The Judgment–Choice Discrepancy: Noncompatibility or Restructuring?

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ABSTRACT

The study examines the relative merits of a noncompatibility and a restructuring explanation of the recurrent empirical finding that a prominent attribute looms larger in choices than in judgments. Pairs of equally attractive options were presented to 72 undergraduates who were assigned to six conditions in which they performed (1) only preference judgments or choices, (2) preference judgments or choices preceded by judgments of attractiveness of attribute levels, or (3) preference judgments or choices accompanied by think-aloud reports. The results replicated the prominence effect for choices, but a prominence effect was also found for preference judgments. In accordance with the restructuring explanation, the think-aloud protocols indicated that options were more often restructured in choices than in preference judgments. However, restructuring could not explain the prominence effect observed for preference judgments. A modified compatibility hypothesis is offered as an alternative explanation.

KEY WORDS   Preference judgments Noncompatibility Protocol
             analysis Prominence effect

Several studies of decision making have demonstrated that preference judgments or judgments of the attractiveness of options, on the one hand, and choices between options, on the other hand, are not in perfect agreement (e.g. Slovic *et al.*, 1990; Slovic and Lichtenstein, 1983; Tversky *et al.*, 1988; see Payne *et al.*, 1991, for a review). Thus, an option judged to be the most attractive is not necessarily chosen. The discrepancy between judgment and choice also applies to the decision maker's information processing. For instance, Billings and Scherer (1988) and Westenberg and Koele (1990, 1992) demonstrated more intra-attribute information processing in choices than in judgments. In addition, Lindberg *et al.* (1989) found more selective processing.

Recently, Slovic *et al.* (1990) and Tversky *et al.* (1988) offered an explanation of the judgment–choice discrepancy in the simple case when two options are described on two attributes. They reported

that in choices between options judged as equally attractive, subjects tended to choose the option which was superior on the predominant or prominent attribute. They concluded that the prominent attribute looms larger in choice then in judgment. This 'prominence' effect was seen as reflecting a general principle of compatibility according to which the processing of input (e.g. attributes describing options in a judgment or choice task) depends on how compatible it is with the output (i.e. subjects' responses). Since the responses are qualitative in choice, they should be more compatible with a lexicographic choice rule (Svenson, 1979) which renders quantitative weighting of attributes unnecessary. In contrast, quantitative preference judgments are compatible with quantitative weighting.

The compatibility hypothesis thus implies that information is attended to differently in judgments than in choices. Another explanation, offered by the present authors (Montgomery, 1983; Montgomery et al., 1990), is that subjects in choices, but not in judgments, *restructure* the information such as one option dominates other options. If subjects, in order to attain dominance, emphasize differences between options on the prominent attribute and de-emphasize differences on the nonprominent attribute they would, in agreement with the prominence effect, make choices on the basis of the prominent attribute. A related possibility is that subjects do not attain a dominance structure but only an increased differentiation of options. This assumption, made in the theory proposed by Svenson (1992), would equally well account for the prominence effect. In preference judgments no prominence effect would be expected.

To investigate the alternative explanation, Montgomery et al. (1990) asked subjects (1) to judge their preferences for a set of options, (2) to choose one option in pairs of options made equally attractive through a matching procedure (cf. Tversky et al., 1988) and, in connection with each of these tasks, (3) to judge the attractiveness of the attribute levels describing the options. The results confirmed the prediction that the ratio of the difference between, on the one hand, attractiveness judgments of the levels of the prominent attribute and, on the other, the difference between attractiveness judgments of the levels of the nonprominent attribute was larger for choices than for preference judgments. Furthermore, there was, as expected, a clear discrepancy between preference judgments and choices.

However, incongruent with both the restructuring and compatibility hypotheses, Montgomery et al. (1990) did not find a difference between choices and judgments when both were made on simultaneously presented options. Thus, presentation mode may in some way account for the judgment–choice discrepancy. A possibility, also noted by Birnbaum (1992), is that simultaneous presentation induces subjects to make implicit choices even though they are requested to perform preference judgments. The primary aim of the present study was to investigate whether a difference between choices and preference judgments is obtained if subjects are prevented from making choices in connection with preference judgments of simultaneous options.

In the present study, both subjects who made choices and those who made preference judgments were presented with options simultaneously. The number of options was increased from two to four with the aim of discouraging subjects in the preference-judgments condition from making implicit choices. We expected a judgment–choice discrepancy exactly as Montgomery et al. (1990) found when comparing simultaneous choices and sequential preference judgments.

