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Accentuation and Perspective in Attitudinal Judgment

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The researchers studied school and university students' judgments of statements concerning the nonmedical use of drugs as affected by judges' attitudes toward the issue, by the range of items presented, and by value connotations. The results failed to support predictions derived from Upshaw's variable perspective model concerning the combined effects of attitude and item range on judgment. As predicted by accentuation theory, however, prodrug judges gave more polarized ratings on scales where the pro end was more positively labeled (P+), and antidrug subjects gave more polarized ratings on scales where the anti end was the more positive (A+). This replicated previous findings. Also, as predicted, more polarized ratings were given on P+ than on A+ scales when the item range was aborted at the pro end, and vice versa when it was aborted at the anti end. It is argued that judgment does not necessarily depend on the total subjective range of items that a judge takes into account (the original definition of perspective) but rather on the perceived appropriateness of a given scale to a given region of the underlying continuum.

It is a common intuition that people with different attitudes on an issue not only show different patterns of agreement and disagreement, of favor and disfavor, but also may "see things differently." That is, they may interpret the issue in different terms, regard different aspects as important, and mean different things by the words they use when talking about the issue. If true, this has potentially serious implications for difficulties of communication in a variety of contexts, from the interpersonal to the international (Dawes, Singer, & Lemons, 1972; Volkmann, 1951). Among the many areas of experimental research supporting this intuition, one of particular relevance is that concerned with the influence of people's attitudes on their descriptive ratings of statements expressing different viewpoints on an issue.

The procedure followed in these studies

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derives from Thurstone's (1931) construction of "Equal-Appearing Intervals" attitude scales, which require subjects to rate the degree of favorability or unfavorability toward an issue expressed by a series of statements. Although the test instructs subjects to disregard their own agreement or disagreement with the test statements, the classic experiment by Hovland and Sherif (1952) established, and subsequent studies have confirmed, that subjects' ratings are consistently related to their attitudes. There are two well-replicated aspects of this relationship. The first is a tendency for subjects to judge the statements, on the average, as more unfavorable, the more favorable their own opinion. This is usually termed a *contrast effect*, because subjects displace their ratings away from their own position. The second is a tendency for subjects to differ in the bilateral extremity, or *polarization* of their ratings.

According to Upshaw's (1962, 1969) "variable perspective model," ratings directly reflect perspective, that is, the subjective range of positions on the continuum of favorability that the subject takes into account when assigning statements to response categories. If the number of available re-

sponse categories is held constant, any factor that prompts an extension of the subject's perspective toward the favorable extreme should lead, on the average, to more unfavorable judgments, whereas any extension of perspective toward the unfavorable extreme should lead to more favorable judgments. Upshaw refers to such shifts as effects on "scale origin." In the original formulation of his model, Upshaw (1962) predicted that perspective should be influenced jointly by judges' own attitudes and by the range of items actually presented to them. Segall (1959) had already shown that the more predominantly favorable the item series, the more unfavorable should be the ratings given to any common subset of items. Thus, in a factorial design that treated attitude and item range as independent factors, one would expect a main effect of item range on scale origin. It is plausible, though, that the subjective range of positions that judges take into account would be influenced by factors other than the range of items actually presented. For instance, pro judges might allow for the inclusion of more extreme pro items in any possible series, and anti judges might allow for the possibility of more extreme anti items. If this were so, pro judges should give less favorable ratings, on the average, than anti judges—an attitude main effect.

Upshaw (1962) also predicted and obtained an interaction between attitude and item range. This prediction relied on a distinction between "in-range" and "out-of-range" judges, the latter being those whose opinions fell outside the range of positions represented by the item series. The hypothesis was that for any given item series, all in-range judges should have the same perspective and therefore give the same ratings; the effect of attitude on judgment should be observable only in the case of out-of-range judges. Because of the difficulty of distinguishing clearly between in-range and out-of-range judges, this feature of Upshaw's model has been rather neglected. An optimal test of this hypothesis requires both manipulation of the range of items presented (e.g., Upshaw, 1962), which is no problem but has only rarely been undertaken, and an accurate pinpointing of judges' own positions,

which, ideally, need to be quite extreme. This latter requirement has been much more problematic; it has been complicated further by the fact that one cannot simply assume that in-range judges fail to take account of possible viewpoints more extreme than their own.

Even under less than optimal conditions, however, when in-range and out-of-range judges are less easily distinguished, the model implies that judges' attitudes and item ranges should interact if both are incorporated as factors in an experimental design. If item range is manipulated so that some subjects are presented with a series of items covering a wide range of positions from extreme unfavorability to extreme favorability, and other subjects receive a narrower range of items, then there should be less effect of attitude on judgment in the wider range condition. Thus, although this prediction derives from the notion that in-range judges do not differ from one another in their ratings (at least as much as do out-of-range judges), it does not require the different types of judges to be distinguished for purposes of analysis, but rests instead on the assumption that there will be fewer out-of-range judges in the condition in which the wider range of items is presented. This prediction is tested in this study.

Differences in polarization as a function of judges' attitudes have also been subject to a number of theoretical interpretations. The "assimilation-contrast" model of Sherif and Hovland (1961) predicts that judges with extreme attitudes would assimilate items close to their own positions and contrast those further away; judges with more extreme attitudes, whether favorable or unfavorable, should give more polarized ratings than neutral judges. This prediction is not supported by a number of studies using the issue of American students' attitudes toward blacks, however. These studies have shown that problack subjects give more polarized ratings than neutral subjects, but neutral judges give more polarized ratings than antiblack subjects (e.g., Selltitz, Edrich, & Cook, 1965).

