

The essence of a category. Lessons from the subjunctive

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1 Introduction

The subjunctive is not a homogenous category across languages. I argue that we are inclined to label a language-specific category as a subjunctive if it contrasts with an independent main assertive clause type (sometimes labeled as indicative).

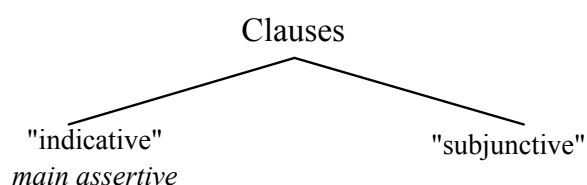


Figure 1 defining the subjunctive

I show that this contrast can be established in different ways. Thus, subjunctive is not a natural class: it cannot be defined based on form nor on interpretation. Consequently, any analysis that aims to treat the subjunctive as a primitive category is bound to fail. It is for this reason that the in the typological literature categories are often treated as prototypes “with fuzzy boundaries” (Comrie 1989:38). At the same time, the fact that there is no universal subjunctive category cannot be taken as evidence that there is no universal grammar (as for example Evans & Levinson 2009 do). As I will show, there are universal underpinnings for the construction of subjunctives. However, across language this construction plays out in different ways. I conclude that language-specific categories are always constructed (Wiltschko, in preparation).

This paper is organized as follows. In section 2, I introduce a common analysis of subjunctive in terms of defective tense. This defines the main analytical puzzle I address in this paper: if indeed subjunctive is characterized by defective tense, then the question arises regarding its status in tenseless languages. To develop this analysis, I introduce in section 3 my assumptions about the status of grammatical categories more generally. In particular, I review Ritter & Wiltschko’s (to appear) analysis of tenselessness. This analysis is based on the premise that universal categories cannot be defined in terms of their content. In section 4 I review the analysis of a subjunctive in a tensed language (Cypriot Greek) as developed in Christodoulou & Wiltschko 2012. I then proceed in section 5 to the original empirical contribution of this paper: the description and analysis of an unusual subjunctive found in Upper Austrian German. What is unusual about the subjunctive in this language is – among other things – the fact that it may appear in matrix independent clauses. I will argue that in this language, subjunctive is used instead of tense. However, I will show in section 6, that while tenselessness is a necessary condition for this type of subjunctive to be constructed, it is not a sufficient condition. There are tenseless languages in which the subjunctive has a more regular distribution than in Upper Austrian. I then conclude in section 7 with a formal typology of subjunctives as well as some remarks about the essence of grammatical categories.

2. What is the categorial status of subjunctives?

It is a common analysis for the subjunctive that it is defined as defective tense. For example, Picallo 1984, 1985 argues that subjunctive is featurally characterized as [-tense, +agr] contrasting with indicative clauses, which are [+tense, +agr]. A more recent incarnation of this view is developed in Giannakidou 2009 who argues that the essence of subjunctive is that it encodes a dependency. The defective tense analysis has two major consequences. First, its defectiveness requires the subjunctive to be dependent on a higher structure. And second this dependency results in the transparency of the subjunctive clause (i.e., embedded CP and TP do not create an opaque domain).

$$(1) \quad [{}_{TP} T \dots [{}_{CP} [{}_{TP} T_{\text{defective}} \dots]]]$$

2.1 Diagnosing defective tense

Evidence for its dependency stems from the fact that the temporal specification of the subjunctive clause depends on that of the matrix tense, as shown in (2) based on Catalan and independent temporal reference cannot be established, as shown in (3) based on Greek.

- (2) CATALAN
- a. *Sabia que telefona/ telefonava*
 know.IMPF.1SG that phone.IND.PRS.3SG/phone.IND.IMPF.3SG
 ‘I knew that s/he calls/that she used to call.’
- b. *Desitja que telefoni/ *telefonés*
 Desire.PRS.3SG that phone.SUB.PRS.3SG/phone.SUB.IMPF.3SG
 ‘S/he wishes that s/he calls/called.’ Quer 2006 (2)

- (3) GREEK
- *O eaftos to arxizi na ton anisixi avrio*
 DET self his.NOM begin-3SG SUBJ PC worry.3SG tomorrow
 ‘He started being worried about himself tomorrow.’
 Alexiadou & Anagnostopoulou 1999, 30b

Its dependency is also evidenced by the fact that, typically, the subjunctive cannot be used in matrix clauses. This is shown in (4), based on Catalan.

- (4) CATALAN
- a. **Daniel haya llamado*
 Daniel call.SUB.PERF.3SG
 ‘Daniel has called.’
- b. **Ahir ploqués*
 Yesterday rain.SUB.IMPF.3SG
 ‘Yesterday it rained.’ Quer 2006 (3)

As a result of this dependency, embedded clauses are transparent for different types of relations into the matrix clause. For example, subjunctive clauses may trigger obviation effects such that the embedded subject must be interpreted as disjoint from the matrix subject. This is shown in (5) based on Spanish.

- (5) SPANISH
- a. **Queremos_i que ganemos_i*
 want.1PL that win.SUB.PRS.1PL
 ‘We want to win.’
- b. *Queremos_i que ganen_k*
 want.1PL that win.SUB.PRS.3PL
 ‘We want them to win.’ Quer 2006 (29)

And finally, in some languages, subjunctives allow for long distance anaphors as shown in (6) on the basis of Icelandic.

- (6) ICELANDIC
- a. *Jón_i veit að Pétur_j rakar sig*_{i/j}*
 Jón know.3SG that Pétur shave.IND.3SG self
 ‘Jón knows that Pétur shaves himself.’
- b. *Jón_i segir að Pétur_j raki sig_{i/j}*
 Jón say.3SG that Pétur shave.SUB.3SG self
 ‘Jón says that Pétur shaves himself.’ Quer 2006 (29)

2.2 Subjunctives in tenseless languages

The particular problem I address in this paper concerns the categorial status of subjunctives in tenseless languages. As is well known not all languages make use of the morpho-syntactic category tense. This is evident from the fact that the temporal interpretation of matrix clauses is not dependent on tense marking. Instead, an unmarked predicate is compatible with both a present and a past interpretation. This is true for both Blackfoot (Algonquian) and Halkomelem (Salish) (Ritter & Wiltschko, 2009, to appear).

- (7) BLACKFOOT
- Oma píitaawa áipaawaniwa.*
 om-wa píitaa-wa a-ipaawani-wa
 DEM-PROX eagle-PROX IMPF-fly.AI-PROX
 ‘That eagle is/was flying up.
 (adapted from Reis Silva & Matthewson 2007: (8))

- (8) HALKOMELEM
- í qw'eyílex tútl'ò*
 AUX dance he
 ‘He is/was dancing.’

What is interesting from the present perspective is that these tenseless languages have a category that is labeled as a subjunctive in the relevant reference grammars. As for Blackfoot, we find in this language five different clause-types, known as orders and modes, as schematized in Figure 2

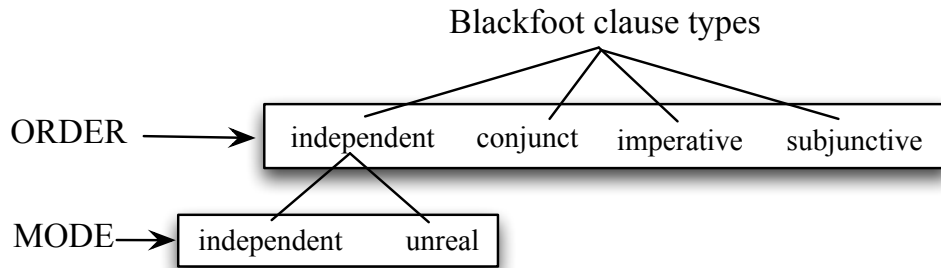


Figure 2: Blackfoot clause types

The clause-type classified as subjunctive is found, for example, in conditional clauses such as (9).