As in the previous study (Montgomery et al., 1990), subjects judged the attractiveness of attribute levels in connection with choice and preference judgments. According to the restructuring hypothesis, changes in the attractiveness of attribute levels were expected. Specifically, the expectation was that, when faced with a choice between options, subjects would restructure the options in such a way that the difference between them in attractiveness values would increase on the prominent attribute and decrease on the nonprominent attribute. No such changes were expected in connection with preference judgments. In contrast, the compatibility hypothesis predicts differences in *attention* to

attributes (Tversky *et al.*, 1988; Slovic *et al.*, 1990), that is, differences in the extent to which subjects consider each attribute when making choices or preference judgments. An extreme case is the use of a lexicographic rule in choice; here subjects pay no attention at all to a less important attribute. Note that neglecting a less important attribute does not mean that it would be *evaluated* as totally unimportant. Thus, changes in evaluations of importance of attributes are not expected, nor are concomitant changes in attractiveness of attribute levels.

The present study also differed from Montgomery *et al.* (1990) in that think-aloud data were collected. This kind of data provides additional opportunities to determine whether options are restructured. First, inferences can be made about how subjects both attend to, and evaluate, attributes and attribute levels (Montgomery and Svenson, 1989). Second, subjects may provide arguments on the basis of which restructuring operations can be inferred.

The task of making attractiveness judgments of attribute levels may induce subjects to attend to the nonprominent attribute more than they would otherwise. This may reduce the judgment–choice discrepancy. Think–aloud reports are less likely to have such an effect but at the same time they may have other artefactual effects (Russo *et al.*, 1989). In addition to comparing attractiveness judgments to think-aloud reports, the design included control groups which made possible the assessment of method effects. Thus, while two groups of subjects performed attractiveness judgments of attribute levels in connection with choices and preference judgments, another two groups provided think-aloud reports in connection with choices and preference judgments and, finally, two groups only made choices and performed preference judgments.

METHOD

Material

The material consisted of eight sets of four options described on two attributes. As shown in Exhibit 1, each set corresponded to a different choice problem. Problems 1, 4, and 5 were taken from Tversky *et al.* (1988). Essentially the same problems were used in Montgomery *et al.* (1990). An exception is 6 (Books for a train ride), which replaced a problem for which none of the attributes were clearly prominent in the previous study.

In constructing the choice options, attribute levels were selected in a pilot study. Twelve subjects recruited from the same population as those participating in the main study were studied individually as they were presented with the eight sets of choice problems. Only two options were, however, included. For one option the least attractive level was missing on the attribute assumed to be nonprominent and the subjects' task was to fill it in to render the options equally attractive. The least attractive level was chosen because this choice will cause the maximally largest prominence effect in choices (Tversky *et al.*, 1988). Pairs of options which in this way were made equally attractive were considered to be the main candidates for subjects' choices. In the following they are denoted the *target* options. One additional option was constructed from each of the target options in every choice problem by subtracting five units (or 5%) from the level of the prominent attribute (to make the option clearly different on that attribute) and adding two units (or 2%) to the level of the nonprominent attribute for each of the two target options. For instance, choice problem 7 (School teachers) read as follows:

> A school wants to hire a teacher. A committee has therefore rated four candidates with respect to *subject knowledge* and *pedagogical skill*. A scale from 1 (extremely poor) to 100 (extremely good) was used for the ratings. Imagine that as a committee member you evaluate the candidates as follows:

Exhibit 1. Choice problems described on two attributes[a]

Choice problem	Attribute	Attribute levels	
1. Benefit plans for profit sharing	Payment in 1 year (SEK)*	10 000	5 000
	Payment in 4 years (SEK)	15 000	20 000
2. Summer jobs	Salary (SEK)	20 000	40 000
	Duration (days)*	30	55
3. Meals	Deliciousness (1–100)*	85	65
	Size of portions (%)	55	95
4. Traffic safety programs	Cost (10^6 SEK)	250	150
	Yearly casualities*	650	750
5. Production engineers	Technical knowledge (1–100)*	86	78
	Human relations (1–100)	80	91
6. Books for a train ride	Interestingness (1–100)*	70	92
	Duration (hours)	5	3
7. School teachers	Knowledge (1–100)	91	75
	Pedagogical skill (1–100)*	74	90
8. Therapeuts	Therapeutic skill (1–100)*	90	70
	Number of working hours/week	25	38

[a]The attributes are ordered in the same way as they were in the questionnaires. An asterisk denotes the attributes which were designated as prominent on the basis of a majority of subjects' responses. Only attribute levels correponding to the two target options are given.

