense and aspect. Fassi Fehri (2004) argues for a bi-clausal structure based on what he considers to be evidence from the interaction of tense and aspect with modals like qad. For a different analysis, see Dahl (1979).

\(^6\)For a more comprehensive view on the verbal system in Arabic see Comrie (1991), Bahloul (1994), Wright (1996), Benmamoun (2000), Bahloul (2008), and Aoun, Benmamoun and Choneiri (2010).

\(^7\)For a comparison with other dialects of Arabic see, Benmamoun (2000) for Maroccan and Egyptian, and Eisele (1999) for Cairene Arabic. See also Mitchell and al-Hassan (1994) for Levantin, and Belazi (1993) for Tunisian.
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b. mumkin/mustabfad/*?akiid ?in-ha timfi la
maybe/improbable/*/certain SUBJNC-3SF walk.3SF to
l-zaam?a
the-university
‘She might walk to the university. /It is improbable that she would
to walk to the university. /*It is certain that she will walk to the
university.’

Morphologically, the past perfective is suffixed, while the bare form which shows up in imperfective and subjunctive environments is prefixed. The suffixed verbal form carries suffixal $\phi$-features: person, gender and number. The prefixed form carries prefixal person features and suffixal gender and number features. As you see, although called prefixed, it actually carries both prefixal and suffixal $\phi$-features. It is so called for the purpose of distinguishing it from the suffixed form which is solely suffixed.

The suffixed and prefixed verbs carry the feature composition as described in the following.

**suffixed verbal form:** Past perfective

**prefixed verbal form:** Bare form, found in imperfective/subjunctive environments

The suffixed and prefixed forms have been traditionally labelled perfective and imperfective, respectively (Benmamoun 2000). In fact, in this chapter we see that the suffixed form is both perfective and past; and that the prefixed form is better described as a bare form – a bare form which when selected by temporal/aspectual morphemes like $b$-, $ra$, $\dot{y}am$, or $kaan$ yields imperfective readings, but which can also be selected by the subjunctive morpheme ?inno, as shown in (68b) and (69), or by the CF complementizer law in CF wishes, as shown in (70).

(69) ?inno yiji $\dot{y}a-l$ hafle ...
   SUBJNC come.3SM to-the party ...
   ‘That he come to the party …’

(70) law yiji
   if$_{CF}$ come.3SM
   ‘If only he were to come.’

Note that in (69), ?inno functions as a subjunctive complementizer. ?inno thus has two functions: as a complementizer introducingsubjunctive sentential mood, or as a subjunctive verbal mood morpheme.
2.3 Background

In this background section, we will zoom in on the interaction between the verbal forms and temporal morphemes introduced in the previous section and examine the readings yielded in each construction more carefully. In particular, we will look at mixes and matches and see which combinations give rise to a counterfactual reading and which do not. This allows us to identify the ingredients that participate in, and/or are necessary for, yielding counterfactuality.

As mentioned in the previous section, Palestinian inflected verbal forms have two basic patterns: (i) a form, which exhibits suffixal φ-morphology receiving past perfective interpretation (71); and (ii) a bare form which exhibits prefixal φ-morphology (72). The former can appear on its own, whereas the latter cannot appear on its own, as shown in (72), but rather requires morphological modification by temporal-aspectual markers (73) - (75), and in turn receives a habitual, future or progressive reading.

(71) katb-at
write-PFV.3SF
Past Perfective: ‘She wrote.’

(72) *tu-ktub
IMPFV.3SF-write

(73) b-tuktob
b-write.IMPFV.3SF
Habitual: ‘She (usually) writes.’
Future: ‘She will write.’

(74) rah tuktob
FUT write.IMPFV.3SF
Future: ‘She will write.’

(75) Qam tuktob
PROG write.IMPFV.3SF
Progressive: ‘She is writing.’

The bare form, which is ungrammatical on its own as shown in (72), survives not only if preceded by aspectual morphemes, but also if preceded by kaan, yielding a past habitual, in (76).

(76) kaan-at tu-ktub
be.PST-3SF sf-write
Past Habitual: ‘She used to write.’ / ‘She was writing.’

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8The bulk of this section and also §2.4 is reprinted in Karawani and Zeijlstra (2013b).
9A past progressive reading is blocked in many dialects of Palestinian, cf. Jerusalemite, because Qam is overtly required for that reading to be available.
Further modification of the above examples by past tense morphology does not straightforwardly introduce a past tense interpretation, but gives rise to a series of unexpected readings. For instance, while the reading of the suffixed form in (71) is that of a simple past, the suffixed form can only receive a counterfactual interpretation when it is modified by kaan, as illustrated in (77).

(77) kaanat kath-at
be.pst.3sf write-sf
Past counterfactual: ‘She would have written.’

Also, the temporally modified imperfective forms (73-75) may be preceded by kaan. Again, the readings (at first sight) do not straightforwardly follow from the contribution of the grammatical ingredients in the sentence. For instance, modifying the habitual/future imperfective (73) by kaan results in a non-past counterfactual reading only:

(78) kaanat b-tuktob (hala?/bnkra/*mbaareh)
be.pst.3sf b-write.impfv.3sf (now/tomorrow/*yesterday)
Non-past counterfactual: ‘She would write.’

On the other hand, modifying the futurate imperfective (74) by kaan yields either a past future or a counterfactual future:

(79) kaanat rah tuktob
be.pst.3sf fut write.impfv.3sf
a. Past future: ‘She was going to write.’
b. Counterfactual future: ‘It would be the case that she would write.’

Finally, modification of the progressive imperfective (75) by kaan only yields a past progressive reading:

(80) kaanat Yam tuktob
be.pst.3sf prog write.impfv.3sf
Past progressive: ‘She was writing.’

The following table summarises the different combinations available as well as the readings associated with each of the verbal forms.

<table>
<thead>
<tr>
<th>Base form</th>
<th>Verbal modifier</th>
<th>Not modified by kaan</th>
<th>Modified by kaan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffixed</td>
<td>Ø</td>
<td>Past Perfective</td>
<td>CF</td>
</tr>
<tr>
<td>Prefixed</td>
<td>Ø</td>
<td>*</td>
<td>Past Habitual</td>
</tr>
<tr>
<td>Prefixed</td>
<td>b-</td>
<td>Habitual/Future</td>
<td>Non-past CF</td>
</tr>
<tr>
<td>Prefixed</td>
<td>rah</td>
<td>Future</td>
<td>Past Future/Future CF</td>
</tr>
<tr>
<td>Prefixed</td>
<td>Yam</td>
<td>Progressive</td>
<td>Past Progressive</td>
</tr>
</tbody>
</table>
Two questions arise: why does the combination of the past morpheme *kaan* together with the suffixed verbal form only yield a counterfactual reading? And why does the imperfective form (\(ASP + \text{prefix} \text{verbal form} \)) in combination with the past morpheme *kaan* sometimes yield a counterfactual reading and sometimes a plainly temporal reading?

To be able to understand the contribution of tense and aspect morphemes to counterfactuality, it is instructive to look at their distribution outside of counterfactuals as well.

### 2.4 Tense and Aspect In and Out of CFs

#### 2.4.1 Syntax and Semantics of Aspect

In many languages, imperfective aspect is a morphological form which semantically comes along with progressive, habitual, or futurate readings. The situation in Palestinian is slightly different: progressive, habitual, and futurate readings come about by overt morphemes which combine with the bare form (which, as we have seen, cannot stand alone in the absence of such aspect/tense morphemes).

In what follows, we look at the distribution of the imperfective in Palestinian in an attempt to determine the syntactic and semantic properties of the morphemes *b-, râh*, and *yâm*, which are described next.

(i) **The Semantic Distribution of *b-***

(81) Habit

*b*-idaxxin.

*b*-smoke.IMPFV.3SM

‘He smokes.’

(82) Future

*b*-ahkiik-i bukra.

*b*-call.IMPFV.1SG-YOU.F tomorrow

‘I (will) call you tomorrow.’

(83) Epistemic Necessity

*b*-ikuun fi l-bet halla?.

*b*-be.IMPFV.3SM in-the-house now

‘He will be home now.’

*b-* yields a habitual/future reading when combined with main verbs, but an epistemic necessity reading when combined with the auxiliary (i.e. the prefixed form of the verb *to be*). When conveying habituality, future and epistemic necessity, *b-* exhibits a modal flavour which is best captured if *b-* is considered as a necessity modal. Modals are known to be specified for tense; *b-* is specified for non-past tense.
In all the three readings above, actuality is denoted – but not necessarily actuality ‘now.’ Hence, the description in (84).

(84) \( b- \) does not guarantee actuality “now” and denotes a non-past time.

Note that the description above explains why the string \( kaan \) \( b\)-IMPVFV is ungrammatical as a past habitual: \( b- \) is specified for non-past tense, this clashes with past feature of \( kaan \). (Why this string results in a counterfactual reading is explained in § 2.4.3 and will be related to the fact that \( b- \) is specified for tense, which allows \( kaan \) to function modally).

(ii) The Semantic Distribution of \( ra\)

(85) Future
\[
\begin{array}{ll}
\text{rah} & \text{ahkik-i} \\
\text{bukra.} & \text{FUT call.IMPVF.1SG-you.F tomorrow} \\
\end{array}
\]
‘I’m going to call you tomorrow.’

(86) \( ra\) guarantees actuality after a given point in time.

(iii) The Semantic Distribution of \( \checkmark\)

(87) Progressive Aspect
\[
\begin{array}{ll}
\text{\( \checkmark \)} & \text{ydaexen} \\
\text{sigara.} & \text{PROG smoke.IMPVF.3SM cigarette} \\
\end{array}
\]
‘He is smoking a cigarette.’

(88) New Habit
\[
\begin{array}{ll}
\text{\( \checkmark \)} & \text{ydaexen} \\
\text{sigara kul yom.} & \text{PROG smoke.IMPVF.3SM cigarette every day} \\
\end{array}
\]
‘He is in the new habit of smoking a cigarette every day.’

(89) \( \checkmark\) guarantees actuality in a given interval of time.\(^{10}\)

2.4.1.1 Stacking of Aspect

As purely aspectual forms, the stacking of the progressive imperfective and the futurate imperfective is allowed. By this I mean the stacking of the aspectual phrase \( \checkmark \) + prefixed/bare form and the aspectual phrase \( ra\) + prefixed/bare form, as illustrated in (90).

(90) a. kul mara \( \checkmark \) ajuuf-o \( \checkmark \) ykum
ev every time PROG see.IMPVF.1SG-him PROG be.IMPVF.3SM
\( \checkmark \)/rahu yinzal.
\[
\begin{array}{ll}
\text{PROG/FUT} & \text{leave.IMPVF.3SM} \\
\end{array}
\]
‘(Recently), every time I see him, he’s leaving/ he’s about to leave.’

