It has been noted that one of the most important elements in an adverbial clause construction is clause-linking devices. Harder (1996: 93) mentions that of all grammatical elements in an adverbial clause construction, clause-linking devices are the most necessary element to get the message across; "you can do fairly well without articles and tense and auxiliaries, but if you mess up the clause-linkers you really leave your listener in the dark."

Intriguingly, adverbial clauses, in a number of languages, show a puzzling scenario in that they are encoded with multi-word conjunctions, in which one or more of their components is optional. In Veracruz Spanish, 'after' clauses are formed with the multi-word expression *después de que* 'after' (1). Interestingly, there are communicative scenarios in which one of the components of the conjunction can be omitted (2). Schmidtke-Bode & Diessel (to appear: 15) mention that in the recent typological and psycholinguistic literature, such patterns have attracted increasing attention under the label of REDUNDANCY MANAGEMENT IN GRAMMAR.

The question is: Why components of a multi-word conjunction are optional in some communicative scenarios, but not in others? The present investigation explores this question by taking into account four types of adverbial clauses: 'After' clauses, 'before' clauses, 'until' clauses, and 'in order to' clauses. Such constructions are described and compared in 5 languages that are socio-culturally linked: Veracruz Spanish, Huasteca Nahuatl, Papantla Totonac, San Gabriel Huastec, and Uxpanapa Chinantec. These languages are spoken in the same region and contain multi-word conjunctions, in which one or more of their components is optional. In Huasteca Nahuatl, 'after' clauses are formed with *kemah ya teipa* 'after' (3). There are cases in which one of the components of the conjunction can be omitted, as in (4). The data used in this paper come from the analysis of procedural texts.

The fact that one or more components of a multi-word conjunction are optional could be dismissed as random and arbitrary. However, it is argued that whether the multi-word conjunction appears in iconic or non-iconic clauses seems to be the key to this puzzle. ICONICITY OF SEQUENCE refers to the sequential ordering of linguistic elements in discourse and complex sentence constructions (Diessel 2008: 469). That is, the order of elements in language parallels that in physical experience or the order of knowledge (Greenberg 1966: 103).

The main rationale behind this proposal is as follows. Multi-word conjunctions appearing in clauses showing an iconic order allow the omission of one or more of its components. This stems from the fact that the order of clauses parallels that in physical experience. Accordingly, given that the adverbial relation is also hinted by iconicity of sequencing, speakers have the luxury of omitting one or more components of multi-word conjunctions. From a diachronic perspective, it is likely that in this communicative niche the whole chunk is compressed and tends to undergo reduction because speakers have more practice in producing them (see Diessel 2007: 115). On the other hand, multi-word conjunctions appearing in clauses showing a non-iconic order tend not to allow the omission of any of their components. Given that the order of clauses does not mimic the temporal order in which they occurred in the real world, articulating all elements in a multi-word conjunction provides an efficient way of ensuring that the adverbial relation is transmitted.

Our results are in line with other studies that have shown that speakers may produce lexical categories with less articulatory detail. This is pervasive in contextually predictable communicative scenarios (see Jaeger 2010; Jaeger & Buz 2018; Kurumada & Jaeger 2015; Levy & Jaeger 2007).

Mexican Spanish

- (1) fuiste a comprar sal después de que cocinaste.

 2SG.go.PST to buy.INF salt after 2SG.cook.PST

 'You bought more salt after you cook.'
- (2) después que comiste, cocinaste otro platillo. after 2SG.eat.PST 2SG.cook.PST another dish 'After you ate (many tacos), you prepared another dish (for your guests).'

Huasteca Nahuatl (Uto-Aztecan/Aztecan)

- (3) ki-chihua-ki teki-tl, **kemah ya teipa** mo-mach-ti-ki.
 3SG.OBJ-do-PFV work-ABS CONJ REFL-study CAUS-PFV
 'He did his homework, after he studied.'
- (4) **ya teipa** kin-kuah-ki tama-li, yohui-ki.
 CONJ 3PL.OBJ-eat-PFV tamal-ABS go-PFV
 'After he ate the tamales, he left.'

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