	Subject knowledge	*Pedagogical skill*
Candidate a	93	69
Candidate b	77	85
Candidate c	91	74
Candidate d	75	90

Pedagogical skill is the prominent attribute in this example, and Candidates *c* and *d* are the two target options from which the remaining two options were constructed.

Procedure

Four different questionnaires were administered to different subjects who participated individually or in small groups in sessions lasting for about 20 minutes. In all questionnaires, the eight sets of four options were described using identical wording. Their order was individually randomized. Different subjects were requested to make preference judgments or choices. In the choice conditions, each choice problem was described on a separate page and the subjects were asked to choose one option. The conditions with preference judgments were identical to the choice conditions except that subjects were asked to judge the attractiveness of each option on a scale ranging from 0 (maximally bad) to 100 (maximally good).

On the choice problems, one third of the subjects were asked to judge the attractiveness of all attribute levels immediately before they made choices or performed preference judgments. The attractiveness judgments were made on 13-point scales ranging from −6 to +6, indicating the extent to which each attribute level influenced subjects in a positive or negative direction.

Another third of subjects, all of which were treated individually, reported their thought orally while making preference judgments or choices. The instructions stated that subjects should think aloud while performing the judgment/choice task. If a subject was silent for more than approximately

10 seconds, he or she was reminded of the instructions and prompted to think aloud. The think-aloud reports were tape recorded and later transcribed.

Subjects
Seventy-two undergraduate psychology students at the University of Göteborg served as subjects. Twelve subjects were randomly assigned to each of the six experimental conditions. They were paid with a lottery ticket worth $6.

RESULTS

The results are reported separately for preference judgments, choices of options, judgments of attribute levels, and think-aloud reports. Each of these dependent variables was subjected to sets of analyses of variance (ANOVAs) which, in different analyses, included as independent variables method (only preference judgments/choices, preference judgments/choices and judgments of attractiveness of attribute levels, or preference judgments/choices and think-aloud reports), response mode (preference judgments versus choices), option (all four options, prominent versus nonprominent target options, or preferred versus nonpreferred target options), attribute (prominent versus nonprominent), and choice problem (all eight problems). To simplify the following presentation of the results, significant main effects or interaction effects involving choice problem and significant interaction effects involving option and attribute are not reported since they lack bearing on the main aim of the study.

Preference judgments and choices
Choices and preference judgments were identically scored by assigning a score of 1 to the option which was chosen or given the highest preference judgment, otherwise a score of 0 was awarded. If more than one option received the highest preference judgment, then the score of 1 was divided equally among the equally preferred options (e.g. 0.5 assigned to two options which were equally preferred, 0 to the remaining).

As can be seen in Exhibit 2, which displays the mean response scores, the results are strikingly similar across all conditions in that the prominent option (the target option with the highest value on the prominent attribute) is most frequently preferred or chosen. A prominence effect was thus obtained. This was substantiated by a significant effect of option in an ANOVA (method × response mode × option with repeated measures on the last factor) performed on response scores averaged across problems, $F(3,198) = 290.37$, $p < 0.001$. However, the lack of significant effects involving response mode implies that the prominence effect was not different for preference judgments and choices. It should also be noted that the nonprominent target option (the option matched as equivalent to the prominent option) tended to be the second most preferred. Furthermore, since no main effect or interaction effect involving method reached significance, we infer that the processes of producing attractiveness judgments of attribute levels and think-aloud reports did not cause interfering effects.

Judgments of attractiveness of attribute levels
Previous studies of restructuring of choice problems (Dahlstrand and Montgomery, 1984; Montgomery and Svenson, 1989) have shown that both amount of attention paid to an option and positive evaluation of an option depend on whether it is finally chosen or not. Therefore, as shown in Exhibit 3, mean judgments of attractiveness of attribute levels were computed both for target options which were

Exhibit 2. Mean response scores for preference judgements and choices

Response mode and method	Prominent option[a]	Nonprominent option	Filler option	Filler option
Preference judments				
No additional task	0.63	0.15	0.11	0.10
Judgment of attribute levels	0.58	0.29	0.08	0.05
Think-aloud reports	0.71	0.19	0.06	0.04
Choices				
No additional task	0.71	0.15	0.09	0.05
Judgements of attribute levels	0.61	0.17	0.14	0.08
Think-aloud reports	0.62	0.18	0.14	0.06

[a]Prominent represents the option with the highest attribute level for the prominent attribute, nonprominent denotes the option matched as equivalent, and filler refers to the remaining options.

