From Purposive/Future to Present: Shifting temporal categories in the Pilbara languages of north west Western Australia[1]

1. Introduction

A number of languages spoken in the Pilbara region of Western Australia show a shift in temporal categories such that an original purposive inflection now serves as the present tense. We can be confident of the direction of change given that the verbal suffix form, **-(l)ku,*[2] recurs across Australia with a purposive function, and is reconstructed with this function. That the direction of change is from purposive to present makes this development particularly noteworthy. To my knowledge no other examples of such a shift have been reported in the literature. This paper attempts to explain how the particular shift in category may have come about.

It is likely that all the Pilbara languages are related, though there is as yet no strong evidence that they form a genetic subgroup of some higher grouping of Australian languages. Their relatedness is demonstrated by reconstructions of vocabulary (O'Grady1966, Austin 1981) and by their reflexes of wider reconstructions of phonology, pronoun systems, verb morphology and nominal morphology. However, a mapping of shared innovations across the area reveals no clear bundling of isoglosses.[3] The shift of a purposive/future category to the marking of present tense is a feature of just three languages in the Pilbara region — Panyjima, Ngarluma and Yindjibarndi/Kurrama. These languages are contiguous and share a number of

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[2] The verbal suffix form involves an invariant element, *-ku,* which may be preceded by a conjugation dependent stem-final suffix. The most general alternation, at least in Western languages, is between a form *-lku* in the predominantly transitive conjugation and *-ku* in the predominantly intransitive conjugation.

[3] Discussions of the Australian languages of this area make reference to a Ngayarta group of languages identified by O'Grady et al (1966) on the basis of lexico-statistical sampling. I believe that there is no good evidence beyond this lexico-statistical analysis for a distinct group of languages coextensive with O'Grady's Ngayarta group.

other important features the most striking of which is the fact that they, along with Martuthunira (which does not share the purposive to present shift) have innovated an accusative alignment type with a productive passive voice from an earlier split-ergative system. A discussion of language relationships in this area can be found in Dench (2001).

2. Reconstructing a Purposive/Future *-(l)ku

The first issue to consider in relation to the development of the categories discussed here is the direction of change. Can we be certain that the direction of historical change is from an earlier purposive to a modern present rather than the alternative scenario in which what may have been an original present has shifted to purposive in a range of languages?

The identification of the modern Ngarluma, Panyjima and Yindjibarndi/Kurrama present tense inflection with an ancestral purposive/future was first made by O'Grady (1966:76):

> The PPN [proto Pama-Nyungan] verb suffix *-*lku* ... has undergone a unique shift in referent in the Ngayarda languages from 'future' (or 'optative') to 'present'.

O'Grady could be quite confident of this innovation. The verbal suffix *–ku* recurs across Australia in the most general function of a purposive. Dixon (1980) reconstructs a bare handful of inflectional suffixes for proto-Australian, but this set includes *-*ku* as a purposive. Dixon notes a shift from the mainly subordinate clause purposive function to future tense for some Western languages and reasserts O'Grady's findings.

> Purposive verbal inflection *-*gu* can be reconstructed for proto-Australian ... In Walmatjari, Warlpiri and some other western languages *-*gu* has shifted from purposive to future meaning; in the Ngayarda subgroup there has been a further semantic shift, with *–gu* taking on 'present' meaning. (Dixon 1980:381)

The identification of the reconstructed verbal suffix *-*ku* as a purposive is reinforced through its identification with the widespread nominal suffix *-*ku* which functions widely as a dative/purposive. This identification has a long history, dating back to Capell (1956:77).

> If any morphological element of Australian language can safely be reckoned CA [Common Australian], it is the suffix –*gu* ... It is here called 'bivalent' because it occurs with both nouns and verbs, and often with both in the same language. It indicates purpose — whether an object is intended for some purpose or person, or whether an action of some kind is intended.

Given what we know of the distribution of purposive -*ku*, and with a well accepted view that it is inter-related with the nominal purposive, we can be certain of the direction of change. The historical shift is from old purposive, possibly via some intermediate category or categories, to present tense.

