1 Introduction
Following (Dixon 1972), and his seminal description of the -bila affix in Dyirbal, cf. (1), so-called apprehensive (or ‘apprehensional’, or ‘timitive’) grams, also called lest constructions/inflections, have been identified in numerous descriptive works dedicated to Australian Indigenous languages, cf. (Austin 1981; Laughren 1982; Dench 1991; Dench 1995; Evans 1995; Evans 2003; Ponsonnet 2011; Angelo & Schultze-Berndt 2016; Luk & Ponsonnet 2019; Browne, Ennever & Osgarby forthcoming), among others. Capitalizing on this rich scientific context, the present talk will try and further our understanding of apprehensives, by (i) offering a sample-based, areal typological overview of apprehensive markers in Australian languages, identifying variations in form and meaning among apprehensive structures and (ii) laying the foundations of a formal account treating them as scalar negative modals. Although they also abound in Australian languages, lexical apprehensives (e.g. fear verbs) will not be surveyed here, as the primary focus of my investigations is grammatical.

(1) njinda balan buni muymba baijgun dambundu
you-SA THERE-NOM-II fire-NOM put.out-IMP there-ERG-II dambun-ERG

burgalbila (Dyirbal)
see-APPR
‘You put out the fire lest the Dambun spirit sees it.’ (Dixon 1972: 113)

2 The morpho-syntax and semantics of Australian apprehensives
The present study is based on a sample of 28 Pama-Nyungan1 and non-Pama-Nyungan languages.2 While most offer dedicated apprehensive grams, a few only possess a more general modal marker contextually capable of apprehensive readings – I will refer to the latter as apprehensive strategies. Thus in (2) and (3), the Anindilyakwa and Jaminjung irrealis inflections do not have an exclusively apprehensive meaning, but can receive an apprehensive ‘flavour’ when used in a context where the relevant potentiality is negatively assessed (as is evidently the case with the warning interjection yama ‘watch out’ in (2) – one could possibly argue that as a result, this is some kind of ‘reduced’ biclausal apprehensive structure –, or given the overtly apprehensive Kriol translation provided in (3) with apprehensive particle bambai).

(2) yama=lhangwa! n-ak nenongkarwa kənə-wonyamba-dhu-Ø = ma
     watch.out = ABL 3M-that 3M.man IRR.3M-angry-INCH-USP = MUT
     ‘Watch out! The man might become angry!’ (Bednall 2020: 328)

(3) Burrb ya-rri-minda = burri mangarra. (Jaminjung and Westside Kriol
     finish IRR-2PL > 3SG-eat = 3PL plant.food
     ‘You might eat up all the food on them.’

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1 Pilbara: Martuthunira, Panyijima, Nyangumarta; Western Desert: Pintupi-Luritja; Ngumpin-Yapa: Warlpiri, Bilinarra, Ngarinyman, Ngardi; Garrwan: Gurrwa; Karnic: Diyari, Yandruwandha; Dyirbalic: Wargamay, Dyirbal.

2 Iwaidjan: Iwaidja, Mawng; Mirndi: Jaminjung, Wambaya; Gunwinyguan: Dalabon, Anindilyakwa, Bininj Gun-wok, Kuninjku, Rembarrnga, Wubuy; Daly River: Murrinh-Patha; Wororan: Worrorro; Bunuban: Gooniyandi; Maningrida: Gurri-goni; Tangkic: Kayardild.
Thet min, bambai yu finish-im taka fo MAI famili.
that mean APPR 2SG finish-TR food for my family
‘That means, you might finish the food (that was) for MY family.’ (staged conversation)
(Schultze-Berndt & D’Angelo 2016)

Morphologically, apprehensivity it thus often encoded in the sample by means of dedicated verbal inflectional morphology (1), including periphrastic apprehensive inflections involving a dedicated apprehensive particle (e.g. ankgrad in (4), bambay in (5)) alongside a more or less restricted array of inflectional marking (thus in (4), optative (OPT) marking is mandatory for apprehensive-predictive, consequent clauses). It can also appear as nominal case marking (so-called ‘evitative’ case (Heath 1984: 346)) (6), and even involve agreement patterns between verbal inflection and nominal case marking (e.g. a dedicated modal case, or some other case then receiving modal uses). Finally, apprehensivity was also found to be encoded by clitics (cf. = maka in (5)) – an obvious source for apprehensive inflectional morphs.

