
Preliminary thoughts on counterfactual conditionals in African languages

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1. Introduction

- ❖ Various studies have explored conditionals crosslinguistically (e.g. Comrie 1986).
- ❖ Only a few studies have analyzed them in specific regions.
- ❖ Accordingly, the study of the areality of conditionals is still in its infancy.
- ❖ The present paper contributes at filling this gap by exploring this construction in African languages.

❖ WHY AFRICAN LANGUAGES?

- Several studies have demonstrated that many African languages show exceptions to wider typological generalizations proposed for conditionals (e.g. Frajzyngier 1996; Nicolle 2017).
 - Overt marking of the *if*-clause (protasis) by a clause-linking device comparable to English ‘if’ is the commonest scenario crosslinguistically (Comrie 1986: 87). However, various African languages are an exception to this tendency in that the *if*-clause is not overtly marked. Instead, the main clause (apodosis) appears with a clause-linking device meaning ‘then’ or ‘and so’ (Allison 2017).
 - Crosslinguistically, past tense markers tend to appear in the protasis of a counterfactual conditional construction (Olguín Martínez & Lester 2021). Interestingly, in many languages spoken in the Ethiopian linguistic area, past tense markers occur in the apodosis of a counterfactual conditional construction (Crass & Meyer 2008: 247).
 - What these studies indicate is that African languages can contribute to inform and refine our theories of conditional constructions.
- ❖ To keep the scope of the discussion manageable, the present investigation only focuses on one specific type of conditional: counterfactual conditionals (e.g. *If you had gone, you would have had fun*).

❖ WHY COUNTERFACTUAL CONDITIONALS?

- counterfactual conditionals show formal and discourse properties that other types of conditionals do not (see Haiman & Kuteva 2001; Olguín Martínez & Lester 2021).
- The study includes past counterfactual conditionals (e.g. *If Roman had come to the party yesterday, he would have had fun*), and disregards counterfactual conditionals with other time reference (e.g. present and future time reference), as in (1).

Hausa (West Chadic)

- (1) *dā̀ sâ zṑ bikī̀, dā̀ sâ ji dādī̀.*
if 3PL.POT come party then 3PL.POT feel enjoyment
'If they were to come to the party, then, they would enjoy themselves.' (Jaggar 2001: 612)

❖ The study is based on a sample of 38 African languages for which the available literature gives sufficient information on the grammar of counterfactual conditionals.

❖ **WHAT IS A COUNTERFACTUAL CONDITIONAL?**

- A counterfactual conditional construction is a type of complex sentence construction in which the relation between the protasis and apodosis is that of an imagined situation that did not happen.
- Put another way, this construction conveys the speaker's belief that the actualization of a situation was potential – possible, desirable, imminent, or intended –, but that it did not take place, i.e. it did not belong to the actual world (Verstraete 2005: 231).

❖ **THE DOMAIN TO BE EXPLORED**

- Special attention is paid to two interconnected aspects of this complex sentence construction:
 - (1) the range of **Tense-Aspect-Mood (TAM)** markers by which counterfactual conditionals are expressed, and
 - (2) the range of **clause-linkage patterns** by which counterfactual conditional meanings are indicated.

QUESTION 1. It has often been claimed that if counterfactual conditionals are encoded with an unspecialized clause-linking device in a given language, at least one of the clauses must be marked with TAM values that aid in the counterfactual conditional meaning of the construction (e.g. irrealis, subjunctive; Olguin Martinez & Lester 2021). Do the African languages in the sample align with this crosslinguistic tendency?

QUESTION 2. It is not infrequent to find languages expressing counterfactual conditional relations by means of paratactic constructions (Mauri & Sansò 2009). Mauri & van der Auwera (2012: 396) explain that in this scenario not all is left to inferential processes. Rather, if a language expresses counterfactual conditionals by means of paratactic constructions, at least one of the linked situations has to be marked as irrealis (by means of irrealis, dubitative, or hypothetical elements) in order for the counterfactual conditional relation to be inferable. Do the African languages in the sample align with this crosslinguistic tendency?

- ❖ Apart from analyzing these questions, we briefly explore whether counterfactual conditionals show formal resemblances to other constructions with similar meanings:
 - hypothetical manner constructions (*the child is crying, as if I had hit him*).
 - counterfactual simple constructions (*I should have gone!*).

ROADMAP

- Section 2: Sample.
- Section 3: TAM markers that occur in counterfactual protases and apodoses.
- Section 4: Range of clause-linkage patterns.
- Section 5: Interaction of clause-linkage patterns and TAM.
- Section 6: Formal and functional resemblances of counterfactual conditionals to other constructions.
- Section 6: Overall conclusions.

