Belief in a Just World and Physical Attractiveness Stereotyping

Kenneth L. Dion and Karen K. Dion
University of Toronto, Ontario, Canada

Just-world theory provides a possible explanation of physical attractiveness stereotyping, in that believing in a just world should lead to a positive bias toward "winners," such as the physically attractive. Several hypotheses derived from this premise were tested by having adults complete the Just World Scale and rate the personality traits and expected life outcomes of an attractive or unattractive stimulus person. Predictions for the personality trait ratings were borne out for male but not for female stimulus persons: (a) Believers in a just world perceived the personalities of attractive, male stimulus persons as more socially desirable than nonbelievers and also attributed more socially desirable personalities to male stimulus persons who were attractive rather than unattractive; and (b) no effects were found for female stimulus persons. Predictions for the life-outcome ratings and differences in correlations between personality and life-outcome ratings as a function of belief in a just world were clearly supported. Implications for just-world theory, status-characteristics theory, and physical attractiveness stereotyping are discussed.

Dion, Berscheid, and Walster (1972) were among the first researchers to postulate and demonstrate a stereotype for physical attractiveness. They presented university students with college yearbook photographs of stimulus persons previously categorized by other judges as attractive, average looking, or unattractive. Each stimulus person was rated on a series of personality traits selected to provide an index of overall social desirability. The subjects also estimated the stimulus person's suitability for various roles (e.g., marital partner, parent, etc.) as well as his or her likelihood of finding success and happiness in different spheres of life.

The results revealed a pervasive bias in favor of physically attractive individuals. Attractive stimulus persons were perceived as having more socially desirable personalities in general than those who were unattractive. Furthermore, for every dimension of life success and satisfaction except parental competence, attractive stimulus persons were expected to fare better than their less attractive counterparts. Karen Dion and her colleagues summed up these findings by suggesting that in the eye of the beholder, "What is beautiful is good."

Since Dion et al.'s (1972) study, evidence of physical attractiveness stereotyping has been found in numerous studies (see Cash, 1981; Dion, 1986). Attractiveness has been shown to function as an evaluative cue for older as well as younger adults (Adams & Huston, 1975; Johnson & Pittenger, 1984), which suggests that attractiveness stereotyping occurs throughout adulthood. Among university students, attractiveness is such a powerful stereotypic cue that even having the experimenter emphasize that their attractiveness judgments are subjective and merely a matter of personal taste failed to weaken its impact on trait evaluations (Ellis, Olson, & Zanna, 1983). The attractiveness stereotype also has self-fulfilling properties (Snyder, Tanke, & Berscheid, 1977) because it biases the stereotype-holder's behavior toward an individual believed to be attractive or unattractive and elicits stereotype-confirming behavior from the target.

The important question of *why* perceivers rely on attractiveness in evaluating others is the focus of this article. To call the evaluative bias favoring attractive people a stereotype helps to describe the phenomenon but does not explain it. Our goal here is to explore Lerner's (1970, 1980) just-world theory as one possible explanation of physical attractiveness stereotyping. (Dion, 1986, discussed social learning and cognitive processes as bases of physical attractiveness stereotyping.) In essence, we propose that physical attractiveness stereotyping may partly reflect a person's belief in a just world.

According to Lerner, many of us believe, to some extent, in a just world "where people get what they deserve" and also "deserve what they get." This belief presumably enables people to view their environment as a safe, predictable place in which they can obtain desired ends and avoid unpleasant fates through foresight, ability, and effort. In essence, the belief in a just world is a naive faith or hope of a close connection between one's character and one's fate.[1] Because good people are not supposed to suffer unfortunate fates, becoming aware of an innocent victim threatens one's belief in a just world by implying that the same thing could happen to oneself. Perceivers are assumed to go to considerable lengths to maintain and protect their faith in a just world in the face of discrepant information.

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[1] Heider (1958, p. 235) described the tendency of perceivers to see a close connection between happiness and goodness and between unhappiness and badness and suggested that it reflected a cognitive-balance principle. However, Lerner contended that the belief in a just world involves more than cognitive balance, and he has questioned balance-theory interpretations of his own and other researchers' studies of reactions to victims (see Lerner, 1980, pp. 37–38, 83–84, and 128–136).

