Compositional Functions in Nominal Combination

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Compositional functions are the cognitive processes by which two independent units of meaning are understood as a single compound meaning. For instance, some nominal combinations are interpreted attributively (e.g., 'sponge memory' as "a good, *absorptive* memory"), while others are interpreted relationally (e.g., 'rodeo magazine' as "a magazine *about* rodeos"). One question of recent interest is whether attributive combination is cognitively distinct from relational combination, or whether attribution is simply a *resembles* relation (e.g., 'sponge memory' as "a memory that *resembles* a sponge in some way"). If the two combination-types respond differently to the same manipulation, then one can infer that they are in fact distinct processes.

Attributive and relational combinations were preceded by prime combinations that either did or did not share the same attribution/relation in a sense-nonsense judgment task. In Experiment 1, the prime also shared either the modifier or the head concept with the target. In Experiment 2 there was no lexical overlap between prime and target. Experiment 3 tested whether priming of attributive combination was purely associative. All experiments also included an uninformative baseline prime. See Table 1.

Table 1: Sample stimuli, Experiments 1, 2 and 3.

Prime-type		
Experiment 1		
M-Consistent:	sponge towel	rodeo documentary
M-Inconsistent:	sponge nurse	rodeo clown
H-Consistent:	warehouse memory	motorcycle magazine
H-Inconsistent:	childhood memory	library magazine
Experiment 2		
Consistent:	warehouse mind	motorcycle documentary
M-Control:	warehouse guard	motorcycle gang
H-Control:	gutter mind	epic documentary
Experiment 3		
Consistent:	warehouse brain	
Reversed:	brain warehouse	
Inconsistent:	seesaw relationship	
Target:	sponge memory (attributive)	rodeo magazine (relational)

When the prime combination used the same attribution/relational and one of the same constituents as the target combination, then comprehension of that target was facilitated (see Figure 1). When there was no lexical overlap between prime and target, only attributive combination was facilitated (see Figure 2). However, this facilitation for attributive combination was due to associative priming and did not generalize to other attributions (see Figure 3). Thus, although attributive combination may be more susceptible to associative priming than relational combination, the two compositional functions behaved similarly.

Figure 1: Priming of response times, Experiment 1.

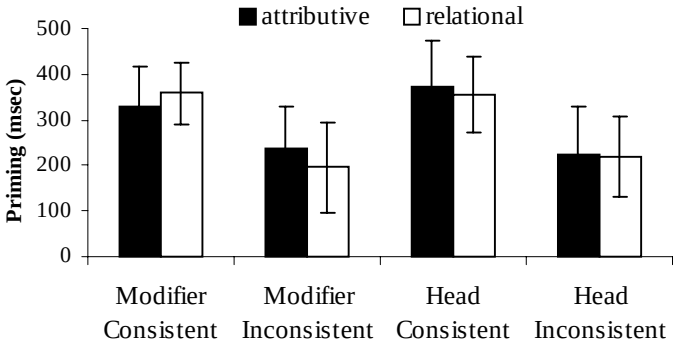


Figure 2: Priming of response times, Experiment 2.

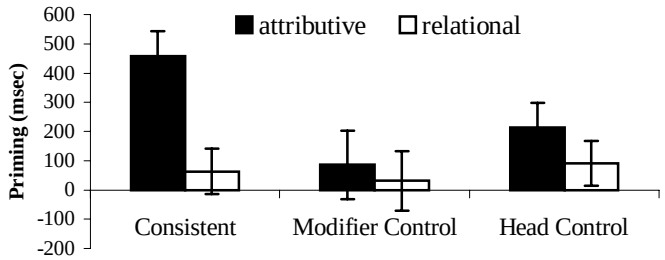
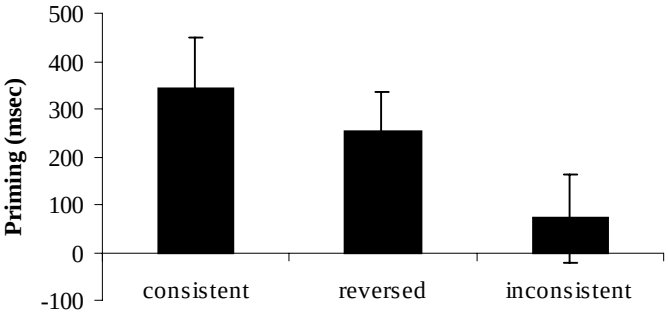


Figure 3: Priming of response times, Experiment 3.



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