- (9) BLACKFOOT
Nitsiikaakaahsi'taki aotoyaakihtsiniki
 nit-iik-aak-yaahssi-i'taki a-oto-yâakihts-**iniki**
 1-INT-FUT-be.good.VTI-feel.emotion DUR-go.to.do-go.to.bed-SUBJ
 'It will make me happy when you go to bed.' (BB)

Interestingly, however, there is another clause-type, which – based on its interpretation – might be classified as a type of subjunctive. It refers to unreal situations and occurs in counterfactual conditionals. This clause-type, illustrated in (10) is labeled as unreal in Frantz' 1991 grammar of Blackfoot.

- (10) BLACKFOOT
Kitsaotoyaakihts-htopi nitsiikaak-ok-i'taki
 kit-saw-oto-yâakihts-**htopi** nit-iik-aak-ok-i'taki
 2-NEG-go.do.do-go.to.bed-UNREAL 1-INT-FUT-bad-feel.emotion
 'If you hadn't gone to bed, I would have been mad.' (BB)

Turning to Halkomelem, we also observe the existence of a clause-type which has been labeled as a subjunctive by Galloway 1993. It exists alongside three other clause-types (independent, nominalized, and imperative) as shown in Figure 3.

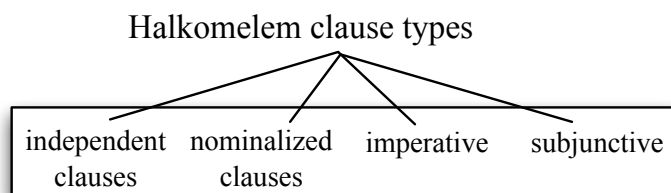


Figure 3 Halkomelem clause types

The subjunctive in this language has a distribution commonly associated with subjunctives: it occurs in negative sentences (11) as well as conditionals (12).

- (11) HALKOMELEM
 a. *éwe i-s lhemexw*
 NEG AUX-3SS rain
 'It is not raining.'
 b. *éwe i-s kw'éts-l-àlèm*

NEG AUX-3S see-TRANS-1SG.PASS
 ‘I wasn’t seen.’

- (12) HALKOMELEM
- a. *we li-s l-stl’i kw-el-s lam lam-tsel*
 if AUX-3SG.SUBJ 1SG.POSS-want C-1SG.POSS-NOM go go-1SG.S
 ‘If I want to go, I will go.’ Galloway 1993: 451
- b. *li t’wa iyolem we i-l-elh ts-xelce*
 AUX PART alright COMP AUX-1SG.SUBJ-PAST VBL-catch
 ‘It would be good if I caught a fish.’ Thompson 2012: 45 (43)

Finally, Upper Austrian German, another tenseless language (see section 5.1 for evidence) also has a subjunctive. In this language, subjunctive clauses contrast with other clause-types, namely the indicative, the imperative, and the infinitive as illustrated in Figure 4.

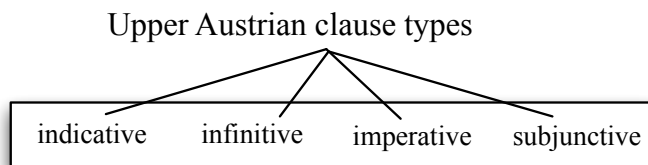


Figure 4 Upper Austrian clause-types

The subjunctive occurs in some of the typical subjunctive environments: conditionals (13) and reportatives (13).

- (13) UPPER AUSTRIAN GERMAN
- a. *Wonn a nua ham gang-at.*
 If he only home go-SUBJ
 ‘If only he went home.’
- b. *Ea hot gsogt....*
 He has said....
 ... *ea gan-at gean ham.*
 ... he go-SUBJ preferably home
 ‘He said he would like to go home.’

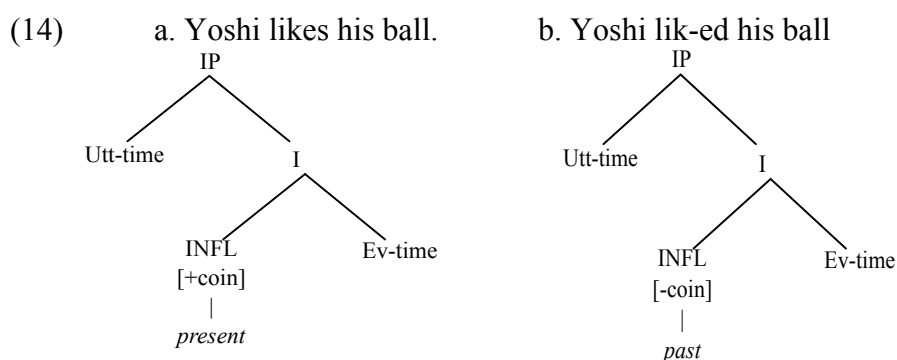
If the categorial status of the subjunctive is indeed defined as defective tense then the question arises as to what its categorial status is in tenseless languages: if there is no tense, then how can there be a defective tense? To answer this question, we first need to establish the syntax of tenselessness.

3. The syntax of tenselessness

To develop a typology for subjunctives including those of tenseless languages I adopt the framework introduced in Ritter & Wiltschko 2009, to appear (henceforth R&W). Their main thesis is that functional categories are not intrinsically associated with substantive content, but that, instead, content is associated with abstract categories on a language specific basis (see also Wiltschko, in preparation). I here briefly review their proposal.

3.1 Tense

If functional categories are not intrinsically associated with substantive content, their label should also not be based on the substantive content they spell out. Thus, R&W use the label INFL instead of tense. Building on work by Demirdache & Uribe-Etxebarria 1997, they propose that INFL is intrinsically equipped with an unvalued coincidence feature [*u*coin]. This coincidence feature is responsible for ordering two abstract arguments: the utterance situation in SpecIP and the event situation in SpecVP.¹ Following standard minimalist assumptions, unvalued features must be valued in the course of the derivation. Though R&W depart from standard minimalism in assuming that it is the substantive content of the linguistic objects (henceforth LO) associating with INFL that is responsible for valuation. In particular, present tense marking values [*u*coin] as [+coin] (14) while past tense marking values INFL as [-coin] (14).



The valuation of [*u*coin] via the substantive content associated with the morphological marking is referred to as **m(orphological)-valuation**. Note further that the substantive content associated with the valuation strategy not only determines the interpretation of the functional head, but it also influences the interpretation of the abstract situation arguments that INFL orders. In particular, in the case of temporal content, these abstract arguments are interpreted as *times*. This is consistent with the assumption that situations contain temporal coordinates, in addition to spatial coordinates as well as participants.