Following this line of thought, Lerner and his colleagues have predominantly focused on exploring the consequences of believing in a just world for understanding observers' reactions to victims. In a series of experiments (e.g., Lerner & Simmons, 1966), Lerner and his colleagues demonstrated that when unable to prevent or compensate for an innocent victim's suffering, observers preserved their belief in a just world by derogating the victim and seeing the suffering as deserved. There is, however, another side to believing in a just world.

According to just-world theory, believing in a just world should also lead people to be biased positively toward "winners," that is, those who are rewarded, even fortuitously, and those who are attractive. Lerner (1965) first suggested this point in an experiment in which small groups of students overheard, but never saw, two young men as they worked together on an anagrams task. The experimenter told the listeners and the workers at the outset that owing to limited funds, only one of the workers could be paid, and the selection of the to-be-paid worker would be determined by their drawing lots. After the lots were chosen, the listeners, but not the workers, learned which person had been selected for payment. The two workers performed the task with equal skill. After the session was over, observers rated each worker and their feelings during the experiment.

One pertinent finding concerns the fortuitous reward. Although they knew the choice of the person to be paid had been made randomly, the fortuitous reward nevertheless affected observers' ratings of the workers. Observers felt that the individual receiving payment, albeit fortuitously, had contributed more effort and creativity to the task than had the unpaid worker. Apparently, observers had formed their impressions of the workers in accord with their fates, which Lerner (1980) interpreted as reflecting the belief in a just world, in that observers were "inclined to perceive that people get what they deserve" (p. 36).

Another feature of the Lerner (1965) study is important to our argument. One of the two workers happened to have a pleasing, masculine voice, which led the female observers to believe he was "tall, dark, and handsome." The other worker's high-pitched, whiny voice, in contrast, suggested to the women that he was a meeker, "Milquetoast" character. The perceived attractiveness of the workers, along with their fates, influenced the observers' personal comfort during the experiment. They reported being much less comfortable when the unattractive worker received the fortuitous reward and payment instead of the worker they thought to be more attractive and strongly preferred. The more attractive worker was apparently perceived by the observers to be more deserving of payment.

Research on physical attractiveness stereotyping reveals a similar pattern. Attractive people are perceived as possessing better and more desirable personalities and as being more likely to obtain life's material and psychological benefits than are their less attractive counterparts. Rubin and Peplau (1975, pp. 67–68) suggested that the positive personality traits attributed to physically attractive people reflect a tendency by perceivers to see "the 'reward' of beauty" as being deserved. Going beyond this, however, might the "beautiful is good" stereotype itself partly reflect the belief in a just world, such that those who subscribe to this belief are more likely to stereotype on the basis of

attractiveness than those who do not? To explore this question, we conducted a study in which subjects (a) judged the personality and likely life outcomes of a stimulus person previously judged to be either attractive or unattractive and (b) completed a scale designed to measure their belief in a just world (Rubin & Peplau, 1975).

From our preceding analysis, we generated several specific predictions for the two types of perceivers' ratings. On the personality-trait ratings that have traditionally been the principal focus in attractiveness stereotyping research, an interaction between the respondents' level of belief in a just world and the stimulus person's attractiveness was expected. Specifically, believers in a just world should be more likely than nonbelievers to perceive physically attractive individuals as good people who deserve their fortunate condition and, thus, should attribute more socially desirable personalities to them.

On life-outcome ratings, we predicted primarily a main effect for physical attractiveness, with physically attractive people expected by perceivers to have more positive life outcomes than their less attractive counterparts. Our rationale was that both believers and nonbelievers in a just world would expect physically attractive people to fare better in their lives but for different reasons. To the believer in a just world, physically attractive people would have more positive life outcomes because they are good people who deserve the better things in life. The nonbeliever, we suspected, would expect more positive life outcomes for physically attractive people on more cynical (or perhaps, realistic) grounds, namely, expecting people to get ahead on the basis of their appearance rather than on more relevant qualities, or not expecting life to be always fair in the rewards people obtain.

As a final prediction, the personality-trait and life-outcome ratings should be more highly correlated for believers in a just world than for nonbelievers. The believer sees an intimate connection between one's personal qualities of goodness and rewards received in life. To the believer, one's life outcomes reflect personal deservingness. A nonbeliever should not see as intimate a connection between another person's goodness and his or her life outcomes.