(4) Kudn-uka-∅ ngartung mana angkad birta
1SG > 2PL. RMOD-peep-RMOD OBL.1SG maybe APPR otherwise
nganba-ya-njing.
(Iwaidja)
3PL > 1SG.OPT-see-OPT
‘Keep a lookout for me, otherwise they might see me.’ (Iwaidja dictionary)

(5) baymbay nyingka ra-yii-, kamarr-ii-wa-th
APPR 2SG.NOM spear-M-ACT stone-VALL-PST
‘You might get stung by a stonefish.’
(Ennever 1995: 388)

(6) Ya-nku = rna yalu-rlamarrana, ngarda wangka-nyanku.
go-POT = 1SG.S that-EVIT HYP speak-IPFV.POT
‘I am going to go on account of that one, she might talk.’
(Ennever 2021: 686)

(7) yama! mema malharra komi-ngka + lharr-∅ = maka
(Veg.this Veg.stone IRR.VEG-fall-USP = APPR
‘Watch out! This stone might fall!’
(Bednall 2020:97)

I will here focus on verbal morphology, leaving an account of ‘evitative’ case to future work.

Syntactically, two main types of apprehensive clause structures were found in the sample:

1. Simple matrix clause uses, with a single clause P:
   a. P-predictive uses (‘(careful/beware) might/will undesirable’)
   b. P-prohibitive uses (‘don’t you (dare) do undesirable’)

2. Complex, biclausal uses, by far the most common, associating two clauses P and Q:
   a. P-directive + Q-predictive (‘you (must/should) P, or else might/will undesirable Q’)
   b. P-prohibitive + Q-predictive (‘don’t P undesirable or else might/will undesirable Q’)
   c. P-hypothetical + Q-Predictive structures (‘if undesirable P, then will undesirable Q’)

Both symmetric (identical) morphological marking on the main verb underlying P and Q, and asymmetric marking were found in the sample. In some languages, the same inflection (‘optative’ in Iwaidja can mark all of , or the ‘future irrealis’/apprehensive (-nukun) in Murrinh-Patha) can mark both P and Q (thus (4) could have symmetric OPT inflectional marking on both P and Q); in others, a dedicated apprehensive inflection or clitic can only mark Q, not P (unless P has a hypothetical meaning, as in type 2c). This morpho-syntactic situation is reminiscent of the formal marking of conditional structures (cf. e.g. (Molencki 2000)), and shouldn’t come as a surprise as we will see that biclausal types are, in fact, conditional structures (or at least a related type of structure).
2.1 Monoclausal apprehensives

As indicated above, two main monoclausal types were identified: predictive (8) vs. prohibitive (negative imperative/deontic) uses (9). Apprehensive forms capable of the latter uses seem to require an overt negation to occur, i.e. apprehensive inflections cannot mark positive monoclausal imperative clauses (Nordlinger & Caudal 2012: 108–109). Most importantly, bona fide monoclausal apprehensives receive implicated meanings: an implicit directive is almost systematic for the predictive type, while an implicit prediction (warning/threat) seems mandatory for the directive type. In the sample, markers only used as apprehensive strategies (such as general present irrealis, as in Wororra, (10)) do not easily give rise to such implicit content. Whether conversational vs. lexical vs. conventional implicatures are here involved is a delicate matter to settle, and very possibly one that is specific to each apprehensive form.

(8) k-ini-majungku-n, marnti kurruni-wu-n. (Mawng)
PR-3MA/3MA-lift.up-NP APPR 3MA/2PL-kill-NP
‘The sea is rough and it might kill you.’ (Singer 2006: 171)

(9) mere na-ngi-mathputh-nukun = thurr
NEG 2SGS.hands(8).FUTIRR-1SGO-interrupt-APPR = 2SGS.go(6)[keep.on].FUTIRR
‘Don’t you continually interrupt me.’ (Nordlinger & Caudal 2012:104)

(10) Maangurruru bungunyeyeerrri, maa-ngurruru ba-ngun = ya-yeerrri (Worrorra)
3mREF-away CFT-2 = go-PROG
‘Don’t go over there’ (Clendon 2014: 206)

2.2 Biclausal apprehensives

Biclausal apprehensives come in various syntactic and semantic guises. The most common pattern found combines a directive and a predictive clause (type 2a); cf. (1) and (4) (with (2) possibly belonging to this type, if one takes yama to correspond to a reduced imperative clause). Its prohibitive counterpart (type 2b) involves a negative directive clause. Note that in both patterns, the directive, antecedent clause can express either a straightforward (positive or negative) imperative (11), or some weaker jussive modal meaning (12). It is now widely accepted that modal forms (including verbal inflections) exhibiting deontic/imperative readings in Australian languages tend not to lexicalize modal force, as their force is contextually determined (cf. e.g. (Bednall 2020: 291)); this is so-called ‘variable modal force’.