3. Conservative uses of *-(l)ku *as a Purposive*

The following examples serve to illustrate purposive and future functions of the –*(l)ku* suffix in a selection of Western languages. Dependent purpose clauses in Australian languages typically describe an outcome which follows the matrix clause event and is in some way contingent upon the main clause event. Such clauses are often described as implicated purpose clauses; the relationship is one of implication as well as temporal succession. Purpose clauses are often desiderative, in the sense that the controlling clause agent is understood to perform the matrix event in order to achieve a specific stated and desired outcome.

In Wajarri, the purposive has its common Australian function of marking a dependent purpose clause. This is illustrated in (1) and (2).

(1) *Ngapuri, nyinta nyina-ya wangka-ku palanya.*
brother-in-law.NOM you.NOM sit-FUT tell-PURP he.ACC
"Brother-in-law, you will stay and [to] tell him (the story)." (Douglas 1981:232, ex. 120)

(2) *Palu warlarnu mana juju yuwa-lku.*
he.NOM boomerang get.PAST dog strike-PURP
"He got the boomerang to hit the dog." (Douglas 1981:232, ex. 121)

Normally dependent purpose clauses may appear as independent clauses in some languages, often with a desiderative sense. In some languages the original purposive inflection no longer has subordinate clause functions. In Nyangumarta for example, the **-(l)ku* inflection surfaces as a marker of potential mood. The sense is, "X wishes Y would happen and X expects that Y will happen" (Sharp 1998:228). With a first person subject the potential functions as an optative.

(3) *Kampa-lku-li nyungu-ngu!*
cook-POT-1du.incS this-LOC
"Let's (us two) cook it here!" (Sharp 1998:228, ex. 47)

(4) *"Yakurrma-lku-rna ngaju-lu-pa", karrama-rna karlaya.*
copy-POT-1sgS 1sg-ERG-EMPH say-NFUT emu
"I will try to copy, the emu said." (Sharp 1998:229, ex. 48)

Dependent purpose clauses in Nyangumarta also involve a *–ku* suffix. Here the form is the dative case suffix attached to a nominalised verb form (5).

(5) *Ngajulu wika mana-rna-lu mirtawa-ku mayi-ku kampa-na-ku.*
1sgERG fire get.NFUT-1sgS-3sgDAT woman-DAT food-DAT cook-NM-DAT
"I got wood for my wife to cook food." (Sharp 1998:493, ex. 13)

In Nyangumarta, purpose clauses can also appear as (non-finite) independent clauses, as in (6). Sharp (1998:240) explains that such clauses are used to indicate, "a desired or sensible course of action to take, or a sense of duty or obligation."

(6) *Nganyjurru-lu munu nganganya-ku wirtu-jartiny pajali-jartiny kuyi.*
1plinc-ERG NEG eat.NOM-DAT big-COM fat-COM meat.
Pala-ja-lu kuyi mana-nya-ku wupartu-marta-jartiny jinyji-jartiny.
that-ABL-ERG meat get.NOM-DAT little-ATTEN-COM fat-COM
"We should not eat meat with a lot of fat. Therefore, we should get meat with (only) a small amount of fat." (Sharp 1998:241, ex. 93)

In Yingkarta, the original **-(l)ku* purposive inflection has become a future used in independent clauses to describe an anticipated or predicted future event.

(7) *Nganhula kampa-lku mantu.*
1plNOM cook-FUT meat
"We'll cook meat." (Dench 1998:43, ex. 123)

(8) *Yungu warni-wu-nu. Walha-rna-nta wangka-wu marrupurta wayi.*
rain fall-FUT-AFF first-1sgS-2sgO talk-FUT tomorrow maybe
"It might rain. Better if I talk to you tomorrow maybe." (Dench 1998:44, ex. 127)

(9) *Kuruwanyji yingka-lku-rru nyintanha.*
cat scratch-FUT-NOW 2sgACC
"That cat might scratch you." (Dench 1998:44, ex. 128)

Yingkarta also has a dependent clause purposive inflection, illustrated in (10) and (11).