2. Sample

- ❖ Small variety sample of 38 languages based on the genetic classification proposed by Güldemann (2018).
- ❖ Bottom-up approach to build the sample of the present study.
- ❖ The sources taken into account in the present paper are reference grammars, text collections (mostly narrative texts or texts with a large narrative portion), and dictionaries.
- ❖ In what follows, I explain the structure and motivations behind their selection.
- ❖ Constructing a variety sample without predetermined sample size means, at its simplest, picking one language from a genetic classification.
- ❖ Based on this, an attempt was made to find one language from each of the genetic units proposed by Güldemann (2018) for which the available literature gives sufficient information on the grammar of counterfactual conditionals.
- ❖ However, for a number of genetic units, I was not able to find any language that meets that criterion.¹
- ❖ Unfortunately, this uncontrollable factor was responsible for the ultimate omission of some genetic units because suitable data could not be obtained.
 - I limited the region to the African continental mainland.
 - I have excluded contemporaneous African counterfactual conditionals which were shaped by contact with Asian or European languages, like creoles, pidgins, or vehicular and native varieties of colonial languages (see Güldemann 2008 for a similar decision).
- ❖ Taking this procedure as my point of departure, I was able to find sufficient information on 38 languages.
- ❖ Choosing a language from each of the genetic units of a linguistic family may give rise to a genetic bias. This stems from the fact that languages from different genetic units of the same family may express in the same way counterfactual conditional meanings because they share a feature inherited from their common ancestor (Comrie 1989: 10).
- ❖ This is why variety sampling is not suitable for hypothesis testing but has its merits in exploratory qualitative research (Rijkhoff & Bakker 1998).

¹ It has been proposed that the language chosen from a genetic unit should be the one that shows the most the modal, or most archaic, way of encoding the phenomenon under scrutiny (Bickel 2008: 223). However, sometimes information about typicality of each genetic unit is not available. Accordingly, I did not follow this methodological procedure.

Table 1. Sample languages, genealogical classification, and data sources

Languages	Family (subbranch)	Stock	Sources
Amharic	Semitic	Afroasiatic	Kane (1990); Wolf (1979); Abdu Ahmed (pers. comm.)
Bangime	Isolate	-	Heath & Hantgan (2018)
Boko	Mande (eastern)	-	McCallum (1998); Ross (2004)
Donno So	Dogon	-	Heath (2014)
Emai	Benue-Congo (Edoid)	Niger-Congo	Schaefer & Egbokhare (2007, 2017)
Hausa	Chadic (west)	Afroasiatic	Bagari (1976); Jaggar (2001); Newman (2000)
Ik	Kuliak	-	Schrock (2014)
Iraqw	Cushitic (south)	Afroasiatic	Mous (1992)
Jalkunan	Mande (western)	-	Heath (2017)
Kalabari	Ijoid	-	Jenewari (1977)
Kanuri	Saharan	-	Hutchison (1981); Jarrett (1980)
Kisi	Atlantic	-	Childs (1995)
Konso	Cushitic (highland east)	Afroasiatic	Oda Orkaydo (2013)
Koyra Chiini	Songhay	-	Heath (1999)
Kunuz Nubian	Nubian	East Sudanic	Childs (1995)
Kupsabiny	Nilotic (southern)	East Sudanic	Kawachi (2015)
Lango	Nilotic (western)	East Sudanic	Noonan (1992)
Lele	Chadic (east)	Afroasiatic	Frajzyngier (2001)
Lopit	Nilotic (eastern)	East Sudanic	Moodie & Billington (2020)
Lumun			Smits (2017)
Maale	Omotic	Afroasiatic	Amha (2001)
Maba	Maban	-	Weiss (2009)
Ma'di	Moru-Madi	Central Sudanic	(Blackings & Fabb 2003)
Majang	Surmic	East Sudanic	Joswig (2019)
Makary Kotoko	Chadic (Biu-Mandara)	Afroasiatic	(Allison 2000)
Mbembe	Benue-Congo (Jukonoid)	Niger-Congo	Richter (2014)
Noon	Cangin	Niger-Congo	Soukka (2000)
Northern Gumuz	Gumuz	-	Ahland (2012)
Pévé	Chadic (Masa)	Afroasiatic	Shay (2019); Erin Shay (pers. comm.)
Sandawe	Isolate	-	Steeman (2012); ten Raa (2012)
Sheko	Dizoid	-	Hellenthal (2010)

Sidaama	Cushitic (lowland east)	Afroasiatic	Kawachi (2007)
Supyire	Gur (Senufo)	Niger-Congo	Carlson (1994)
Swahili	Benue-Congo (Bantoid)	Niger-Congo	Mwamzandi (2017)
Tamashek	Berber	Afroasiatic	Heath (2005)
Ts'ixa	Khoe-Kwadi	-	Fehn (2014)
Tuwuli	Kwa	Niger-Congo	Harley (2017)
Yoruba	Benue-Congo (Defoid)	Niger-Congo	Salone (1979)

OBSTACLES

- In terms of the nature and quality of the available data, there exist a number of obstacles to an analysis of counterfactual conditionals as envisaged here.
- **OBSTACLE #1.** There are languages in which counterfactual conditionals and hypothetical conditionals are expressed in the same way, although this is not explicitly indicated by the authors of the sources.²
 - An example is found in Cuwabo (2).³
 - The policy adopted in the present study is to take into account these languages on the grounds that these languages contain linguistic patterns that serve as conventionalized ways of expressing counterfactual conditional relations in specific discourse contexts.

Cuwabo (Bantu)

- (2) *ka-o-ib-á* *vaddíddi*, *ddi-gaa-hí-lal-a* *va-mu-mélo.*
CF-15-sing-FV much SBJ.SG-HYP-PFV.DJ-weaken-FV 16-3-throat
‘If I sang a lot, I would damage my voice.’
‘If I had sang a lot, I would have damaged my voice.’ (Guérois 2017: 205)

- **OBSTACLE #2.** There were a number of sources in which it was not explicitly mentioned the ranges of TAM values that may occur in the protasis and apodosis of a counterfactual conditional construction.
 - An example comes Shupamem. Nchare (2012) mentions that “both the protases and apodoses of Shupamem conditionals as well as its counterfactuals, may accept a variety of tense and aspect morphemes (e.g., present habitual, future conditional, general past etc).” The author of this source does not provide a detailed discussion of the distribution of TAM in counterfactual conditionals in this language.
 - Moreover, there are sources that only provide explicit information about the TAM values that appear in the protasis, but not in the apodosis. For instance, Voll (2017) mentions that counterfactual conditional protases in Mundabli may occur in the past perfect (3). However, she does not provide any information regarding the TAM values of counterfactual conditional apodoses.