3.2 Tenseless languages

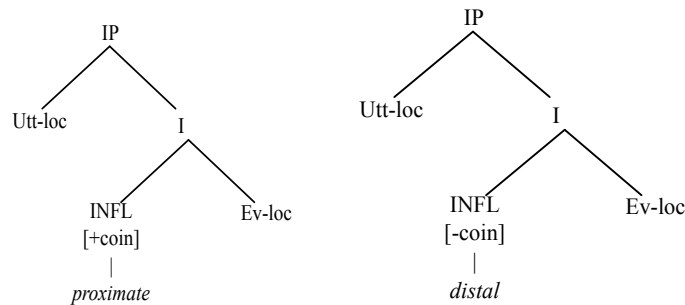
On this view of categories, tense-lessness receives a straightforward analysis. If the function of INFL is dissociated from its substantive content, we may expect that [*u*coin] may be m-valued by LO's of different substantive content. In particular R&W argue that in Halkomelem locative auxiliaries serve to m-value [*u*coin]: proximate auxiliaries value INFL as [+coin] asserting that the event location coincides with the utterance location and distal auxiliaries value INFL as [-coin] asserting that the event location does not coincide with the utterance location.

- (15) a. *í* *qw'eyilex tútl'ò*
 PROX dance he

¹ For ease of exposition I abstract away from the role of reference time associated with aspect.

- b. *li qw'eyilex tútl'ò*
DIST dance he
 'He is/was dancing [here]'
 'He is/was dancing [there].'

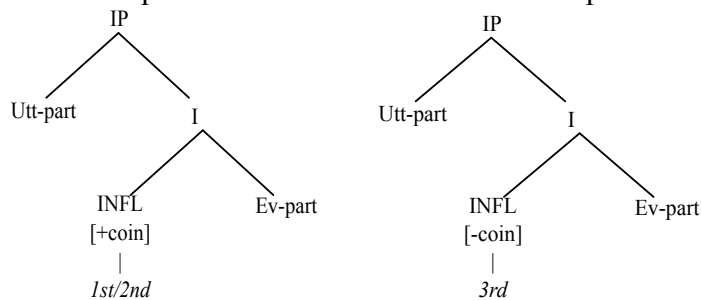
- (16) a. Proximate auxiliaries b. distal auxiliaries



As for Blackfoot, R&W argue that in this language [*u*coin] is valued by participant marking. In particular, local person marking (1st and 2nd person) values INFL as [+coin] asserting that the event participant coincides with the utterance participant (speaker or addressee) while non-local person marking (3rd person) values INFL as [-coin] asserting that the event participant does not coincide with the utterance participant.

- (17) a. *Kitsinóóhpoaawa*
 kit-ino-o-**hp**-oaawa
 2-see-1:2-LOCAL-2Pl
 'I saw you (pl).'
- b. *Ana póókaawa inoyíwa ani imitááyi*
 an-(w)a pookaa-wa ino-yii-**Ø**-wa an-(y)i imitaa-yi
 DEM-PROX child-PROX see-DIR-**3**-PROX DEM-OBV dog-OBV
 'The child saw the dog'

- (18) a. local person b. non-local person



Thus, on this view, the universal category INFL is the universal basis for the construction of three language-specific grammatical categories: tense, location, and person. This is schematized in Figure 5.

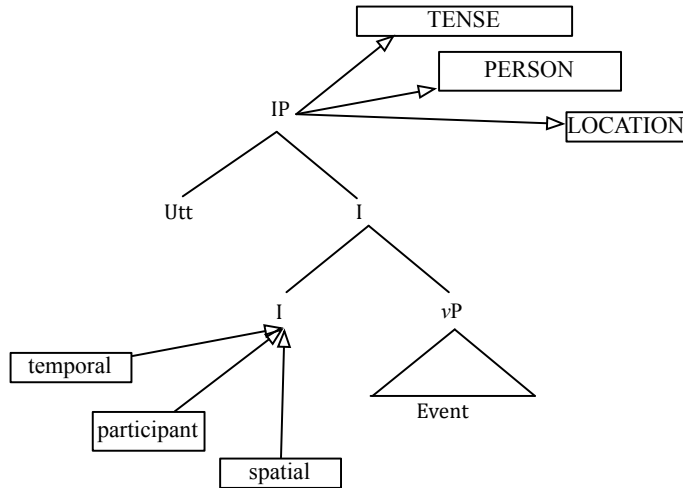


Figure 5: constructing language specific categories via m-valuation

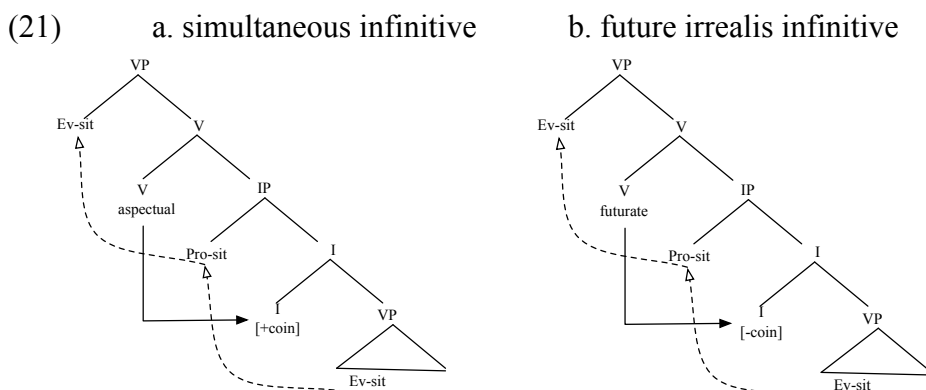
Tense-less languages are defined as those where INFL is valued by non-temporal content.

3.2 Tenseless constructions

In addition to providing a framework to analyse tenseless languages, R&W also explore tenseless clause-types, such as infinitives and imperatives as well as constructions where tense appears to be fake, as in counterfactuals. Consider first infinitives. There are (at least) two types of infinitival complements: simultaneous infinitives (19) and future irrealis infinitives (20).

- (19) *Yoshi is starting to play*
 (20) *Yoshi wants to play.*

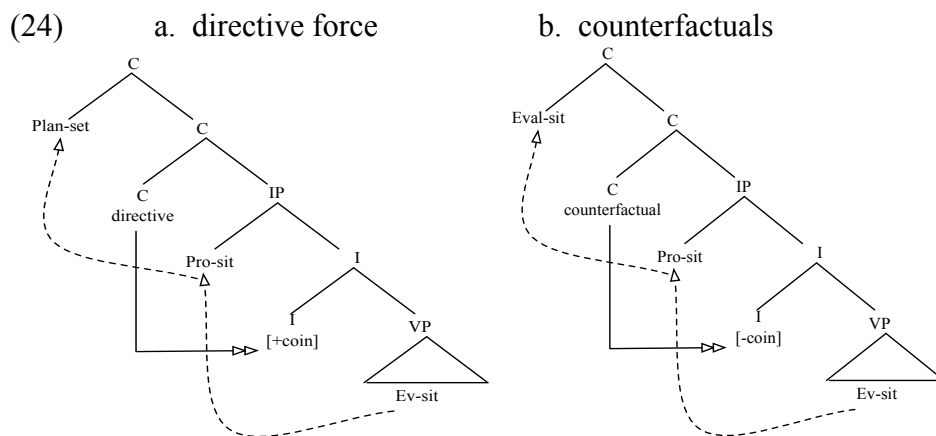
In the absence of tense-marking, [*ucoin*] in INFL of the embedded predicate is valued by the substantive content of the embedding predicate. Aspectual verbs selecting for simultaneous infinitives value [*ucoin*] as [+*coin*] whereas future-oriented verbs selecting for future irrealis infinitives value it as [-*coin*]. In this case the abstract situation argument associated with SpecIP is pronominal. Its deictic character in matrix clauses is a default interpretation in the absence of an appropriate antecedent (Enc 1987). Thus a simultaneous infinitive asserts that the embedded event coincides with the event denoted by the embedding predicate (21) while a future irrealis infinitive asserts that the embedded event does not coincide with it (21).