(10) *Karla-ri-ku* *mantu-wu* *kampa-lkura.*
fire-FACT-FUT meat-DAT cook-PURP
"(I'll) make a fire to cook meat." (Dench 1998:22, ex. 30)

(11) *Papa-wu-rna* *parlapiya-nyi* *paja-lkura.*
water-DAT-1sgS want-PRES drink-PURP
"I want water to drink." (Dench 1998:27, ex. 64)

The form of the Yingkarta purposive suffix suggests a relationship with the more general purposive *-*(l)ku* and indeed suffixes of the form -*(l)kura* and with a sense connected to purposive or future occur in a range of western languages.[4] The -*(l)kura* suffix, further inflected with the dative case is the purposive inflection used in Yulparija purpose clauses and in different subject purpose clauses in Mantjiltjara (on the north-western and western edges of the Western Desert dialect continuum respectively). The suffix is also used in independent optative clauses in Yulparija (Burridge 1996) and surfaces as a hortative in Payungu, on the far west coast.

The few examples given above serve to show, the range of temporal and modal functions of the -*(l)ku* suffix form and also that it surfaces in both dependent and independent clauses. A fuller picture is likely to show a recurrent cycle by which dependent implicated purpose clauses are used as main clauses, often with specific modalities.

4. The ***-(l)ku*** *suffix as a present tense*

We can now consider the functions of the *-*(l)ku* suffix in those languages in which it surfaces as a present tense. I will concentrate here on just two of the languages; Panyjima and Ngarluma. Phonological changes in Yindjibarndi/Kurrama obscure the present tense form in some verb classes, and thus complicate the picture. The argument for is certainly more convincing when one is able to directly observe the cognate forms.

[4] Laughren (2001) describes relationships among the three related nominal suffix forms, *-ku*, *-kura*, *-kurangu*, which recur in languages from Central Australia west to the north west of Western Australia.

In Panyjima, the present tense typically codes eventualities that are continuing at the time of utterance (Dench 1991). The unmarked aspect is imperfective: punctual actions are interpreted as iterated (12), processes as continuing (12), and telic actions as not yet accomplished (13). Example (14) describes an event taking place simultaneously with the speech event — the antics of two children who found the linguist's attempt to speak Panyjima excruciatingly funny.

(12) *Ngatha nyurru-yu mana-ku, kuwarri-kuwarri kanyjirr-ma-lku.*
1sgNOM cold-ACC get-ACC now-REDUP sneeze-CAUS-PRES
"I'm getting a cold, sneezing again and again."

(13) *Palya ngunyji-yu-rla ngananha-ku kampa-lku?*
woman there-ACC-FORE what-ACC cook-PRES
"What is it there that the woman is cooking?"

(12) *Thurni-nyayi-ku nyiya-kutha. Kutu-wayi-ku panu thurni-ku.*
laugh-RECIP-PRES this-DUAL dead-INCH-PRES very laugh-PRES
Karnta yinti-ku thurla-ngka-nguru. Pirntipirnti-rru thurni-ku parilha.
tear go.down-PRES eye-LOC-ABL apart-NOW laugh-PRES still
Thurni-ku murnalpurlu parilha. Purri-nmayi-ku thurni-ku yirra purranyja.
laugh-PRES close.by still pull-RECIP-PRES laugh-PRES teeth show
"These two (children) are laughing. They are dying laughing. Tears are streaming from their eyes.Now they are apart, still laughing. Close together they are still laughing. They're pulling at one another laughing, their teeth showing."

The present inflection is also used to code a generic present, as in the following examples.

(15) *Ngunha thurru ngarri-ku mulha purranyja yinta-ka.*
that snake lie-PRES nose show pool-LOC
Nyinta yana-rta-rla. Ngunha nyinku nhantha-larta.
2sgNOM go-FUT-FORE that 2sgACC bite-FUT
"That snake lies in the pool with just its nose showing. If you go (there), it will bite you."

(16) *Yukurru panha janka-nma! Panha yanga-lku murruka-ngarli-ku.*
dog that tie-IMP that chase-PRES car-PLURAL-ACC
"Tie up that dog! It chases cars."

In (17) the present marks a sequence of verbs all having the same subject. The temporal frames of the eventualities described in this set of verbs can be seen as overlapping. In (18) there is a natural sequence to the events described which follows the sequence of presentation.

(17) *Kurri nyiya panti-ku, papa-yu mana-ku jartungu-la-nguru-ku,*
girl this sit-PRES water-ACC get-PRES rock hole-LOC-ABL-ACC
winya-ma-lku yanti-yu, kati-rta yurlu-wali papa-yu.
full-CAUS-PRES dish-ACC take-FUT camp-ALL water-ACC
"This girl is sitting, getting water from a rockhole, filling a dish, to take water to camp."

