

Reference versus Information

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From a functional perspective, to produce an **indicative** clause such as Examples 1 and 2 is to **exchange information** ('indication') with words. Similarly, to produce a **referring** group-or-phrase such as Examples 3 and 4 is to **refer** to an entity.

- (1) *Lawrence has one red shoe.*
- (2) *This red shoe is Lawrence's.*
- (3) *The man with one red shoe...*
- (4) *Lawrence's red shoe...*

In most cases, an indicative clause is produced to indicate the figure that it represents. For instance, the two indicative clauses in Examples 1 and 2 represent respectively the ownership relation between two entities – namely, Lawrence and his red shoe – and the inverse relation between the two. In parallel, nominal groups are predominantly produced to refer to things, the head usually naming either an entity or a class that an entity instantiates. This is the case for Examples 3 and 4.

However, not all clauses and nominal groups have such a direct mapping to indication and reference. For some clauses such as the one in Example 5, what gets indicated is not the part relation between the addresser and his sore throat, but the 'soreness of his/her throat'.

- (5) *I have a sore throat.*
- (6) *My throat is sore.*

When such a misalignment between clause-represented and clause-indicated figures happens, clause constituents create a single reference to a thing: in the present case, the addresser represented by *I* restricts which throat is sore, namely the addresser's throat. Analogically, the addresser represented by *my* in Example 6 makes the same kind of restriction.

When it comes to nominal groups, the representation of a thing happens in parallel to head modification. In Example 7 we can see a reference to California whereas in Examples 8-10 a reference is made to a part of California. In the first case, California is the primary entity and in the other cases it is a restrictor (a secondary entity). Notwithstanding, *California* is the Head of the nominal group in Examples 7 and 8 while *of California* is a Modifier of the nominal group in Examples 9 and 10.

- (7) *El Nino rains forecast to reach California.*
- (8) *El Nino rains forecast to reach Northern California.*
- (9) *El Nino rains forecast to reach the north of California.*
- (10) *El Nino rains forecast to reach the northern part of California.*

California	Northern	California	the	north	of California
Head	Modifier	Head	Modifier	Head	Modifier
Deictic	Deictic	–	Deictic	–	–
Thing	Thing	Possessive	–	Thing	Possessive
–	Possessed	Possessor	–	Possessed	Possessor

Table 1: Reference

Such small misalignments between grammatical, experiential, information and referring structures pose challenges to text generation. If a text is fluent insofar as it adheres to the semiotic practices of a linguistic community, fluency presupposes predictions of such expected misalignments. For that reason, I propose to relate reference (restricted, restrictor) and information (given, new) to representation (carrier, process, attribute – thing, possessive, epithet), predication (subject, object, voice), modification (head, modifier) and conceptualisation (possessor, possessed, entity, property) (examples in Tables 2 and 3) computationally with systemic networks and decision trees so that semantic and grammatical options become available for text generators.

I	have	a	sore	throat
Subject	Voice	Object		
Carrier	Process	Attribute		
Possessor	–	Possessed		
Restrictor	–	Restricted		
	Modifier	Modifier	Head	
	Deictic	–	–	
	–	Epithet	Thing	
	–	Property	Entity	
	–	New	Given	

Table 2: Indication of Epithet

my	throat	is	sore
Subject		Voice	Object
Carrier		Process	Attribute
Entity		–	Property
Given		–	New
Modifier	Head		
Deictic	–		
Possessive	Thing		
Possessor	Possessed		
Restrictor	Restricted		

Table 3: Indication of Attribute