Exhibit 3. Mean jugdments of attractiveness of attribute levels

| Response mode and attribute | Preferred option[a] | | Nonpreferred option | |
	Prominent option[b]	Nonprominent option	Prominent option	Nonprominent option
Preference judgments				
Prominent attribute	4.52	1.45	4.04	−0.60
Nonprominent attribute	0.79	3.67	−1.20	2.58
Choices				
Prominent attribute	4.42	0.83	3.18	−0.03
Nonprominent attribute	0.58	4.55	−0.40	2.15

[a]Preferred/nonpreferred refers to whether the option was finally chosen or, in the preference-judgment condition, whether it received the highest preference judgement.
[b]Prominent denotes the option with the highest attribute level for the prominent attribute and nonprominent option matched as equivalent.

preferred (either chosen or receiving a higher preference judgment) and for nonpreferred. An ANOVA[1] (response mode × preferred/nonpreferred target option × prominent/nonprominent target option × attribute × problem with repeated measures on all except the first factor) yielded a highly significant main effect of preferred/nonpreferred target option, $F(1,20) = 53.83$, $p < 0.001$, reflecting subjects' tendency to judge as more attractive the attribute levels of the target options which were more often preferred. Thus, subjects' judgments of attractiveness of attribute levels were consistent with their preference judgments and choices. In addition, response mode was involved in a weak higher-order interaction with preferred/non-preferred target option, prominent/nonprominent target option, and attribute, $F(1,20) = 7.77$, $p < 0.05$. However, this interaction effect did not suggest more restructuring for choices than for preference judgments.

Think-aloud reports
The processing of the think-aloud reports followed a procedure which has been developed in previous research (e.g. Montgomery and Svenson, 1989; Svenson, 1989). First, the transcribed protocols were

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[1] In general, across choice problems, subjects chose, or judged as preferred, both prominent and nonprominent options. However, two subjects never chose, or judged as more preferred, nonprominent options. They were excluded from the analyses.

Exhibit 4. Attention and evaluation indices based on think-aloud reports about attributes

Response mode	Prominent attribute	Nonprominent attribute
Attention index		
Preference judgments	1.94	2.13
Choices	1.53	1.67
Evaluation index		
Preference judgments	0.45	−0.18
Choices	0.42	0.07

partitioned into statements corresponding to a main sentence or a string of words which it was possible to rewrite as such a sentence. Second, each statement was coded with respect to (1) which of the options, if any, it referred to, (2) which of the attributes, if any, it referred to, and (3) whether it expressed an evaluation which was positive, negative, or neutral. Judgments or choices were coded separately. The evaluations could apply to attributes, options as a whole without any attribute specified, or how good or bad options were on a specified attribute. A statement in which the subject compared the attractiveness of two or more options was coded as separate evaluative statements pertaining to each option, with a positive evaluation of the preferred option and a negative evaluation of the nonpreferred option(s). The reliability of the coding was satisfactory as indicated by 82% agreement for a sample 10% of all statements which were coded by an additional judge.

On the basis of the coded results, two indices of information processing were computed. First, the mean number of statements for each choice problem was used as an index of amount of attention paid to options, attributes, or attribute levels. Second, an index of degree of positive evaluation of an option, attribute (positive evaluation interpreted as importance), or attribute level was computed by first subtracting the number of negative evaluations from the number of positive evaluations and then dividing the resulting difference with the total number of positive or negative evaluations. The latter index thus varied from 1.00 (only positive evaluations) to −1.00 (only negative evaluations).

The mean[2] number of times the prominent and nonprominent attributes were mentioned without any reference to an option are given in Exhibit 4. As revealed by an ANOVA (response mode × attribute with repeated measures on the last factor), the only significant effect on the attention index was that more statements were made in the preference-judgment condition than in the choice condition, $F(1,22) = 9.52, p < 0.001$. On the evaluation index, the prominent attribute received a significantly higher value than the nonprominent attribute, $F(1,22) = 18.28, p < 0.001$.

