Distributivity and coherence in clausal conjunction

Introduction: In recent work (to appear) we have argued based on examples like (1) that clausal conjunction with the coordinator *tuya'kaen* in A'ingae (isolate from Ecuador/Colombia) disallows temporal and causal inferences, a fact we attributed to a lexical requirement for a Parallel coherence relation (in the sense of SDRT; Asher & Lascarides (2003) et seq.) between the conjoined clauses.

(1) Ka'ni-fa=ngi **tuya'kaen** ke tuya'kaen fuesû-ndekhû=ki dyai-'fa
enter-PLS=1 **and** 2.SG and other-HUM.PL=2 sit-PLS
'We came in and you and the others sat down'
Consultant comments: Sounds like they sat down for other reasons, separately.

Previously, Bjorkman (2013a,b) argued that conjunctions of embedded clausal complements in English and other European languages have a similar semantic effect, but only when the complementizer is present in both conjuncts (e.g. *thinks that p and that q*). Other work by Szabolcsi (1997, 2016) and Bassi & Bondarenko (2020) has established a related pattern in these same environments: such sentences also require a distributive interpretation of the conjunction, whereas other conjunctions allow for non-Boolean interpretations (cf. Schmitt 2019, 2020). Since temporal/causal coherence relations are discouraged with CP-conjunction in A'ingae, we therefore might expect *tuya'kaen* to similarly disallow non-Boolean interpretations.

This paper: We **(i)** show that DP-conjunction with *tuya'kaen* allows for non-Boolean interpretations, as evidenced by data from cumulative readings, (2), and collective predicates, (3); **(ii)** provide empirical evidence correlating distributivity and coherence; and **(iii)** argue for an account that reconciles (1) and (2-3) by drawing on Bassi & Bondarenko 2020's clausal reduction-based account of English, combined with independently motivated assumptions about discourse coherence.

(2) Juan **tuya'kaen** Maria=tsû gana='fa pa'khu=ma cien dolar=ve
Juan **and** Maria=3 earn=PLS all=ACC hundred dollar=ACC2
'Juan and Maria earned $100 in total'

(3) Alejandra, Mateo **tuya'kaen** Alfredo=tsû kini'khu=ma shunkendi=ve khûtsû='fa
Alejandra Mateo **and** Alfredo=3 tree=ACC turn.around=ACC2 stand=PLS
'Alejandra, Mateo and Alfredo stood around the tree'

Correlating group readings and coherence relations: While the patterns in (1) and (2-3) have been discussed individually in prior works, a direct correlation between the two has not yet, to our knowledge, been established. Beyond the finite CPs discussed above, we find similar correlations upheld in English infinitives with *to* in both conjuncts (e.g. *want to X and to Y*) and conjuncts with verum focus (omitted for space). We also find that nominalized A'ingae complement clauses like (4) both show distributivity and lack temporal/causal inferences given its incompatibility with (4b). In sum, there is ample cross-categorial evidence for the correlation between obligatory distributivity and Parallel coherence relations and no known instance where it breaks down.

(4) Ña mama=tsû chi'ga-ye atesû [[ña kû'i='chu=ma] **tuya'kaen** [na'en=nga
1.SG mom=3 not.want-INF HABIT [[1.SG drink=SBRD=ACC] **and** [river=DAT
unjun-'jen='chu=ma]]
bathe-IMPV=SBRD=ACC]]
'My mother does not like that I drink and that I swim in the river'

a. ✓**Context 1:** My mother does not want me to drink because it is bad for my health, nor does she like when I swim in the river because the current is very strong.

b. **#Context 2:** My mother does not mind if I drink alcohol or if I swim in the river individually, but she worries that if I swim after drinking, I might drown.

Our account: We propose an account with three components to derive both the specific distribution of collective/distributive readings and its connection with coherence facts in general.

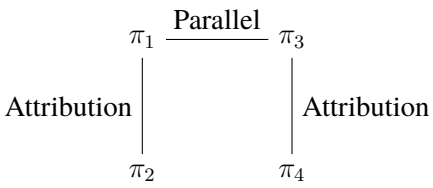
Component 1: We assume that the lexical semantics of A'ingae *tuya'kaen* (like English *and*) allows for both Boolean/distributive and non-Boolean/collective interpretations. While the specific implementation chosen likely does not matter here, for concreteness, we follow Schmitt (2019, 2020)'s proposal for English, in which *and* contributes plural groups of semantic entities of all types, and in which composition proceeds through the creation of plural sets that combine in an effectively pointwise manner. This system creates plural entities of not only individuals and predicates, but also of propositions. This component directly explains the non-Boolean readings in (2-3) while also allowing for distributive readings (cf. Haslinger & Schmitt 2018).

Component 2: To derive the requirement for distributive readings in CP coordination, we follow Bassi & Bondarenko 2020's claim that a sentence of the form (5a) has the logical form in (5b). We follow them in taking this to be conjunction reduction, though we cannot rule out a purely semantic mechanism a la Szabolcsi (2016) instead. We propose to extend this approach to (4) in A'ingae, i.e. we assume it has a logical form 'My mother does not like that I drink and she does not like that I swim in the river.'

(5) a. S attitude-V that *p* **and** that *q*

b. [S attitude-V that *p*] **and** [S attitude-V that *q*]

This proposal directly accounts for distributivity since group-formation happens at the level of the matrix attitude and not the complement clause. There is thus no compositional step in which the complement clauses are combined, and hence no potential for a plural group to be formed. It also indirectly accounts for the coherence facts, because the common structure among the two conjuncts naturally leads to Parallel(π_1, π_3), viz. the discourse structure below. Moreover, since the complement clauses are attached to the attitude predications via a subordinating Attribution relation (Hunter, 2016; Maier, 2023), the complement clauses π_2 and π_4 are not accessible to one another due to the Right Frontier Constraint (Asher & Vieu, 2005). The listener therefore doesn't attempt to search for a coherence relation between them, similar to other inaccessible subordinated discourse units. We thus explain generally the link between distributivity and coherence relations.



Component 3: For matrix conjunctions in A'ingae, we posit a CP-level Verum operator, creating a structure like 'it's true that p **tuya'kaen** it's true that q'. For matrix clauses, then, *tuya'kaen* coordinates Verum(p), not just p. As above, this blocks group formation at the propositional level, reinforcing the Parallel relation seen in (1). The claim that coordinate clauses in A'ingae always involve a C-layer is independently motivated by data from conjoined interrogatives, the lack of ATB movement, and the distribution of 2nd position clitics.

Conclusion: In this paper, we discuss an apparent discrepancy between Boolean and non-Boolean uses of *tuya'kaen* in A'ingae conjunction. Our proposed framework addresses the distribution of distributive and cumulative readings in DP and CP conjunction, which alternative analyses fail to account for. Furthermore, we directly relate coherence relations to distributivity facts in a general way that is applicable for A'ingae and beyond.

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