Upshaw's (1962, 1969) variable perspective model, on the other hand, can accommodate these findings quite easily: Judges

with narrower perspectives should use their judgment scales to cover a narrower range of positions. Assuming no increase in the number of available responses, more items should fall in the more extreme categories of the scale. Upshaw therefore considers polarization as dependent on the width of the *scale unit* that judges employ. There is nothing in the model that predicts a relationship between polarization of judgment and favorability or unfavorability of judges' attitudes, although one can derive predictions of the effects of item range manipulation on perspective (the wider the item range, the wider the perspective). In other words, the model does not state how judges' attitudes might influence their perspectives in a manner consistent with the observed results.

Accentuation theory (Eiser, 1971, 1980; Eiser & Stroebe, 1972) is the only current theory that successfully predicts differences in polarization as a function of judges' attitudes. Crucial to this approach is a distinction between the descriptive (denotative) and evaluative (connotative) aspects of the response language that is very much the same as that introduced by Peabody (1967) into the literature on personality impression formation. The studies by Eiser and Mower White (1974, 1975) are illustrative of this distinction: School students judged statements concerning adult authority on a number of scales, chosen so as to denote the continuum from antiauthority to proauthority, but to differ in the direction of value connotations. Thus, on one half the scales, the antiauthority end was positively labeled and the proauthority end negatively labeled (e.g., bold-timid), and on the others the direction of implicit value was reversed (e.g., disobedient-obedient). The instructions given to subjects told them to rate the kind of person they imagined would have made each statement.

The studies show a very reliable interaction between attitude and response language on polarization. Specifically, on scales where the pro end was positive, pro subjects polarized more than antis, and on scales where the anti end was positive, antis polarized more than pros. The interpretation offered for the earlier studies is that by offering subjects only one response scale, only one half

of a possible interaction was observed. If a label like "favorable to Negroes" conventionally carries more positive connotations than its opposite, then the observed effect, with pros giving the most polarized ratings and antis the least, is consistent with an accentuation theory interpretation.

What implications do such findings have for Upshaw's (1962, 1969) approach? Might some reconciliation between accentuation theory and the variable perspective model be possible? The variable perspective model interprets judgmental effects as arising from judges' use of response language rather than as quasi-perceptual shifts, as assumed by Sherif and Hovland (1961) and by Helson (1964). Nonetheless, it is unclear how manipulation of response language would be assumed to influence judgment, according to the model. There are two separate questions here. First, can the model accommodate (without necessarily predicting) changes in judgment arising from manipulation of the response language? Second, can the model accommodate the possibility of response language having a direct effect on perspective? Our reading of Upshaw suggests that the answer is probably yes to the first question and probably no to the second.

This distinction between judgment and perspective simply reflects the distinction common to most if not all theories of judgment between the response continuum or rating scale itself and the underlying stimulus dimension or content being rated. The central issue for the variable perspective model is that of how particular positions on the response continuum become defined as appropriate descriptions of particular positions on the stimulus or content dimension. Originally, Upshaw (1962) assumed a simple "end-anchoring" process (cf. Volkmann, 1951) whereby the judge would define the endpoints of the rating scale so as to correspond to the extremes of his or her underlying perspective or subjective range of stimulus positions. If this "end-anchoring" process is the only means open to subjects of defining stimulus equivalents for response categories, then all changes in judgment must reflect changes in perspective. Once one allows the possibility of different kinds of definitional processes, however, it is no

longer necessary to assume a one-to-one relationship between perspective and judgmental changes.

How, then, in terms of the variable perspective model, is one to interpret findings such as those of Eiser and Mower White (1974, 1975), which show that judgments are influenced by the wording of the response scale? The choice appears to be one between assuming that judges change their perspectives from one scale to another and assuming that differently worded scales are defined by judges as appropriate descriptions of different regions of the underlying stimulus continuum. If one stays with a definition of perspective as the *total range* of positions of which the judge takes cognizance, the first alternative strikes us as implausible, at least in the context of experiments where judges are presented with multiple response scales. It would mean that judges simply forget about more extreme positions when rating items on scales that yield more polarized judgments, only to remember them immediately when switching to scales that yield less polarized judgments. Furthermore, one would be forced by Eiser and Mower White's (1974, 1975) data to infer that such a process of alternate forgetting and remembering is reliably related to judges' attitudes in interaction with linguistic aspects of the judgment scales. On the other hand, if one adopts the latter alternative, what becomes important is the range of positions that each judge regards as appropriate or relevant in the context of a given judgmental language. Redefinition of the term perspective as *appropriate range* would constitute a significant departure from earlier formulations of the variable perspective model, however; terminological confusion would result if such a redefinition were used unilaterally without it being made explicit. For this reason we continue to use the term *perspective* in its original sense of total range, even though the main thrust of this article is to argue for the use of a conceptualization based on the notion of appropriate range.

The present study, then, develops the notion of appropriateness to explore areas of contact between accentuation theory and the variable perspective model. A novel feature of this study is the combination of a manip-

ulation of item range (following Upshaw, 1962) and the multiple response scale format (following Eiser & Mower White, 1974). The design therefore includes three factors of theoretical interest: judges' attitude, item range, and value connotations of the response scale. Within this design, a number of effects may be tested that, if found significant, would constitute replications of previous studies using simpler designs—notably the interactive effect of attitude and item range found by Upshaw, and that of attitude and scale connotations on polarization found by Eiser and Mower White.

Considering the three factors together, the original version of Upshaw's model implies no prediction of any interaction of Item Range $\times$ Type of Scale, nor should any Attitude $\times$ Item Range interaction depend on the scale connotations. Similarly, the principal finding of the Eiser and Mower White (1974, 1975) studies—that of a different relationship between attitude and polarization as a function of scale connotations—should not be dependent on item range (although it is not clear what might happen with a very narrow spread of items). The main focus of this study, however, is on the joint effects of item range and type of scale: We specifically test the prediction that polarization of judgment depends on an interaction between item range and value connotations of the judgment scale.