In analyses confined to attribute levels, the two indices were computed separately for preferred and nonpreferred target options. For both indices there were differences due to response mode. An ANOVA (response mode × preferred/nonpreferred target option × prominent/nonprominent target option × attribute with repeated measures on all except the first factor) yielded a significant main effect of response mode on the attention index, $F(1,22) = 5.24, p < 0.05$. As Exhibit 5 shows, target options receive about half as much attention in choices as in preference judgments. Moreover, as substantiated by a significant interaction between response mode and preferred/nonpreferred target option, $F(1,22) = 9.70, p < 0.001$, in choices the preferred target option draws more attention than the nonpreferred target option while the reverse is true in preference judgments (Means for preferred and nonpreferred options were 3.13 and 2.35 for choices and 4.15 and 5.44 for preference

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[2] Some cells contained missing values for the evaluation index. These missing values were replaced by arithmetic means which we computed for those subjects who contributed sufficient data. The alternative procedure of replacing missing values with zeros was also tried, with almost identical results.

judgments.) A parallel ANOVA on the evaluation index indicated that the evaluations were less positive in choices than in preference judgments, $F(1,22) = 5.38$, $p < 0.05$. However, this difference was limited to nonpreferred target options, as substantiated by a reliable interaction between response mode and preferred/nonpreferred target option, $F(1,22)=4.69$, $p < 0.05$. Thus, in support of the existence of restructuring of the choice options, the difference in degree of positive evaluation is larger between preferred and nonpreferred target options when subjects make choices than when they perform preference judgments (Means for preferred and nonpreferred options were 0.26 and −0.26 for choices and 0.30 and 0.10 for preference judgments.)

Exhibit 5. Attention and evaluation indices based on think-aloud reports about attribute levels

	Preferred option[a]		Nonpreferred option	
Response mode and attribute	Prominent option[b]	Nonprominent option	Prominent option	Nonprominent option
ATTENTION INDEX				
Preference judgments				
Prominent attribute	7.17	1.50	4.25	6.92
Nonprominent attribute	6.42	1.50	5.00	5.58
Choices				
Prominent attribute	4.59	1.50	0.83	3.67
Nonprominent attribute	4.92	1.50	2.08	2.83
EVALUATION INDEX				
Preference judgments				
Prominent attribute	0.85	0.22	0.84	−0.46
Nonprominent attribute	−0.23	0.36	−0.35	0.37
Choices				
Prominent attribute	1.00	0.13	0.29	−0.89
Nonprominent attribute	−0.31	0.24	−0.70	0.28

[a]Preferred/nonpreferred refers to whether the option was finally chosen, or, in the preference-judgment condition, whether it received the highest preference judgment.
[b]Prominent denotes the option with the highest attribute level for the prominent attribute and nonprominent option matched as equivalent.

The think-aloud protocols also coded subjects' arguments for increasing the attractiveness difference between the levels of the prominent attribute relative to the difference between the levels of the nonprominent attribute. For instance, in problem 6 in Exhibit 1 many subjects de-emphasized that the book was too short for the train ride by stating that they may read it more slowly or twice. On average, 5.88 such arguments were given by subjects in the choice condition and 3.12 in the preference-judgment condition. A t-test showed that this difference was significant, $t_{(22)} = 2.22$, $p < 0.05$.

DISCUSSION

The present results replicated the prominence effect (Slovic *et al.*, 1990; Tversky *et al.*, 1988) in showing that choices were more often made of the option with the highest value on the predominant or prominent attribute. However, a prominence effect was also demonstrated for preference judgments. This was the case in Montgomery *et al.* (1990), when two rather than four options were presented simultaneously.

The conclusion that both preference judgments and choices showed a prominence effect relies on the assumption that the matching task is not biased. One reason why the matching task could be biased is that subjects were always requested to provide the least attractive level on the nonprominent attribute. However, Tversky *et al.* (1988) found that the results of the matching task was not dependent on which attribute level was provided by subjects. Furthermore, Montgomery *et al.* (1990) found, for sequential presentation, that the same matching procedure resulted in a close to even split of higher/lower preference judgments between the prominent and nonprominent options.