The valuation of [*u coin*] via the substantive content associated with the embedding predicate is referred to as **pred(icate)-valuation**.

The third valuation strategy is via a higher functional head. In the case of INFL this head is C and thus this strategy is labelled as **C-valuation**. R&W argue that in imperatives [*u coin*] is valued by the substantive content associated with imperative C (22). The directive force values it as [+coin]. They follow Han 2006 in assuming that directive force introduces a plan-set, which R&W assume to be associated with SpecCP. Thus an imperative directs the addressee to put the the event-situation into their plan set (24). The [-coin] value is argued to be derived via counterfactuality associated with C (23). In this configuration, INFL asserts that the event situation does not coincide with the evaluation world associated with SpecCP (24).

- (22) (You) be quiet!
 (23) If I had a car right now, I would drive



In sum, according to the R&W framework, there is a universal category INFL which is associated with an unvalued coincidence feature. This feature is valued by substantive content but there are three different strategies for valuation: m-valuation, pred-valuation, and C-valuation. Tensed clauses are defined as those clauses where morphological tense marking serves to value INFL via m-valuation. Clause-types where the substantive content associated with other syntactic heads value [*u coin*] have in common that they are *tenseless*. This is summarized in Figure 6.

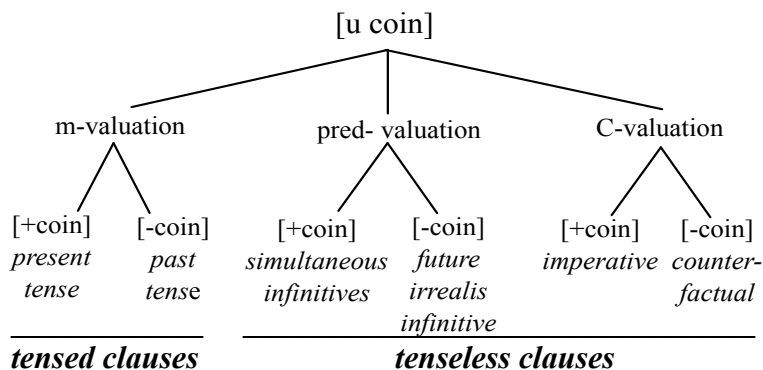


Figure 6 Valuation strategies for INFL in English

4. The syntax of subjunctives: the case of Cypriot Greek

The typology for INFL-valuation developed in R&W is the basis for the analysis of the subjunctive in Cypriot Greek by Christodoulou & Wiltschko 2012 (henceforth C&W). Cypriot Greek is a tensed language. The subjunctive marker *na* is found in all of the tenseless constructions identified in Figure 6: simultaneous and future irrealis events as well as imperatives and counterfactuals. I here discuss each of them in turn. Aspectual verbs, such as *arxis-* ('start') and *katafer-* ('manage') embed complement clauses introduced by *na* (25).

- (25) a. *O Kostas arxis-e ...*
 det Costas start.PRF-PAST.3.SG ...
...na pez-i kithara
 ...subj play.IMPV-PRES.3.SG guitar
 'Costa has started playing the guitar.'
- b. *Katafer -a ...*
 manage.PRF-PST.1.SG ...
...na parados-o ti diatrivi mu.
 ...subj submit.PRF-DEP.1.SG DET dissertation 1SG.GEN
 'I managed to submit my dissertation.'

In (25) the embedded event is interpreted as occurring simultaneously to the matrix event consistent with the analysis according to which the matrix predicate values INFL as [+coin]. Future-oriented verbs like *thel-* ('want') also embed complement clauses introduced by *na*.

- (26) a. *thel-is ...*
 want.IMPV-PRES.2.SG ...
...na par-ume liga frut -a?
 ...subj take.PRF-DEP.1.PL little fruit-NEU.PL.ACC
 'Would you like us to get some fruit?'
- b. *i-thel-a...*
 PAST-want.IMPV-PAST.1.SG
...na pernus-ame ap' ti vivliothiki.
 ...SUBJ PASS.IMPV-PAST.1.PL from DET library
 'I wanted us to pass by the library.'

In (26), the embedded event is interpreted as following the matrix event, if it occurs at all. This is consistent with the analysis according to which the matrix predicate values INFL as [-coin].

Contexts of C-valuation are also consistent with *na*. Both imperatives (27) and counterfactuals (28) are marked as subjunctive via *na*.

- (27) *na mas grap-s-ete.*
 SUBJ 1.PL.GEN write.PRF-DEP.2.PL
 '(do) write to us!'
- (28) *An kerdiz-es to laxio...*
 if win.IMPV-PST.2.SG DET lottery ...
...na anakeniz -es to spiti

...SUBJ renovate.IMPf-PST.2.SG DET house
 ‘If you had won the lottery, you would have been able to renovate the house.’

This establishes that *na* is used in all contexts where INFL is valued from a higher head: via predicate valuation or via C-valuation. Conversely, *na* cannot be used in the context of m-valuation (i.e., in indicative clause-types with present or past marking). This is shown in (29)-(31).

- (29) a. *O Petr-os kolimb-ai kaθe proi.*
 DET Petr-NOM swim.IMPf-PRES.3.SG every morning
 ‘Peter swims every morning.’
 b. *O Petros kolimb-ai tora.*
 det Petr-NOM swim.IMPf-PRES.3.SG now
 ‘Peter is swimming right now.’
- (30) a. *O Petr-os kolimb-use kaθe proi.*
 DET Petr-NOM swim.IMPf-PAST.3.SG every morning
 ‘Peter was swimming/used to swim every morning.’
 b. *O Petr-os kolimb-is-e xθes to proi.*
 DET Petr-NOM swim-PRF-PRES.3.SG yesterday DET morning
 ‘Peter swam yesterday morning.’
- (31) a. **O Petr-os na kolimb-ai tora.²*
 DET Petros-NOM SUBJ swim.IMPf-PRES.3.SG now
 b. **/??O Petr-os na kolimb-is-i tora.*
 DET Petros-NOM SUBJ swim-PRF-DEP.3.SG now
 ‘Peter should swim right now.’

It is not immediately clear what these clause-types introduced by *na* have in common. They do not form an obvious natural class. However, in terms of the typology of INFL valuation, its distribution can be straightforwardly stated: *na* is used when INFL is not valued via m-valuation, i.e., in the context of predicate- and C-valuation.

To unify the use of *na* across predicate- and C-valuation C&W suggest that *na* spells out the unvalued coincidence feature in INFL. In other words, *na* lexicalizes [*u*coin]. Since, per UG, unvalued features must be valued, the presence of *na* indicates that INFL is yet to be valued. At this point in the derivation this must be achieved via a higher head and thus *na* appears to be dependent on a higher head.