(11) Nyingka ngudi-na wangalk, (Kayardild)
You.NOM throw-NEG.IMP boomerang.NOM
ngada ngumbai-ba burldi-nyarr.
1SG.NOM you-MPROP hit.by.throwing-APPR
‘Don’t you throw the boomerang, or I’ll throw (one) at you.’ (Evans 1995:3)

(12) Yini thannguthikanga thannganiyi, karna thulayiti? (Yandruwandha)
2sg:Nom stand-return-FUT 3PL:GEN-LOC person stranger-LOC-EMPH
Parn-dirriyla yina, kurnutji thawa-rayi.
hit-POT-EMPH 2SG:ACC one-EMPH go-SIM
‘Are you going to visit those strangers? You shouldn’t go alone, they might kill you.’ (Breen 2004: 208)

Importantly, when used in biclausal constructions, a number of modal markers become unambiguously apprehensive. This is for instance the case in Ngardi with its -ngarda modal
infensive (13), which has an epistemic uncertainty meaning in simple clauses, vs. an apprehensive (APPR) reading when it marks the consequent clause of some biclausal structure, cf. (Ennever 2021: 684–685)). This is also the case in Iwaidja with the OPTative inflection, which can only have an apprehensive reading in a similar syntactic context.

(13) *Wakurra=n ya-nku ngarda=ngku=lu pi-ngi.*  
(Ngardi)  
NEG = 2SG.S go-POT APPR = 2SG.O = 3PL.S hit-IRR  
‘You shouldn’t go lest they hit you.’ (Ennever 2021: 685)

Last, but not least, apprehensive markers can also appear in hypothetical constructions, conveying either conditional warnings or threats, (14).

(14) *ŋindaŋaygü̱ bulgugu wadį́ŋaygu*  
(Dyirbal)  
you-SA I-GEN wife-DAT swíve-IJAY-REL-NOM  
*ŋada ɲinuna magna gunbalbiḷa*  
I-SA you-O ear-NOM cut-APPR  
‘If you swive my wife, I’ll cut off your ears.’  
(Dixon 1972: 362)

3 Analysis and theoretical proposal

Given the above observations in §2.2, it seems that implicit propositional contents associated with monoclusal apprehensives correspond to either that of an antecedent clause (with a directive or prohibitive content for type 1a) or that of a consequent clause (with a predictive content for type 1b) in biclausal apprehensive structures (types 2a-c). I will take this to suggest that apprehensives possess the very kind of two-tiered semantic structural features commonly associated with run-of-the-mill conditionals and modals in Kratzerian accounts, such that e.g., a contextual restrictor can be ascribed to an isolated, matrix clause modal (such a restrictor being equivalent to an implicit, ‘silent’ antecedent *if*-clause).

3.1 Apprehensives as negative scalar modals

In existing works dedicated to apprehensives, it has been repeatedly argued that they involve some kind of negative, detrimental potentiality (Laughren 2015; Angelo & Schultze-Berndt 2016; Tahar 2021). I will here hypothesize that apprehensive modals are the polar opposites of preference/priority modals à la (Condoravdi & Lauer 2012; Portner 2018), and consist in an undesirable proposition being predicted to occur in some possible world; see (Tahar 2021)’s notion of ‘dispreference modal’. Furthermore, following (Anand & Hacquard 2013) as well as (Tahar 2021), I will take apprehensive forms (both grammatical and lexical) to denote scalar doxastic modals. Tahar thus proposes representation (15) for French lexical apprehensive *craindre que A ne p-SUBJUNCTIVE* (‘for fear that A should p’) – where (dispreferred) proposition *p* has a limited desirability degree for agent *a* (‘not greater than *d*’), whereas (more desirable) alternatives *q* in comparison class *C* are more desirable than said degree *d*:

(15)  
\[ \lambda \text{a}. \lambda \text{p}. \lambda \text{w}. \]  
Orthostatic meaning: \( \exists w' \in \text{Dox}_a(w): p(w') \)  
Undesirability meaning: \( \forall w' \in \text{Dox}_a(w): \forall q \in C \implies q \neq p: \)  
\[ \exists d[\text{Desirability}(\text{Sim}_w(q)) \geq d] \implies \neg \text{Desirability}(\text{Sim}_w(p)) \geq d] \]