² Hypothetical conditional clauses refer to situations that might hypothetically happen.

³ Crosslinguistically, this theoretical fact has not gone unnoticed and echoes Qian (2016: 101), who explains that in some languages (e.g. Mising, Hmong, Tagalog, Dolakha Newar, Zuni, Vietnamese), there is a clear differentiation between real and hypothetical conditional clauses. However, in these languages a hypothetical or a counterfactual conditional reading is contextually dependent.

- Given that one of the main goals of the present study is to analyze the TAM values that occur in counterfactual conditional protases and apodoses, these sources were not taken into account here.

Mundabli (Bantu)

(3) *t-ó kà dī yē bā kà bú sō wù áká síprèn..*
 DIST-DEM P3 be COMP IMPER P1 deliver first CL1 like Cypren
 ‘If he had been delivered before Cypren...’ (Voll 2017: 311)

- **OBSTACLE #3.** There are sources that provide a detailed description of counterfactual conditionals (including information on TAM values). However, they do not provide detailed information on other types of conditional constructions.
- Ngiiti counterfactual conditionals are realized with the clause-linking device *gukyè*, and the past conditional marker *-na* (Kutsch Lojenga 1994: 263). However, it is not clear how other types of conditionals are formally encoded.
 - These sources have not been taken into account in the sample.
 - The main rationale behind this decision is that it was not possible to determine whether a clause-linking device is specialized or not.

Ngiiti (Central Sudanic)

(4) *ma m-ádà-na gukyè wɔ-rí ibhù ʔ,*
 1SG SC-cross-PST.COND CONJ DEM-EMPH valley in
 ‘If I had crossed that valley,

ní atdáta ní-álù-na ma.
 then leopard RSM-grab-PST.COND 1SG
 the leopard would have caught me.’ (Kutsch Lojenga 1994: 263)

- **OBSTACLE #4.** There are a number of sources that contain a very detailed description of conditionals. However, these descriptions are based on a formal classification, and not on a semantic one.
- Kagulu contains two formal types of conditional clauses: *ka-* conditionals and *nhanga* conditionals. Of these, *nhanga* clauses seem to be counterfactual conditionals based on their form (5).
 - Petzell (2008: 183) does not provide a description of the semantics of these types of conditional constructions.
 - In the present study, these sources are not taken into account.
 - This stems from the fact that the authors of these grammars do not provide a semantic characterization of these formal types, and it is not clear whether these instances should be analyzed as counterfactual conditionals or not.

Kagulu (Bantu)

(5) *nhanga si-a-end-ile,*
 CONJ 1SG.NEG-PST-love-PFV
 ‘If I had not loved,

ha-ni-uw-a *ni-ku-uw-a* *na* *chi-nyemi.*
 PST-1sg-be-FV 1SG-FUT-be-FV CONJ 7-happiness.7.8
 I would not have been happy.’ (Petzell 2008: 183)

- ❖ **OBSTACLE #5.** In a number of sources, authors only provide a detailed description of a non-canonical counterfactual conditional construction, in which the predicate of the apodosis entails reference to another proposition expressed in a second clause (in this case the protasis), as can be seen in (6).
 - The meaning of the predicate of the apodosis is similar to ‘better’, ‘good’, or ‘bad’. This construction is known in the literature as a type of an emotive complement construction.
 - This environment profiles an emotional reaction of the referent of the matrix subject towards the complement proposition.

Sidaama (Lowland east Cushitic)

(6) *aiyaan-ú* *baiččo mar-oo-mm-o-ro* *buša=ho hee’r-φ-i.*
 festival-GEN.M place go.PRS.PERF-1SG-M-if bad=NPC live-3SG.M-PERF.3SG.M
 ‘It would have been bad if I had gone to the festival (I am glad that I did not go there).’
 (Kawachi 2007: 412)

- Interestingly, this construction may also express a preference (7). In preference clause constructions, of two alternatively possible situation *p* and *q*, *q* is preferred and renders *p* unnecessary or improbable (Kortmann 1997: 89).
- In this type of construction, the main clause involves a modal reading (Georgieva 2019), such as a circumstantial/deontic reading (e.g. ‘it is better to work in the garden rather than watch TV all day long.’).
- This construction contains semantic components of an emotive complement construction, a preference construction, and a counterfactual conditional construction.
- Sources that only provide a description of this counterfactual conditional pattern are not taken into account in the present research.

Kusaal (Gur)

(7) *li* *nāani* *sāñʼɔn,* *bà* *yáʼ* *nōkin* *nēer-títāʼari*
 3NON.HUM then be.better.REM 3PL if take.PFV.REM millstone-big.SG

φ *lɔɔn* *kōllin* *ɔn* *nín-gòɔr* *kà* *záŋ·ò*
 SER tie.PFV.REM around.LOC 3HUM.CONTR body-NECK.SG and take.PFV

φ *φ* *lɔbi* *φ* *bás* *kōlvɔn,* *n*
 3HUM.OBJ SER throw.PFV SER abandon.PFV river.SG.LOC SER

gát...

pass.IPFV...