What makes *na* marking in Cypriot Greek qualify as a subjunctive is the fact that it contrasts with the independent clause-type. In this case this contrast comes about via the impossibility of spelling out an unvalued feature in the context of m-valuation. Accordingly, the Cypriot Greek subjunctive qualifies as the elsewhere case (see also Portner 1997, Schlenker 2005, and Siegel 2009).

² The example in (31) is grammatical when the main focus of the utterance falls on the subject *o Petros*. However, in this case the sentence receives a modal interpretation, such that ‘Petros should (be the one to) swim now’, or an Imperative reading where Petros is indirectly instructed to swim. Therefore, we suggest that in such cases it is the modal force which values the [*u*coin] feature of INFL.

In as much as this analysis of *na* is successful, it provides us with further support for the dissociation of the function of a functional category from its substantive content. If function and content were intrinsically related, we would not expect there to be exponents of functional categories that lack content. But that's precisely what *na* is: a functor without content. It is therefore not surprising that meaning-based analyses are not successful.

As mentioned above, several traditional analyses for the subjunctive have treated it as an instantiation of *defective tense*. In the case of *na* this is unsurprising given the typology in terms of INFL valuation: *na* occurs in precisely those environments where m-marking, in the form of tense does not. However, the typology developed here has the added advantage that it can straightforwardly be extended to subjunctives in tenseless languages, such as Halkomelem, Blackfoot, and Upper Austrian German, as I will now show. In contrast, it is not clear what predictions the defective tense analysis would make in light of subjunctives in tenseless languages.

5. Subjunctive in Upper Austrian German

The subjunctive in Upper Austrian contrasts with the indicative more directly. In particular, I argue that subjunctive marking values [*u*coin] in INFL as [-coin] via m-valuation, while indicative values it as [+coin]. Thus in this dialect the indicative/subjunctive contrast replaces the present/past contrast of Standard German. The latter is a contrast based on tense, whereas the former, I suggest, is a contrast based on reality. I start by showing evidence that Upper Austrian is tense-less (5.1). I then show that it has a productive subjunctive (5.2) which can be analyzed as valuing INFL as [-coin] via m-valuation (5.3). And finally I discuss the predictions of this analysis showing that the Upper Austrian subjunctive unlike those of other languages does not show the usual dependency effects (5.4).

5.1 Upper Austrian German is tenseless

According to the criteria developed in R&W the Upper Austrian dialect of German is tenseless: there is not obligatory morpho-syntactic contrast between present and past. The first argument to this effect comes from the fact that there is no dedicated form for the simple past. To see this compare the Upper Austrian verbal paradigm Table 1 to the paradigm found in Standard German Table 2. The forms corresponding to the Standard German simple past are unattested in Upper Austrian German. This holds true for both strong verbs, where past in Standard German is marked via Ablaut as well as for weak verbs, where past in Standard German is marked by the suffix *-te*.

	strong verbs		weak verbs	
	Present	Simple Past	Present	Simple Past
1sg	<i>Ich komm-e</i>	<i>Ich kam</i>	<i>Ich koch-e</i>	<i>Ich koch-te</i>
2sg	<i>Du komm-st</i>	<i>Du kam-st</i>	<i>Du koch-st</i>	<i>Du koch-te-st</i>
3sg	<i>Er komm-t</i>	<i>Er kam</i>	<i>Er koch-t</i>	<i>Er koch-te</i>
1pl	<i>Wir komm-en</i>	<i>Wir kam-en</i>	<i>Wir koch-en</i>	<i>Wir koch-te-n</i>
2pl	<i>Ihr komm-t</i>	<i>Ihr kam-t</i>	<i>Ihr koch-t</i>	<i>Ihr koch-te-t</i>

3pl	<i>Sie komm-en</i>	<i>Sie kam-en</i>	<i>Sie koch-en</i>	<i>Sie koch-te-n</i>
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Table 1 Standard German present and past

	strong verbs		weak verbs	
	unmarked	*Simple Past ³	unmarked	*Simple Past
1sg	<i>I kum</i>	* <i>I kam</i>	<i>I koch</i>	* <i>I koch-te</i>
2sg	<i>Du kum-st</i>	* <i>Du kam-st</i>	<i>Du koch-st</i>	* <i>Du koch-te-st</i>
3sg	<i>Ea kum-t</i>	* <i>Ea kam</i>	<i>Ea koch-t</i>	* <i>Ea koch-te</i>
1pl	<i>Mia kum-en</i>	* <i>Mia kam-en</i>	<i>Mia koch-n</i>	* <i>Mia koch-te-n</i>
2pl	<i>Ia kum-ts</i>	* <i>Ia kam-ts</i>	<i>Ia koch-ts</i>	* <i>Ia koch-te-ts</i>
3pl	<i>Si kum-en</i>	* <i>Si kam-en</i>	<i>Si koch-n</i>	* <i>Si koch-te-n</i>

Table 2 Upper Austrian present; past forms not attested

Note that is not just the case that an individual morphological exponent is lost, both allomorphs (Ablaut and *-te* suffixation) are equally affected: neither of them exists as a marker of past tense.

Secondly, the unmarked verb form is compatible with present, past and future time reference as indicated by the use of temporal adverbials. This is shown for strong verbs in (32) and for weak verbs in (33).

- (32) a. *I kum grod ham* present
I come now home
‘I am coming home right now’
- b. *I kum gestan ham* past⁴
I come yesterday home
‘I came home yesterday.’
- c. *I kum moagn ham* future
I come tomorrow home
‘I will come home tomorrow.’
- (33) a. *I koch grod* present
I cook now
‘I am cooking right now’
- b. *I koch gestan* past
I cook yesterday
‘I was cooking yesterday.’
- c. *I koch moagn* future

³ As we shall see in section 5.2 these forms of the strong verbs are attested, but they do not have a past interpretation. Instead, they are used for the subjunctive.

⁴ In isolation the past time interpretation is not as readily available. It is facilitated with an introduction by *you know* and a locational particle in sentence initial topic position. Furthermore, the sentence seems to require a continuation with a sentence describing what happened next.

i) *Wasst eh, do kumm I gestan ham und da hund woa ned do*
KNOW PART LOC come I yesterday home and DET dog was not there...
‘You know. I came home yesterday and the dog wasn’t there.’

I will have to leave the exact conditions of use for the past use of the unmarked verb for another occasion. See Cowper (1998) for the different uses of the simple present in English.

I cook tomorrow
 'I will cook tomorrow.'

To unambiguously establish the temporal interpretation a periphrastic construction with an auxiliary and a non-finite form of the verb are used. Specifically, a past interpretation is achieved with a present perfect construal with *be* (34) or *have* (34) depending on the main verb and a past participle. A present interpretation is achieved with a prepositional construction ('I am at verb-ing'; (35)). And a future interpretation is achieved with the modal verb *werden* and the main verb realized as an infinitive (36).

- (34) a. *I bin ham kuma* past (via present perfect)
 I am home come.PART
 'I came home yesterday.'
- b. *I hob kocht*
 I have cook.PART
 'I came home.'
- (35) a. *I bin am ham kuma* present
 I am at home come.PART
 'I am coming home.'
- b. *I bin am kochn*
 I am at cook.INF
 'I am cooking.'
- (36) a. *I wead ham kum-a* future (via modalization)
 I will home come-INF
 'I will come home.'
- b. *I wead koch-n*
 I will cook-INF
 'I will cook.'