\(^{10}\)Note that this is true only of subparts of the event due to sensitivity to telicity. For example, while he is walking entails that he walked, he is walking to the store doesn’t entail that he walked to the store.
b. lamma tfuufi-h rah ykuun ʕam/rah yinzal.
    when see.2sf-him FUT be.IMPFV.3SM PROG/FUT leave.IMPFV.3SM
    ‘When you see him, he’s going to be leaving/ about to leave.’

The stacking of b-, on the other hand, is not allowed, as (91) shows, but b-
can embed rah and ʕan, as in (92).

(91)  a. *b-ykuun b-yinzal.
      b-be.IMPFV.3SM b-leave.IMPFV.3SM

b. *ʕam ykuun b-yinzal.
      PROG be.IMPFV.3SM b-leave.IMPFV.3SM

c. *rah ykuun b-yinzal.
      FUT be.IMPFV.3SM b-leave.IMPFV.3SM

(92)  a. b-ykuun ʕam yinzal.
      b-be.IMPFV.3SM PROG leave.IMPFV.3SM
      ‘He will be leaving.’

b. b-ykuun rah yinzal.
      b-be.IMPFV.3SM FUT leave.IMPFV.3SM
      ‘He will be going to leave.’

As ʕam and rah are merely aspectual in nature, while b- is specified for
tense, the examples above show that there appears to be no ban on the stack-
ing of aspect, but only a ban against the stacking of tense (in one clause).
Interestingly, however, inside CFs, as we will see, the stacking of tense is al-
lowed – in fact, necessary.

2.4.2 Syntax and Semantics of Tense

We have seen that the future in Palestinian can be denoted by either of two
morphemes: b- and rah. b- is modal in nature and is specified for non-past
tense, while rah is aspectual (i.e. denotes futurate aspect/ relative future).
This leaves the present and the past as tenses. Interestingly, only the past
tense is morphologically overt: it is carried by kaan or the suffixed verb. On the
other hand, the present tense in Palestinian is null, or morphologically covert.
Arguably, that the present tense is null or covert means that, in Palestinian,
the present tense is carried by a zero morpheme (or, alternatively, the absence
of past) as in Standard Arabic and other dialects of Arabic (cf. Benmamoun

2.4.2.1 Null Present Tense

In the absence of past tense morphology, the interpretation of the sentence is
non-past. As we have seen, the interpretation of the aspectual forms in (73) -
(75) is non-past. Such sentences are incompatible with past time denoting
adverbials, as exemplified by the ungrammaticality of the sentences in (93).
(93) a. b-tuktob (*mbaareh)
   write.IMPFV (*yesterday)
   ‘She usually writes/will write.’

   b. ɬam tuktob (*mbaareh)
   PROG write.IMPFV (*yesterday)
   ‘She is writing.’

   c. ra tuktob (*mbaareh)
   FUT write.IMPFV (*yesterday)
   ‘She will write.’

Also so called nominal sentences (exemplified in (94) - (96)) which include
nouns, adjectives, or participles but no verbal morphology get a non-past in-
terpretation in the absence of any copula or auxiliary carrying tense.

(94) huwwe walad
    he  boy.N.SM
    ‘He’s a boy.’

(95) huwwe naayem
    he  sleep.PTC.SM
    ‘He is sleeping.’

(96) huwwe mabsuut
    he  happy.ADJ.SM
    ‘He’s happy.’

The absence of past tense morphemes, or alternatively the presence of a
zero present tense morpheme, accounts for the fact that a copula is not re-
quired in such examples. Instead, when the non-past auxiliary is present in the
construction, the reading achieved is one of epistemic modality, and not simple
present tense, as exemplified in (97) – (99). This is due to the semantics of ɬ.-

(97) b-ykuun walad
    b-be.IMPFV boy.N.SM
    ‘(In that case / if that’s true) he will/ must be a boy.’

(98) b-ykuun naayem
    b-be.IMPFV sleep.PTC.SM
    ‘(In this case / if that is true) he will/ must be sleeping.’

(99) b-ykuun mabsuut
    b-be.IMPFV happy.ADJ.SM
    ‘(In this case / if that is true) he will/ must be happy, (now).’

The fact that the interpretation makes a covert conditional available is
not surprising, for we get similar effects with other future denoting modals in
languages like Greek and English, as illustrated in (100).
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(100) a. *will* as an epistemic modal:

‘That will be the postman at the door.’

Condoravdi (2003:2 (2b))

b. *tha* as an epistemic modal:

I Ariadne *tha* kimate tora.

the Ariadne fut sleep.impfv.npast.3sg now

‘Ariadne must be sleeping now.’ Giannakidou (2012:4 (10a))

2.4.2.2 Morpho-Syntax of the Past Tense

For a past interpretation, *kaan* or a suffixed verb is required. Notice the past tense interpretation of (76) and (80), and also the past tense interpretation of the nominal sentences when combined with *kaan*, as in (101) – (103).

(101) kaan be. pst. 3sm boy.n.sg

‘He was a boy.’

(102) kaan naayem be. pst. 3sm sleep.ptc.sm

‘He was sleeping.’

(103) kaan mabsuut be. pst. 3sm happy.adj.sm

‘He was happy.’

Suffixed verbs in Palestinian always receive a past interpretation, as shown in (104).

(104) a. *tile* leave.pst.pfv.1sm mbaareh

‘He left yesterday.’

b. *tile* leave.pst.pfv.1sm hala?

‘He just left.’

c. *[tile* leave.pst.pfv.1sm bukra / kaman jway tomoran / in a bit]

As we can see, the suffixed verb in Palestinian encodes both perfective aspect and past tense. The following description captures this fact.

(105) **The suffixed verbal form** guarantees actuality and denotes past tense.
2.4.2.3 Semantics of the Past Tense

Previous sections show that both kaan and the suffixed verbal form are marked for past tense. This section is concerned with the semantics of the past tense in Palestinian such that it is able to function both temporally (to denote a past time) and modally (to denote counterfactuality).

Following Iatridou’s (2000) idea that past tense morphology denotes exclusion from the actual world/time, and building on the idea that the semantic effects of tense morphology are presuppositional in nature,12 Karawani and Zeijlstra (2010) argue that past tense morphology in Palestinian carries a non-actual veridicality presupposition that is linked to world-time pairs, as represented in (106). (For a discussion of the notion of (non-)veridicality, see Giannakidou (1998) et seq.)

(106) \[ \text{NAV} \| \phi(w,t) \text{ is defined iff } \exists w,t. [(w,t) \neq (w^0,t^0) \land \phi(w,t)] \]

Informally, (106) states that a sentence with a past tense morpheme presupposes that the predicate holds in some world-time pair, distinct from the pair consisting of the actual world and the time of utterance. In other words, for the NAV presupposition to hold, it is sufficient that only one of the variables is distinct from either \( w^0 \) or \( t^0 \). This means that, when speaking about the actual world (i.e. when the world variable is fixed to \( w^0 \)), a NAV morpheme must refer to a time that is distinct from the time of utterance (UT); whereas when the time variable is fixed to \( t^0 \) (i.e. fixed to UT) then the NAV morpheme must quantify over worlds that are not identical to \( w^0 \). The latter, thus, yields a counterfactual interpretation.

Given the above definition, the contrast in (78) – (80) can be explained. Note that no counterfactual readings, but only temporal ones, occur when those forms that we have identified as purely aspectual are embedded under kaan. On the other hand, those forms that we have identified as tensed yield a counterfactual reading when embedded under kaan. In the former, as tense is not specified, kaan denotes that \( t \neq t^0 \) – hence, the temporal interpretation. (In the syntax, kaan fills the T node). On the other hand, when tense is already specified (and, therefore, the tense node is occupied in the syntax), kaan cannot specify tense but must specify something else. In this case, it specifies that \( w \neq w^0 \) – hence, the counterfactual reading. (In the syntax, kaan occupies a second T slot but in the left periphery. This T slot is part of a counterfactual complex, as is explained in the next section).

Note that both the suffixed verbal form and kaan carry NAV semantics since both are specified for past tense and both are able to yield counterfactuality. Redefining past tense semantics in terms of NAV shows that what we have traditionally regarded as past tense morphemes, in fact, carry not only a temporal feature but a modal feature as well, which allows the past tense

morpheme to function modally under certain conditions. The main condition requires the T node of the sentence modified by the past tense morpheme to be filled. Hence, only when the past tense morpheme (as NAV) is stacked on top of a tensed form are we able to get a counterfactual reading.

### 2.4.3 Interaction between Tense and Aspect

The definition of NAV, in (106), is important in that it provides us with the ability to predict the distribution of temporal-aspectual elements in Palestinian and the readings that follow from certain combinations when kaan (or another ‘past tense’ morpheme) is involved. Nevertheless, this definition alone is not sufficient: we still need to maintain the general principle that every sentence is obligatorily tensed, as stated in (107).

(107) **Restriction on Finite Clauses:** T must be obligatorily filled.

Another assumption is necessary: that the syntactic skeleton of CF sentences includes a projection XP above TP that is able to host elements that introduce world variables. This projection, in Palestinian, is a second TP that is part of the counterfactual complex in (108).

(108) \[ \text{CounterfactualComplex CP} \gg \text{MoodP} \gg \text{TP} \gg \text{TP}_1 \]

The restriction in (107) enables us to explain the distribution of the temporal-aspectual elements. For example, it explains why bare prefixed forms are ruled out when they occur without temporal-aspectual modification, as shown in (72). Following Bennamoun’s (2000) analysis of suffixed (i.e. past perfective) and prefixed (i.e. imperfective) verbs in other Arabic dialects, the suffixed verb is taken to check tense in Palestinian, but the prefixed verb not. As such, the suffixed verb may occupy T\(^0\) (109a), but the prefixed verb, as a bare form, may not. Under the assumption that all finite clauses need to be tensed, we can explain why bare forms are ruled out: in the absence of modifiers, T in (109b) remains unfilled, and the sentence is ruled out. Hence, the bare form needs to be selected by temporal-aspectual morphemes.