The derivation of this prediction starts from considerations of the relationship between descriptive and evaluative language, which we regard as part of accentuation theory, although not essential for prediction of the attitude-polarization relationship already mentioned. Such considerations are by no means an exclusive or original part of the theory but have roots at least as far back as the writings of Aristotle. The starting point is the proposition of an implicit connection between descriptive extremity and evaluative negativity—the tendency to evaluate more moderate degrees of an attribute positively and more extreme degrees negatively.

At first sight the postulation of a connection between descriptive extremity and evaluative negativity may appear inconsistent in that it implies a confounding of descriptive and evaluative meaning, whereas accentua-

tion theory may seem to be based on the experimental unconfounding of evaluation and description. The reason for the possible ambiguity is that the typical accentuation theory experiment does not attempt to unconfound evaluative and descriptive *extremity*, but only evaluative and descriptive *direction*. The manipulation of value connotations produces some scales where the pro end is more positively valued than the anti end, and some where the implicit value is reversed. This can still allow a pro term on one scale (e.g., obedient) to be seen as denotatively less extreme than on another scale where the value connotations are different (e.g., timid).

In fact, the possibility that scale terms may differ in descriptive extremity is implied by a very reliable finding in those studies where value connotations have been manipulated. We have referred to this finding as a *positivity effect*, in that it takes the form of a preponderance of ratings toward the positively valued extreme of the scale. Of importance for the relationship between accentuation theory and the variable perspective model is that the effect is easily interpretable in perspective terms, if one considers that scales with a negative anti term and a positive pro term (P+) may be seen to denote positions ranging from extremely anti to moderately pro whereas those with a positive anti term and a negative pro term (A+) may be seen to denote positions ranging from moderately anti to extremely pro. The effect that this would have on ratings may be seen from the top half of Figure 1. Also relevant is a study by Eiser and Osmon (1978) that compared ratings on scales where either both ends were evaluatively positive (EP) or both were evaluatively negative (EN). The authors' prediction (see bottom half of Figure 1) was for greater polarization on EP than on EN scales; this was supported.

Other areas of research bear upon the connection between evaluation and description. Peabody's (1967) work on impression formation is an example. Also, if one makes the further assumption that extreme degrees of an attribute are likely to be less frequent statistically, work by Zajonc (1968) on familiarity-attraction becomes relevant, as does the observation by Boucher and Osgood

Figure 1. Differences in item ratings as a function of the value connotations of the response scale: Hypothetical example to show ratings given to a relatively anti item (X) and a relatively pro item (Y) on four 5-point scales assumed to represent different regions of the underlying continuum from anti to pro. (P+ = anti end negative, pro end positive; A+ = anti end positive, pro end negative; EN = both ends negative; EP = both ends positive. From "Judgmental Perspective and Value Connotations of Response Scale Labels" by J. R. Eiser and B. E. Osmon, *Journal of Personality and Social Psychology*, 1978, 36, 491-497. Copyright 1978 by the American Psychological Association. Reprinted by permission.)

(1969) of an association between positive evaluation and frequency of usage of words in everyday language.

The precise nature of the connection between evaluative and descriptive meaning remains a complex issue in linguistic and moral philosophy, however (see, e.g., Nowell-Smith, 1956). Words differ from each other in the respective prominence of their descriptive and evaluative components. Words like *good* and *bad* are essentially purely evaluative, without a descriptive component; for such words the notion of a connection between extremity and negative value is not really applicable. Even here, though, the context of the words' normal usage might imply in broad terms the kind of criteria on which the evaluation was based. (When we talk of a "good book," we are assumed to be talking about its contents, not its potential as, say, a doorstop.) Other words can refer to an attribute without a hint (out of context) of the degree of that attribute that is preferred (e.g., descriptions of color, hue, and intensity). Nonetheless, there are many words that serve both descriptive and evaluative functions; it is with these that we are primarily concerned.

In perspective approaches, when more than one continuum of judgment or measurement is applied to a series of items of stimuli, the connection between the different continua seems to be treated as essentially arbitrary (apart from the sign of the correlation) and hence experimentally manipulable (e.g., Upshaw, 1978). The difference of emphasis of the accentuation theory approach is to regard the connection between different continua, while still manipulable, as possibly less arbitrary, in that (depending on the context) it is assumed that subjects may approach a judgment task with prior notions concerning the *appropriateness* of a particular response scale for judgments of a particular dimension, or ranges of positions along a dimension. The finding that judges avoid extreme ratings on scales that are evaluatively inconsistent with their own levels of agreement/disagreement (i.e., P+ scales for anti judges, A+ scales for pro judges) may be interpreted as suggesting that they view such scales as less appropriate for discriminating between the statements. In other words, polarization may be viewed as an *acceptance of the appropriateness* of a response scale to a given set of discriminations. The applicability of this notion to the question of how judges might make discriminations in different regions of a continuum may be illustrated by considering how inappropriate it would feel to be called on to discriminate between ants on a scale ranging from huge to gigantic, or between elephants on a scale ranging from miniscule to tiny.

Returning to the question of how item range and value connotations of response language might interact, the above discussion implies that P+ scales (marked by a negative, and hence implicitly extreme, anti term and a positive, and hence implicitly moderate, pro term) should be seen as more appropriate to item series ranging from extremely anti to moderately pro; similarly, A+ scales should be seen as more appropriate to item series ranging from moderately anti to extremely pro. If, therefore, item range is manipulated by exclusion of items at one or another extreme, it is predicted that polarization on P+ scales should be greater in the case of a "short-anti" series

from which extremely pro items have been excluded than in the case of a "short-pro" series from which extremely anti items have been excluded. Conversely, polarization on A+ scales should be greater in the case of a short-pro than short-anti series. This prediction was tested in the experiment described below.

Method

Subjects

Subjects included 185 male and female students, aged 15-16, from two comprehensive schools in southeast London. They answered a questionnaire during a regular class period. In addition, 73 male and female students from the University of Surrey were questioned individually in a concourse area during a lunch break and were paid 30p for participation. In both groups the questionnaires were completed anonymously.