(18) *Ngunha-kutha palya-kutha kanpi-lku, thartipala-ku ngayi-lku,*
that-DUAL woman-DUAL winnow-PRES dirty-ACC throw-PRES
manartu-ku karnku-lku , pani-lku majarra-la.
good-ACC keep-PRES grind-PRES mill-LOC
"Those two women are winnowing (the seed), throwing the rubbish away, keeping the good, and grinding it on a millstone."

In all of the examples above, the clauses in the present tense can be treated as independent finite clauses. The present tense inflection is also used in dependent relative clauses which share their

subject with the matrix clause and which describe an eventuality which is contemporaneous with the matrix clause event. This is illustrated in the first line of (19), where the matrix clause locates the events in a past time frame.

(19) *Ngatha yumpu-yu yurrpi-lku panti-nha.*
1sgNOM point-ACC smooth-PRES sit-PAST
Ngatha wiya-rna nyinku paka-rnu-ku.
1sgNOM see-PAST 2sgACC come-REL-ACC
"I was sitting smoothing the point (of a spear). I saw you coming."

Dependent clauses marked with the present tense can only be controlled by a subject, and as subjects are unmarked in Panyjima, there is no case agreement between the matrix subject and the subordinate clause verb. Thus there is no explicit formal indication of the dependent status of the clause in (19).

Contemporaneous relative clauses controlled by non-subject arguments involve a distinct inflection, as the second sentence in (19) illustrates. For this clause type, the verb in the subordinate clause is marked in agreement with the controlling argument in the matrix clause, in this instance the accusative object.

Patterns in Ngarluma are similar to those in Panyjima. Examples (20) and (21) demonstrate the present imperfective use of the *–(l)ku* inflection, (22) demonstrates its use as a generic.

(20) *Wara-pura ngunhu karri-ku, yalka-ku.*
clothes-PLURAL that.NOM hang-PRES dry-PRES
"The clothes are hanging and getting dry." (Kohn 1994, ex. 177)

(21) *Nhurtu wangka ngaju malhil-ka-lku.*
this.NOM talk 1sgACC tired-CAUS-PRES
"This talk is making me tired." (Hale 1960)

(22) *Nyinta ngamun-wuntu paja-lku, ngayi nyarni paja-lku.*
2sgNOM fast-INTENS eat-PRES 1sgNOM slow eat-PRES
"You eat faster than me." (lit : "You eat fast, I eat slow.") (Kohn 1994, ex.176)

Present tense forms are also found in texts detailing a sequence of events, such as historical or programmatic narratives (though present clauses are not the only kind found in this function in such texts). The following extended example (23) illustrates this. The speaker explains how he used to make a fire using a tinderbox. The narrative begins in the in the (past) habitual, and then the sequence of actions producing a flame are related in the present tense.

(23) *Marnta-yi thaka-lpatharn marnta-yi — wanarra-la kurlukurlu.*
stone-ACC get-HABIT stone-ACC long-LOC small
Pirrpi- lpatharn, pirrpi- lpatharn. Jirli pungka-ku wupu-ngka-pa
scrape HABIT scrape-HABIT spark fall-PRES container-LOC-EMPH
kurna-ngka-pa ngula. Kampa-ku juju-pa. Kampa-ku kurlukurlu.
charcoal-LOC-pa there burn-PRES smoke-pa burn-PRES little
Thaka-lku warrapa-ku, yurnduraka-lku,yurnduraka-lku warrapa-ku.
get-PRES grass-ACC crush-PRES crush-PRES grass-ACC
Kurna-yi thaka-lku kampa-nha-ku, wantha-lku warrapa-la,
charcoal-ACC get-PRES light-PAST-ACC put-PRES grass-LOC
kanyjini-ku thurta-ngka. Yurralyi-pa karlpa-ku.
hold-PRES wind-LOC flame-pa rise-PRES

> "I (used to) get a stone — a long thin one. I (used to) scrape it and scrape it. A spark falls into the container, into the charcoal there. Smoke burns, a little smoke. I get grass, crush it, crush some grass. I get the coal which is burning, put it on the grass, hold it in the wind. A flame comes up." (Von Brandenstein, 1970:22-23)

Unlike in Panyjima, where the present has uses in same-subject dependent relative clauses, no strong argument for a subject controlled contemporaneous relative clause type can be made for Ngarluma.[5] Contemporaneous events are presented as a sequence of clauses sharing the same tense inflection. This may be present, as in (23), or it may be past (24).