(109) a. \[ CP \left[ TP, \text{katb}_{PST.PFV-at_i} \left[ \text{AspP t_i [vP t_i]} \right] \right] \]
   b. \[ CP \left[ vP \ast \text{tu-ktubare} \right] \]

For the bare/prefixed form to function in AspP, overt aspectual/temporal modifiers are required, i.e. the vP containing the bare form must merge with an aspectual/temporal element, and only then can it yield an imperfective interpretation. Note that in order to avoid confusion, when referring to imperfectives in Palestinian, I will write *raḥ imperfective* for *raḥ* modified prefixed verbs which yield a futurate imperfective reading, *yām imperfective* for *yām* modified prefixed verbs which yield a progressive imperfective reading, and *b-imperfective* for *b-* modified prefixed verbs which yield a habitual imperfective, or *kaan imperfective* for *kaan* modified prefixed verbs which yield a past imperfective reading.
Embedding the bare form under *kaan* means that *kaan* must occupy TP and must, therefore, be interpreted temporally, since no other tense morpheme applies to vP. Further, as no other operator inducing counterfactuality is included, the interpretation of this sentence is taken to be about the actual world, by default – as in (76), repeated here as (110).

(110) kaanat  tuktub
    be.PST.3SF write-IMPFV.3SF
  Past Habitual: ‘She used to write.’

By contrast, in (77) (repeated as (111a)), as the suffixed form is specified for past tense, this past tense heads T0; *kaan* must, therefore, occupy a higher node, T0. Furthermore, as the suffixed form is also specified for perfective aspect, it presupposes that the entire event is completed (cf. Kagan 2007, a.o.). The semantic contribution of *kaan* results in an interpretation in which the completion of the event does not take place in the actual world, but in a world distinct from w0 - hence, the counterfactual reading, represented in (111b).

(111) a. kaanat  katb-at
    be.PST.3SF write-PST.PFV.SF
  (Past) Counterfactual: ‘She would have written.’

b. w,t.[(w,t) ≠ ⟨w0,t0⟩ ∧ write(she) in w is completed at t]

The same line of reasoning applies to the other examples. Concerning (112a) (which is a repetition of (78)), recall that *b-* is a tense marker denoting a semantic non-past. As such, it presupposes that (subparts of) the event do(es) not take place prior to the time of utterance. Since *b-* is specified for tense, it thus heads T0. The contribution of *kaan* then is that the non-pastness of the event takes place in a world different from the actual world, as represented in (112b).

(112) a. kaanat  b-tuktob
    be.PST.3SF b-write.IMPFV.3SF
  Non-past Counterfactual: ‘She would write.’

b. w,t.[(w,t) ≠ ⟨w0,t0⟩ ∧ write(she) in w not before t]

As a marker of futurate aspect, *rah* presupposes that the event takes place later than some time-interval t. As such, it requires that a time-interval be specified relative to which the event takes place. The ambiguity that results when it co-occurs with *kaan* is due to the specification of tense, as illustrated in (113a). When *kaan* is interpreted as real, it fills T0 and *rah* is hosted in AspP. The construction yields a future time reading relative to the past, as *kaan* is interpreted temporally. This past future reading is exemplified in (113ai).

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13For some speakers a past progressive reading is available as well. Yet, this is generally blocked due to the availability of the dedicated progressive marker *fan*. Thanks to Angeliek van Hout (p.c.) for bringing up a question related to this point.
the other hand, pragmatic cues may lead to the interpretation of the event as relative to UT. In this case a co-occurrence with kaan forces kaan to be hosted in $T_0^3$, and the sentence is interpreted counterfactually.\footnote{Karawani and Zeijlstra (2010) interpret rāh as being syntactically ambiguous between an absolute tense and a relative tense.} The counterfactual future reading is shown in (113aii).

\begin{equation}
\text{(113) a. kaanat rāh tuktob} \\
\hspace{1cm} \text{be.PST.3SF FUT write.IMPFV.3SF} \\
\hspace{1.5cm} \text{i. Past future: ‘She was going to write.’} \\
\hspace{2.5cm} \text{ii. Counterfactual future: ‘It would be the case that she would write.’} \\
\text{b. CF future: } w,t.[(w,t) \neq (w^0,t^0) \land \text{write(she) in w after t}] \\
\end{equation}

Finally, we get to addressing the progressive aspect marker $\am$ and its interaction with kaan. Since $\am$ is purely aspectual in nature, it is hosted in AspP. Consequently, kaan must be hosted in $T_0^0$. As no other mood inducing operator is present in the construction, the sentence is about the actual world, by default. The sentence, therefore, receives a temporal interpretation only and lacks a counterfactual reading, as (114) illustrates.

\begin{equation}
\text{(114) kaanat } \am \text{ tuktob} \\
\hspace{1cm} \text{be.PST.3SF PROG write.IMPFV.3SF} \\
\hspace{1.5cm} \text{Past progressive: ‘She was writing.’} \\
\end{equation}

To conclude, four factors have been identified which predict all available readings of the constructions listed: (i) the semantics of the past tense in Palestinian as introducing non-actual veridicality (106), (ii) the semantics of the aspectual markers as introduced in (84), (86), (89), and (105), (iii) the restriction on finite clauses (107), and (iv) the syntactic structure assumed in (108) for counterfactuals.

## 2.5 CF Syntax

The previous section suggests that past denoting morphemes are to be reinterpreted as NAV morphemes and that these can participate in forming counterfactuals in Palestinian only if tense is specified, i.e. only if $T_0^0$ is occupied in the syntax. If this is correct, which node does the NAV morpheme occupy in counterfactuals? I have suggested that the NAV morpheme occupies a second $T_0^0$ node, such that Palestinian counterfactual structures have the following syntactic skeleton: (115a) for verbal CFs, and (115b) for nominal/non-verbal CFs.

\begin{equation}
\text{(115) a. CP } (\text{MoodP}) \Rightarrow TP_2 \Rightarrow TP_1 \Rightarrow \text{AspP} \Rightarrow \text{vP} \\
\hspace{2cm} \text{b. CP } (\text{MoodP}) \Rightarrow TP_2 \Rightarrow TP_1 \Rightarrow \text{NP/AP/PP} \\
\end{equation}
According to the structures above, if a NAV morpheme fills the $T_1$ node then the reading is temporal; and if the reading is, nonetheless, counterfactual, then another counterfactuality inducing operator is present in the structure: either another NAV morpheme, or the dedicated counterfactual complementizer $law$.

### 2.5.1 Syntactic Structure of Counterfactual Conditionals

As counterfactual structures, CF antecedents and CF consequents have the structures suggested in (108), (115a), or (115b). This means that antecedent and consequent CF structures are symmetric. We will see, however, that they differ in (i) whether or not $C_0^0$ is filled, (ii) whether or not null present tense is allowed, (iii) that the consequent exhibits sensitivity to the stacking of $kaan$.

$C_0^0$ is filled in the antecedent,\textsuperscript{15} but not in the consequent; null present tense can occur in the antecedent but not in the consequent; and stacking of $kaan$ is allowed in antecedent but not in consequent.

#### 2.5.1.1 Antecedent Syntax

As complementizers, $iza$ and $law$ occupy $C_0^0$. As a default complementizer, for $iza$ to be able to introduce a CF antecedent, a NAV morpheme is necessary, as illustrated in (116a). On the other hand, as a CF complementizer, $law$ is sufficient on its own, and a NAV morpheme contributing to counterfactuality is optional, as illustrated in (116b).

\begin{equation}
\text{(116) a. } \text{CP}_{iza} \gg (\text{MoodP subjnc}) \gg TP_2 \text{ NAV } \gg TP_1 \\
\text{b. } \text{CP}_{law} \gg (\text{MoodP subjnc}) \gg (TP_2 \text{ NAV } ) \gg TP_1
\end{equation}

The structures in (116) show that in the case of $law$, $T_2$ is optional; in the case of $iza$, on the other hand, $T_2$ is obligatory and must be filled by a NAV morpheme. Mood\textsuperscript{16}, which is optional in both cases, may be filled by the subjunctive morpheme "$inno$.

In the following examples, I focus on counterfactuality achieved with $iza$ and NAV morphemes, as this is the more interesting case. In section 2.5.4, we take a closer look at constructions with $law$ and how when it combines with optional NAV and subjunctive morphemes emphatic effects arise.

The following examples show how CF antecedents in the (b) examples are formed from sentences in the (a) examples. The (c) examples provide the corresponding syntactic structure. Notice how simply it goes: $iza+\text{PST}$ embed the sentence in (a), and a CF antecedent is formed.

\textsuperscript{15}To the best of my knowledge, there is no inversion (T to C) in Arabic CFs, and I have not encountered any instances of C deletion in Palestinian CFs.

\textsuperscript{16}We will see examples that show that when "$inno$ is inserted in the $iza + kaan$ construction, $kaan$ must move to be closer to C, resulting in $iz$-$kan$-$no$.\textsuperscript{16}
2.5. CF Syntax

(117) a. huwwe b-inzal ñ-l-jaamYa bi-l-bas
   he b-go.IMPFV.3SM to-the-university in-the-bus
   ‘He goes to the university by bus.’

b. iza kaan-(no) b-inzal ñ-l-jaamYa bi-l-bas,
   if PST-(SUBJNC.3SM) b-IMPFV to-the-university in-the-bus
   ‘If he were (in the habit of) going to the university by bus (from
   now on), ...’

c. \[CP if [MoodP (SUBJNC) [TP PST [TP b- [AspP IMPFV vP]]]]

The above structure is extendible to the following:

(118) a. huwwe ra b-inzal ñ-l-jaamYa bi-l-bas
   he FUT go.IMPFV.3SM to-the-university in-the-bus
   ‘He will go to the university by bus.’

b. iza kaan-(no) ra b-inzal ñ-l-jaamYa
   if PST-(SUBJNC.3SM) FUT go.IMPFV.3SM to-the-university
   bi-l-bas,
   in-the-bus
   ‘If he were going to go to the university by bus, ...’

c. \[CP if [MoodP (SUBJNC) [TP PST [TP ∅ PRS [AspP FUT IMPFV vP]]]]

(119) a. huwwe ñam b-inzal ñ-l-jaamYa bi-l-bas
   he PROG go.IMPFV.3SM to-the-university in-the-bus
   ‘He is going to the university by bus.’

b. iza kaan-(no) ñam b-inzal ñ-l-jaamYa
   if PST-(SUBJNC.3SM) PROG go.IMPFV.3SM to-the-university
   bi-l-bas,[
   in-the-bus]]
   ‘If he were going to the university by bus, ...’

c. \[CP if [MoodP (SUBJNC) [TP PST [TP ∅ PRS [AspP PROG IMPFV vP]]]]

Notice that in the translation of the examples above there is one construction
in English, namely were going, for what is distinguished in Palestinian
via three distinct morphemes: b- for habitual, raḥ for futurate, and ñam for
progressive.

CF antecedents can also be formed out of non-verbal, i.e. so called nominal,
sentences, as illustrated in (120). Here, too, when iza+PST embed the sentence
in (120a), a CF antecedent is formed, as shown in (120b). (120c) provides the
 corresponding syntactic structure.