Questionnaire

The attitudinal issue used in this study was that of the nonmedical use of drugs. On the basis of a pilot study, 25 items were selected with five in each of the following subgroups: (a) Antidrug, (b) antidrug/neutral, (c) neutral, (d) neutral/prodrug, and (e) prodrug. The following four rating scales were also selected: P+ (unadventurous-adventurous), A+ (responsible-irresponsible), EN (overcautious-escapist), EP (self-controlled-imaginative). All scales were in the form of 100-mm lines and were scored from 0-100 (the distance in millimeters from the left-hand extreme). Each subject was presented with a questionnaire containing 15 of the 25 statements to be rated on each of the four scales above. There were three different item range conditions, depending on the subgroups of items presented: whole-range (a, c, and e), short-pro (c, d, and e), and short-anti (a, b, and c). They also had to rate their "own opinion about the use of drugs generally" on the same four scales, as well as on a scale labeled "extremely opposed to drug use-extremely in favor of drug use." The university subjects also composed statements of their own to express their attitude toward drug use; these statements were subsequently rated for favorability by four independent judges.

Results

Our hypotheses related to differences between the P+ and A+ scales and also to differences between the EN and EP scales. We were not concerned, however, with how the former two scales considered together differed from the latter two considered together. The actual effects to be tested did not require analyses that included all four scales simultaneously as repeated measures.

We were therefore able to treat the data in terms of two parallel sets of analyses, one set on the P+ and A+ scales, the other set on the EN and EP scales.

In both sets of analyses, judges' self-ratings on the scale extremely opposed to/in favor of drug use were taken as a measure of their attitude. As might be expected, the university students rated themselves as considerably more prodrug than the comprehensive school students ($M = 50.6$ and 32.7 , respectively, $F(1, 252) = 22.66$, $p < .001$). Self-rating did not differ significantly over the three conditions. Subjects were then divided on the basis of these self-ratings into anti and pro groups on the basis of separate median splits within each of the six cells produced by the combination of the school (comprehensive vs. university) and item range factors.¹ A series of separate analyses of variance (ANOVAS) was then performed on the data, employing a 2 (attitude) $\times 2$ (school) $\times 3$ (item range) factorial design. The effects of the item range factor were considered in terms of two orthogonal planned comparisons. In all analyses the term *item range 1 effect* refers to the contrast between short-pro and short-anti; the term *item range 2 effect* refers to the contrast between whole range and (short-pro + short-anti)/2.

Effects on Scale Unit (Polarization)

In attempting to assess effects on scale unit (polarization), we were faced with the problem that different items were included in the different range conditions, yet we wished to include all three conditions within the same analyses. For each subject on each scale we therefore derived a polarization score, defined differently as a function of the condition but intended to be directly comparable across conditions. For subjects in the short-pro condition, we defined polarization as the mean difference between Item Groups e and c, and for those in the short-anti condition, as the mean difference between Item Groups c and a. Clearly, since polarization was defined differently in these two conditions, any difference in polarization between these two conditions over scales could simply reflect an asymmetry in the initial selection

of items. This is not a problem, however, when one is considering possible differences between scales as a function of item range. For the whole-range condition polarization was defined as half the difference between Item Groups e and a. This definition was chosen since it would be equivalent to the mean of the polarization scores in the other two conditions, if the null hypothesis of no effect of item range on perspective was correct (i.e., if item groups a, c, and e received the same ratings regardless of the condition in which they were presented). Table 1 presents the means of these polarization scores for each scale as a function of attitude, item range, and school. The polarization scores were then combined across scales in the following Attitude $\times$ School $\times$ Item Range ANOVAS.

1. *Mean P+ - A+ differences in polarization.* This was the analysis that tested the main predictions derived from accentuation theory. For this analysis the dependent variable was a difference score calculated by subtracting each subject's polarization score on A+ from his or her polarization score on P+. The main effect for attitude replicated the principal finding of Eiser and Mower White (1974, 1975), with anti subjects showing less polarization than pro subjects on P+ scales (overall $M = 9.8$ and 18.5 , respectively; cell means labeled *a* and *b* in Table 1) but more polarization than pro subjects on A+ scales (overall $M = 10.9$ and 3.2 , respectively; cell means labeled *c* and *d* in Table 1), $F(1, 246) = 29.68$, $p < .001$. The novel prediction of this study—that of less polarization on P+ than A+ in the short-pro condition but with a reverse effect in the short-anti condition—was confirmed by a highly significant item range 1 effect (short-

¹Since our predictions all concerned monotonic effects of attitude within any condition, the choice of any "neutral point" on the attitude continuum is arbitrary. The creation of attitude groups within each of the six cells by this "roving median" technique may be considered as a simple solution to the problem created by the confounding of school and attitude. This confounding might otherwise be dealt with by an analysis of covariance, without dividing the sample into attitude groups, but instead treating attitude (self-rating) as a (continuous) covariate. When such an analysis of covariance is performed, the conclusions of the simpler analyses to be described are fully confirmed.