A prominence effect observed for preference judgments seems to rule out the compatibility hypothesis (Slovic *et al.*, 1990; Tversky *et al.*, 1988) as the sole explanation. It is undeniable that the response was more quantitative in preference judgments than in choices, but subjects nevertheless showed an equally strong tendency to attend to the prominent attribute. The same conclusion was reached by Westenberg and Koele (1992) on the basis of their finding that the prominence effect for different response modes was unaffected by the number of possible attribute levels.

However, the alternative explanation of the prominence effect proposed by Montgomery *et al.* (1990) did not fare better. The think-aloud protocols supported the assumption that subjects restructured the choice problems when making choices. Such restructuring was also observed more frequently for choices than for preference judgments. Only in the case of choices was the observed restructuring accompanied by a prominence effect. Since a prominence effect was also obtained for the preference judgments, restructuring cannot be a sufficient explanation. When assessing the validity of the restructuring hypothesis, it should be noted that the judgments of attractiveness of the attribute levels did not clearly indicate that restructuring was more frequent in the choice than in the preference-judgment conditions. However, when performing the attractiveness judgments, subjects were perhaps influenced by the numerical attribute levels to the extent that they did not change their judgments much, even though a change was experienced. In the think-aloud reports where subjects did not make any attractiveness judgments, such an influence was probably minimized.

The present results indicate that information was processed differently when subjects made preference judgments than when they made choices. Less attention was given to the target options in choices than in preference judgments which, as an isolated finding, indicates that subjects attended to fewer aspects (Lindberg *et al.*, 1989). As suggested by the think-aloud protocols, in choices, subjects furthermore differentiated the options more on the prominent attribute and less on the nonprominent attribute. That this may reflect restructuring operations (Montgomery, 1983) was substantiated by subjects' arguments. No difference was found between choice and preference judgments with respect to perceptions of the importance of attributes. Thus, the prominence effect observed for preference judgments is not easily accounted for by assuming that the judgments entailed implicit choices induced by a simultaneous presentation. Another explanation seems to be needed which must also take into account effects of simultaneous and sequential mode of presentation.

As noted above, no prominence effect was obtained for preference judgments of sequentially presented options (Montgomery *et al.*, 1990). Since such an effect was presently observed for a simultaneous presentation, presentation mode may seem to be important. However, in the previous study all subjects judged the attractiveness of attribute levels in connection with their preference judgments. Thus, it is not possible to rule out that a crucial condition is whether attractiveness judgments of attribute levels are performed or not. In an attempt to resolve this, we asked an additional two groups of 12 subjects to perform preference judgments of the present target options. In one condition the options were presented pairwise, in the other condition sequentially. None of the subjects performed attractiveness judgments of attribute levels. Our results showed a significant prominence effect in both conditions. In the simultaneous-presentation condition the prominent options were, on average, preferred in 78.6% of the cases, in the sequential-presentation condition the prominent options were preferred in 70.8%. The difference between conditions was not significant.

It may be possible to account for the present results by a more general form of the compatibility hypothesis. According to Slovic *et al.* (1990), compatibility concerns characteristics such as structure, type, and amount of information in input and output. In a more general form of the hypothesis, it may be important that the *structure of information* required as output from the subjects is compatible with the input. Also, in this case, noncompatibility would cause subjects to use less mental effort than required by causing them to attend to fewer aspects of the task. Whereas the choice task is different from both the matching and preference-judgment tasks in that it is qualitative rather than quantitative, preference judgments are different from matching in that they call for judgments of single options rather than matching one difference to another. Thus, one may expect a prominence effect for preference judgments, although it is not possible to predict how strong it will be relative to that for choice. However, if subjects judge attractiveness of the attribute levels, the task is more compatible with the matching task. None or a weaker prominence effect is then observed. However, the nature of the presentation mode, sequential versus simultaneous is also important. A simultaneous presentation mode would tend to increase the similarity between choices (of simultaneously presented options) and preference judgments. For instance, even though preference judgments do not entail choices they may nevertheless induce comparisons similar to those entailed by choices. Presentation mode is possibly the more important factor since its influence was not, in the present study, counteracted by the inclusion of attractiveness judgments of attribute levels.

In summary, preference judgments appear to be almost equally susceptible to the prominence effect as are choices. The general form of the compatibility hypothesis which was offered may therefore better explain the prominence effect than the restructuring explanation, even though, as the present results showed, restructuring is part of the process leading to a choice. A first priority in further research should be to focus on the consequences of noncompatibility, that is the way subjects attend to different information in preference judgments and choices. A more detailed account of the prominence effect may then become possible.

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