This conforms with general patterns of temporal interpretations: a past interpretation in tenseless languages is often accomplished aspectually (see for example Lin 2006 for Chinese).

For completeness note that there is a simple past for the auxiliary *sein* ('to be') as shown in (37). But even in the paradigm for *be* we observe the absence of past as a category. The evidence here has to do with the absence of a past perfect form in Upper Austrian German (38). This contrasts with Standard German where such a form exists (39).

- (37) a. *I bin kronk.*
 I be.PRES.1SG. sick
 'I am sick.'
- b. *I woa kronk.*
 I be.PAST.1SG. sick
 'I was sick.'
- (38) a. *I bin kronk gwen*
 I be.PRES.1SG. sick be.part
 'I was/have been sick.'
- b. **I woa krank gwen*

- I be.PAST.1SG. sick be.part
'I had been sick.'
- (39) a. *Ich bin krank gewesen*
I be.PRES.1SG. sick be.PART
'I was/have been sick.'
- b. *I war krank gewesen*
I be.past.1sg. sick be.part
'I had been sick.'

5.2 Upper Austrian German has a subjunctive

As noted above neither Ablaut nor suffixation are attested as past markers in Upper Austrian. However, they exist as markers of subjunctive. Weak verbs are suffixed by *-at* as shown in Table 3.

Weak verb: <i>koch</i> 'cook'	
	unmarked subjunctive
1sg	<i>I Koch</i> <i>I koch-at</i>
2sg	<i>Du koch-st</i> <i>Du koch-at-st</i>
3sg	<i>Ea koch-t</i> <i>Ea koch-at-t</i>
1pl	<i>Mia koch-n</i> <i>Mia koch-at-n</i>
2pl	<i>Ia koch-ts</i> <i>Ia koch-at-ts</i>
3pl	<i>Si koch-n</i> <i>Si koch-at-n</i>

Table 3 Subjunctive marking in Upper Austrian weak verbs

For strong verbs, the morphological properties of Upper Austrian subjunctive marking differ from Standard German past. Specifically, as illustrated in Table 4, there are three morphological strategies to mark strong verbs as subjunctive: Ablaut, *-at* suffixation (same as with weak verbs). And finally, the third strategy is for Ablaut and *-at* suffixation to co-occur.⁵

strong verb: <i>kum</i> 'come'				
	unmarked	subjunctive: ablaut	subjunctive: unmarked -at	subjunctive: ablaut -at
1sg	<i>I kum</i>	<i>I kam</i>	<i>I kum-at</i>	<i>I kam-at</i>
2sg	<i>Du kum-st</i>	<i>Du kam-st</i>	<i>Du kum-at-st</i>	<i>Du kam-at-st</i>
3sg	<i>Ea kum-t</i>	<i>Ea kam</i>	<i>Ea kum-at-t</i>	<i>Ea kam-at</i>
1pl	<i>Mia kum-en</i>	? <i>Mia kam-en</i>	<i>Mia kum-at-n</i>	<i>Mia kam-at-n</i>
2pl	<i>Ia kum-ts</i>	<i>Ia kam-ts</i>	<i>Ia kum-at-ts</i>	<i>Ia kam-at-ts</i>
3pl	<i>Si kum-en</i>	? <i>Si kam-en</i>	<i>Si kum-at-en</i>	<i>Si kam-at-n</i>

Table 4 Subjunctive marking in Upper Austrian weak verbs

The subjunctive in Standard German differs in form from its Upper Austrian counterpart. Specifically, Standard German has two types of subjunctives known as Konjunktiv 1 and Konjunktiv 2 with different distributional properties. As illustrated in Table 5, in weak verbs the former is marked with a suffix *-e* while the latter is identical in form with past tense marking.

⁵ The distribution of these forms has not yet been explored.

	weak verb: <i>koch</i> ‘cook’			
	present	past: -te	Konjunktiv 1: -e	konjunktiv 2: te
1sg	<i>Ich koch-e</i>	<i>Ich koch-te</i>	<i>Ich koch-e</i>	<i>Ich koch-te</i>
2sg	<i>Du koch -st</i>	<i>Du koch-te-st</i>	<i>Du koch-e-st</i>	<i>Du koch-te-st</i>
3sg	<i>Er koch -t</i>	<i>Er koch-te</i>	<i>Er koch e</i>	<i>Er koch-te</i>
1pl	<i>Wir koch -en</i>	<i>Wir koch-te-n</i>	<i>Wir koch-en</i>	<i>Wir koch-te-n</i>
2pl	<i>Ihr koch -t</i>	<i>Ihr koch-te-t</i>	<i>Ihr koch-e-t</i>	<i>Ihr koch-te-t</i>
3pl	<i>Sie koch -en</i>	<i>Sie koch-te-n</i>	<i>Sie koch-en</i>	<i>Sie koch-te-en.</i>

Table 5 Subjunctive marking in Standard German weak verbs

The homophony between past tense and Konjunktiv 2 has been argued to be responsible for the decline in the use of the synthetic subjunctive in favor of a periphrastic construction (Fabricius-Hansen & Sæbø 2004). As illustrated in Table 6, for strong verbs Konjunktiv 1 is formed based on the form for the present tense with an additional suffix *-e* whereas Konjunktiv 2 is formed by means of Ablaut, albeit a different type of Ablaut than past tense and the subjunctive *-e* suffix. Thus, in the case of strong verbs, past and subjunctive marking are not homophonous (though the periphrastic construction is still preferred).

	strong verb: <i>komm</i> ‘come’			
	present	past: ablaut	Konjunktiv 1: -e	konjunktiv 2: ablaut -e
1sg	<i>Ich komm-e</i>	<i>Ich kam</i>	<i>Ich komm-e</i>	<i>Ich käm-e</i>
2sg	<i>Du komm-st</i>	<i>Du kam-st</i>	<i>Du komm-e-st</i>	<i>Du käm-e-st</i>
3sg	<i>Er komm-t</i>	<i>Er kam</i>	<i>Er komm-e</i>	<i>Er käm-e</i>
1pl	<i>Wir komm-en</i>	<i>Wir kam-en</i>	<i>Wir komm-en</i>	<i>Wir käm-en</i>
2pl	<i>Ihr komm-t</i>	<i>Ihr kam-t</i>	<i>Ihr komm-e-t</i>	<i>Ihr käm-e-t</i>
3pl	<i>Sie komm-en</i>	<i>Sie kam-en</i>	<i>Sie komm-en</i>	<i>Sie käm-en.</i>

Table 6 Subjunctive marking in Standard German strong verbs

In sum, we have seen that the form of subjunctive marking in Upper Austrian is more similar to past tense marking in Standard German than it is to subjunctive marking. This is consistent with the claim that Upper Austrian subjunctive and Standard German past associate with the same universal category INFL. This is despite the fact that they are classified as different categories according to traditional grammatical analysis (mood vs. tense, respectively).

5.3 The subjunctive in Upper Austrian German associates with INFL

I propose that Upper Austrian subjunctive marking associates with INFL thus instantiating another language-specific guise of INFL. Its morpho-syntactic distribution is consistent with this proposal. Consider again the fourth column of the paradigm in Table 4. Crucially, the subjunctive suffix *-at* precedes the agreement suffixes (*kam-at_{subj-stagr}*). Assuming that agreement marking may attach to whatever LO associates to INFL we may conclude that subjunctive marking is associated with INFL. Interestingly, agreement marking for 2nd person in Upper Austrian is associated with (finite) verbs and with complementizers (Bayer 1984). Specifically, in the absence of a complementizer, subject agreement is realized on the verb; as shown in (40). In the presence of a complementizer, the same subject agreement marker is associated with both the verb and the complementizer (41).