Table 1
Mean Polarization Scores

Attitude group	Condition								
	Whole-range			Short-pro			Short-anti		
	Anti	Pro	<i>M</i>	Anti	Pro	<i>M</i>	Anti	Pro	<i>M</i>
Comprehensive school									
P+	8.7	16.1	12.4 _e	7.1	5.7	6.4 _e	5.0	29.2	17.1 _e
A+	10.2	8.9	9.6 _g	14.0	14.4	14.2 _g	6.5	-7.9	-7.7 _g
EN	10.1	13.0	11.5	4.1	7.0	5.6	6.9	15.1	10.9
EP	13.2	12.8	13.0	12.3	17.9	15.1	5.2	8.4	6.8
<i>n</i>	34	33	67	31	31	62	27	29	56
University									
P+	10.1	24.9	17.5 _f	16.6	15.8	16.2 _f	22.0	29.5	25.8 _f
A+	18.0	-8.8	4.6 _h	20.4	10.3	15.3 _h	-1.4	-11.6	-6.5 _h
EN	17.8	19.0	18.4	16.5	16.8	16.7	18.3	21.1	19.7
EP	10.4	11.8	11.1	21.8	16.2	19.0	12.5	10.2	11.3
<i>n</i>	11	11	22	18	13	26	13	12	25
Combined									
P+	9.1 _a	18.3 _b	13.6	9.9 _a	8.7 _b	9.3	10.5 _a	29.3 _b	20.0
A+	12.1 _c	4.5 _d	8.3	15.9 _c	13.2 _d	14.6	3.9 _c	-9.0 _d	-2.6
EN	11.9	14.5	13.2 _i	7.7	9.9	8.8 _i	10.6	16.8	13.8 _i
EP	12.5	12.5	12.5 _j	15.1	17.4	16.2 _j	7.6	8.9	8.3 _j
<i>n</i>	45	44	89	44	44	88	40	41	81

Note. P+ = anti end negative, pro end positive; A+ = anti end positive, pro end negative; EN = both ends negative; EP = both ends positive.

Overall means: *a* = 9.8; *b* = 18.5; *a* + *b* combined = 14.2; *c* = 10.9; *d* = 3.2; *c* + *d* combined = 7.0; *e* = 11.9; *f* = 19.8; *g* = 7.9; *h* = 4.7; *i* = 11.9; *j* = 12.5.

pro vs. short-anti contrast). Means for the P+ and A+ scales (boldface in Table 1) were 9.3 and 14.6, respectively, in the short-pro condition, and 20.0 and -2.6, respectively, in the short-anti condition, $F(1, 246) = 55.57, p < .001$. The other component of the item range effect, item range 2 (whole-range vs. short-range contrast), was negligible ($F < 1$). The form of the attitude and item range effects can be seen in Figure 2.

A number of other effects achieved significance, none of which were predicted. The first was school, $F(1, 246) = 10.44, p < .01$, with comprehensive students showing less polarization than university students on P+ (overall $M = 11.9$ and 19.8, respectively; cell means labeled *e* and *f* in Table 1) but more on A+ (overall $M = 7.9$ and 4.7 respectively; cell means labeled *g* and *h* in Table 1). The Attitude $\times$ Item Range 1 (short-pro vs. short-anti contrast) interaction, $F = 16.68, p < .001$, reflected the fact that the predicted item range 1 effect worked better among pro subjects overall. In fact, it was the compre-

hensive rather than university students who were mainly responsible for this difference, as indicated by the Attitude $\times$ School $\times$ Item Range interaction, $F(2, 246) = 5.32, p < .01$. The effect of the constant in the analysis (i.e., the extent to which the overall mean differed from zero, was also significant, $F = 22.43, p < .001$, reflecting the fact that subjects' judgments were overall more polarized on P+ than A+ (overall $M = 14.2$ and 7.0, respectively).

2. Mean EN-EP differences in polarization. This was the equivalent analysis on difference scores calculated by subtracting subjects' polarization scores on EP from their polarization scores on EN. The main purpose of this analysis was to test the prediction, from Eiser and Osmon (1978), of less polarization on EN than on EP. This was not confirmed (overall $M = 11.9$ and 12.5, respectively; cell means labeled *i* and *j* in Table 1) (for the constant, $F = .25$). The analysis in fact yielded only two effects that achieved or approached significance, neither

Figure 2. Mean polarization scores on P+ (unadventurous-adventurous) and A+ (responsible-irresponsible) scales as a function of item range and of attitude. (P+ = anti end negative, pro end positive; A+ = anti end positive, pro end negative.)

of which was predicted. The item range 1 effect (short-pro vs. short-anti contrast), $F(1, 246) = 20.62, p < .001$, was due to the short-pro subjects polarizing more on EP than EN, with the short-anti subjects showing the reverse effect. The school effect, $F(1, 246) = 6.78, p < .01$, was due to there being a more reliable tendency on EN than on EP for university students to polarize more than comprehensive students (see analysis of mean polarization on EN and EP scales below).

3. *Mean polarization on P+ and A+ scales combined.* For this analysis, subjects' polarization scores were averaged over the P+ and A+ scales combined. The ANOVA showed no significant effects. The variable perspective model would have predicted an item range 2 effect (a wider unit, i.e., less polarization, in the whole-range than in either of the short-range conditions) and/or an Attitude $\times$ Item Range 2 interaction. The relevant F s were only .12 and .005.

4. *Mean polarization on EN and EP scales combined.* This was the equivalent analysis on the other two scales. Only one effect was significant, that of school, $F(1,$

246) = 6.81, $p < .01$, due to university students giving more polarized judgments than comprehensive students. With this exception, therefore, there were no effects on polarization that generalized across scales with different value connotations (for the item range 2 effect [whole-range vs. short-range contrast], $F = .28$; for the Attitude $\times$ Item Range 2 interaction, $F = .22$).

Effects on Scale Origin

To assess the effects on scale origin, subjects' mean ratings of the five neutral items (Item Group c) common to all three series were calculated. The means of these scores on each scale as a function of attitude, item range, and school are presented in Table 2. These scores were then submitted to the following four separate ANOVAs, of which the first two are mainly relevant to predictions of the variable perspective model.