‘It would have been better if they had fastened a big millstone round his neck and thrown him into the river, than...’ (Eddyshaw 2017: 491)

- **OBSTACLE #6.** There are many grammars that do not provide a description of counterfactual conditionals in the main body of the text.
 - However, in the texts given at the end of the source, there are a number of examples that, at first glance, look like a counterfactual conditional construction (based on the glosses and translation of the examples).
 - Whether this construction is a conventionalized strategy of expressing counterfactual conditional meanings.
 - These sources are not taken into account here.

AREAL DISTRIBUTION

- ❖ While an ideal language sample would also be areally balanced, it is difficult to come up with a sample that is both genetically and areally balanced, for the simple reason that some areas are better represented than others because of the availability and quality of the sources.
- ❖ As a sobering note, the sample does not give a complete picture of the synchronic counterfactual conditional linguistic diversity on the African continent.
- ❖ Practical reasons concerning sample motivated some rather arbitrary decisions as to what to include or exclude from the sample.
- ❖ However, the sample should serve to give us an impression of the theoretical importance of analyzing the interaction of TAM markers and clause-linking patterns in counterfactual conditionals constructions.
- ❖ It is expected that richer documentation of languages from more corners of the African continent would allow us to form a more genetically and areally unbiased sample of languages in the future.
- ❖ Before analyzing the interaction of TAM and clause-linkage patterns in counterfactual conditionals in the languages in the sample (see Section 5), it is important to explore these domains in separate sections.

3. TAM markers

- ❖ Crosslinguistically, counterfactual conditionals tend to appear with TAM markers whose semantics is appropriate to the counterfactual conditional context, such as irrealis markers, conditional mood markers, and counterfactual mood markers, among others (Mithun 1995: 384).
- ❖ **These are known as non-actualized TAM patterns** (Olguin Martinez & Lester 2021).
- ❖ However, it has long been observed that, across a large number of unrelated languages, past tense markers, and other TAM markers whose semantics does not harmonize with the counterfactual conditional meaning (e.g. perfective, completive), may appear in counterfactual conditional constructions (see Comrie 1986; Karawani 2014).
- ❖ **These are known as actualized TAM patterns** (Olguin Martinez & Lester 2021).
- ❖ **CLEAR MISMATCH.** Past tense and perfective marking tend to occur in situations that are actualized and counterfactual conditionals express non-actualized situations.
- ❖ A couple of possible explanations to this mismatch:
 - Past tense marker has as its basic meaning not past tense but something distant from present reality (Steele 1975; von Prince 2019).
 - An inherent nature of the past as being closed and therefore the condition is impossible or false (Karawani 2014: 15).

3.1 Protasis

Table 2. TAM in counterfactual conditional protases in the languages in the sample

TAM in counterfactual conditional protases	Languages
Actualized TAM (past, perfective, or completive)	Bangime, Boko, Donno So, Hausa, Jalkunan, Kalabari, Konso, Koyra Chiini, Kupsabiny, Lango, Lumun, Ma'di, Majang, Makary Kotoko, Mbembe, Noon, Sandawe, Sidaama, Supyire, Tamashek, Ts'ixa
Non-actualized TAM (irrealis, conditional mood, counterfactual mood)	Pévé, Sheko, Yoruba
Non-actualized and actualized TAM	Emai, Ik, Iraqw, Kunuz Nubian, Lele, Lopit, Maale, Maba, Swahili
Unmarked	Kanuri, Northern Gumuz, Tuwuli
Other	Amharic, Kisi

- ❖ Counterfactual conditional protases may occur with an actualized TAM pattern (in particular past tense marking).

Bangime (Isolate)

(8) *sé ñ jáá Séédù ñjè h̄ɲgà,*
 if 1SG see.PFV Seydou yesterday PST
 'If I had seen Seydou yesterday,

ñ dégé Ø náw.
 1SG hit.FUT 1SG FUT
 I'd have hit him.' (Heath & Hantgan 2017: 465)

- ❖ Counterfactual conditional protases may also occur with a non-actualized TAM pattern (in particular irrealis marking).

Sheko (Dizoid)

(9) *sààmínt t'āāgñ ñ=hāāy-ṁ-bàb n=t'ùùs-ñtà,*
 week two 1PL=spend.nigh-IRR-father 1SG=know-if
 'If I had known that we would stay two weeks,

bazà kóta n=kōygē-ṁ-kì-b tòn.
 work little 1SG=bring-IRR-exist-REL RESULT
 I would have brought a little of work with me.' (Hellenthal 2010: 262)

- ❖ There are languages in which counterfactual conditional protases may occur with actualized and non-actualized TAM values.

Lopit (Eastern Nilotic)

(10) *è-ŋaí-wòló* *íjé* *nàŋ* *tè=ikàŋà,*
2>1-IRR-see.PFV 2SG.NOM 1SG.ABS at=Ikanga
'If you had seen me at Ikanga,

è-ŋaí-ŋìm-ù *íjé* *nàŋ.*
2>1-IRR-choose-VEN 2SG.NOM 1SG.ABS
you would have chosen me.' (Moodie & Billington 2020: 169)

❖ Counterfactual conditional protases may also be unmarked in that they lack TAM marking.