(120) a. huwwe fi l-bet
   he in-the-house
   ‘He is at home.’

b. iza kaan-(no) fi l-bet,[
   if PST-(SUBJNC.3SM) in-the-house]]
   ‘If he were at home, ...’
Counterfactuality in Palestinian Arabic

(120c) is extendible to participial, adjectival and nominal structures, as represented in (121).

(121) \[ \text{CP if } \text{MoodP (subjnc)} [\text{TP} \text{pst} [\text{TP} \emptyset \text{prs } [\text{SC subj AdjP/NP}]]] \]

Simply put, when a non-past sentence is embedded under iza+pst (or law), a non-past counterfactual antecedent is formed.

Thus far, we have looked at examples introduced by iza kaan. Nevertheless, recall that past tense is also expressed via the suffixed form. This means that the past tense component of the suffixed verb (as NAV) is able, in principle, to combine with iza to introduce a CF antecedent. This is indeed possible, and even results in an intriguing fact: iza + suffixed verb results in ambiguity between a future CF and a past indicative, as illustrated in (122). If the suffixed form as denoting past perfective is embedded under iza, a CF may be formed, but only a future one; otherwise, the reading is that of a past (perfective) indicative.

This means that when the past component of the suffixed form functions in the counterfactual complex to introduce counterfactuality as in (122a), then the perfective component can only denote an event that is future – as perfective is known to be crosslinguistically incompatible with present tense (cf. Comrie 1976, Smith 1991, Dahl 1985). On the other hand, when the past component of the suffixed form functions temporally, then iza can only introduce an indicative (i.e. non-counterfactual) conditional as it is not accompanied by a NAV morpheme which allows it to introduce a CF, as illustrated in (122b).

(122) iza aqad tren berlin amsterdam
    if take,pst,pfv.3sm train Berlin Amsterdam
Non-past counterfactual: ‘If he took the Berlin-Amsterdam train, ...’
Past non-counterfactual: ‘If he took the Berlin Amsterdam train, ...’
a. Non-past counterfactual: \[ \text{CP if } [\text{TP}_2 \text{pst} [\text{TP}_1 [\text{AspP pfv } [\text{vP}]]]] \]
b. Past non-counterfactual: \[ \text{CP if } [\text{TP}_1 \text{pst} [\text{AspP pfv } [\text{vP}]]] \]

The formation of past CF antecedents is again simple: when a past sentence is embedded under iza+pst or law, the result yields a past CF antecedent. The following examples show how CF antecedents in the (b) examples are formed from sentences in the (a) examples. The (c) examples provide the corresponding syntactic structure.

(123) a. (huwwa) kaan fi l-bet
    he be,pst,3sm in the-house
    ‘He was at home.’
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b. [iza [kaan-(no)] [kaan fi l-bet,]]
   [if [PST-(SUBJNC.3SM) [be.PST.3SM in-the-house]]]
   ‘If he had been at home, ...’

c. [CP if [MoodP SUBJNC [TP₂ PST [TP₁ PST [PP]]]]]

(124) a. (huwwe) kaan (Yam) yruuh ʕ-l-jaamʕa
   (he) be.PST.3SM (PROG) go.IMPFV.3SM to-the-university
   bi-l-bas
   in-the-bus
   Without PROG: ‘He used to go to the university by bus.’
   With PROG: ‘He was going to the university by bus.’

b. [iza [kaan-(no)] [kaan (Yam) yruuh
   [if [PST-(SUBJNC.3SM) [be.PST.3SM (PROG) go.IMPFV.3SM
   ʕ-l-jaamʕa bi-l-bas,]]]
   to-the-university in-the-bus]]
   Without PROG, past habitual CF: ‘If he had been into the habit of
   going to the university by bus, ...’
   With PROG, past progressive CF: ‘If he had been going to the
   university by bus, ...’

c. [CP if [MoodP (SUBJNC) [TP₂ PST [TP₁ PST [ASP-P (PROG-) IMPFV [vP]]]]]]

(125) a. lamma fuft-o hadak ilʔusbunʕ, kaan rah
   when see.PST.PFY-him last the-week, be.PST.3SM fut
   yitšil-la baʔd bi yom
   call.IMPFV.3SM-to-her after in day
   ‘Last week, when I saw him, he was going to call her the next day.’

b. [iza [kaan-(no)] [kaan rah yitšill-a,]]
   [if [PST-(SUBJNC.3SM) [be.PST.3SM fut call.IMPFV.3SM-her]]]
   ‘If it had been the case that he was going to call her, ...’

c. [CP if [MoodP (SUBJNC) [TP₂ PST [TP₁ PST [ASP-P FUT IMPFV [vP]]]]]]

(126) a. (huwwe) raah ʕ-l-ʔaamʕa bi-l-bas
   (he) go.PST.PFY.3SM to-the-university in-the-bus
   ‘He went to the university by bus.’

b. iza kaan-(no) raah ʕ-l-ʔaamʕa bi-l-bas,
   if [PST-(SUBJNC.3SM) go.PST.PFY.3SM to-the-university in-the-bus
   ‘If he had gone to the university by bus, ...’

   c. [CP if [MoodP(SUBJNC) [TP₂ PST [TP₁ PST [ASP-P FYV [vP]]]]]]

In a nutshell, Palestinian CF antecedents draw a simple picture of how CF
antecedents are formed: a sentence (i.e. a sentence that can stand on its own,
or a TP) that is embedded under law or iza+PST yields a CF antecedent. CF
consequents also seem to display the same kind of simplicity: embed a sentence under *kaan* and you get a CF consequent. Nevertheless, some restrictions apply in the consequent: (i) tense cannot be null, (ii) restrictions apply to the stacking of *kaan*, and (iii) there is no MoodP. We will examine the structure of counterfactual consequents in Palestinian next.

### 2.5.1.2 Consequent Syntax

The structure of CF consequents includes two tense phrases, as is the case in antecedents. *kaan*, as NAV, can function in TP₂ and bring about CF interpretation by specifying that \( w \neq w^0 \). However, unlike the case of antecedents, null (present) tense is ungrammatical. That null tense is not tolerated in the consequent means that the suffixed verb as PST.PFV cannot participate to yield counterfactuality in the consequent as it does in the antecedent where it yields Future CF, see (122a).

\[(127)\]  
a. TP_{NAV} \gg TP₁ (obligatorily overt) \gg AspP \gg vP  
b. TP_{NAV} \gg TP₁ (obligatorily overt) \gg SC

When the verbal construction carries overt tense, achieving a CF reading is straightforward: *kaan* as a NAV morpheme is added to the structure, it functions in TP₂, and the reading is counterfactual. However, because overt tense is a requirement, only the suffixed verb (as PST.PFV) or *b*-modified prefixed forms (as *b*-IMPFV) can combine with *kaan*:

\[(128)\]  
a. *kaan* + PST.PFV  
b. *kaan* + *b*-IMPFV

The former, (128a), typically gives rise to a past counterfactual reading; the latter, (128b), to a non-past counterfactual reading.

The requirement that T be obligatorily overt means that sentences which (outside of CFs) are composed of null present tense cannot simply form a counterfactual in combination with *kaan*. In order to obtain a nonpast counterfactual reading, the non-past auxiliary *b-ykuun* must be inserted to overtly fill tense. This is true of sentences including verbal structures that are purely aspectual such as those with *rah* or *Yam*, as illustrated in (129) and (130). This is also true of sentences including non-verbal constructions, or so called nominal sentences, including participles, adjectives, nouns, or prepositional phrases – as represented in (131) and (132).

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17By this I mean that the world that the sentence is about is not the actual world or the world at which the sentence is true is different from the actual world.

18I say typically, because this form can participate in CF structures about the non-past – as *would’ve* in English is typically used in past CFs but is also compatible with non-past CFs. We will see in section 2.7 that when this form is used in non-past CFs, it comes along with an emphatic effect. We’ll discuss the English counterpart in the coming chapters and see that it comes along with an emphatic effect, too.

19*rah ykuun* as a future auxiliary can substitute *b-ykuun* for forming future CFs.
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(129) a. huwwe rah yinzal ʒ-1-jaamŷa bi-l-bas
   he  FUT go.IMPFV.3SM to-the-university in-the-bus
   ‘He will go to the university by bus.’

b. \[CP [TP PRS [A_vP FUT IMPFV]]\]

c. kaan b-ykuun rah yinzal ʒ-1-jaamŷa
   be.PST b-be.IMPFV.3SM FUT go.IMPFV.3SM to-the-university
   bi-l-bas in-the-bus
   ‘He would go to the university by bus.’

d. \[TP_2 kaan [TP_1 b-ykuun [A_vP FUT IMPFV]]\]

(130) a. huwwe ŋam yinzal ʒ-1-jaamŷa bi-l-bas
   he  PROG go.IMPFV.3SM to-the-university in-the-bus
   ‘He is going to the university by bus.’

b. \[CP [TP PRS [A_vP PROG IMPFV]]\]

c. kaan b-ykuun ŋam yinzal ʒ-1-jaamŷa
   be.PST b-be.IMPFV.3SM PROG go.IMPFV.3SM to-the-university
   bi-l-bas in-the-bus
   ‘He would be going to the university by bus.’

d. \[TP_2 kaan [TP_1 b-ykuun [A_vP PROG IMPFV]]\]

(131) a. huwwe fi l-bet
   he  in-the-house
   ‘He is at home.’

b. \[CP [TP PRS [SC (SUBJ) PP]]\]

c. kaan b-ykuun fi l-bet
   be.PST b-be.IMPFV.3SM in-the-house
   ‘He would be at home.’

d. \[TP_2 kaan [TP_1 b-ykuun [SC (SUBJ) PP]]\]

This is extendible to predications with nominal and adjectival phrases as well.

(132) a. huwwe ʔustaaž / maʃħuʁ / kaateb
   he  teacher.SM / famous.SM / write.PTC.SM
   ‘He’s a teacher. / He’s famous. / He’s a writer’

b. \[CP [TP PRS [SC (SUBJ) NP/AdjP]]\]

c. kaan b-ykuun ʔustaaž / maʃħuʁ /
   be.PST b-be.IMPFV.3SM teacher.NSM / famous.ADI.SM / kaateb
   write.PTC.SM
   ‘He would be a teacher. / He would be famous. / He would be a writer.’
d. \([TP_2 \text{ kaan } [TP_1 \text{ b-ykuun } [SC \text{ (SUBJ)} \text{ NP/AdjP}]]]\)

Given the predictions above, as past tense is always overt, turning the past structures in (133) into past CF constructions should be possible by adding \textit{kaan} (specifying that \(w \neq w^0\)) on top of the temporal \textit{kaan} (specifying that \(t \neq t^0\)). Indeed this is possible, as schematized in (134). However, although possible, the string \textit{kaan kaan} is somewhat degraded for some speakers, but see (135c) below for acceptable examples, and see also (140) for relevant contrasts.

