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Irrealis in branching time

Within the typological literature, the status of the notion of *irrealis* has been hotly debated since the criticism by Trask (1993), Bybee et al. (1994) and Bybee (1998) (also see de Haan 2012; Cristofaro 2012). In our talk, we address the following three aspects of the wide-spread criticism:

1. The notion of irreality is conceptually unappealing.
2. Not all languages that exhibit the realis/irrealis distinction leave it at this binary opposition.
3. Some of the categories that have been labeled *irrealis* cross-linguistically do not even overlap in their distribution.

The last two points can be illustrated with data from Oceanic languages, as shown in table 1.

Marker	FUT	HYP	CTF	*want*	PURP	*able*	OBLG	IMP	IMM. FUT	PRES	PAST
Manam IR.pref.	+	+	+	+	+	+	+	+	+	-	-
Nakanai *ge*	+	+	+	+	+	+	+	+	-	-	-
Nakanai *ga*	-	-	-	-	-	-	-	-	+	-	-
Sinaugoro *-r-*	-	-	+	-	-	-	-	-	-	-	-

Table 1: Functions of markers labeled as *irrealis*, adapted from Bugenhagen (1993); left: irrealis functions; right: realis functions; FUT: future; HYP: indicative conditional; CTF: counterfactual conditional; PURP: purpose clause; OBLG: obligation; IMP: imperative; IMM. imminent; PRES: actual present. PAST: actual past

Yet, within the literature on Oceanic languages, the realis/irrealis distinction has consistently been found to be useful (Elliott, 2000; Barbour, 2011; Lichtenberk, 2016). Likewise, in our own corpus-based and elicitation-based research on seven Oceanic languages, we have found that a set of assumptions that derives the realis/irrealis distinction from a **branching-time** approach to modality, in combination with the notion of **blocking** (Embick & Marantz, 2008) are successful in deriving the observations we make in the context of our studies.

In our talk, we will summarize how our research on primary data has shaped our understanding of the irrealis domain—some of these results have previously been published as [redacted1, redacted2, redacted3]. We will then show that our assumptions are also successful in deriving the observations on irrealis as previously reported in the literature on a wider range of Oceanic languages—our survey includes a total of up to 65 languages (not all our survey questions could be answered for all languages).

We argue that branching time offers a conceptually attractive way of thinking about irreality, and that a corresponding framework in fact predicts the variation that we see, because it also shows that the domain of irreality is split further into the domain of the possible and the domain of the counterfactual.

A branching-time structure creates a binary divide between the linear order of indices that precede the actual present i_c—the realis domain—and the set of indices that do not precede i_c—the domain of irrealis. The irrealis domain is subdivided further into successors of i_c—the possible futures, often referred to as *potential*—and those indices that are neither successors nor predecessors of i_c—the counterfactual. We follow the basic assumptions and definitions about branching time from [redacted4].

Going back to table 1, we see that Nakanai has two *irrealis* markers, one that has been labeled *non-imminent irrealis* and one called *imminent irrealis* (Raymond Leslie Johnston, 1980), and the two have very different distributions. This language therefore instantiates a non-binary
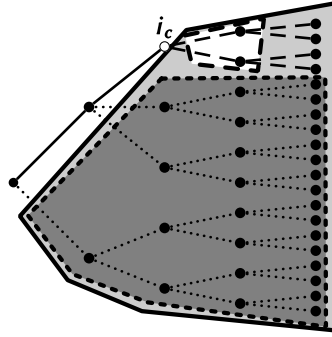
Figure 1: The actual (solid), the possible future (dashed) and the counterfactual (dotted). Shaded light gray: irrealis domain, Nakanai *ga*, Manam IR.pref.; shaded dark gray: Sinaugoro *-r-*, counterfactual domain; dashed outline, white background: Nakanai *ge* (immediate future);

realis/irrealis distinction. Furthermore, we see that, while Nakanai *ge* and the irrealis prefix in Manam have largely the same functions, Sinaugoro *-r-* behaves very differently from both.

Given the picture in figure 1, we can see that markers such as Sinaugoro *-r-*, which is restricted to counterfactual contexts, do belong to the domain of irreality, but cover only part of it. Markers referring to the immediate future, such as Nakanai *ga* can also be viewed as belonging to the domain of irreality, but they cover a very different part of it—part of the potential domain rather than the counterfactual. On the other hand, Nakanai *ge* covers almost all expected functions of irrealis, except the immediate future—presumably because this meaning is blocked by the existence of a dedicated immediate-future marker in the same language (we assume that speakers choose the most specific expression available in a given paradigm). We are going to argue that, at least in the context of Oceanic, the realis/irrealis distinction is well-defined and the range of variation we observe can straightforwardly be accounted for by our theoretical assumptions about branching time in combination with blocking effects. The three points of criticism mentioned in the beginning do therefore not invalidate the theoretical and empirical usefulness of the notion of irrealis.

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