Tuwuli (Kwa)

(11) *nte* *ɔnya* *u-kĩĩ,* *kufɛ* *o-ku.*
if 2SG-eat REF-DEM IRR 2SG-die
'If you had eaten this, you would have died.' (Harley 2017: 127)

❖ **OTHER.** Counterfactual conditional protases may occur with other TAM patterns (e.g. imperfective marking).

Amharic (Semitic)

(12) *k'əss* *bilo* *b-j-nəda* *noró,*
IDPH.slow say.CVB.3SG.M if-3SG.M-drive.IPFV AUX.CF
'If he had driven slowly,

adəga-w *a-j-dərs-mm* *nəbbər.*
accident-DEF NEG-3SG.M-reach.IPFV-NEG AUX.PST
the accident would not have occurred.' (Ahmed 2014: 80)

Kisi (Mel)

(13) *tè* *nùm* *óó* *cé* *náá* *hàù* *síééliá* *ó* *pèmbèí* *pé,*
if you IPFV see us today slip on hill if
'If you had seen us sliding around on the hill today,

á *wá* *màmòò* *màá* *sàngá.*
you IRR laugh CONJ tire
you would have laughed until you were exhausted.' (Tucker 1995: 119)

❖ Why imperfective marking?



➤ Imperfective aspect has an indirect link with the future time sphere (non-actualized situations).

- Ongoing situations have not been completed yet and hence cannot be presented in their entirety (Comrie 1985: 72).
- Imperfective aspect marking in counterfactual conditional clauses underlines or re-emphasizes the inherent non-actualized status of counterfactual conditional situations.

3.2 Apodosis

Table 3. TAM in counterfactual conditional apodoses in the languages in the sample

TAM in counterfactual conditional apodoses	Languages
Actualized TAM (e.g. past, perfective, or complete)	Bangime, Boko, Donno So, Hausa, Iraqw, Jalkunan, Kalabari, Kanuri, Kunuz Nubian, Kupsabiny, Lango, Ma'di, Majang, Mbembe
Non-actualized and actualized TAM	Emai, Ik, Konso, Lele, Lumun, Northern Gumuz, Supyire, Swahili
Non-actualized TAM (e.g. irrealis, conditional mood, counterfactual mood, subjunctive)	Kisi, Lopit, Maba, Makary Kotoko, Sheko, Ts'ixa, Tuwuli, Yoruba
Other	Amharic, Koyra Chiini, Maale, Noon, Pévé, Sidaama, Tamashek

- ❖ Counterfactual conditional apodoses may occur with an actualized TAM pattern (in particular past tense marking).

Jalkunan (Western Mande)

(14) *nī ká dòòn sé=é ké,*
 if rain a.little rain.fall.PFV=link PST
 'If it had rained a little,

sónó cìè nàá-nà.
 maize be.PST goodness-NOM
 the maize (crop) would have been good.' (Heath 2017: 355)

- ❖ Counterfactual conditional apodoses may also occur with a non-actualized TAM pattern (in particular irrealis marking).

Lumun (Kordofanian)

(15) *ámmá m-p-áp-p-mát,*
 if 1SG-CONC-be.COMPL-CONC-know.COMPL
 'If I had known,

ana m-p-á-akkwòt-ση.
 and 1SG-CONC-IRR-kill-2SG.OBJ
 I would have killed you.' (Smits 2017: 657)

- ❖ Counterfactual conditional apodoses may occur with actualized and non-actualized TAM values.

Ts'ixa (Khoe-Kwadi)

(16) *xám=m* *lxòà tí* *xà* *l'áé-kù-nà-tà* *tíkà,*
 lion=SG.M COMMIT 1SG SUBJ meet-REC-JUNCT-PST1 if
 'If I had met the lion,

tí *xà* *ʔé.mà* *ʔà* *l'ũũ-á-tá.*
 1SG SUBJ 3SG.M ACC kill-JUNCT-PST1
 I would have killed it.' (Fehn 2016: 269)

- ❖ **OTHER.** Counterfactual conditional protases may occur with other TAM patterns (e.g. imperfective marking, present tense).

Maale (Omotic)

(17) *néení* *ʔórgocci* *d-á-to,*
 2SG.NOM rich be-IPFV-if
 'If you had been rich,

waari *nuu-m* *fukk-andá-nte.*
 goat.ABS 1SG-DAT slaughter-IPFV-PREVENT
 you would have slaughtered a goat for us (but that did not happen).' (Amba 2001: 205)

4. Clause-linkage patterns

- ❖ Counterfactual conditionals may be encoded by different types of clause-linkage patterns (Olguin Martinez & Lester 2021).
- ❖ These can be:
 - Specialized (clause-linking devices that are only used to encode counterfactual conditionals).
 - Unspecialized (clause-linking devices that encode counterfactual conditionals and other semantic types of conditionals, e.g. real, generic).
 - Parataxis (i.e. two clauses without any structural element linking them).

Table 4. Clause-linkage patterns in the languages in the sample

Clause-linkage pattern	Languages
Specialized clause-linking device	Amharic, Boko, Donno So, Hausa, Kalabari, Konso, Kupsabiny, Lango, Ma'di, Mbembe, Supyire, Swahili, Tamashek, Ts'ixa
Unspecialized clause-linking device	Bangime, Ik, Jalkunan, Kanuri, Kisi, Koyra Chiini, Lumun, Maba, Majang, Makary Kotoko, Noon, Northern Gumuz, Pévé, Sheko, Sidaama, Tuwuli, Yoruba
Parataxis	Emai, Iraqw, Kunuz Nubian, Lele, Lopit, Maale, Sandawe

- ❖ **Specialized clause-linking devices.** The distinction between counterfactual conditionals and other types of conditionals (e.g. real/generic) is grammaticalized in clause-linking devices.