1. *Mean ratings on P+ and A+ scales combined.* The ratings for Item Group c on P+ and A+ were averaged together to give a single score/subject, and an Attitude $\times$

Table 2
Mean Ratings of Neutral Items

Attitude group	Condition								
	Whole-range			Short-pro			Short-anti		
	Anti	Pro	M	Anti	Pro	M	Anti	Pro	M
Comprehensive school									
P+	54.0	55.7	54.8 _c	54.3	56.2	55.3 _c	47.1	62.1	54.6 _c
A+	50.2	38.5	44.4 _c	46.3	43.1	44.7 _c	55.1	36.7	45.9 _c
EN	51.9	52.3	52.1	54.5	53.5	54.0	52.0	52.0	52.0
EP	55.6	44.3	49.9	48.2	41.6	44.9	48.5	47.7	48.1
University									
P+	53.9	44.9	49.4 _d	48.5	47.4	48.0 _d	53.3	48.3	50.8 _d
A+	51.6	33.7	42.6 _d	43.6	39.0	41.3 _d	38.5	34.9	36.7 _d
EN	53.2	47.2	50.2	50.9	47.1	49.0	49.2	44.5	46.8
EP	52.6	42.3	47.5	41.2	45.7	43.5	49.6	41.5	45.6
Combined									
P+	54.0 _a	53.0 _b	53.5	52.6 _a	53.6 _b	53.1	49.1 _a	58.1 _b	53.7
A+	50.5 _a	37.3 _b	44.0	45.5 _a	41.9 _b	43.7	49.7 _a	36.2 _b	42.9
EN	52.3 _e	51.0 _f	51.6	53.5 _e	51.6 _f	52.5	51.1 _e	49.8 _f	50.4
EP	54.8 _e	43.8 _f	49.4	46.2 _e	42.8 _f	44.5	47.3 _e	48.8 _f	45.9

Note. P+ = anti end negative, pro end positive; A+ = anti end positive, pro end negative; EN = both ends negative; EP = both ends positive. Overall means: *a* = 50.3; *b* = 46.7; *c* = 49.9; *d* = 44.8; *e* = 51.2; *f* = 47.5.

Item Range $\times$ School ANOVA was performed. The attitude main effect was significant, with the anti subjects giving more prodrug ratings than the pro subjects—a straightforward contrast effect (overall $M = 50.3$ and 46.7 ; cell means labeled *a* and *b* in Table 2), $F(1, 246) = 7.30$, $p < .01$. The variable perspective model would probably have predicted a contrast effect due to item range. There was no evidence for any such effect. The school main effect was significant, with the comprehensive students giving more prodrug ratings than university students (overall $M = 49.9$ and 44.8 , respectively; cell means labeled *c* and *d* in Table 2), $F(1, 246) = 12.16$, $p < .001$. None of the interactions approached significance, apart from the Attitude $\times$ Item Range 2 effect (whole-range vs. short-range contrast), $F(1, 246) = 3.41$, $p < .07$, resulting from the contrast effect due to attitude being somewhat stronger in the whole-range than in the other two conditions. Note that the original form of the variable perspective model (Upshaw, 1962) predicts that contrast effects due to attitude should occur only for out-of-range judges, whose own positions fall outside the

range of items presented. If this had been so, the attitude effect should have been *weakest* in the whole-range condition.

2. *Mean ratings on EN and EP scales combined.* This replicated the previous analysis on the other two scales. There was a significant contrast effect due to attitude (overall $M = 51.2$ for antis, 47.5 for pros; cell means labeled *e* and *f* in Table 2), $F(1, 246) = 6.42$, $p < .05$. No other effect approached significance apart from the main effect for school, $F(1, 246) = 3.72$, $p < .06$, which was in the same direction as in the previous analysis. The Attitude $\times$ Item Range 2 interaction (whole-range vs. short-range contrast), which had approached significance in the previous analysis, was non-significant, $F(1, 246) = 1.49$, $p < .25$. As in the previous analysis, the direction of this slight tendency was opposite to that which the variable perspective model would have predicted.

3. *Mean P+ - A+ differences.* This analysis was conducted on difference scores calculated by subtracting subjects' mean (Item Group *c*) ratings on A+ from their corresponding mean ratings on P+. The

main purpose of this analysis was to test the accentuation theory prediction of a positivity effect (i.e., more pro ratings on P+ than A+). This prediction was confirmed by a highly significant effect for the constant in the design, $F(1, 246) = 55.37, p < .001$. The attitude main effect was also very strong, $F(1, 246) = 23.52, p < .001$. This resulted from a strong contrast effect due to attitude on A+, but there was no such effect at all on P+. This unpredicted effect was in fact stronger in the short-anti than short-pro condition, as indicated by a significant Attitude $\times$ Item Range 1 (short-pro vs. short-anti contrast) interaction, $F(1, 246) = 7.25, p < .01$. There was an Attitude $\times$ School interaction for the comprehensive school students, $F(1, 246) = 5.29, p < .05$. Among the comprehensive school students there was an assimilation effect on P+ (i.e., the pro subjects tended to give more pro ratings), particularly in the short-anti condition: Attitude $\times$ School $\times$ Item Range interaction, $F(2, 246) = 3.22, p < .05$.

4. *Mean EN-EP differences.* This was the equivalent analysis on difference scores calculated from the other two scales. Although neither accentuation theory nor the variable perspective model predicted any effects, there were three that achieved significance. The strongest was the constant, resulting from higher (more pro) ratings on EP than EN, $F(1, 246) = 20.32, p < .001$. This difference was stronger in the short-pro than the short-anti condition, resulting in a significant item range 1 effect (short-pro vs. short-anti contrast), $F(1, 246) = 4.08, p < .05$. A significant attitude effect, $F(1, 246) = 4.94, p < .05$, reflected a stronger contrast effect due to attitude on EP than EN.

Discussion

The results generally support the predictions of accentuation theory regarding the effects of the value connotations of judgment scale labels. Two basic assumptions underlie these predictions: first, that individuals will prefer to describe their own positions on an issue, and statements with which they agree, in evaluatively positive rather than evaluatively negative terms; second, that evalua-

tively positive terms tend to be seen as more applicable to relatively moderate rather than relatively extreme positions on a descriptive continuum.

