Constructing conditionals in Australian languages: a typological study

Ellison Luk & Jean-Christophe Verstraete

(Leuven)

The study of conditional structures in natural language has traditionally been approached from the perspective of formal logic (Harper et al. 1968, Edgington 2020), and increasingly from other perspectives, such as discourse and corpus studies (Traugott et al. 1986, Gabrielatos 2010). However, a wider cross-linguistic study of conditionals is still forthcoming, and the role of modality in particular, while extensively theorised in well-known languages (Dancygier 1999, Iatradou 2000, Kratzer 2012), has yet to be extended to a typological sample (apart from Comrie 1986). Australian languages are a prime candidate for enriching the analysis of conditionals, since the role of modal resources has been observed in subordination more generally (Merlan 1981, McGregor 1988), but has not been substantially analysed for conditional sentences. Hence, we describe typological patterns from a representative sample of 75 Australian languages which demonstrate the centrality of modality in the construction of conditional meanings, as well as confirm the privileged status of the protasis within conditional constructions.

First, we observe that modal resources frequently convey conditional relations in the absence of other overt linking devices (such as conjunctions). In Gaagudju, for instance, conditional meanings can be conveyed by the juxtaposition of two clauses inflected for the evitative mood (1), an epistemic-attitudinal category for potential, undesirable events. Such 'double modal' constructions without a linking device are attested in 30 languages in our sample.

Second, we observe that there is a fundamental asymmetry in where conditional-marking resources land. This is clearly the case for overt clause-linking devices (like conjunctions), which are hosted overwhelmingly by the protasis (*if*-clause) rather than the apodosis (*then*-clause), as shown in Table 1: a threefold difference of 50 to 16 for languages with configurations, and a ninefold difference of 27 to 3 for those with configurations. The asymmetry is less stark for modal resources, as shown in Table 2 (the ratio between protasis- and apodosis-oriented configurations is 1.2), due to the preponderance of languages with double modal constructions. However, taken together, the asymmetry still demonstrates the centrality of protasis clauses in conditional constructions. This constructional bias is expected (and also noted in Comrie 1986: 96), as the content of the protasis clause determines the reality status of the apodosis (the basis of many formal logical accounts as well).

Thirdly, we see that paradigms of conditional subtypes frequently correspond to modal paradigms, the most salient being a distinction between **open non-past** conditionals (marked by a **future-oriented** modal value) and **closed non-future** conditionals (marked by a **past-oriented** modal value). In

Gaagudju, for example, changing the inflection of both clauses from a future-oriented 'evitative' to a past-oriented 'past unrealised' conveys a counterfactual reading, as in (2). In the 53 languages with conditional subtype distinctions, at least 27 have modal distinctions directly corresponding to those conditional subtype distinctions.

Examples[I] and tables

Gaagudju (isolate)

(1)

*arr-djee-**gi**=yu*	*ngaj-ngiirla*	*arr-gee-wo-**ya***	*biirndi.*
1-go-**EVIT**=3FE.IO	1MIN-aunt	1<3-give-**EVIT**	money

'If I go to my aunt, she will/might give me some money.' (Harvey 2002: 371)

(2)

*∅-ng-goro-garraa-**ri***	*arr-**geenma-ri**=nu*
3.NC(I)<1:**IRR**-see-AUX-**PST**	1-say:**IRR**-**PST**=3MASC.IO

'If I had seen him, I would have told him.' (Harvey 2002: 371)

Table 1: Breakdown of single-linker conditional configurations

	protasis		apodosis	Configuration	Languages attested
L	(MOD)		(MOD)	**protasis-linker** + at least one modal	**50**
	(MOD)	L	(MOD)	apodosis-linker + at least one modal	16
L				**protasis-linker** only	**27**
		L		apodosis-linker only	3

Table 2: Breakdown of single-modal conditional configurations

	protasis		apodosis	Configuration	Languages attested
(L)	**MOD**	(L)		**protasis-modal** + at least one linker	**32**
(L)		(L)	MOD	apodosis-modal + at least one linker	27
	MOD			**protasis-modal** only	**12**
			MOD	apodosis-modal only	10

[I] Abbreviations: AUX 'auxiliary', EVIT 'evitative', FE 'feminine', IO 'indirect object', IRR 'irrealis', MASC 'masculine', MIN 'minimal number', NC 'noun class', PST 'past'

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