Konso (Highland east Cushitic)

- (18) *otoo=i?* *an-t-o,* *pilliyaa-si?**i?* *tey-t-a.*
 if=2 go-2-DEP.IPFV.FUT knife-DEF.M=2 2-get-IPFV
 ‘If you go, you will find the knife.’ (Ongaye 2013: 205)

- (19) *kandē=i* *nama piisa dēy-ay,* *kodāa-si?**=in dikk-f-n-a.*
 if=3 person all come-IPFV work-DEF.M=1 finish-CAUS-PL-IPFV.FUT
 ‘If everybody had come, we would have finished the work.’

- ❖ **Unspecialized clause-linking devices.** The distinction between counterfactual conditionals and other types of conditionals (e.g., real/generic) is **NOT** grammaticalized in clause-linking devices.

Northern Gumuz (Gumuz)

- (20) *k-a-tf-á,* *d-éé-tsa-gwa.*
 if-3SG.INTRANS-rain-S AFF-go.FUT-1SG.INCL-INTRANS
 ‘If it rains, we will go.’ (Ahland 2012: 436)

- (21) *tfökwa* *ma-zíj-ámá* *k-á-ót-á,*
 fence NMLZ-be.strong-INH.POSS if-3SG-EXIST-S
 ‘If the fence had been strong,

mé-ek’o-χosa *éé-η-ts’ár-ac=angó* *tisák’wá.*
 PL-NON.HUM.F-bovine FUT-PL-break-eye=NEG PST
 the cows wouldn’t have knocked it down.’ (Ahland 2012: 436)

- ❖ **Parataxis.** Two clauses without any structural element linking them. Conventionalized ways of expressing counterfactual conditional meanings. Different constructional properties work in concert in the expression of this complex adverbial relation.

Emai (Edoid)

- (22) *óli* *ómóhé khà* *mié* *òhi,* *ó* *khà* *ó* *vbì* *ìwè.*
 the man PST.PERF.HYP see Ohi he PST.PERF.HYP enter LOC house
 ‘If the man had seen Ohi, he would have entered the house.’ (Schaefer & Egbokhare 2017: 883)

5. Interaction of clause-linkage patterns and TAM in counterfactual conditionals

- ❖ Let’s explore how clause-linkage patterns and TAM interact in counterfactual conditionals.

QUESTION 1. It has often been claimed that if counterfactual conditionals are encoded with an unspecialized clause-linking device in a given language, at least one of the clauses must be marked with non-actualized TAM values (e.g. irrealis, subjunctive) that aid in the counterfactual

conditional meaning of the construction (Olguin Martinez & Lester 2021). Do the African languages in the sample align with this crosslinguistic tendency?

Table 5. Unspecialized clause-linking devices and TAM in counterfactual conditionals

Clause-linkage pattern and TAM	Languages
Unspecialized clause-linking device and at least one clause marked with non-actualized TAM	Bangime, Ik, Kisi, Lumun, Maba, Makary Kotoko, Northern Gumuz, Pévé, Sheko, Tuwuli, Yoruba
Unspecialized clause-linking device and clauses only marked with actualized TAM	Jalkunan, Kanuri, Koyra Chiini, Majang, Noon, Sidaama

Maba (Maban)

- (23) *èdì=gu* *Φ-nàrà=térí=nú* *sû:=gín* *á-ká=tè=téri.*
 ?=SG.DEF TH-2SG.bring=IRR-NON.FIN=if go=LOC 1SG-go=FUT=IRR
 ‘If you had brought the donkey, I would have gone to the market.’ (Weiss 2009: 251)
Si tu avais amené l’âne, je serais allée au marché.

Noon (Cangin)

- (24) *mi* *ínoh-ee* *an* *fu* *hay* *dii* *ki-koor-aa,*
 1SG know-PST COMPL 2SG AUX here INF-pass-if
 ‘If I had known that you would pass this way,

mi *koor-oo* *dii.*
 1SG pass-PRS.NEG here
 I wouldn’t have passed this way.’ (Soukka 1999: 282)

QUESTION 2. It is not infrequent to find languages expressing counterfactual conditional relations by means of paratactic constructions (Mauri & Sansò 2009). Mauri & van der Auwera (2012: 396) propose that in this scenario not all is left to inferential processes. Rather, if a language expresses counterfactual conditionals by means of paratactic constructions, at least one of the linked state of affairs has to be marked as irrealis (by means of irrealis, dubitative, or hypothetical elements) in order for the counterfactual conditional relation to be inferable (Olguin Martinez & Lester 2021). Verstraete (2014: 223) mentions that TAM markers, in paratactic counterfactual conditionals, may serve as a pragmatic trigger of the counterfactual conditional interpretation. Do the African languages in the sample align with this crosslinguistic tendency?