[5] Yindjibarndi/Kurrama differs from both Panyjima and Ngarluma in this respect. In Yindjibarndi/Kurrama there is a distinct inflection (glossed by Wordick, 1982, as 'imperfective' which is used to code contemporaneous relative clauses on both subjects and non-subjects. The forms overlap with the non-subject relative clause inflection in Panyjima.

(24) *Palukutha parni-nha nhaku-rna juju–yi kampa-nha-ku.*
3duNOM sit-PAST see-PAST smoke-ACC burn -PAST-ACC
"Those two sat watching the smoke burning."

Interestingly, where Panyjima has a distinct different-subject contemporaneous relative clause inflection, Ngarluma uses a form identical to the past tense suffix in this function. Examples of this occur in both (23) and (24) and strongly suggest that the current Ngarluma past tense originally had more general functions as a (non-future) imperfective.

To summarise, the present in both Panyjima and Ngarluma is a finite generic present which is used to describe events unfolding at the moment of speech, is used to make generic statements, and is used in narrative to connect a set of eventualities occurring simultaneously or in their order of presentation in the narrative.

In Panyjima, the present is also used as a verb inflection in contemporaneous relative clauses providing they have the same subject as the matrix clause. However, in these contexts, there is no formal indication of the subordinate clause status of the relative clause — which would normally involve agreement of the subordinate clause verb with the controlling matrix argument.

5. Between 'Purposive' and 'Present' — the Nyamal 'Prospective'

The question can now be raised again: How does a dependent purpose clause inflection, with a clear tendency to be reinterpreted as a main clause future modality, come to be reinterpreted as a generic, imperfective present tense? A possible path of development is suggested by a cognate verbal inflection in Nyamal, spoken just to the north of Panyjima and Ngarluma. I describe the Nyamal, *-(l)ku(ra)* inflection as a 'prospective' following the use of this term by Comrie (1976) to describe the mirror image of the 'perfect'.

The Nyamal prospective has a variable form (some variation in use by the same speaker and some between-speaker differences). It occurs in a long form, *-lkura*, and a short form, *-lku*, and is effectively restricted to L-class verbs (the class is almost exclusively transitive in

Nyamal).[6] The prospective inflection (like the Ngarluma present) only occurs in independent clauses. However unlike most independent finite clause types, prospective clauses do not bear subject agreement morphology on the inflected verb.

In simple utterances, such as occur in conversation, the prospective is used to denote some future action which the speaker hopes or expects will come about. Examples (25) and (26) illustrate.

(25) *Punyja-lkura ngaja papa. Manyja ngaja. Manya ngajukupapa!*
drink-PROSP 1sgNOM water thirsty 1sgNOM give.IMP 1sgDAT water
"I want to drink water/I'm ready to drink water. I'm thirsty. Give me water!"

(26) *Kuyarri ngaja paja-lkura wungka-kapu-lu.*
now 1sgNOM eat-PROSP hungry-SCE-ERG
"Now, I'm ready to eat/I'll eat because I'm hungry."

In these examples the activity denoted by the verb marked with the prospective inflection has not yet begun and the inflection serves to place the speaker in a state immediately preceding the inception of the event.

The prospective is here very similar to the Nyamal desiderative purposive illustrated in (27). The main function of the Nyamal purposive inflection is to code dependent implicated purpose clauses. However, it is also used in negative imperatives and in first person desideratives. Like the prospective, independent purpose clauses do not take subject agreement.

(27) *Kama-larta ngaja yurta, wungka-kapu-lu.*
cook-PURP 1sgNOM fish hungry-SCE-ERG
"I want to/I'm going to cook fish, because I'm hungry."

[6] In data collected by Klokeid in the 1960's, Maggie Horace makes use of the (short form of the) prospective in citation forms of both L-class and Ø-class verbs.

In historical narratives and procedural texts, the prospective can be used to refer to activities which characterise important steps in the backbone of the narrative. The procedural text presented in (28), explaining how to cook an emu in an earth oven, includes a number of examples of the prospective. The piece shows a good deal of mixing with English (and the use of a piece of corrugated iron in building an earth oven is not the strictly traditional method), but the Nyamal pattern is nevertheless coherent. Both long and short forms of the prospective suffix occur in this example.