Method

Subjects

One hundred forty-three patrons (i.e., people paying admission to see the exhibits) of the Ontario Science Centre volunteered for a study on social perception and attitudes. Most respondents also provided demographic information about themselves by answering some items at the top of the sheet containing the Just World Scale. Their responses help to describe the sample.

Women constituted approximately 60% of the sample. Subjects' ages ranged from 15 to 69 with a median of 33 years. A slight majority (54.4%) specified Canada as their country of residence, another sizable group indicated the United States (41.2%), and the remainder cited other countries (e.g., the United Kingdom, Israel, etc.). Our sample, then, was largely composed of adults from Canada and the United States, with a slightly greater representation of women than men.

Procedure

Upon being seated, subjects were presented with materials that included a photograph of a person to be judged, a sheet of scales for rating

this stimulus person, and another sheet, titled "Opinion Inventory," that contained the Just World Scale. The order of completing the Just World Scale and rating the stimulus person was counterbalanced across subjects. After completing these tasks, subjects were thanked for their participation.

Just World Scale

The Just World Scale is a 20-item instrument, balanced for acquiescence response set, that Rubin and Peplau (1975) devised to measure the extent of an individual's belief in a just world. Both they and Lerner (1980, chapter 10) have described in detail the scale, its properties, and its correlates. These authors have also summarized the considerable evidence suggesting that the Just World Scale does indeed reflect individual differences in one's proneness to believe that the world is or is not a just place.

In completing the scale, respondents indicate their agreement or disagreement with statements that reflect a belief in a just world (e.g., "People who get 'lucky breaks' have usually earned their good fortune") or its opposite (e.g., "I've found that a person rarely deserves the reputation he has"). In this study, we used a 5-point Likert-type response format that ranged from *strongly disagree* to *strongly agree*, with *neither agree nor disagree* as a neutral midpoint. Responses to the items were scored with values ranging from 1 to 5 and keyed so that high scores indicate a stronger belief in a just world.

The Just World Scale was modified in two ways for the present study. First, items that referred only to men (Numbers 7 and 14) or used masculine pronouns generically (1 and 8) were appropriately modified so that they explicitly referred to members of both sexes. Second, three other items (5, 16, and 17), the content of which originally mentioned only Americans or the United States, were rephrased so that both Canada and the United States served as referents.

As noted earlier, respondents were also asked to indicate their sex, country of residence, and age on the opinion inventory sheet. Analyses were performed to assess whether these dimensions correlated with the tendency to believe in a just world. Men and women did not differ in their just-world scores, $t(137) = 1.43$, *ns*. Similarly, a one-way analysis of variance (ANOVA) on just-world scores as a function of respondents' reported country of residence (i.e., Canada, United States, or other) showed no effects ($F < 1$). Age, however, correlated negatively with just-world scores, $r(135) = -.19$, $p < .05$, which indicated a tendency for older persons to subscribe somewhat less to the belief in a just world. This finding accords with Rubin and Peplau's (1975) suggestion that the belief in a just world reflects an immature stage of moral development that people partly outgrow with age.

A check on the internal consistency reliability of the Just World Scale yielded a KR (Kuder-Richardson)–21 coefficient alpha (Lord & Novick, 1968) of .56. This latter value is somewhat lower than the KR-20 coefficient alphas of approximately .80 that Rubin and Peplau (1975) reported for two college student samples and may perhaps reflect the greater heterogeneity of our sample, especially as regards age.

Scores on the Just World Scale ranged from 39 to 83 with a median of 60, and a median split was performed to differentiate subjects into two groups. With our scoring system, a score of 60 is also, coincidentally, the overall midpoint on the Just World Scale, which differentiates between those with higher scores who predominantly agreed to some extent with just-world tenets and those with lower scores who, on the whole, disagreed with such a view to some degree. For this reason, those who scored above the median are hereinafter referred to as *believers* in a just world, whereas those with below-median scores are described as being *nonbelievers*.

Stimulus Persons

Stimulus persons were drawn from a pool of 280 individual photographs of previous visitors to the Ontario Science Centre, who had vol-

unteered to have their photographs taken by a professional photographer and who had given written permission for their photo to be used in research by us. From this pool, 12 stimulus persons varying in physical attractiveness were selected for use in this study.

