

# Revising beliefs about imagined relations: the role of logic and content

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**Abstract:** University students ( $n = 86$ ) revised their beliefs about story-based relationships in the face of new, contradictory information. Prior to resolving an inconsistency, students drew a picture depicting the story information. Participants' resolution of logical inconsistencies reflected (a) the structure of the facts at hand and (b) the relationship conveyed by the major premise (All  $p$  are  $q$ ). Students were more committed to a story relationship when the contradiction challenged the outcome of a modus tollens ( $\neg q, p$ ) rather than modus ponens ( $p, q$ ) inference. Commitment to story relations was also greater when  $p$  represented a cohesive group whose characteristic  $q$  was critical to their definition as a group. When  $p$  represented a more ambiguous group, students drew more people and were less likely to retain the story relations. The preference to preserve a generalization is dependent on the nature of the logical contradiction and its implications to group entitativity.