The first assumption is supported by the finding that polarization is directly related to attitude favorability on P+ but inversely on A+, thus replicating the main result of Eiser and Mower White (1974) and supporting the hypothesis that polarization is a function of the congruity between subjects' evaluations of the statements and the connotations of the judgmental language.

The second assumption led to three major predictions, of which two were supported. First, it was predicted that polarization would be affected by the scale label connotations and the item range in interaction with each other. Specifically, the P+ scale should have been seen as more appropriate to items ranging from extremely anti to moderately pro, and the A+ scale to items ranging from moderately anti to extremely pro. Accordingly, there should be more polarization in the short-anti condition on P+ than on A+; and more polarization on A+ than on P+ in the short-pro condition. This prediction, which is a novel feature of this study, was strongly confirmed.

Second, items were rated on average closer to the prodrug extreme on P+ than on A+. This is consistent with Eiser and Mower White's (1974) data and with the notion that the evaluatively positive term labeling the prodrug end of P+ was descriptively more moderate than the evaluatively negative label marking the prodrug end of A+. Hence, items would have to be extremely prodrug to be rated close to the prodrug end of A+ but only moderately so to be rated close to the prodrug end of P+.

The third prediction derived from this assumption was that the EP scale, which had evaluatively positive terms at both prodrug and antidrug ends, should have been seen as encompassing a narrower range of positions than the EN scale, which should have been seen as encompassing a wider range of positions from the excessively antidrug to the excessively prodrug. Hence, there should have been more polarization on EP than on EN. This prediction was supported by Eiser and Osmon (1978), but not by this study.

The reasons for the discrepancy are unclear. A major difference was the Eiser and Osmon used four EP and four EN scales (with grammatical aspects of the scales varied orthogonally) but did not include P+ or A+ scales. It is conceivable that the inclusion of P+ and A+ scales in the present study led subjects to pay less attention to the differences in connotation between the EP and EN labels. In addition, our decision to include only one scale of each type helped to shorten the experimental task but forced us to place considerable faith in our selection of individual labels and the pilot data on which the study was based. We suspect that in the specific instance of the EN scale (overcautious-escapist), this faith may have been exaggerated. Although our school students were from the same school as our pilot subjects, they were up to 2 years younger and from less academically selected classes. A few of them in fact asked the experimenters what *escapist* meant (receiving the answer, "someone who wants to escape from reality"); it is conceivable, too, that the university students did not ascribe to this label the negative connotations that our design required. The fact that our design did not include replications of each type of scale is an admitted weakness. As a consequence, the negative findings regarding the EN and EP scales may be less informative than they would have been with a stronger design. The predicted differences between the P+ and A+ scales, however, are statistically very reliable and (apart from effects involving item range) replicate previously published findings.

Among the other significant findings, a number are probably best attributed to peculiarities of our sample and/or stimulus materials. However, that of an inverse relationship between attitude and mean judgment of the neutral items confirms the prediction of an attitude contrast effect that is common to a variety of theoretical interpretations. It should be noted, though, that this effect was not constant over the different scales, being strongest on A+, next on EP, but completely absent on P+. The assimilation-contrast model and the variable perspective model interpret contrast effects in terms of the hypothesized anchoring prop-

erties of a person's own position. An alternative interpretation, in keeping with the assumptions of accentuation theory, is that individuals' perceptions are biased away from extremity, since extremity is more negatively evaluated, and they seek to avoid negative self-evaluations implied by such a self-perception of deviance. Similarly, they may seek to label as more extreme opinions with which they disagree (Dawes et al., 1972). This would be comparable to what has been termed a "false consensus" effect (Judd & Johnson, 1981; Ross, Greene, & House, 1977).

A possible advantage of such an interpretation would be that it could be more easily reconciled with the failure to find any contrast effects as a function of item range, or an Attitude $\times$ Item Range interaction as predicted by the variable perspective approach. It is unclear why attitude should have had an effect on scale origin when the manipulation of item range did not. There could be a number of methodological reasons for this. Ostrom (1970) has suggested that there may be issues "for which people are heavily committed to both their self-rating and content. In this case it would be predicted that people would be relatively uninfluenced by a perspective manipulation" (p. 291). Conceivably we may have used such an issue, though why it should have generated such commitment, whereas the issue of attitudes toward blacks apparently did not do so in Upshaw's (1962) experiment, is unclear. Another possibility is the small number of items used compared with many social judgment studies, such as that of Upshaw (1962). A large item series cannot be a necessary condition for the applicability of a perspective approach, however, as Upshaw (1978) himself demonstrates in a more recent study. Yet another possibility is that our use of four scales rather than one made subjects less responsive to the range manipulation. Here again, this remains a possibility in spite of the fact that Upshaw (1978) required responses on two separate dimensions from his subjects with one scale per dimension.

Another feature of our design is the absence of any direct measures of perspective. What such measures usually involve is ask-

ing subjects to construct an extremely anti statement and an extremely pro statement, and having these rated by independent judges. This procedure derives from the original *total range* definition of perspective. If one were to apply this to the multiple response scale format, one would have to elicit perspective statements for each scale separately. This would mean that perspective statements were being elicited in a linguistic context that was already value laden, however. Thus, this procedure could not be relied on to provide a direct measure of perspective unconfounded by attitude. Also, as we have already argued, it is implausible to think of perspective, in the total range sense, as changing from scale to scale.

Might another difficulty be our reliance on self-ratings as the basis for dividing subjects into attitude groups? At least in the earlier formulations of the variable perspective model, self-rating should itself be a function of perspective and hence be influenced by the item range manipulation in the same way as item ratings (Ostrom & Upshaw, 1968). Strictly, a fairer test of this model would require a measure of the content of subjects' attitudes, independent of self-rating, such as could be provided by asking subjects to make up a statement to describe their own position. We did elicit such statements from the university students and subsequently had the statements rated for degree of favorability by independent judges. Separate analyses of these data from the university sample are omitted for the sake of brevity; basically they give no additional support to the variable perspective model. In summary, interrater reliability of judgment of favorability of these statements averaged .76 across four judges, and when the mean score assigned by the four judges to each subject's statement was taken as a measure of that subject's attitude content, the product-moment correlation between these "own statement" scores and self-ratings was .56 ($df = 71$, $p < .001$). When the self-ratings were treated as the dependent variable in an analysis of covariance with attitude content as the covariate, there was no evidence at all of an item range effect as Ostrom and Upshaw (1968) would have predicted.