Half the stimulus persons were women, and the other half were men. Within each sex, there were three stimulus persons rated as being attractive and three others considered to be unattractive by an independent panel of judges. By having several instances of each stimulus class, our confidence was somewhat greater that subjects were responding to the dimension of interest (namely physical attractiveness) rather than any extraneous features of the persons depicted. The stimulus persons reported their ages as lying either in the range of 30 to 40 or 40 to 50. The photographs were in color, with the person facing the camera. The photographs were cropped at the shoulder to minimize clothing cues. Subjects were randomly assigned one of the 12 stimulus persons to judge.

Ratings of Stimulus Persons

As in Dion et al.'s (1972) investigation, subjects rated the stimulus person on personality traits and also estimated the stimulus person's likelihood of finding success or happiness in various life spheres. The trait ratings incorporated a 7-point rating scale (scored 1 to 7), with higher scores representing more positive ratings. The 18 trait dimensions were as follows: poised–awkward, strong–weak, interesting–boring, self-assertive–submissive, sociable–unsociable, independent–dependent, warm–cold, desirable as a friend–undesirable as a friend, genuine–artificial, kind–cruel, exciting–dull, sophisticated–unsophisticated, sexually warm–sexually cold, sincere–insincere, sensitive–insensitive, well mannered–ill mannered, socially popular–socially unpopular, and polite–impolite. To counter acquiescence, the positive pole was on the right for half these items and on the left for the other half. At the suggestion of an anonymous reviewer, the item *socially popular* was deleted from consideration, as it was more of a life-outcome rating. The remaining 17 trait ratings were assumed to reflect an underlying element of social desirability in common with one another. As a check on this assumption, coefficient alpha was calculated and found to be .903, which indicated a high degree of internal consistency among the trait ratings. Finally, the bipolar rating of physically attractive–physically unattractive was embedded among the trait ratings and served as a check on the attractiveness manipulation.

As mentioned earlier, subjects also estimated the likelihood of the stimulus person attaining each of nine desirable life objectives by using a six-category response format that ranged from *extremely unlikely* (1) to *extremely likely* (6). The life objectives included "will find total happiness," "will lead an exciting life," "will be an outstanding parent," "will be an understanding spouse," "will experience self-fulfillment," "will be successful in chosen occupation," "will have a high-status occupation," "will be popular with members of the opposite sex," and "will be popular with members of the same sex." Coefficient alpha for the life-outcome ratings was .851, which again indicated high internal consistency.

Results

The attractiveness manipulation check and the dependent measures were analyzed in a $2 \times 2 \times 2 \times 2$ factorial ANOVA design with attractiveness of stimulus person, sex of stimulus person, sex of subject, and belief in a just world as independent variables. These analyses were carried out by using PROC GLM of the Statistical Analysis System (SAS) because of unequal cell frequencies, which ranged from 15 to 19 respondents per cell. In addition, respondents with missing data were excluded from

Table 1
Trait Ratings of the Stimulus Person

Stimulus person	Believers in a just world		Nonbelievers in a just world	
	Male stimulus person	Female stimulus person	Male stimulus person	Female stimulus person
Attractive	90.94	82.13	75.50	87.26
Unattractive	72.44	75.47	74.47	73.06

the analyses; for that reason, degrees of freedom in the denominators of *F* ratios that follow fluctuate slightly across analyses.

Check on the Attractiveness Manipulation

Analysis of the attractiveness manipulation check yielded a highly reliable main effect for stimulus-person attractiveness, $F(1, 120) = 48.51$, $p < .01$. As expected, stimulus persons selected for their attractiveness were indeed perceived as being more physically attractive than those stimulus persons assumed to be unattractive. Moreover, means of 5.09 and 3.35 for these conditions, respectively, indicate that, as intended, the attractive and unattractive stimulus persons elicited ratings on opposite sides of the midpoint of the attractiveness rating scale (i.e., 4.0). No other significant main effects or interactions emerged from this analysis. Thus, the physical attractiveness manipulation was both successful and unconfounded with any other independent variable.

Dependent Measures

As noted earlier, two dependent measures were included in the present study: personality-trait ratings and life-outcome ratings of a stimulus person. In each case, given evidence of high internal consistency among items (see Method section), an overall composite index was created. For example, respondents' ratings of the stimulus person across 17 personality-trait dimensions were summed together to yield a social desirability index. A life-outcome index was created by summing respondents' ratings of the stimulus person across nine life objectives. Having described the key indexes, let us turn to the results of the ANOVA.