(133) Past Tense Sentences

a. \([CP [TP_1 \text{ kaan } [\text{AspP prog impfv}]]]\)
b. \([CP [TP_1 \text{ kaan } [\text{AspP fut impfv}]]]\)
c. \([CP [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ AdjP}]]]\)
d. \([CP [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ NP}]]]\)
e. \([CP [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ PP}]]]\)

(134) Past CFs formed from past tense sentences

a. \([CP[TP_2 \text{ kaan } [TP_1 \text{ kaan } [\text{AspP prog impfv}]]]]\)
b. \([CP[TP_2 \text{ kaan } [TP_1 \text{ kaan } [\text{AspP fut impfv}]]]]\)
c. \([CP[TP_2 \text{ kaan } [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ AdjP}]]]]\)
d. \([CP[TP_2 \text{ kaan } [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ NP}]]]]\)
e. \([CP[TP_2 \text{ kaan } [TP_1 \text{ kaan } [SC \text{ (SUBJ)} \text{ PP}]]]]\)

The data discussed in this section show that Palestinian counterfactual antecedents and consequents draw a simple picture of how counterfactual clauses are formed. Nevertheless, we see that there is asymmetry between counterfactual antecedents and consequents in that while tense may be covert, or null, in antecedents, it must be overt in the consequent. Moreover, a mood phrase seems to be instantiated in the antecedent only, such that it seems to be selected by the complementizer in CP.

2.5.2 Summarizing Palestinian CFs

In sum, from the simple picture above, we see that \textit{kaan} on top of a TP achieves a counterfactual reading (cf. (135)) for all TPs except those which denote present tense by virtue of a null present tense morpheme. In the latter case, \textit{kaan} is not sufficient, and the addition of the non-past tense auxiliary \textit{b-ykuun} is necessary for achieving a counterfactual reading (cf. (136)).

(135) Overt Tense Morpheme

a. \textit{kaan [PST.PFV.v ...]}
   
   \bullet \textit{kaan raah 'a-l-hafle be.PST.3SM go.PST.PFV to-the-party}

   ‘He would have gone to the party.’
b. kaan [b-IMPFV.v ]
   • kaan b-yruu y a-l- hafl 
     be.PST.3SM b-go.IMPFV to-the-party
     ‘He would go to the party.’

c. kaan + [kaan [AspP/NP/AP/PP]]
   • kaan kaan yam yitla’ fi l-be t 
     be.PST.3SM be.PST.3SM prog leave.IMPFV from-the-home
     ‘He would have been leaving home.’
   • kaan kaan fi l-be t 
     be.PST.3SM be.PST.3SM in-the-home
     ‘He would have been home.’

(136) kaan + [b-ykuun + AspP/NP/AP/PP]
   • kaan b-ykuun fi l-bet 
     be.PST.3SM b-be.IMPFV.3SM in-the-house
     ‘He would’ve been at home.’

The analysis of the data above leads to the formulation of the rule in (137):

(137) Rule for CF formation
     kaan + TP w/o overt T head
     kaan + b-ykuun elsewhere

(137) shows that kaan (as a NAV operator) is both necessary and sufficient for yielding counterfactuality when it embeds a sentence; but that when this sentence includes a TP which is headed by null present tense, kaan is necessary but not sufficient. The non-past auxiliary b-ykuun becomes necessary, too. This is an intriguing fact which, by now, we can easily explain. Given the restriction against unspecified T heads in (107), when a TP which lacks overt tense morphemes is embedded under kaan, the resultant reading is predicted to be temporal, as NAV must take care of tense, because otherwise the structure crashes. It specifies that t̸=t₀. For a counterfactual reading, i.e. for NAV to be able to specify that w̸=w₀, tense must already be specified. This is what the non-past auxiliary b-ykuun does: it takes care of specifying temporality so that kaan can function to yield counterfactuality.

This shows that Tense, as a place holder, is necessary in Palestinian counterfactuals. However, whereas it is allowed to be overt in the antecedent, it must be overt in the consequent, or main clause. We can explain this if we consider the fact that a complementizer is present in the antecedent only. As such, kaan can combine with the complementizer in the left periphery to mark the CF reading. In the consequent, on the other hand, kaan does not combine with anything, and in order to be able to function in the left periphery, an
overt place holder in T must be present so that it ‘pushes’ kaan into the left periphery – otherwise kaan will be read as specifying tense.

2.5.3 Tense-Aspect Coupling

2.5.3.1 Past and Perfective

The fact that the suffixed verb in Palestinian is marked for both past tense and perfective aspect has consequences which allow the suffixed verb to play a role in the formation of CF structures, as we have seen.

The availability of an auxiliary strategy in addition to the fact that past tense and perfective aspect are ‘stacked’ on a single main verb means that, in Palestinian CFs, the suffixed verb can have two functions. The first is purely temporal: in the presence of kaan, it expresses real tense and real aspect. The second is modal: in the absence of kaan, it expresses fake past tense – i.e. by virtue of its NAV semantics, it is able to vary over worlds.

In other words, since, in Palestinian, past tense is coupled with perfective aspect in a single morpheme, the auxiliary kaan can always be inserted to host the fake past tense that is necessary for counterfactuality and so the verb is free to carry real tense/aspect. Importantly, as we see in (138), the availability of the auxiliary structure to host NAV ensures that tense/aspect on the main verb is always real.

(138) Past Perfective in CF antecedents with kaan
iza kan-no țileʔ mbaareh, kaan
if be.PST.3SM-SUBJNC.3SM leave.PST.PFV.3SM yesterday, be.PST.3SM
wisel ʾa l-waʔt la l-muhaadara
arrive.PST.PFV.3SM on the-time to the-lecture
‘If he had left yesterday, he would’ve arrived on time for the lecture.’
Halpert and Karawani (2012:101 (7))

The second strategy allows the past perfective to yield a CF meaning on its own, as in (139): since it contains past tense, this can be fake tense. The perfective aspect component, however, remains real and guarantees that the reading is future: since there is no other marker of past tense, the reading must be non-past, and since aspect is perfective it cannot yield a present tense reading as is cross-linguistically attested by the incompatibility of present tense with perfective aspect, as mentioned earlier.

(139) Past Perfective in CF antecedent without kaan
a. iza țileʔ halaʔ, kaan b-yiwsal ʾal
if leave.PST.PFV.3SM now, be.PST.3SM b-arrive.IMPFV.3SM on
waʔt la l-muhaadara
the-time to the-lecture
Present CF: ‘If he left now, he would arrive on time for the lecture.’
(Actually, in a bit).
2.5. CF Syntax

b. iza ʕileʔ bukra, (kaan) b-iwsal
   if leave.pst.pfv.3sm tomorrow, (be.pst.3sm) b-arrive.impfv.3sm
   ʔa l-waʔt la l-muhaḍara,
on the-time to the-lecture
   Without kaan in consequent: FLV ‘If he left tomorrow, he would
   arrive on time.’
   With kaan in consequent: Future CF ‘If he had left tomorrow, he
   would have arrived on time.’

Note that the presence of kaan in the consequent in (139b) can turn a FLV into a Future CF - in other words, kaan can contribute to the strengthening of the CF inference. I return to this issue in section 2.7.

2.5.3.2 Non-past and Imperfective

We see then that past and perfective are coupled on a single morpheme, that is the suffixed verb; and while there is a separate morpheme for past, that is kaan, Palestinian lacks a morpheme that is specified for perfective only. This means that there is no combination that is perfective and non-past. Non-past combines with the prefixed form which has an imperfective reading.

The prefixed form that is used in Palestinian CF constructions is b-impfv. It is specified for non-past tense and imperfective aspect. In combination with kaan, b-impfv yields a non-past counterfactual reading.

Bare forms, or purely aspectual forms, do not contribute to counterfactuality, because whenever these combine with kaan, kaan must contribute to the temporal specification of the sentence. This means that only a form that couples tense and aspect can be used and this is why the non-past auxiliary b-ykuun is inserted with purely aspectual or non-verbal structures to yield non-past counterfactual structures. Alternatively, the future auxiliary raḥ ykuun is inserted. In combination with kaan, raḥ ykuun yields a future counterfactual reading.

This, again, shows that the availability of the auxiliary structure to host past tense ensures that tense and aspect on the main verb are always real; but, furthermore, this shows that a place holder in tense is necessary for a counterfactual interpretation to be available.

2.5.4 Stacking of Tense

If a place holder in tense is necessary, then counterfactuality is not possible without the stacking of tense. By stacking of tense we mean stacking of fake tense (in Iatridou’s 2000 terminology) on top of real tense. Of course, I say fake tense, because we are used to calling the morpheme carrying NAV semantics a

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20FLV stands for future less vivid. FLV conditionals introduce an antecedent that is perceived as less likely, as opposed to a Future CF, which introduces an antecedent that is perceived as excluded or false – see Iatridou (2000, 2009), who borrows this notion from traditional Greek grammarians.
past tense morpheme. But, in fact, what we have is a NAV morpheme on top of a TP. The NAV morpheme that contributes to counterfactuality can be *kaan* or the suffixed verb. And because, in addition to the availability of auxiliary structures, tense can be coupled with aspect on main verbs, the stacking of tense that is necessary for counterfactuality is made possible.

There are restrictions, however. The first restriction is related to the ban against covert tense in the consequent. This means that the suffixed verb cannot contribute to counterfactuality in the consequent, but can only contribute to temporality. This means that *kaan* is necessary in the consequent.21

The second restriction has to do with the stacking of *kaan* on top of a TP headed by another *kaan*, i.e. the string *kaan kaan*. However, it is not ungrammatical but rather seems to be marginal, or merely dis-preferred, in some cases – as you can see in (140a).

(140) a. ..., *kaan* kaanat fi l-hakuura
    ..., be.PST be.PST.3SF in the-garden
    ‘..., she would have been in the garden.’
b. ?, ..., *kaan* kaanat 'yam tYa'fjeb
    ..., be.PST be.PST.3SF PROG spruce.IMPFV.3SF
    ‘..., she would have been sprucing up the garden.’
c. ?, ..., *kaan* kaanat rah tinzal 'ya s-su'?
    ..., be.PST be.PST.3SF FUT go.IMPFV.3SF to the-market
    ‘..., she would have been going to the market.’

21Nevertheless, I did hear a counterfactual conditional once with a suffixed verb but without *kaan* in the consequent. Filip Habib uttered this sentence while talking to a friend of his, asking him about whether Mubarak had resigned. The friend didn’t know. Filip, disappointed that his presupposition failed, that all Arabs are interested in what the Arab Spring brings about, said:

(1) law sa2alt wahad almani, t'iref.
    ifCP ask.18 one German, know.PST.PFV.3SM
    ‘If I had asked a German, he would have known.’ (Literally, ‘he knew.’)

