

hypothetical question, "B is nearer than E," i.e., $B \cdot > E$. This paired comparison is recorded in column A, the stimulus from whose position the individual was judging.

TABLE 2
Tabulation of Paired Comparisons from Decomposition of Triads*

	A	B	C	D	E
1.	$B \triangleright E$	$A \triangleright E$	$A \triangleright E$	$B \triangleright A$	$B \triangleright A$
2.	$B \triangleright D$	$A \triangleright D$	$B \triangleright D$	$C \triangleright B$	$C \triangleright A$
3.	$C \triangleright E$	$C \triangleright D$	$D \triangleright E$	$C \triangleright E$	$D \triangleright C$
7.	$D \triangleright E$	$C \triangleright E$	$B \triangleright E$	$A \triangleright E$	$C \triangleright B$
9.	$C \triangleright D$	$D \triangleright E$	$A \triangleright D$	$B \triangleright E$	$D \triangleright A$
10.	$B \triangleright C$	$A \triangleright C$	$B \triangleright A$	$C \triangleright A$	$D \triangleright B$
I Scales	ABCDE	BACDE	CBADE	DCBAE	EDCBA

* \triangleright signifies the implied judgment, "stimulus ___ is nearer to the stimulus at the head of the column than stimulus ___"

This procedure is continued, imagining that the individual is standing on each stimulus in turn. Thus, standing on stimulus B, he has said that A is nearer than E, $A \cdot > E$, and this is tabulated in column B. Finally, standing on stimulus E, he has said that B is nearer than A, $B \cdot > A$, which is tabulated in column E. Each triad is so decomposed and each paired comparison tabulated in its respective column. The data in Table 1 have been tabulated in Table 2, and each paired comparison has been identified by number with the triad from which it was obtained.

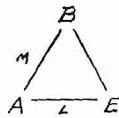


FIGURE 2

Hypothetical Response Pattern for the First Triad

The paired comparisons in a column of Table 2 are experimentally independent and, if they are transitive, they may be reduced to a rank order of the stimuli in order of increasing distance from the stimulus at the head of the column. In these hypothetical data, this is the case and the paired comparisons have been reduced to the rank orders given at the bottom of their respective columns in Table 2.

The problem then is to see if these rank order scales, which are formally equivalent to I scales, satisfy the necessary conditions for unfolding into a common latent attribute (3, 4). These data meet the necessary conditions. For example, two of the I scales, and only two, are mirror images of each

other and thus yield the rank order of the stimuli on the latent attribute, *ABCDE*. They contain no metric information because they do not fold the scale. The other three *I* scales do contain metric information and are listed in Table 3 with their respective metric analyses. Consider the *I* scale *BACDE*.

TABLE 3
Metric Implications from Within I Scales*

BACDE	==>	$\overline{BC} > \overline{AB}$
CBADE	==>	$\overline{CB} > \overline{AC}$
DCBAE	==>	$\overline{DE} > \overline{AD}$

* The bar over a pair of stimuli signifies the distance between them.

This represents the latent attribute folded at stimulus *B*. Hence, the fact that *A* comes before *C* implies that the distance $\overline{BC} > \overline{AB}$. In a similar manner the other two *I* scales have been analyzed and the metric implications are given in Table 3.

The metric information from the different *I* scales is not necessarily consistent or transitive. They must be examined for consistency and transitivity before they can be accepted as sustaining the hypothesis of a single latent attribute with these metric relations. The metric relations are summarized in Figure 3, and they are seen to be consistent and transitive.



FIGURE 3

Composite Partial Order of the Metric Information in the Data