The social desirability index. Analysis of the social desirability index revealed two significant effects. As expected, an attractiveness main effect was obtained, $F(1, 123) = 13.69$, $p < .001$. Consistent with prior research, attractive stimulus persons were perceived as possessing more socially desirable personalities, in general, than were unattractive stimulus persons ($Ms = 83.99$ vs. 73.83). The attractiveness main effect, however, was qualified by a three-way interaction among attractiveness of stimulus person, sex of stimulus person, and respondent's belief in a just world, $F(1, 123) = 4.67$, $p < .04$. The means underlying this interaction are presented in Table 1.

To determine which means differed significantly from one another, we used Cichetti's (1972) method for applying Tukey's multiple-range test to an ANOVA interaction table—a technique

that focuses on unconfounded comparisons (i.e., pairs of means that differ on a single dimension, with other dimensions held constant). In the present case, a pair of means needed to differ by more than a critical value of 14.50 to attain significance at the .05 level. Two of the *unconfounded* comparisons shown in Table 1 met this criterion. First, believers in a just world perceived the personalities of attractive, male stimulus persons as being more socially desirable than did nonbelievers ($Ms = 90.94$ vs. 75.50). Second, believers in a just world attributed more socially desirable personalities to the male stimulus persons who were attractive rather than unattractive ($Ms = 90.94$ vs. 72.44, respectively).

Conceivably, as suggested by an anonymous reviewer, the preceding interaction could be due to a statistical artifact of differential reliability of the social desirability index in the stimulus person cells or to extraneous differences in facial expression across experimental conditions. To explore the differential reliability interpretation, internal consistency reliabilities of the social desirability index were calculated for the four classes of stimulus persons (i.e., male attractive, male unattractive, female attractive, and female unattractive). The resulting coefficient alphas were consistently high and very similar to one another, ranging from .872 to .894. Second, in preparing stimulus materials for this study, care was taken to match facial expressions of the stimulus persons from condition to condition. Thus, the obtained three-way interaction on the social desirability index cannot be attributed to the aforementioned statistical and methodological artifacts.

One can also ask which items comprising the social desirability index contributed to the interaction of belief in a just world with the stimulus-person dimensions of attractiveness and gender on the social desirability index. Analyses of individual items showed significant or near-significant three-way interactions on 9 of the 17 personality traits, especially the warmth and sociability dimensions (namely the items *warm, well-mannered, sociable, sexually warm, sophisticated, sensitive, polite, desirable as a friend,* and *interesting*).

Life-outcome index. An ANOVA on the life-outcome index yielded only main effects for attractiveness of the stimulus person and respondents' belief in a just world, $Fs(1, 123) = 9.85$ and 5.40, $ps < .05$, respectively. Again, consistent with prior research, respondents attributed more positive life outcomes to an attractive stimulus person than to an unattractive one ($Ms = 36.66$ vs. 32.97). In addition, believers in a just world were more inclined to see the stimulus person as likely to experience positive life outcomes than were nonbelievers ($Ms = 36.01$ vs. 33.68).

Correlations of the indexes. Finally, the Pearson product-moment correlation between the social desirability index and the life-outcome index was .834 for believers in a just world and .615 for nonbelievers ($ps < .01$). As predicted, the correlation between the two indexes was significantly greater in the case of believers in a just world than for nonbelievers ($z = 2.85$, $p < .01$).

Discussion

Overall, the preceding findings sustained our hypotheses reasonably well. As expected, the life-outcome ratings yielded a

main effect for the stimulus person's attractiveness unqualified by higher order interactions with the respondents' belief in a just world. (Although we did not predict it, the fact that believers in a just world expected the stimulus persons to experience more positive life outcomes than nonbelievers accords with the greater optimism known to characterize those who think the world is a just place [Lerner, 1980].) Similarly, the prediction that the personality-trait ratings and life-outcome ratings of the stimulus person would be more highly correlated for believers in a just world than for nonbelievers was also clearly borne out.

