

## **UC Merced**

### **Proceedings of the Annual Meeting of the Cognitive Science Society**

#### **Title**

The Role of Connotation on Interpretation Type

#### **Permalink**

<https://escholarship.org/uc/item/6tf8851n>

#### **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 18(0)

#### **Author**

Alma, Carine V.

#### **Publication Date**

1996

Peer reviewed

# The Role of Connotation on Interpretation Type

Carine V. Alma

University of Connecticut  
Dept. of Psychology, Box U-20  
Storrs, CT 06269-1020  
a.lma@uconnvm.uconn.edu

One of the central questions in analogical reasoning concerns the role of surface similarity on access and use of analogies. Ross (1987, 1989) distinguished between story line similarity, which affected access, and object correspondences, which affected use. These findings underscored the complexity of surface similarity. The purpose of this paper is to advance the notion that the same type of surface similarity, negative connotation, affects two types of qualitative retrieval measures in two distinct ways. First, negative connotation leads to the accurate noticing/accessing of the connotation information. However, the same connotation information leads to the inaccurate noticing/accessing of the intended interpretation. The intended interpretation is the most commonly occurring interpretation, found in analogous story pairs (Alma, in progress). Consequently, the prediction for this study is that negative analogies will receive higher measures on connotation and alternate interpretations. Neutral analogies will receive higher measures on intended interpretations.

In the first experiment, individuals read 8 pairs of analogous stories. Four analogies were neutral contexts, and four were negative contexts. An ANOVA indicated that neutral contexts elicited higher measures on intended interpretations ( $F(1, 23) = 34.2, p = .0001$ ). Conversely, negative contexts elicited higher measures on connotation ( $F(1, 23) = 16.4, p = .0005$ ) and higher measures on alternate interpretations ( $F(1, 23) = 5.55, p = .028$ ). The same profile of results occurred for neutral and negative themes. Neutral themes elicited higher measures on intended interpretations ( $F(1, 23) = 4.02, p = .057$ ). Negative themes elicited higher measures on connotation ( $F(1, 23) = 8.63, p = .007$ ) and alternate interpretations ( $F(1, 23) = 10.5, p = .004$ ). Consequently, negative information, which is salient, draws individuals to that information and it appears in the list of retrieved similarities. However, the most commonly occurring interpretation, which incorporates this negative

information, is not noticed and accessed. Negative connotation serves as a barrier, which causes individuals to derive alternate (routes) interpretations. Alternate interpretations are potentially useful, because they represent solutions to intractable problems structured around an analogy.

## Acknowledgments

This research was supported by pre-doctoral and doctoral dissertation fellowships to the author from the University of Connecticut. The author acknowledges the assistance of Carol Fowler and her speech lab.

## References

- Alma, C. V. (1996). [Viewing analogy interpretation from a talker-listener perspective]. Unpublished raw data.
- Ross, B. H. (1987). This is like that: The use of earlier problems and the separation of similarity effects. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *13*, 629-639.
- Ross, B. H. (1989). Distinguishing types of superficial similarities: Different effects on the access and use of earlier problems. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *15*, 456-468.