Impression formation as a function of the relative amounts of information presented by high and low credibility sources¹

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Ss were presented with person-descriptions each consisting of five positive (P) or five negative (N) adjectives supplied by a source of assumed low (L) credibility and one to five adjectives of opposite value supplied by a source of high (H) credibility. Mean impression responses were incremented or decremented by equal amounts as the number of P or N adjectives supplied by the H source was increased progressively. The effectiveness of a single adjective was over twice as great when presented by an H source as when presented by an L source.

If sources varying in credibility provide equal amounts of information concerning the attributes of a person, the evaluative impression of that person will be more strongly influenced by a more credible source than a less credible source (Rosenbaum & Levin, in press). It is also known that increases in amount of univalent information lead to increased polarity of the evaluative response (Anderson, 1965a, 1967). The purpose of the present study was to examine the effects on impression formation of variations in the relative amount of information concerning a person provided by high and low credible sources.

The Ss were presented with a series of two-sentence communications each describing a single person. One sentence of each pair contained five personality trait adjectives of approximately equal positive (P) or negative (N) value that were ostensibly provided by a low (L) credible source. The other sentence in each pair contained from one to five adjectives that were ostensibly provided by a high (H) credible source, but these adjectives were contradictory in evaluative direction to those provided by the L source. The sequence of presentation of the two types of sentences was counterbalanced which permitted evaluation of potential order effects. However, the major interest was in discovering whether the influence of varying amounts of information (1-5 sentences) supplied by an H source was less than, equal to, or greater than the influence of a fixed amount of information (five sentences) supplied by an L source.

MATERIALS

Sources of information were designated by occupational titles chosen from a list scaled for use in previous studies (Rosenbaum, 1967; Rosenbaum & Levin, in press). Scaling instructions asked that the occupational titles were to be rated on "how valuable you would regard the information they (potential informants) may provide about the traits of persons with whom they associate." Social worker and doctor are examples of H sources and laundry man and meter reader are examples of L sources.

Adjectives were selected from a list scaled by Anderson (in press). Typical P adjectives are considerate, friendly, and gentle. Typical N adjectives are hostile, rude, and greedy.

The 60 pairs of sentences that were presented in the experimental or Source condition were composed in a standard form that read "Mr. (letters from A to HHH) has been described by a (source) as (one to five adjectives)." Each pair of sentences described the same person. In all cases following the designation of an L source five adjectives were presented. From one to five adjectives followed the designation of an H source. In half of the pairs of sentences an H source was designated in the first sentence and an L source in the second sentence. In the other half of the sentences the reverse order of source designation was employed. In addition, in half of the sentences, P adjectives appeared in the first sentence and N adjectives in the second sentence. The reverse order occurred in the other half of the sentences. The various combinations of the three variables of number of adjectives provided by an H source (1 to 5), source order (H sentence first, L sentence first) and adjective value order (P sentence first, N sentence first) required 20 pairs of sentences in a 5 by 2 by 2

design. Three replications of the total design were presented to each S for a total of 60 pairs of sentences.

In order to accomplish the above design requirements, 20 H sources and 20 L sources were selected. All sources were restricted to one appearance in each replication. Forty P adjectives and 40 N adjectives were selected and were assigned twice to different sentences in each replication. Care was taken to prevent repetition of the pairing of adjectives with each other. Otherwise, sources and adjectives were randomly assigned to sentences. Sentence pairs were typed on three sets of 20 cards to fulfill the total design and these sets were assigned to the 1st, 2nd, and 3rd replication. Prior to the presentation of the stimuli, each set of cards was shuffled. Appropriate coding on each card allowed for proper response recording.

The control or Non-source condition was created by eliminating the source designation from all cards and substituting the words "one person" in the first sentence and "another person" in the second sentence.

PROCEDURE

The Ss were seen individually and the pairs of sentences were read by E at a rate varying from about 10 to 15 sec per pair depending upon the number of adjectives in the sentences. On a large card visible throughout the session, an 8-point scale which ranged from highly favorable (8) to highly unfavorable (1) was printed. Ss were instructed that they would be read descriptions of different men provided in each case by two persons who knew each of the men. Following each description they were to indicate how favorable or desirable they considered the described man by saying the number representing their rating.

All Ss were then read six practice descriptions which they rated. For Ss who received the Source condition, the descriptions were composed of pairs of sentences containing sources rated at the midpoint in the list of scaled occupational titles and adjectives rated at the midpoint in the list of scaled adjectives. One sentence in each pair always contained five adjectives and one sentence included five or fewer adjectives. The order of presentation of these types of sentences varied. For Ss who received the Non-source condition the "one person-another person" designation of sources was used. The experimental list was then read and ratings were obtained.

SUBJECTS

Forty male students who were enrolled in the introductory psychology course participated in the Source condition and 15 students were in the Non-source condition.

RESULTS

For each S, a mean favorability response was obtained for each condition created by the independent variables by averaging his responses to the three replications of that condition. The various conditions are designated by the order of presentation of adjective values, the number of adjectives in the set associated with each adjective value and, when appropriate, the source credibility values. For example, for the set of Source conditions in which the P adjectives preceded the N adjectives, and in which the L source presented five P adjectives while the H source was presenting from one to five N adjectives, the designation is $LP_5 - HN_i$ where i varies from 1 to 5 and represents the number of adjectives presented by the H source.