(28) a. *Nguja parti-lamu para, nguja, yapanpa.*
fire light-USIT 3sgDAT fire hot.stone

b. *Yapanpa nguja-ngka wanyja-lku para yapanpa, nguja-ngka.*
Hot.stone fire-LOC put-PROSP 3sgDAT hot.stone fire-LOC

c. That *parta kunyingka-punyjarri,* that nother one, that.
other ashes-INSTNOM

d. *Wanyji-lku martu, martu wanyji-lku, wanyji-lku martu,*
dig-PROSP hole hole dig-PROSP dig-PROSP hole

e. that one much long, *makanu martu*. You put'em *marnta* now, *pala-ngka.*
long hole rock that-LOC

f. *Wanyja-lkura martu-ngka, marnta. Marnta* you put'em finish'im.
put-PROSP hole-LOC rock rock

g. *Nguja pulara* you put'em *kankarni. Parti-la nguja-ngka.*
fire 3sgLOC on.top cook-PRES fire-LOC

h. You put him *nguja-ngka* now. When he *yinngarra-ngarri-nyjanu-la,*
fire-LOC coals-INCH-REL-LOC

i. *wanyja-lkura pala-ngka martu-ngka.*
put-PROSP that-LOC hole-LOC

j. You cover 'im up *yayin-karta-lu* now. *Yayin* put'em *kankarni*.
iron-PROP-ERG iron on.top

k. And he *jarta-lkura* *kanyji-kujalpa* *nganyja-ku,* *jarta-lkura.*
cover-PROSP end-DUAL sand-ERG cover-PROSP

l. *Parti-la* thru-n-thru now. *Wanpari* *parti-la.*
cook-PRES good cook-PRES

a. "You would light a fire for [the emu], fire and hot stones.

b. Then put the stones in the fire for it, hot stones in the fire.

c. That other (fire) is for the ashes, the other one.

d. Then dig a hole, dig a hole, dig a hole,

e. that long, a long hole. Then put the rocks in it.

f. Put the rocks there in the hole. Put the rocks there and finish it off.

g. You put the fire on top. It cooks in the fire.

h. You put it in the fire now. When it's burned down to coals,

i. then you put [the emu] there in the fire.

j. You cover it over with iron now. Put the iron on top.

k. And next you cover the two ends with sand, to cover it over.

l. It cooks through and through now. Cooks well."

This example illustrates a number of slightly different uses of the prospective. First, the prospective can be used to describe the next in a sequence of steps, as in lines (28b), (28f) and (28i). This is consistent with the reading of the prospective given for the earlier examples. In context, the use of the prospective indicates that we are now ready to continue to the next step.

However, it is difficult to get this reading for the repeated prospective forms in line (28d). Here, the iteration indicates a continuing activity; the digging of the hole in which to cook the emu. But notice that the activity is given an explicit end point; the digging must continue until the hole is of a certain indicated length. I suggest then, that the prospective places the action in the pre-state leading up to the understood culmination point, which in this case is the point at which the hole is finally successfully dug. The second example of the prospective in line (28k) is also of this type. The instruction is to cover the iron with sand until it is covered.

The prospective, like a purposive is essentially perfective in aspect. Like a purposive, it provides a culmination point which is defined through a perfective reading of the verb. Where the verb is telic — for example, digging a specified hole — then this culmination point is naturally enough the endpoint provided by the basic event type itself. But where the event is an activity with no defined endpoint, then the perfective reading defines a culmination point for the prospective which is the inception of that activity. This fits the uses of the prospective in (25) and (26). To make a comparison with the perfect, a perfect such as 'has dug a hole' defines a post-state in which the hole remains dug (under one reading of the perfect), but the 'hole digging' is presented as an undifferentiated whole; that is, it is perfective.

The Nyamal prospective defines a pre-state in which the hole, for example, is not yet dug. The culmination point is defined by the perfective reading of the telic verb. However, given that hole-digging is an activity, then there is no reason why the state preceding the culmination point might not include hole-digging. I suggest that this is how the sequence of verbs in line (28d) should be interpreted.