Table 6. Paratactic patterns and TAM in counterfactual conditionals

Clause-linkage pattern and TAM	Languages
Paratactic pattern and at least one clause marked with non-actualized TAM	Emai, Iraqw, Kunuz Nubian, Lele, Lopit, Maale, Sandawe
Paratactic pattern and clauses only marked with actualized TAM	-----

Kunuz Nubian (Nubian)

(25) *ogj-i ta:-ko-ki-r-a,*
 man-PL come-PFV-COND-NEUT-3PL
 ‘If the men had come,

i:g ka:-gi bi-kal-ko-mn-u.
 fire house-ACC FUT-eat-PFV-NEG-3SG
 the fire would not have destroyed the house.’ (Abdel-Hafiz 1988: 174)

ONE MORE THEORETICAL OBSERVATION. Counterfactual conditionals marked with specialized clause-linking devices tend occur with actualized TAM.

Table 7. Specialized clause-linking devices and TAM in counterfactual conditionals

Clause-linkage pattern and TAM	Languages
Specialized clause-linking device and clauses only marked with actualized TAM	Boko, Donno So, Hausa, Kalabari, Konso, Kupsabiny, Lango, Ma'di, Mbembe, Supyire, Tamashek,
Specialized clause-linking device and clauses marked with actualized and non-actualized TAM	Amharic, Swahili, Ts'ixa

Kupsabiny (Southern Nilotic)

(26) *nte kya-a-yaam àmii-cà yooto kulè,*
 if DIST.PST-1SG-eat food.ABS-that that.time TOP
 ‘If I had eaten this food at that time,

nte kya-a-mṣáán.
 then DIS.PST-1SG-become.sick
 then I would have become sick.’ (Kawachi 2015: 72)

Ts'ixa (Khoe-Kwadi)

(27) *xám=m̄ lxòà tí xà ||'áé-kù-nà-tà tíkà,*
 lion=SG.M COMIT 1SG SUBJ meet-REC-JUNCT-PST1 if
 ‘If I had met the lion,

tí xà ?é.mà ?à |'ũũ-á-tá.
 1SG SUBJ 3SG.M ACC kill-JUNCT-PST1
 I would have killed it.’ (Fehn 2016: 269)

- ❖ In this scenario, the distinction between counterfactual conditionals and other types of conditionals (e.g. real/generic) is grammaticalized in clause-linking devices.
- ❖ This may explain why clauses do not tend to appear with non-actualized TAM.⁴

⁴ Crosslinguistically, there seems to be a strong correlation between counterfactual conditionals and irrealis or subjunctive marking (Mithun 1995: 384).

- ❖ This also seems to hold for those languages that contain a subjunctive or irrealis marker.
- ❖ Kalabari contains a subjunctive marker (Jenewari 1977: 502). This is not used in counterfactual conditionals.

Kalabari (Ijoid)

(28) *o my namina, ini o fomutęę.*
 3SG go.FACT if 3PL 3SG beat.COMPL.NSM
 ‘If he had gone (there), they would have beaten him.’ (Jenewari 1977: 133)

- ❖ Mbembe contains an irrealis marker (Richter 2014: 290). This is not used in counterfactual conditionals

Mbembe (Jukonoid)

(29) *é lé má lè ē vā kyá átē,*
 3SG if be that 3SG drink medicine DEM.PROX
 ‘If he had drunk this medicine,

hú ē lē fū-ē mū.
 DEF.SG 3SG REC.PST die-NEG NEG
 he would not have died.’ (Richter 2014: 303)

5. Families of constructions

- There was a tendency in classical generative grammar to consider one construction in relation to a particular rough paraphrase (Goldberg 2006: 19).
- Syntactic structures with similar forms and meanings were the result of transformations that derived one pattern from another (Diessel 2019: 199).
- A well-known example is the passive sentence.
- It was proposed in traditional generative grammar that passive sentences were derived from active sentences by a set of operations such as **movement, deletion and auxiliary insertion**, which together constitute the passive transformation (Diessel 2019: 199).
- However, the fact that syntactic structures are related by derivational processes has long been challenged in particular by work in the framework of usage-based construction grammar (e.g. Goldberg 1995).
- One of the major assumptions of the usage-based view of language within is that the grammar of each language consists of a **NETWORK OF CONSTRUCTIONS**, in which they have associative connections with one another (a grammar network approach).
- This network of constructions is known as the **CONSTRUCTICON**, a large repository of form-meaning pairs.
- Related constructions which share more or less the same semantic-pragmatic characteristics are considered a **FAMILY OF CONSTRUCTIONS**.
- Unlike the derivation processes assumed in the classic version of generative grammar, associative connections between constructions, in usage-based construction grammar, reflect the language users’ experience with particular patterns (Croft 2001; Diessel 2019).

FAMILIES OF CONSTRUCTIONS (probably not a new idea!)

- Admittedly, the idea that constructions can be organized into groups of formally and functionally connected configuration is not new (Ruiz de Mendoza Ibáñez et al. 2017: 2).

- Shibatani (1985) analyzes whether passive constructions show formal resemblances to other constructions with similar meanings (e.g. reflexives and reciprocal constructions) on the basis of prototype categorization.
- Another example is found in Goldberg & Del Giudice (2005). They explore English subject-auxiliary inversion constructions taking into account a network approach.
- In a similar fashion, Goldberg & Jackendoff (2004) propose a family-resemblance account of English resultative constructions.
- Leuschner (2020) investigates functional and formal resemblances of different types of concessive conditionals in German by adopting insights from Radical Construction Grammar.
- These studies have contributed to the ongoing development of increasingly more precise tools that take us beyond the study of isolated constructions into the investigation of the various constructions of specific languages.
- However, as acknowledged by Ruiz de Mendoza Ibáñez et al. (2017: 2), very little attention has been paid to the analysis of constructional families from a typological perspective.
- By adopting this crosslinguistic approach, “typologists can capture the productive or constrained quality of comparable constructional realizations in a variety of languages” (Ruiz de Mendoza Ibáñez et al. 2017: 3).
- This can lead us to formulate hypotheses about how existing schemas may be used to categorize novel linguistic experiences.