Non-source condition. The data for Conditions $N_5 - P_1$, $N_1 - P_5$, $P_5 - N_1$, and $P_1 - N_5$ are plotted in the left panel of Fig. 1. In conditions $N_1 - P_5$ and $P_5 - N_1$ it can be seen that the mean impression response tends to decrease as the number of N adjectives paired with the five P adjectives increases. Conversely, it can be seen that for Conditions $N_5 - P_1$ and $P_1 - N_5$ the mean response tends to increase as the number of P adjectives paired with the five N adjectives increases. Within each of these four conditions a significant linear trend was found, $p < .001$ in each case, while the deviations from linearity were nonsignificant,

Fig. 1. Mean impression response curves for Non-source and Source conditions. Each curve in the left (Non-source) panel plotted as a function of the number (i) of P or N adjectives paired with five contradictory adjectives, with the order of adjective presentations labeled for each curve. Each curve in the right (Source) panel plotted as a function of the number (i) of adjectives presented by H paired with the five adjectives presented by L, with the order and pairing of adjectives and sources labeled for each curve.

$p > .05$ in each case. Thus a linear relationship was confirmed within each condition.

It can be seen that responses tended to be higher for $N_1 - P_5$ than for $P_5 - N_1$ conditions, but no such systematic differences can be observed for $N_5 - P_1$ and $P_1 - N_5$ conditions. When a comparison was made between all conditions involving an N-P order of presentation and those involving a P-N order, no reliable effect of order of adjective presentation was obtained. Note also that the four trend lines tend to converge to a point slightly below the neutral point on the rating scale employed.

Source condition. The data for Conditions $LN_5 - HP_1$, $HN_1 - LP_5$, $LP_5 - HN_1$, and $HP_1 - LN_5$ are plotted in the right panel of Fig. 1. As in the Non-source condition it can be seen that the mean impression response tends to decrease as the number of N adjectives increases and tends to increase as the number of P adjectives increases. Within each of the four conditions a significant linear trend was found, $p < .001$ in each case. In three of the four conditions the deviations from linearity were nonsignificant, $p > .05$. In Condition $HN_1 - LP_5$ a single point of inversion led to a significant deviation from linearity.

The effect of source credibility can be observed most directly by comparing the end points of each trend line, since these points represent conditions where the number of P and N adjectives are equated. Whereas the trend lines converged in the Non-source condition, it can be seen that the mean response is much greater for $HP_5 - LN_5$ than for $LP_5 - HN_5$ and the mean response is much greater for $LN_5 - HP_5$ than for $HN_5 - LP_5$. Thus responses were much higher in conditions where five P adjectives were supplied by an H source and five N adjectives were supplied by an L source than under the reverse conditions. A further comparison of the influence of H and L sources can be made by noting that at the point where the H source supplies two adjectives and the L source supplies five adjectives the four trend lines almost coincide. This tends to suggest that two adjectives supplied by an H source are about as effective as five adjectives supplied by an L source.

It can also be seen that the mean response tended to be higher for conditions where the P adjectives appeared last than for conditions where the P adjectives appeared first. In comparisons between Conditions $LN_5 - HP_1$ and $HP_1 - LN_5$, and between Conditions $HN_5 - LP_1$ and $LP_1 - HN_5$, this effect was found to be statistically significant, $p < .01$ in each case. Thus, unlike the Non-source condition, the Source condition produced a reliable recency effect.

DISCUSSION

Possibly the most noteworthy feature of the present data was that, with but one exception, all relationships observed were linear in form. The task facing the Ss required integration of rather complex relationships among the several events that were varied, especially in the Source condition. Yet Ss tended to increment their impression responses by approximately equal amounts with the addition of each comparable information unit while responding systematically to the contributions of other variables. The data are perhaps most impressive in light of the rough scaling techniques employed to obtain quantitative estimates of source and adjective values.

The findings for the Non-source condition can be most directly related to the findings of Anderson (1965a, 1967) which showed comparable increases in impression responses as a function of number of information units when only univalent adjectives were employed. The generality of this event is increased by the present materials which included in each description a standard number of contravalent information units. Although not amenable to test in the present situation, Anderson (1965a, 1967) accounts for the set-size effect with a weighted average model that includes an initial neutral impression.

The contribution of specifying the source of each informational unit was clearly to increase the increment (or decrement) in response produced by the addition of a given unit when that unit was presented by a source of high as opposed to low credibility. In fact, it was shown that the influence of two adjectives supplied by an H source was about equal to that of five adjectives supplied by an L source.

The manner in which information about source credibility is integrated into the impression formation process cannot be completely specified on the basis of these data. The results reported here, however, are consistent with the notion that source credibility affects the weight or influence of a given informational unit, a finding clearly obtained in an experiment containing an adequate test of this hypothesis (Rosenbaum & Levin, in press).

Primacy effects are typically found in impression formation studies using sequential presentation of information, but without source specification (cf. Anderson, 1965b). However, the present findings in which these effects were either absent (Non-source condition) or reversed (Source condition) are consistent with those of the Rosenbaum & Levin (in press) study where contradictory information was specified as having been supplied by two different sources.

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NOTE

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