It is doubtful, in fact, if Upshaw would now regard the distinction between measures of attitude content and of self-ratings as crucial if all that is involved is a division of subjects into attitude groups, as in the present study. Upshaw (1978) has introduced the notion of *congeneric attitude scales* which, applied to our data, would seem to imply that attitude should be a common determinant of the "own statement" and self-rating attitude scores. This involves rejection of the earlier (Ostrom & Upshaw, 1968) position, which would seem to imply that subjects rehearsed or produced their own statements and then rated them in terms of their established perspectives—in other words, that own statement directly reflected content and was a determinant of self-rating. According to his new position, own statement would not determine self-rating, nor would it necessarily be superior to self-rating as a measure of attitude content.

Any of these considerations could conceivably have been a contributory factor; we find them less than convincing explanations for the pattern of results obtained, however, since it was not the case that the item range manipulation simply failed to have any effect. It failed to influence scale origin or unit either as a main effect or in interaction with judges' attitudes, as predicted by the variable perspective model. On the other hand, item range had a very strong effect, in interaction with the value connotations of the response scales, on polarization on the P+ and A+ scales. Thus, subjects were responsive to the item range manipulation, but not in the manner predicted by the variable perspective model.

We are suggesting, then, that the more orthodox predictions of the effects of item range all seem to rest on the assumption that subjects do not define firmly the relationship between points on the response scales and degrees of perceived item favorability before reading the item series. Such predictions could have failed simply because the issue was one where subjects had fairly clear ideas in advance concerning the range of possible positions with which they could be presented. If subjects had clear prior expectations, they would be less likely to redefine the response scale to match the range of items presented.

The prediction of an interactive effect of item range and value connotations on polarization, however, does not rest on the assumption of any redefinitional process but instead on the assumption of differences in the perceived appropriateness of different kinds of judgment scales to different judgmental contexts.

How compatible are the accentuation theory and variable perspective approaches in the light of these findings? Both share a common conviction that effects in attitudinal judgment are more parsimoniously explained in terms of how judges use response language than how they perceive the favorability of items. Although our present findings do not support any of the predictions distinctively derived from Upshaw's model, we would not take this to imply that the model is wrong or that these predictions might not work in other conditions. Our findings merely show that the predictions of accentuation theory can work even under certain conditions where those of the variable perspective model do not. Upshaw is also not at all restrictive in the kind of variables he allows to be considered as possible influences on judgment. In discussing our own previous findings, he wrote that "any factor that increases the legitimacy or desirability of judgments toward one extreme of a scale may lead to a functional increase in the response range" (Upshaw, 1978, p. 330). This clearly states that value connotations may influence judgment in a way that Upshaw considers compatible with his approach.

Although we would broadly concur with Upshaw's statement, there remain a number of ambiguities in such a synthesis that the present findings help to identify. It is unclear what Upshaw's phrase "functional expansion" means beyond an increase in the extremity of responses actually given. Would an increase in the "desirability or legitimacy" of certain judgments produce a linear or nonlinear relationship between sets of ratings given by different judges? If the latter is allowed as a possibility, it would be a significant departure from earlier formulations of the perspective model (e.g., Upshaw, 1965). Is a functional expansion due to increased desirability or legitimacy the same

process as one assumed to depend on an implicit connection between evaluation and descriptive extremity? Upshaw's statement seems to refer to two importantly distinct aspects of accentuation theory. The first is the tendency for subjects to give more polarized ratings on scales evaluatively congruent with their own attitude. This fits with Upshaw's interpretation, since it would seem "desirable" for subjects to assign positive labels to accepted statements and negative labels to rejected statements. The second is what we have called a positivity effect and what Upshaw terms an assimilation effect. But the trouble here is that there is no reason to suppose (and we have never hypothesized) that giving evaluatively positive ratings as such is necessarily any more desirable or legitimate than giving evaluatively negative ratings.

The crucial finding of this study that must be accounted for by any synthesis is that the effects of value connotations interact not only with attitude but also with item range. The desirability of particular value-laden responses depends on judges' attitudes, so the first interaction presents less of a problem. If one sticks to a perspective interpretation, however, it remains mysterious how the same labeling of the response scale could lead to either an expansion or a contraction of the response range depending on which items were presented for judgment. Essentially it comes to this: If judges use a judgment scale in such a way that there is very little dispersion in their ratings, is this because they are taking an extremely wide range of possible items into account, or because they find the scale in question inappropriate for describing the distinctions between the items that they recognize and regard as important? If one adopts the former interpretation, which rests on a total range definition of perspective, one needs to explain why judges may apparently take a wide range of positions into account when using one scale but a narrow range when using another, even within the same condition. To explain this would seem a formidable task. If one adopts the latter interpretation, the emphasis shifts to a consideration of factors that may influence individuals' expectations concerning frames of reference

and their choice of particular language to communicate the distinctions they perceive as relevant. This latter interpretation is compatible with accentuation theory. We believe it may also be compatible with a perspective approach, if one moves from the original definition of perspective as the total range of positions a person can think of to a definition based on a conception of the range of positions it seems appropriate to compare in terms of a particular judgmental language. To give a rating is to perform a communicative act. While it is true that "equivalent judgments can be made in terms of any set of response magnitudes over which a respondent has control" (Upshaw, 1978, p. 336), when this set of response magnitudes involves the use of words from ordinary language, the conventional denotative and connotative meanings of such words will set constraints on how such control is exercised.

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