- (40) a. *nua du kumm-st*
 only you come-2SG
 ‘only you come are coming...’
 b. *nua es kumm-ts*
 only you.2PL come-2PL
 ‘if only you guise come...’
- (41) a. *Wenn-st nua du kumm-st*
 if-2SG only you come-2SG
 ‘if only you come...’
 b. *Wenn-ts nua es kumm-ts*
 if-2PL only you.2PL come-2PL
 ‘if only you guise come...’

Crucially, subjunctive marking is restricted to verbs (42) and cannot attach to complementizers (43).

- (42) a. *nua du kumm-at-st*
 only you come-SUBJ-2SG
 ‘Only you would come.’
 b. *nua es kumm-at-ts*
 only you.PL come-SUBJ-2SG
 ‘Only you guys would come.’
- (43) a. *wonn-st nua du kumm-at-st*
 if-2SG only you come-SUBJ-2SG
 ‘if only you would come.’
 b. * *wonn-at-st nua es kumm-at-ts*
 if-SUBJ-2SG only you.PL come-SUBJ-2SG
 ‘Only you guys would come.’
 c. * *wonn-at-st nua es kumm-ts*
 if-SUBJ-2SG only you.PL come-SUBJ-2SG
 ‘Only you guys would come.’

This suggests that subjunctive marking associates with a position lower than that for complementizers.

At the same time, there is evidence that subjunctive marking must be associated with a position higher than that of Viewpoint aspect. We know this because subjunctive marking may co-occur with view-point aspect marking. In particular, subjunctive marking is compatible with both imperfective (unmarked) and perfective (marked) constructions. And crucially it associates with the finite auxiliary verb rather than with the participle. This holds for both strong verbs (44) and weak verbs (45). This pattern is reminiscent of tense marking, which is generally assumed to be associated with INFL.

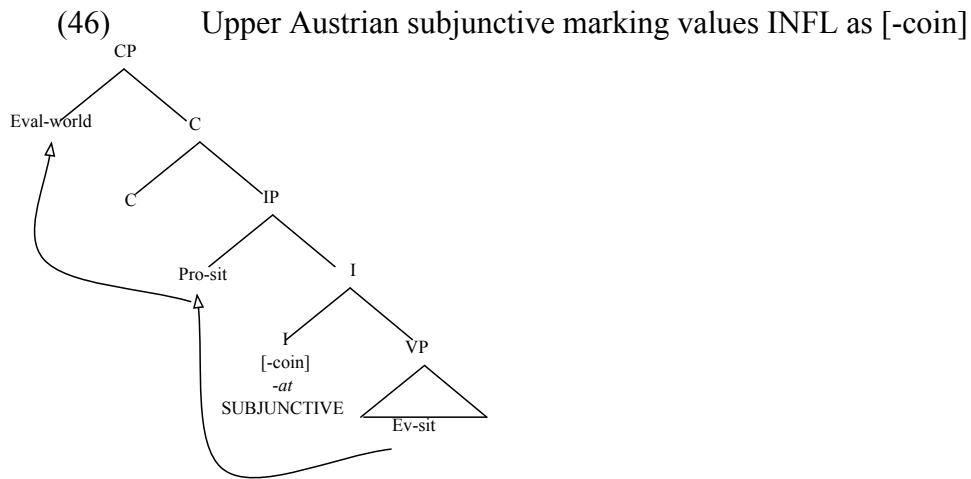
- (44) a. *E kam-at eh.*
 he come.SUBJ-SUBJ PART
 ‘He would come anyhow.’
 b. *Ea war-at eh kumma*

he was.SUBJ-SUBJ PART come.PRT
 ‘He would have come anyhow.’

- (45) a. *Ea koch-at eh*
 he cook-SUBJ PART
 ‘He would cook anyhow.’
 b. *Ea hed-at eh kocht.*
 he has-SUBJ PART cook.PRT
 ‘He would have cooked anyhow.’

Thus, the morpho-syntactic patterning of subjunctive marking is consistent with the claim that it associates with INFL.

Expanding on R&W’s analysis I propose that it serves to value [*u*coin] as [-coin] asserting that the event situation does not coincide with the evaluation world (46).



Note that Upper Austrian is a verb second language and as such the argument evaluation world argument in SpecCP is always available as an antecedent for the pronominal situation argument associated with SpecIP.

5.4 Predictions

If indeed in Upper Austrian the indicative/subjunctive contrast replaces the present/past contrast of Standard German we predict that the subjunctive should behave like an independent clause-type. This prediction is borne out. The Upper Austrian subjunctive shows none of the dependent properties characteristic of other subjunctives (see section 2.1) First, and probably most importantly, it may be used in matrix clauses (47).⁶

- (47) a. *Ea ruaf-at o.*
 He call-SUBJ PRT
 ‘He (would) call.’
 b. *Es regn-at.*

⁶ For a discussion of the semantic properties associated with these independent SUBJUNCTIVES see Wiltschko, in preparation.

it rain-SUBJ
 ‘It would rain.’

Second, the temporal specification of embedded subjunctive clause is independent of the temporal specification in the embedding clause (48). That is, the embedded clause may be (periphrastically) specified as present, perfect, or future even though the matrix clause is specified as perfect.

- (48) a. *Ea hot gsogt, du kumm-at-st*
 He has said.PERF you come-SUBJ-AGR
 ‘He said you would come.’
- b. *Ea hot gsogt, du war-at-st kumma*
 He has said.PERF you was-SUBJ-AGR come.PRT
 ‘He said you would have come.’
- c. *Ea hot gsogt, du wuat-at-st kumma.*
 He has said.PERF you will-SUBJ-AGR come.PRT
 ‘He said you would come.’

The temporal independence correlates with the fact that it allows for independent temporal reference, as shown in (49).

- (49) *Ea hot gestan gsogt dass a moagn hamgang-at.*
 he has yesterday said that he tomorrow home go-SUBJ
 ‘He said yesterday that he would go home tomorrow.’

And finally, the independence of the subjunctive further correlates with the fact that it does not create a transparent clause. Thus, the subjunctive does not create obviation effects (50) nor does it allow for long-distance anaphors (51).

- (50) *Ea vasuach-(at)t (eh) dass a gwinn-at*
 He try-subj prt that he win-SUBJ
 ‘He is trying to win.’
- (51) a. *Da Hons_j hot gsagt dass da Peda_i si_{i/*j} rasiert.*
 det H has said that DET peter REFL shave
 ‘Hans said that Peter shaved himself.’
- b. *Da Hons_j hot gsagt dass da Peda_i si_{i/*j} rasier-at.*
 det H has said that DET peter REFL shave-SUBJ
 ‘Hans said that Peter would shave himself.’

Thus, the Upper Austrian subjunctives differs in many respects from those found in the Romance and Balkan language. However, it shares in common with these subjunctives that it associates with INFL and that it contrasts with assertive clauses. In fact, I argue that it does so in the most direct way, namely by directly contrasting as a realis-based category that serves to m-value INFL in independent clauses. In this way, the tenselessness of Upper Austrian is a necessary condition for this type of subjunctive to be constructed and so is the presence of a CP to introduce the evaluation world. In the next section, I show that tenselessness is not a sufficient condition, however.