But I will argue that the above kind of representation treating apprehensives as the negation of a scalar doxastic modal (\( \neg \text{Desirability}(\text{Sim}_w(p)) \geq d) \)) is empirically inadequate for grammatical apprehensives as found in Australian languages. The main reason for this is that, especially when strong modal force is involved (and it very often is), *q* alternatives are not merely ‘more’ desirable than some dispreferred *p* potentiality – plainly, no comparison class *C* is involved; while *craindre que* is fundamentally a ‘hedging’ expression, Australian
apprehensives aren’t. The above data suggest undesirable, predicted potentialities \( p \) are not merely less desirable, they are plainly un-desirable; in particular, they must involve a polar opposition. This contrary semantics, I believe, is reflected by the fact that (putting aside hypothetical apprehensive structures such as (14)), all of the above datapoints involve a ‘do \( P/\text{don’t} \ P \), otherwise \( Q \)’ pattern. This corresponds to so-called ‘pseudo-imperatives’, i.e. a special negative type of conditionals, whose semantics is equivalent to that of an exclusive disjunction (Starr 2020) (DO \( P, \text{OR ELSE} \ Q \leftrightarrow \text{IF YOU DON’T DO} \ P, \ 
\text{THEN} \ Q \)). In other words, most of the biclusal apprehensives listed above convey an exclusive disjunction between some directive modal statement \( \text{DIR}(p) \) (which can be either a positive or a negative directive/deontic modal), and some predictive modal statement \( \text{DOX}_s(q) \), such that (i) \( \text{DIR}(p) \) and \( \text{DOX}_s(q) \) are mutually exclusive, (ii) \( q \) is negatively desirable (i.e., absolutely undesirable; although its degree of undesirability can vary contextually, it is always negative), and therefore, (iii) addressee is urged to realize \( p \) so as to prevent \( q \) from materializing. I will suggest that this two-tier \( \text{DIR}(p) / \text{DOX}_s(q) \) analysis can apply to most of the above datapoints, except for purely hypothetical biclusal apprehensives (plus whenever no directive meaning can be contextually associated with a monoclausal predictive apprehensive; we are then left with a ‘bare’ doxastic modal, possessing a simple contextual restrictor). In order to model my analysis, I will resort to a polar opposition the logical form between positive vs. negative scales à la (Kennedy 2001). I will tentatively assume that predictive apprehensives doxastic modals are endowed with negative scales of apprehension \( S_{\text{APP}R} \) (see condition \( \text{NEG}(S_{\text{APP}R}) \)) on which their contextual degree \( d \) of undesirability is situated, cf. (16).

\[
(16) \quad [S_{\text{APP}R_{\text{pred}ic}t}]=\lambda a.\lambda p.\lambda w.3w'\in\text{Do}x_s(w)[\text{Desirability(Sim}'w,p)\geq d\wedge d\in S_{\text{APP}R}\text{NEG}(S_{\text{APP}R})]
\]

### 3.2 Apprehensives, pragmatics, semantics and language change

Finally, I will argue that from this core ‘negative predictive’ meaning (such as in (3), (5) or (8), or in the consequent clauses of all other examples), over time, apprehensive grams sometimes developed lexicalized prohibitive (negative imperative/deontic meanings), as in the case of the Murrinh-Patha apprehensive -\( \text{nukun} \) (9). This clearly stems from monoclausal, predictive examples (e.g., (5) or (8)) being associated with an implicated deontic/directive content: in time, such implicit content became semanticized as \( \text{bona fide} \) deontic meaning. I am assuming a typical evolution path starting with some conversational or lexical defeasible implicature, then involving a conventional implicature (i.e. a two-dimensional semantics) as a ‘switch’ semantics (Heine 2002) between their initial predictive meaning, and the novel, homonymous deontic meaning they ended up acquiring: *defeasible implicit directive > conventional implicature of directive > at-issue directive meaning*. Such a development path explains the apparent polyfunctionality of markers such as -\( \text{nukun} \) in Murrinh-Patha, which I take to have become homonymous; we have two -\( \text{nukun} \). The conventionalized nature of such evolutions is apparent, given the fact that (i) apprehensive readings can be restricted to subordinate contexts (see §2.2, and (13)), and (ii) directive and predictive clauses have a rigid syntactic ordering in biclusal structures: directive clauses must be antecedent clauses.

### 4.1 References