A similar example is (29). Here the speaker describes the activity of spinning spinifex fibre into a ball of twine, which would later be made into a net. The iteration of prospective verbs in the second line emphasises the continued activity of rolling a spindle on the thigh ultimately leading up to the point at which the ball of twine is completed.

(29) *Purri-lkamu-ya. Pujaparri-yamu. Jurrka-lkamu-ya* now.
pull-USIT-3pl dry-USIT roll-USIT-3pl
Jurrka-lkura, jurrka-lkura, jurrka-lkura, jurrka-lkura, wapurta.
roll-PROSP roll-PROSP roll-PROSP roll-PROSP ball
Wapurta-ya-lamu-ya now ...
ball-CAUS-USIT-3pl
“They used to pull it out (of the water). It would dry. They would roll it now.
Roll and roll and roll and roll it into a ball. They would make it into a ball now.”

Where prospective forms can be given an interpretation in which the event they depict is not yet completed, they are often accompanied by the same verb inflected with some other tense form, typically the continuous past and/or usitative both of which are imperfective. Sequences of verbs including those marked with the prospective then describe a sequence of repeated acts which lead to the culmination of the activity.

6. Purposive > Prospective > Present

The Nyamal prospective provides a plausible mid-point in the shift of a dependent purposive to a finite present. In formal terms, the prospective shares features of both dependent and independent clauses in Nyamal. It is restricted to main clause function and selects main clause case marking patterns yet as in dependent clauses and 'insubordinated' clauses, verbs inflected with the prospective inflection do not take subject agreement. We can thus be reasonably confident of the dependent clause origins of the inflection and so can establish cognacy with purposive forms in other languages. At the same time, the restriction of the Nyamal prospective to main clause function links it to the Panyjima, Ngarluma and Yindjibarndi/Kurrama present tense inflections which are (with Panyjima same-subject relative clauses as a restricted exception) similarly confined to main clause function.

Semantically, the Nyamal prospective is also a plausible mid-point between purposive and present. To begin with, the Nyamal prospective still resembles those purposives which have both dependent and independent uses. Although the Nyamal prospective is restricted to main clause function, it retains the original semantics of implicated purpose and shares with 'insubordinated' dependent clauses a restriction preventing subject agreement.

We might imagine an earlier construction type in which the matrix clause provided a set of antecedent circumstances upon which the event denoted in the dependent 'prospective'/purpose clause was contingent. The independent clause use would then describe an eventuality which was strongly contingent on current (reference time) circumstances, left unspecified. This use of the prospective is maintained in Nyamal utterances in which the reference time is speech time.

In procedural narratives, the reference time is a point in the unfolding event line which represents the backbone of the narrative. Since the sequence of events is typically recapitulated in the order of presentation of the events — event lines are strongly iconic — the semantics of the Nyamal prospective are effectively redundant in this context. At the same time, where the pre-state defined by the prospective may itself be the activity leading up to a defined culmination point, the way is open for the prospective to be reinterpreted as an imperfective narrative present describing that ongoing activity. Verb forms in the 'prospective' occur in natural sequence and simply move the event line forward. From such contexts, the somewhat faded prospective might be generalised to other present tense uses.[7]

7. Conclusion

This paper has suggested a path by which the change from dependent purposive to present tense in languages of the Pilbara might have progressed. It relies importantly on the recognition of a common tendency in Australian languages for dependent purpose clauses to be used as independent clauses. In such 'insubordinated' roles, they take on a range of typically modal functions (e.g. optative, hortative). The path of development described in this paper depends on the extension of the aspectual characteristics of purposives rather than on their modal characteristics. The paper identifies an intermediate category between purposive and present — the prospective.

While the history of verbal categories sketched here is, I believe, plausible, it remains incomplete. Necessarily, the purposive, prospective and present categories in the languages which have them stand in opposition to a range of other temporal categories. A more satisfying account of the development of these categories will take into consideration the history of the inflectional paradigm of which they are part.

[7] It has been suggested to me (Gavan Breen, pers. comm.) that the generalisation of the old dative case suffix to a general objective or accusative in Panyjima, Ngarluma and Yindjibarndi/Kurrama may have assisted indirectly in the shift from purposive to present. The generalisation of the dative may have compromised any remaining link between the verbal purposive and the nominal purposive senses of the 'bivalent' suffix and so may have removed a possible impediment to the shift of purposive to present.

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