Most speakers would have definitely used *kaan* here. Even Filip, when I reminded him of this sentence. One thought that might account for this is that *kaan* in the consequent is merely agreement with the one in the antecedent that is necessary for introducing counterfactuality. In other words, counterfactuality is marked in the antecedent and any CF morphology that occurs in the consequent is agreement of some sort. But this is a claim that I leave for future work, although it is worth mentioning that in Japanese and Korean one past tense in the antecedent only is sufficient to yield a counterfactual (see Cho 1997).

But more specifically with respect to this example, it might be the case that the lexical aspect of the verb (being stative) plays a role here in linking the evaluation time of the predicate to UT, where the past component can then function to yield counterfactual interpretation – i.e. as a stative predicate, the verbal root is able to provide a verification instance.

Another thought is to consider a kind of mode-switching, with the antecedent quantifying over alternative worlds, and the consequent on the actual one. This idea was suggested by Boban Arsenijevic while we were considering some crosslinguistic data. See also Schulz (2007:79) for examples that combine “the antecedent of an indicative conditional with the consequent of a *would* conditional.”
d. ?? , kaan kaanat m’yalme
   ..., be.PST be.PST.3SF teacher.F
   ‘..., she would have been a teacher.’

e. ?? , kaan kaanat naa’ha
   ..., be.PST be.PST.3SF successful.F
   ‘..., she would have been successful.’

f. ??/∗ , kaan kaanat t’affleb
   ..., be.PST be.PST.3SF spruce.IMPFV.3SF
   ‘..., she would have had the habit of sprucing up the garden.’

As opposed to the consequent, where kaan kaan may sound marginal, in the antecedent, iz kann-o kaan is okay. It might be the case that the intervention of the subjunctive in the antecedent, is what makes it okay. But for the time being, this remains merely a speculation, and I leave it for future work to shed light on this phenomenon. One point is worth mentioning and that is that we cannot appeal to haplology because kaan kaan is sometimes okay. Also I think that the fact that there are other alternatives available that express the required meaning, might be the reason – even if some of those alternatives might come at the expense of expressing tense and aspect transparently. For example, the following examples in (141) are preferred alternatives to (140b/f).

(141) a. ..., kaanat b-tkun Yam t’affleb
   ..., be.PST.3SF b-be.IMPFV.3SF PROG spruce.IMPFV.3SF
   ‘..., she would have been sprucing up the garden.’

b. ..., kaan la?ina-ha Yam t’affleb
   ..., be.PST find.PST.PFV.1PL-3SF PROG spruce.IMPFV.3SF
   ‘..., we would have found her sprucing up the garden.’

The best option is the one with kaan b-IMPFV, which is not surprising, given the nature of the crosslinguistic picture – in fact, we actually see this morphology in language after language in counterfactuals.

2.5.5 CF Complex

Recall that §2.5.1 ended with the conclusion that there is antecedent-consequent asymmetry in Palestinian counterfactual conditionals. In the antecedent, semantic specification of tense is sufficient, but in the consequent, there has to be an overt morpheme, or place holder. We can explain this if we assume that in the antecedent, the NAV morpheme combines with the complementizer in C turning it into a counterfactual complementizer. In the consequent, this is not possible because there isn’t an overt complementizer to combine with and kaan must be able to introduce modality. It can only do so, if the T node is already occupied.

The antecedent-consequent asymmetry that we encounter with respect to overt tense requirement on the consequent gives rise to the idea that, in fact, a
counterfactual complex is formed in the antecedent that makes counterfactual-
ity less sensitive to whether or not the embedded TP contains overt tense.

In this section, I shall argue that it is not mere stacking of elements that
actually achieves the counterfactual structure. In fact, there is evidence that
those counterfactual ingredients, in the antecedent, form a unit, that I will call
counterfactual complex.

So, while we have, so far, talked about a second TP above TP$_1$, I now
show that there is evidence that a counterfactual complex, that belongs to the
left periphery, is actually formed above TP$_1$ which supplies the real temporal
reading of the sentence.

This counterfactual complex is in Spec CP of the main clause and looks as
illustrated in (142). The whole conditional structure is illustrated in (164).

(142) $\text{[}_{cfc}\text{omplex CP } \gg \text{ MoodP } \gg \text{ TP}_2]$  

There are three pieces of evidence that support the idea that iza, ìnno, and
kaan form a complex. (i) iza kaan can become iz-kan, hence adjunction and
morpho-phonological clipping take place. (ii) This is supported by evidence
from TP modification showing that nothing can intervene between CP and
TP$_2$. (iii) The subjunctive mood morpheme ìnno shows up whenever this
adjunction takes place. I go through each piece of evidence next.

(144)
(i) Adjacency between *iza* and *kaan*, illustrated in (144), allows clipping into *iz-kan* as opposed to *iza kaan* in non-counterfactual conditionals. That there is morpho-phonological clipping of *iza kaan* into *iz-kan* is indicative of the fact that *iza* and *kaan* in counterfactuals form a complex. This morpho-phonological phenomenon is ungrammatical when the reading that *kaan* contributes is temporal. This clipping thus disambiguates temporal from counterfactual readings, in favour of the latter. Nevertheless, this is not mere adjacency.

(ii) Evidence from TP modification by adverbials shows that it is indeed the case that *iza* and *kaan* form a complex, as temporal modification is ungrammatical if it occurs between *iza* and *kaan* in the counterfactual case. Temporal modification thus disambiguates counterfactual from temporal readings, in favour of the latter.

(145) a. iza mbaareh (*kan-ha) kaanat fi l-bet, ...
   if yesterday (*be.PST-SUBJ) be.PST.3SF in the-house
   Non-CF: ‘If she was at home yesterday, ...’

   b. iza kan-nha mbaareh kaanat fi l-bet, ...
   if be.PST-SUBJ.3SF yesterday be.PST.3SF in the-house
   CF: ‘If she had been home yesterday, ...’

(iii) Notice the last morpheme that shows up in (145b) and also in (146) below: namely, *iz-kan-nha*. This is the subjunctive morpheme *?inno* – inflected for agreement but clipped. Notice from the contrast in (146) that this subjunctive morpheme shows up only when *kaan* moves up in order to be string adjacent to *iza* at PF. By moving across it, it is assumed here that *kaan* activates Mood⁰ and the subjunctive morpheme becomes apparent. It is worth

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<sup>22</sup>This phenomenon takes place in sentential negation in Syrian Arabic. We see that when the negative marker raises above the subject position, this forces the mood particle to show up suggesting that there is a mood phrase and that movement across Mood⁰ forces it to become overt.

(1) a. huwwa hon
   he here
   ‘He is here.’

   b. huwwa mun hon
   he NEG here
   Predicate Negation: ‘He is not here.’

   c. ma-mu nuwwe hon
   NEG-SUBJNC.3SM here
   Sentential Negation: ‘It is not the case that he’s here.’

Note that Benmamoun et al. (2012) do not consider the option proposed here; instead they consider this suffixal morphology to be merely person morphology. They write “the negative pronouns in the above [...] are clearly the result of the merger of negation and the subject pronoun.” Thus Benmamoun et al. 2012 treat the negative particle *munu*/*mu* as a negative pronoun on par with *muf* such that *man-no* and *mahuruf* receive the same analysis.

In personal communication with Jamal Ouhalla, he mentioned that “there is no reason why ?inno cannot be Mood (instead of C or maybe Mood + C by Head-raising).” And so I think that this point that *man-no* is in fact *NEG + ?inno + subject agreement* is worth
mentioning that *ūnno* here agrees with the subject, as can be seen in (145b). Interestingly, this movement and insertion of subjunctive comes along with an emphatic effect, as will be discussed shortly in section 2.7.

(146) a. *iza kaan fi l-bet,*
   if *be.PST.3SM* in the-house
   ‘If he were home, ...’

   b. *iz-kan-no fi l-bet*
   if-be.PST.3SM-SUBJNC.3SM in the-house
   ‘If he had been home, ...’

While nothing can intervene between *iza* and *kaan* in counterfactuals, *law* does not need *kaan* to introduce a counterfactual antecedent. And so, the subjunctive mood morpheme *ūnno* can always be inserted between *law* and *kaan*. In this case, both *ūnno* and *kaan* interact with the complementizer in the complex - and together they affect the CF interpretation, by adding an emphatic effect.

2.6 Aspectual Issues

2.6.1 Counterfactual Habits

Previous sections show that Palestinian seems to have the ability to express counterfactuality, tense and aspect in a transparent manner. There appear to be separate slots for fake tense, real tense and aspect. Nevertheless, the expression of past counterfactual habits poses a challenge to the simple picture which emerges from the data discussed so far.

The formation of non-past habitual counterfactuals is straightforward. (i) A non-past habitual form (cf. (147a)) is embedded under *law* or *iza kaan* to form a CF habit antecedent (cf. (147b)); (ii) a non-past habitual form is embedded under *kaan* to form a CF habit consequent (cf. (147c)).

(147) a. *b-til‘ab futbol*
   *b-play.IMPFV.3SF* football
   ‘She plays football.’

   b. *iza kann-a / law imm-a b-til‘ab futbol*
   if PST-she / if<sub>CF</sub> SUBJNC-she *b-play.IMPFV.3SF* football
   ‘If she played football, ...’

   c. *kaanat b-til‘ab futbol*
   *PST.3SF* b-play.IMPFV.3SF football
   ‘... she would have played football.’

pursuing and perhaps in future work we find out that indeed *maa* and *muf* are not to be treated on par – such that what we need is an analysis more in line with Ouhalla (1993) regarding *maa* and Benmamoun (2000) regarding *muf*.

For more on the topic of (sentential) negation in Arabic, please consult Aoun et al. (2010), and Benmamoun et al. (2012) and the references therein.
On the other hand, the formation of a past habitual counterfactual is not straightforward, in the consequent. While a transparent and straightforward way to express a counterfactual past habit in the consequent would have been to embed the past habitual form in (148a) under kaan, the string in (148c) is marginal for many speakers, if not ungrammatical.