The predicted interaction between respondents' belief in a just world and the stimulus person's level of attractiveness was confirmed for male stimulus persons. Specifically, believers in a just world perceived the personalities of male stimulus persons as being more socially desirable when the stimulus person was attractive rather than unattractive. As well, believers in a just world perceived the personalities of attractive, male stimulus persons as more socially desirable than did nonbelievers.

On the other hand, some findings did not accord with our just-world analysis of physical attractiveness stereotyping. Our predictions for the social desirability index were not borne out at all in the case of female stimulus persons. Believers in a just world did not perceive the personalities of attractive female stimulus persons as more socially desirable than unattractive ones. Nor did believers stereotype the personalities of female stimulus persons more strongly on the basis of physical attractiveness than did nonbelievers; in fact, though nonsignificant, the obtained trend was stronger in the case of nonbelievers (see Table 1).

The theory of status characteristics and expectation states elaborated by Berger and his colleagues over the past 20 years (e.g., Berger, Fisek, & Zelditch, 1977) helps to explain why believers in a just world relied on both the stimulus person's attractiveness and sex in making personality inferences in contrast to nonbelievers. According to this theory, stereotypic cues such as race or sex connote differences in status and competence to observers and actors, which in turn affect their perceptions of others and their behaviors toward them in social interaction. Advocates of this perspective have recently reinterpreted the prior literature on physical attractiveness stereotyping (e.g., Berger, Rosenholtz, & Zelditch, 1980; Berger, Wagner, & Zelditch, 1983) and, also, have provided some new evidence of their own (Webster & Driskell, 1983) to suggest that physical attractiveness likewise functions as a status characteristic.

When several status characteristics are present, the theory assumes that all the different status information available is pooled or aggregated together in the process of forming expectations. In apparent conformity with this principle, believers in a just world simultaneously took the stimulus person's sex as well as his or her attractiveness into account in forming their personality inferences in the present study. Notably, the combination of the desirable status qualities of maleness and attractiveness elicited the most positive and polarized ratings of the stimulus person by believers in a just world (see the upper left-hand cell of Table 1). Furthermore, that cell of the design is the pivotal one that accounts for the significant differences among the means on the social desirability index. Additional evidence for this interpretation comes from another recent investigation of attractiveness stereotyping by Cash and Kilcullen (1985).

Similar to the present study, these investigators also found that (a) an individual difference (in gender-role orientation) was associated with differential sensitivity to attractiveness stereotyping, and (b) perceivers took both attractiveness and gender cues into account in forming impressions of a stimulus person.

Previous research regarding the belief in a just world is also consistent with the preceding line of thought, in that believers are known to admire those with status and power while disdaining members of low-status groups (Rubin & Peplau, 1973, 1975). For example, in a factor analytic study in which Canadian respondents completed the Just World Scale along with other personality and attitude scales, Lerner (1978) found that just-world scores loaded on a factor along with positive attitudes toward Americans and negative attitudes toward Canadian Indians and Metis. Just-world researchers (Lerner, 1980; Rubin & Peplau, 1975) have taken this finding to mean that those who believe in a just world respect successful and powerful people, whereas they denigrate those who lack these qualities. Similarly, in research with American college students, Rubin and Peplau (1973, 1975) found that stronger beliefs in a just world were associated with less positive attitudes toward black persons and women, respectively.

In summary, with a sample of Canadian and American respondents representing a broad spectrum of ages across adulthood, the present study has shown that the belief in a just world is an individual difference variable that moderates responsiveness to attractiveness as a stereotypic cue and status characteristic. The belief in a just world is associated with a tendency to rely on physical attractiveness, along with other status cues, in making judgments about a stimulus person. These findings provide further support to just-world theory by extending its scope to include attractiveness stereotyping, as well as by suggesting that the belief in a just world may influence an observer's perceptions and expectations even in the absence of a threat to their belief (Lerner & Miller, 1978). They also have relevance for status-characteristics theory because they suggest that some persons, such as those who believe in a just world, are more likely to respond to stereotypic cues and status characteristics than are others.

In conclusion, we suggest that isolating the moderators of physical attractiveness stereotyping in the form of personality and individual difference variables, situational factors, cultural dimensions, and cognitive processes is a meaningful approach for trying to understand why people stereotype on the basis of physical attractiveness (and other dimensions), especially when the research is guided, as in the present study, by clear theoretical rationales.

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