FAMILIES OF CONSTRUCTIONS: COUNTERFACTUALS

- ❖ Counterfactuals are typically associated with the kind of conditional construction exemplified in (30).

(30) *If I had known that, I wouldn't have appointed him* (counterfactual conditional).

- ❖ However, they may show up in other guises as well:

(31) *The child is crying, as if I had hit him.*

Turkish (Turkic)

(32) *söyle-se-m de, gel-mez-di-n sen.*
 say-COND-1SG even come-NEG.AOR-PST.COP-2SG you
 ‘Even if I had told you, you wouldn’t have come.’ (Menz 2016: 95)

Khmer (Austro-Asiatic)

(33) *baeu kom ba:n kun bawn preah lo:k cuaj,*
 if NEG get merit grace lord monk help
 ‘Without the help of God,

srac bat tev haeuj.
 ready disappear go already
 I would have been lost.’ (Haiman 2011: 226)

Sidaama (Lowland east Cushitic)

- (34) *aiyaan-ú baiččo mar-oo-mm-o-ro buša=ho hee'r-ø-i.*
 festival-GEN.M place go.PRS.PERF-1SG-M-if bad=NPC live-3SG.M-PERF.3SG.M
 ‘It would have been bad if I had gone to the festival (I am glad that I did not go there).’
 (Kawachi 2007: 412)

- ❖ Apart from complex sentences, counterfactuality can also be expressed by simple clauses, as in (35) (Van linden & Verstraete 2008: 1888).

Ik (Kuliak)

- (35) *ats-í-a ka=naa barats-o=nák^a.*
 come-1SG-REAL HYP=PST morning-INSTR=DEM.SG.PST
 ‘I would have come this morning!’ (Schrock 2014: 516)

Some languages have a construction that could be regarded as a counterfactual conditional construction with an elided main clause (36) (Kawachi 2014: 91).

- (36) *If only she had come!*

- ❖ The counterfactual constructions discussed above form a ‘family of constructions.’
- ❖ In the present study, special attention is paid to formal function differences between counterfactual conditionals and:
 - **Hypothetical manner constructions**
 - **Simple clause counterfactual constructions**

➤ **NOTE. This phase of the project is still in its infancy!**

5.1 Counterfactual conditional and hypothetical manner constructions

- ❖ A large number of unrelated languages scattered throughout the world share a complex sentence construction that portrays a counterfactual situation (‘do X as if Y were true’) (Dixon 2009: 35; Hetterle 2015: 54; Olguin Martinez 2021).
- ❖ **SO FAR**, the African languages in the sample use different TAM values in ‘as if’ clauses and counterfactual conditional protases.

Donno So (Dogon)

- (37) *î yă: yà:-dè-Ø, kîdè wò=íj mí bënd-é-Ø gînè.*
 child tears weep-IPFV-3SG.SBJ thing 3SG=ACC 1SG.SBJ hit-PFV-3SG like
 ‘The child is crying, as if I had hit him.’ (Heath 2014: 269)

- (38) *sé:dù yèl-â: wó bènè,*
 Seydou come-PST.ANT 3SG if
 ‘If Seydou had come,

<i>mí</i>	<i>wò=ǰ</i>	<i>kè:lé</i>	<i>ó:bò=bè-ǰ.</i>
1SG	3SG=ACC	money	give=PST-1SG

I would have given him (some/the) money.'

5.2 Counterfactual conditional and simple clause counterfactual constructions

- ❖ counterfactuality can also be expressed by simple clauses (Van linden & Verstraete 2008: 1888).
- ❖ **SO FAR**, the African languages in the sample use the same TAM values in simple clause counterfactual constructions and counterfactual conditional apodoses.

Ik (Kuliak)

(39) *ats-í-a* *ka=naa* *barats-o=nák^a.*
 come-1SG-REAL HYP=PST morning-INSTR=DEM.SG.PST
 'I would have come this morning.' (Schrock 2014: 516)

(40) *na=ká=naa* *járém-a* *bira-ɔ-k²,*
 CONJ=HYP=PST insecurity-NOM not.be-3SG-SEQ
 'If insecurity had not been there,

ka-í-ísin-a *ka=nak^a.*
 go-PLUR-1PL.INCL-REAL HYP=PST
 we would have gone regularly.' (Schrock 2014: 517)

6. Final remarks

- It has often been claimed that if counterfactual conditionals are encoded with an unspecialized clause-linking device in a given language, at least one of the clauses must be marked with non-actualized TAM values (e.g. irrealis, subjunctive) that aid in the counterfactual conditional meaning of the construction (Olguin Martinez & Lester 2021).

In a number of African languages, this is not the case!

- If a language expresses counterfactual conditionals by means of paratactic constructions, at least one of the linked state of affairs has to be marked as irrealis (by means of irrealis, dubitative, or hypothetical elements) in order for the counterfactual conditional relation to be inferable (Olguin Martinez & Lester 2021).

African languages in the sample align with this crosslinguistic observation

- Counterfactual conditionals marked with specialized clause-linking devices tend occur with actualized TAM.

African languages in the sample seem to align with this crosslinguistic observation

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