(148) a. kaan-u yakl-u ?aʔjaab
   be.PST.3PL play.IMPFV.3PL grass.PL
   ‘They used to eat grass.’ (Say, of an extinct animal.)

   b. iza kanhom kaanu yaku ʔaʔjaab
   be.PST.3PL be.PST.3PL eat.IMPFV.3PL grass.PL
   ‘If they ate grass, ...’ (habitually or as a disposition)

   c. ??kaan kaanu yaku ʔaʔjaab
   be.PST be.PST.3PL eat.IMPFV.3PL grass.PL

   d. [TP₂ kaan [TP₁ kaan [ASP₁ IMPFV]]]

This means that turning (148a) into a counterfactual by embedding it under kaan is okay in the antecedent (cf. (148b)), but not in the consequent. This is due to the fact that the string kaan kaan is marginal, as mentioned earlier.

In the antecedent, all of the ‘real’ tense and aspect morphology is transparent: stacking below CF past morphology and yielding a double auxiliary structure. In the consequent, however, as stacking of kaan kaan is not always possible it comes at the expense of transparency.

If the double auxiliary strategy [TP₂ kaan [TP₁ kaan [ASP₁ IMPFV]]] illustrated in (148d) representing (148c) results in a marginal string, then we must opt for a TP with a main verb. This means that we are left with two options: [TP₂ kaan [TP₁ PST.PFV]] as illustrated in (149a), or [TP₁ kaan [TP₂ b-IMPFV]] as illustrated in (150a).

(149) a. kaanu yaku ʔalul yifeb
   be.PST.3PL eat.PST.PFV.3PL grass
   ‘They would’ve eaten grass.’

   b. [TP₂ kaan [TP₁ PST.PFV]]

(150) a. kaanu b-yaku ʔalul yifeb
   be.PST.3PL b-eat.IMPFV.3PL grass
   ‘They would’ve eaten grass.’

   b. [TP₂ kaan [TP₁ b-IMPFV]]

While (149a) expresses the past tense we are after, it expresses perfective aspect, which clashes with habituality. On the other hand, while (150a) expresses non-past tense, by virtue of the habitual particle b- and imperfective aspect, it expresses the habituality that we are after. Palestinian chooses the latter for expressing a counterfactual past habit. By doing so, Palestinian opts for morphologically expressing real aspect over real tense.
So aspect trumps tense. The choice is explainable. Although (150a) expresses a non-past habit, it expresses a habit, nonetheless; and although the past component is lost morphologically, the real (past) tense interpretation can be retrieved from discourse.

On the other hand, the retrieval of a habitual interpretation from a form that (usually) expresses a past perfective is much harder and is highly dependent on world knowledge. For example, while (151a) can be understood as a past habitual, given our knowledge of teams and contracts; (151b) can only be understood as episodic. I say “usually expresses a past perfective” because given the data below, it might actually be the case that the suffixed form is really just past and not perfective per se.\(^{23}\) Where it suffices to conclude that the suffixed form is only specified for past tense but receives a perfective interpretation as ‘default’ aspect (since imperfective is realized by a separate morpheme that does not encode tense).\(^{24}\) Nevertheless, it might actually be the case that the predicate in (151a) should be perceived as iterative rather than habitual. Iteratives are known to be compatible with perfectivity (see Kagan 2010, Rothstein 2008, Lenci and Bertinetto 2000, a.o.) – such that we do not have to revise the conclusion that the suffixed form is indeed both past and perfective.

(151)  

\begin{verbatim}
  a. maradona li\text{ph}eb ma\text{\`y} napoli  
     Maradona play.pst.pfv.3SM with Napoli  
     ‘Maradona played for Napoli/ Maradona used to play for Napoli.’\(^{25}\)  
  b. maria li\text{ph}aat ma\text{\`y} il-\text{wlaad}  
     Maria play.pst.pfv.3SF with the-kids  
     ‘Episodic: Maria played with the kids.’
\end{verbatim}

The generalization that was reached in previous sections remains intact: aspect is always real. The auxiliary strategy allows Palestinian to express counterfactuality via \textit{kaan}, while allowing the main verb to express real tense and aspect. However, in the case of counterfactual past habits, the aspect that is marked on the main verb always corresponds to the aspectual interpretation of the sentence. In other words, the requirement for real tense is sometimes abandoned at the expense of real aspect.

Note that this fact of Palestinian makes the \textit{kaan} \textit{b-IMPFV} ambiguous between a non-past counterfactual reading and a past habitual counterfactual one. In the one case, tense is transparent and real (i.e. reflects the real tense of the counterfactual). In the second case, while aspect is transparent and real (i.e. reflects habituality), real (past) tense remains unspecified. But the syntactic requirement that real T be filled is met by virtue of the nature of \textit{b-}, even

\(^{23}\)This is a conclusion that Halpert and Bjorkman (2012) reach.

\(^{24}\)A parallel analysis was discussed in Halpert and Karawani (2012) regarding the past imperfective in Zulu.

\(^{25}\)But note that ‘Maradona used to play for Napoli’ might just be an inference from the former interpretation.
though the non-past tense that it is specified for clashes with the semantically required one.

It is important to note that while this kind of ambiguity, or non-transparency, is a special case of Palestinian counterfactuals, it is actually cross-linguistically quite common. In other words, those morphological forms that express future/habituality outside of counterfactuals are often used in counterfactual structures in combination with past tense morphemes, cf. English, Hebrew, Hindi, Zulu. This fact has often led to the idea that imperfectivity might be a necessary ingredient in counterfactuals, in addition to past tense (Iatridou 2000). Iatridou (2009) concludes that the imperfective is necessary in case the language has a requirement for aspect; and then imperfective aspect, fills this requirement, but not because of some special semantic feature that contributes to counterfactuality. Nevertheless, some actually assume that the imperfective is a necessary ingredient in counterfactuals because it is modal in nature (a.o. Ippolito 2002).

However, “the ‘imperfective’ in [...] CFs is illusory” as Halpert and Karawani (2012) put it. Specifically, Palestinian shows that the modality of the form under the ‘fake past’ tense morpheme is not necessary – this is corroborated by the fact that past perfective morphemes, which are not at all modal in nature, participate to yield counterfactual structures. In chapter 3, this point will be discussed, and I conclude there that, in fact, those future/habitual imperfective morphemes are necessary ingredients in counterfactuals because they are specified for tense and that it is (real) tense that is a necessary ingredient of counterfactuals. But languages differ in whether this requirement for real tense is syntactic in nature (hence, giving rise to two TPs in the syntax as is the case in Palestinian) or only semantic (such that there is one TP and that TP hosts the ‘fake past tense’ morpheme or NAV).

2.7 Stacking of NAV and other morphemes

So far, we have identified those ingredients that are necessary for yielding counterfactual readings – namely the dedicated CF complementizer law or iza + kaan in the antecedent, and kaan in the consequent. We also looked at pieces of data that show that there are slots available for kaan as well as the subjunctive morpheme l'immu, also in CF structures introduced by law, albeit optional. In this section, we will see that when optional markers are stacked, this results in emphasising counterfactuality – henceforth, an emphatic effect obtains.

Consider (152), and notice how fake tense and other NAV morphemes can be stacked, each at a time, to result in what looks like gradable counterfactuals – gradable in terms of CF strength.

(152) a. law [bidd-o [yana nzur-o]], kaan
if.CF want.N-he us.ACC visit.IMPFV.1PL-him, be.PST.3SM
b-ykuun fi l-bet hala?.
b-be.IMPFV.3SM in the-home now
CF1: ‘If he wanted us to visit him, he would’ve been at home now.’

b. law kaan [bidd-o (yana nzur-o)],
if.CF be.PST.3SM want.n-he us.ACC visit.IMPFV.1PL-him,
kaan b-ykuun fi l-bet hala?.
be.PST.3SM b-be.IMPFV.3SM in the-home now
CF2: ‘If he had wanted us to visit him, he would’ve been at home
now.’

c. law inn-o kaan [bidd-o (yana
if.CF SUBJUNCT-he be.PST.3SM want.n-he us.ACC nzur-o)],
kaan b-ykuun fi l-bet visit.IMPFV.1PL-him, be.PST.3SM b-be.IMPFV.3SM in the-home
hala?.
now CF3: ‘Had he wanted us to visit him, he would’ve been at home
now.’

As you can see in the examples above, in principle, while there appear to be
three distinct slots available for counterfactual ingredients (a complementizer,
subjunctive morpheme, or a NAV morpheme) in the antecedent, only one is
necessary: as a CF marker, law is sufficient on its own as shown in (152a). In
the consequent, the fake past tense morpheme, as NAV, is both necessary and
sufficient. This means that in counterfactual conditionals introduced by law
only one instance of fake past tense is necessary in the conditional, and it is in
the consequent.

Nevertheless, there are consequents to antecedents introduced by law or
iza+pst which lack a fake past tense morpheme. These introduce a FLV and
not a future CF.

Take a look at the FLVs in (153), (154).

(153) law b-yaqod id-dawa, b-ithasan
b-take.IMPFV.3SM the-medicine, b-get.better.IMPFV.3SM
bukra.
tomorrow
FLV: ‘If he took the medicine, he would get better tomorrow.’

(154) iza ayaq ad id-dawa, b-ithasan buakra.
take.PST.PFV.3SM the-medicine, b-get.better.IMPFV.3SM
tomorrow
FLV: ‘If he took the medicine, he would get better tomorrow.’

We can distinguish the FLV in (153) or (154) from the indicative future
conditional, FNV (future neutral vivid),\textsuperscript{26} in (155) by counting the number of CF ingredients involved. Substituting the sole CF ingredient \textit{law} in (153) by \textit{iza}, or removing the NAV morpheme from (154) yields a FNV, (155).

\begin{equation}
(155) \text{iza b-ya} \overset{\text{i}}{\text{yod}} \text{id-dawa, b-ithasan bukra.}
\end{equation}

\begin{itemize}
\item if \textit{b-take.IMPfv.3SM} \text{the-medicine, b-get.betterIMPfv.3SM tomorrow}
\item FNV: ‘If he takes the medicine, he will get better.’
\end{itemize}

This means that if there is no NAV morphology (or stronger CF morphology like a dedicated marker) in a future oriented conditional, then a FNV is formed. A FNV conditional is basically an indicative, as it is neutral with respect to the (un)likelihood of the event actualizing in the actual world. On the other hand, if there is NAV morphology (or stronger), then the interpretation is FLV. A FLV conditional expresses the expectation that the event denoted by the antecedent is less likely, or less expected in the context. If more morphology is added than the necessary CF ingredients, then a future CF is formed, as illustrated in (156). A future CF indicates that the speaker believes the future event to be false. Hence, by adding NAV morphology we can turn a sentence that indicates that someone thinks an event is unlikely into one that indicates that s/he believes it is excluded.

\begin{equation}
(156) \text{law b-ya} \overset{\text{i}}{\text{yod}} \text{id-dawa, kaan}
\end{equation}

\begin{itemize}
\item if_{CF} \text{b-take.IMPfv.3SM the-medicine, be.PST.PFv.3SM}
\item b-ithasan bukra.
\item b-get.betterIMPfv.3SM tomorrow
\item Future CF: ‘If he were to take the medicine, he would get better tomorrow.’
\end{itemize}

A future CF emphasizes the expectation that the event denoted by the antecedent is less likely. Hence, the extra marking results in strengthening the counterfactuality, i.e. it results in an emphatic effect.