6. Subjunctive in other tenseless languages

I here briefly show that in the two tenseless languages explored in R&W (Halkomelem and Blackfoot), the subjunctive has a more usual distribution than it does in Upper Austrian.

Consider first Halkomelem. As we have seen in section 2.2, it is restricted to negative clauses and conditionals. These are dependent clauses. This sets it apart from Upper Austrian subjunctives. This is expected under the present analysis, given that INFL is substantiated by location and thus it cannot simultaneously be realis based. However, its distribution also differs from the subjunctive in Cypriot Greek in that it cannot be used for commands nor in clauses embedded under verbal predicates. Instead commands are either marked with a dedicated imperative marker *-lha* (52) or else realized as an independent clause (52). And embedded clauses are always nominalized (Galloway 1993, Thompson 2012) as in (53).

- (52) a. omet=lha
sit.down=IMP
'(You) sit down.' (Upriver; Galloway (1993:310))
- b. xó:lh-me-thet=chexw
look.after-RED-REFL2SG.S
'(You) take care of yourself.' (Upriver; Galloway (1993:311))
- (53) a. *tseł tot-et kwels xwemxolem*
1SG.S try-TR-3O [COMP=1SGPOSS=NOM run-MID]
'I tried to run. Thompson 2012: 158 (24)
- b. *tseł iyo-thet [kwels xwemxolem]*
1SG.S start-REFL [COMP=1SGPOSS=OM run-MID]
'I started running/to run.' Thompson 2012: 159 (25)

We can conclude that the Halkomelem subjunctive must be licensed by the presence of either negation *ewe* or the conditional complementizer *we*. Since both of these elements have independently argued to be associated with C (Wiltschko 2002), this suggests that Halkomelem subjunctive is restricted to contexts of C-valuation. I therefore submit that the Halkomelem subjunctive instantiates the [-coin] value of C-valuation.

Turning now to Blackfoot, we have seen a similar, yet not identical distribution (section 2.2). In particular, the clause-type labeled as subjunctive is restricted to future- and present oriented conditionals. Counterfactual conditionals are realized by means of a dedicated clause-type, the unreal⁷ and negative clauses do not trigger subjunctive marking.

Given that conditional clauses may be analysed as instantiating C-valuation, we may conclude that just like in Halkomelem, Blackfoot subjunctive marking may be analysed as manifesting a [-coin] value derived by C-valuation. The reason it is not triggered by negation, unlike in Halkomelem, has to do with the fact that the syntax of negation differs (see Déchaine & Wiltschko 2003). And secondly, the reason it cannot occur in counterfactual conditionals is that there is a more specific clause-type available that serves this function, namely the unreal. According to Frantz 1991, the

⁷ See Louie, in preparation for a detailed discussion of the semantic differences between the two types of conditionals.

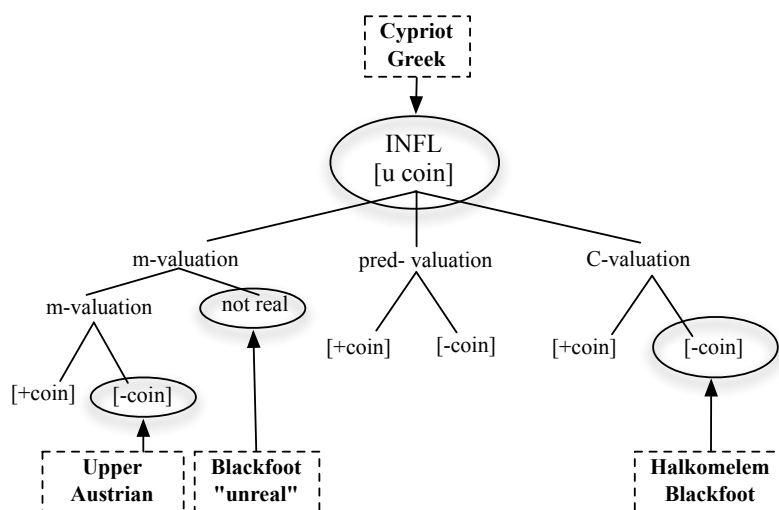
unreal is a special kind type of independent clause (see also Déchaine & Wiltschko, to appear). I propose that the unreal may be analysed as a clause-type modifier. Thus, in Blackfoot, both the subjunctive and the unreal derive clause-types which contrast with the independent assertive type, albeit in different ways.

Note that a traditional classification of clause-types based on the division between indicative and subjunctive mood cannot capture the Blackfoot pattern. While the independent order may be characterized as a form of indicative, the fact that the unreal is a special form of the independent appears contradictory: according to substance based-criteria, the unreal behaves like an irrealis (or subjunctive) but according to Blackfoot internal morpho-syntactic criteria it behaves like an indicative. If so, the classical distinction between indicative and subjunctive mood (or realis vs. irrealis for that matter) will not lead to an empirically adequate classification of Blackfoot clause-types. And any current theory that basis its categories on this distinction is equally bound to fail.⁸

7. Towards a typology of subjunctives

The purpose of this paper was to establish that the subjunctive is not a uniform category. But if subjunctive is not a universal category, then mood cannot be a primitive category either because the subjunctive is typically conceived of as a subcategory of mood. This highlights the need for a formal typology for categories which is not based on substantive content or traditional grammatical categories. The framework developed in R&W provides the basis for such a typology. It has allowed us to analyze the clause-types classified as subjunctives in four unrelated languages, their common properties as well as their differences. The result of this analysis is summarized in (54).

(54) A typology of subjunctives in four languages



What all of these subjunctives have in common is that they contrast with the independent assertive clause-type instantiated by the [+coin] value derived via m-valuation. But this contrast may be derived in different ways. Though the construction

⁸ For a more comprehensive analysis of Blackfoot clause-types within the R&W framework, see Wiltschko, in preparation.

of the different types of subjunctives is constrained by the syntax of INFL. It manifests different valuation strategies including [-coin] derived via C-valuation (Halkomelem and Blackfoot), or derived via m-valuation (Upper Austrian); or else it may be a clause-type modifier (Blackfoot unreal). And finally, the most well-known and diverse type of subjunctive, namely the one found in Cypriot Greek, can be analyzed as instantiating the unvalued coincidence feature.

Given this diversity of the subjunctive category within and across languages, it comes as no surprise that it has been described as an *Irrgarten für Grammatiker* ('a grammarian's maze') (Jongeboer 1985). But this maze arises only if one assumes that what is labeled subjunctive in a given language must necessarily correspond to the category labeled subjunctive in the next language.

More generally, it points to the conclusion that the categories we find in the languages of the world are necessarily language-specific. This does however not lead to the conclusion that there cannot be a universal grammar (contra Evans & Levinson 2009). Rather, language-specific categories are constructed. In particular, they are constructed from abstract universal categories (such as INFL) and language-specific LO's. Crucially, there is no universal association between the categories (such as INFL) and their substantive content, just like there is no universal association between categories and sounds. Both types of association relations are necessarily language-specific. But if universal categories are dissociated from meanings, then we expect to find categories that cannot be defined based on their meaning, such as for example, the subjunctive.

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