We see then, that constructions that lack what we have identified as necessary CF ingredients yield a reading which is not counterfactual, but that anything more than what we have identified as necessary yields an emphatic effect.

Note that consequents can also manifest the addition of optional markers, as in the double NAV in (158). Compare with the FLV in (157) which lacks CF morphology in the consequent.

\begin{equation}
(157) \text{law bidd-o ysa} \overset{\text{i}}{\text{yid-na, b-ijib il-na siyart-o}}
\end{equation}

\begin{itemize}
\item if_{CF} \text{want.N-he help.IMPfv.3SM-us, b-bring.IMPfv.3SM to-us car-his}
\item bukra.
\item tomorrow
\item FLV: ‘If he wanted to help us, he would bring us his car tomorrow.’
\end{itemize}

\textsuperscript{26}FNV (future neutral vivid) is a notion coined by Iatridou (2000) to refer to those conditionals about the future that introduce antecedents where with respect to their truth the speaker is neutral. This is in contrast with FLV (future less vivid) which indicate that the speaker thinks that the antecedent refers to a future event that is less vivid, or unlikely.
Counterfactuality in Palestinian Arabic

(158) law [bidd-a yana nzur-ha], kaan kaanat fi
        if \text{CF} want.N-she us.ACC visit.IMPFV.1PL-her, be.PST.3SF be.PST.3SF in
        l-bet hala?, the-home now
Without \text{kaan} in antecedent: ‘If she wanted us to visit her, she would’ve have been at home now!’

For example, even though the antecedent in (158) contains only one CF marker, namely \text{law}, the stacking of \text{kaan} in the consequent imposes an emphatic effect which can contribute to the counterfactuality introduced by the antecedent. But still we can add to the antecedent here, too.

(159) law inn-ha kaanat [bidd-a yana nzur-ha],
        if \text{CF} SUBJNC.3SF be.PST.3SF want.N-she us.ACC visit.IMPFV.1PL-her,
        kaan kaanat fi l-bet hala?.
        be.PST.3SF be.PST.3SF in the-home now
With \text{kaan}+\text{SUBJNC} in antecedent: ‘Had she wanted us to visit her, she would’ve have been at home now!’

This emphatic contribution is not different from that achieved by the addition of redundant markers in other areas of the grammar. For example, (160), where \text{really} is repeated.

(160) This is \text{really really} not the best example.

The addition of redundant markers results in an emphatic effect, but at some point one can ask how much more can one repeat, and so there is also a semantic/pragmatic upper bound on the stacking of redundant markers.

One shall ask how much sense does it make to keep strengthening the counterfactuality of a future CF, for example, by adding optional, or redundant, markers which achieve the emphatic effect.

To examine this, consider the following sentences in (161) and assume that the exam in question is to be taken tomorrow.

(161) a. iza gaab miyye bi l-?intihaa
        if bring.PST.PFV.3SM hundred in the-exam
        FLV: 'If he got a full mark in the test, ...'

\footnote{Schulz (2007) discusses intriguing data that show that \text{have} is in a process of becoming affixed into \text{would}. She mentions that “this historical process of change” is going on “in British English and even stronger in American English.” “Native speakers show a growing tendency to group in \text{would have} constructions the auxiliary \text{have} together with the modal and not with the past participle” (Schulz 2007:243). See Boyland (1995) for a corpus study that supports this and for similar examples as (1), in which one \text{have} is appropriated for counterfactual purposes and a second \text{have} is left for the past marking function.

(1) I would have had done a ten times better job if ... .}
2.7. Stacking of NAV and other morphemes

b. iza kann-o 3aab miyye bi l-?imtihaan
   if  be.pst-he bring.pst.pfv.3sm hundred in-the-exam
   'If he were to get a full mark in the test, ...'

c. law 3aab miyye bi l-?imtihaan
   if Cf bring.pst.pfv.3sm hundred in-the-exam
   'If he were to get a full mark in the test, ...'

d. ?law ?imno/kaan 3aab miyye bi l-?imtihaan
   if Cf subjinc-he/be.pst bring.pst.pfv.3sm hundred in-the-exam
   'If he had gotten a full mark in the test, ...'

e. */#law ?imno kaan 3aab miyye bi
   if Cf subjinc-he be.pst bring.pst.pfv.3sm hundred in
   the-exam
   'Had he gotten a full mark in the test, ...'

In (161a) there is one CF ingredient; in (161b) and (161c) two CF ingredients; in (161d) three CF ingredients; and in (161e) four. Note that a past reading of (161d) saves the structure, i.e. when one NAV morpheme is interpreted temporally. The same holds for (161e): if this counterfactual is read as a past counterfactual, then the structure is saved again, as was (161d). A past reading of (161e) means that the CF ingredients (law ?imno kaan) vary on worlds and the suffixed verb on past time.

This means that slots are syntactically available for the addition of NAV, but semantically it does not make too much sense to keep strengthening the counterfactuality of a future oriented counterfactual. This is not surprising: the potential slots need not all be filled. And, often a more subtle and natural effect is achieved without the addition of redundant markers, in a conversation. But this depends on the nature of the discourse situation one is found in.

In any case, the required meaning is conveyed with the necessary CF ingredients only: one NAV morpheme in the antecedent, and one in the consequent. The employment of strategies which result in an emphatic effect (i) affects the strength of the CF inference, and in turn (ii) affects the cancellability of this inference. Furthermore, it restricts the usage: (iii) emphatic strategies cannot be used by a speaker who is agnostic, for example – as will be discussed at length in chapter 4.

So there’s a semantic and pragmatic upper bound. But, at any rate, the syntactic upper bound depends on the slots that the language makes available, into which morphemes can be stacked.

The fact that subjunctive and tense morphemes can be stacked is evidence for the counterfactual complex argued for in the previous sections. It also shows that what actually allows stacking of tense is that it is fake tense – in other words, fake tense that is bound in a counterfactual complex can be stacked on top of real tense.
2.8 Conclusions

The set of data from Palestinian confirms Iatridou’s (2000) conclusion that past tense morphology is a necessary ingredient in counterfactuals. Following Karawani and Zeijlstra (2010), who build on Iatridou’s (2000) notion of exclusion and Giannakidou’s notion of veridicality (1998), I refer to those morphemes which we are used to calling (fake) past tense morphemes and which contribute to counterfactuality in terms of non-actual veridicality (NAV). This means that *kaan* and the suffixed verb are to be reanalysed in terms of NAV, and not in terms of past tense semantics, as illustrated in the following description.

\[ \text{kaan: } [+ \text{NAV}] \]

\[ \text{suffixed verbal form: } [+ \text{NAV}] \]

NAV is defined in (106) and states that the proposition it applies to is true in a different world-time pair than the pair consisting of the actual world and the time of utterance (UT). This means that NAV morphemes can be used both as tense markers (expressing that the time of the eventuality under its scope is not UT, hence past time)\(^{28}\) and as a mood marker (expressing that the world of the eventuality under its scope is not the actual world, hence counterfactuality).

Given the restriction in (107) that every clause must be tensed, this means that a NAV morpheme, in the absence of any other tense marker, must contribute a temporal interpretation; but if the sentence receives its tense interpretation from some other particle, NAV acts as a mood marker.

Which slot does the NAV occupy if the slot for tense is already occupied by another morpheme that contributes the temporality of the sentence? I follow Karawani and Zeijlstra (2010), here. But although they called this projection *MoodP*, for the sake of transparency I call it *TP* – albeit *TP\(^2\)*. I also argue that this TP is bound in a counterfactual complex in the antecedent. In the consequent, fake past tense morphology might be just agreement, but this is just a hypothesis for now awaiting future work.

Palestinian data allow us to reach an important conclusion: tense specification is a necessary ingredient of counterfactuals in addition to the NAV morpheme – because without tense specification, the NAV morpheme must contribute to the temporal reading of the sentence, and cannot contribute a counterfactual reading. An overt *T\(_1\)* head must be present in the main clause, but may be covert in the *if*-clause.

Here’s a simple picture as to how Palestinian counterfactuals are formed. The formation of a counterfactual antecedent is straightforward: just add *law* or *iza kaan* on top of a tensed clause. Since *law* is a counterfactual morpheme, it is sufficient to specify that *w \neq w^0*. As such, a NAV morpheme is optional.

\(^{28}\)Karawani and Zeijlstra (2010) show that although the typical reading is past time, a future time reading is not excluded.
with law. On the other hand, \textit{kaan}, as a NAV morpheme, is obligatory when the default complementizer \textit{iza} is used.

In the consequent, counterfactuality is straightforward as well: just add \textit{kaan} on top of a tensed clause. However, there is a restriction that the slot for real tense be filled overtly, i.e. null present tense is disallowed. This is why, when the embedded sentence is non-verbal, \textit{b-ykuun} (as a non-past auxiliary) is necessary: otherwise, given the restriction against tenseless clauses, \textit{kaan} will occupy T and specify that $t \neq t^0$, yielding a temporal reading.

Counterfactuality is not restricted to auxiliary structures with \textit{kaan}, however. The suffixed verb which couples past tense with perfective aspect is also a carrier of NAV semantics. As such, it too can yield CF structures by combining with the default complementizer in the antecedent. It yields FLVs, because the ‘past’ (i.e. NAV) component functions to yield counterfactuality, while the perfective component ensures that the reading is non-present, hence future. However, although it is a NAV morpheme, it does not participate in yielding a CF consequent, again because of the requirement of Palestinian that $T_1$ be overtly filled in the consequent – hence the semantic specification as non-present which perfective aspect can specify otherwise is insufficient here.

The stacking of tense is necessary for the formation of Palestinian counterfactuals. But Palestinian also makes available slots for stacking of optional morphology which maximises the range of counterfactual expression. The addition of optional markers results in an emphatic effect – hence a semantic/pragmatic effect that we are familiar with in other areas of grammar where the employment of optional, and thus redundant, markers produces emphasis. But, there’s a semantic and pragmatic upper bound on this stacking even if the syntax makes slots available into which morphemes can be stacked. It is important to note that there is a syntactic upper-bound too, of course.

Importantly, although we have been talking about real (past) tense and fake (past) tense, this was only for illustration purposes. In fact, by defining the past tense morpheme in terms of NAV, we gain the idea that the semantics of ‘past tense’ morphemes remains \textit{real} in both its uses, the temporal and the modal.