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## PERCEPTION OF VIOLENCE BY INSTITUTIONALIZED OFFENDERS\*

ISRAEL NACHSHON\*\* AND MORDECHAI ROTENBERG\*\*\*

The assumption that perception is affected by personality, and personal experience has been extensively studied over the years. Widely-used projective personality tests, such as the Rorschach and the TAT, were designed to reflect the subject's characteristics by stimulating differential perceptual responses.<sup>1</sup>

In these tests, ambiguous stimuli such as ink blots and unclear interpersonal situations are presented to the subject, who verbally describes what he perceives in them. Since no clear-cut meaning is inherent in the stimuli, responses are interpreted as reflecting characteristics of the subject rather than stimulus.

Another method for studying reflection of personal biases in perception is the binocular rivalry technique. In this technique, a pair of unambiguous visual stimuli are presented simultaneously for a short duration. Each eye views a different stimulus. Under these conditions, the subject usually reports perceiving only one of the two stimuli. If the physical properties of the stimuli, such as brightness and clearness, are held constant, the subject's choice presumably reflects his personal characteristics. These characteristics may, in turn, be the consequence of "previous experiences, residuals of biases, or personal preferences."<sup>2</sup> In two similar experiments it was shown that when

one member of a binocular pair is presented in its familiar orientation and the other member is presented in an unfamiliar orientation (*e.g.*, presented upside down), the first member is perceived more often than the second.<sup>3</sup>

A more specific differential effect of social background on perception was demonstrated by Bagby, who presented, binocularly, pairs of American and Mexican scenes to American and Mexican subjects.<sup>4</sup> He found that, while the former showed a greater preference for the American scenes, the latter showed a greater preference for the Mexican scenes.<sup>5</sup>

Applying the binocular rivalry technique to the study of violent behavior, Toch and his associates showed that familiarity or experience with violence is reflected in perceptual preference for violent over nonviolent scenes.<sup>6</sup> In their first study, Toch and Schulte presented binocular pairs of violent and nonviolent scenes to three groups of subjects: students who had undergone a three year program in law enforcement, novices in the same program, and psychology students. They found that members of the first group reported considerably more violent scenes than members of the two control groups.<sup>7</sup> Employing the same stimuli, Shelley and Toch<sup>8</sup> and Berg and Toch<sup>9</sup> subsequently found that violent prisoners showed a greater preference for violent scenes than nonviolent prisoners. Finally, Moore showed that differ-

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<sup>1</sup> See, *e.g.*, Holt, *The Thematic Apperception Test*, in *PROJECTIVE TECHNIQUES* (H. Anderson & G. Anderson eds. 1951).

<sup>2</sup> Sarbin & Wenk, *Resolution of Binocular Rivalry as a Means of Identifying Violence-Prone Offenders*, 60 J. CRIM. L.C. & P.S. 345, 346 (1969).

<sup>3</sup> Engel, *The Role of Content in Binocular Resolution*, 69 AM. J. PSYCH. 87 (1956); Hastorf & Myro, *The Effect of Meaning on Binocular Rivalry*, 72 AM. J. PSYCH. 393 (1959).

<sup>4</sup> Bagby, *A Cross-Cultural Study of Perceptual Predominance in Binocular Rivalry*, 54 J. ABNORMAL & SOC. PSYCH. 331 (1957).

<sup>5</sup> *Id.*

<sup>6</sup> Berg & Toch, "Impulsive" and "Neurotic" Inmates: A Study in Personality and Perception, 55 J. CRIM. L.C. & P.S. 230 (1964); Shelley & Toch, *The Perception of Violence as an Indicator of Adjustment in Institutionalized Offenders*, 53 J. CRIM. L.C. & P.S. 463 (1962); Toch & Schulte, *Readiness to Perceive Violence as a Result of Police Training*, 52 BRIT. J. PSYCH. 389 (1961).

<sup>7</sup> Toch & Schulte, *supra* note 6.

<sup>8</sup> Shelley & Toch, *supra* note 6.

<sup>9</sup> Berg & Toch, *supra* note 6.

ential socialization processes as regards violence were reflected in perceptual preferences under binocular rivalry conditions.<sup>10</sup>

In a more recent study, however, Sarbin and Wenk failed to find similar differences between violent and nonviolent subjects.<sup>11</sup> The authors attributed their negative results to the so-called "cue effect."<sup>12</sup> According to the "cue effect" hypothesis, prison inmates, especially violent ones, tend to refrain from performing in a manner that they believe might get them into trouble. Since they might think that reporting violent scenes might subject them to sanctions, they tend to report seeing nonviolent scenes, even when they actually see violent ones.

From this hypothesis it follows that, if this apprehension is attenuated, there will be a weaker "cue effect," and, consequently, a correlation between experience with violence and perceptual preference for violent scenes should appear.

In the present study the effect of personal experiences with violence on perception was reexamined under somewhat different conditions than those previously used. These conditions were designed both to minimize the "cue effect," and at the same time to enhance projection. Minimization of the "cue effect" was achieved by special instructions which made it clear that some of the scenes do include violence. Projection was enhanced by presenting single ambiguous scenes, rather than pairs of unambiguous rivalrous scenes. Under binocular rivalry conditions, perception depends on selective attention tendencies to prefer the familiar stimulus. It was hypothesized that under ambiguous presentation conditions, where no clear-cut cues are available for generating such tendencies, perception is more directly and more strongly affected by personal experience.

Finally, in order to maximize the differences between the experimental and the control group as regards experience with violence, the control group used in the present study was taken from a non-prison institutionalized population. In this respect, the procedure used in the present study differs from that used in other studies where both the experimental and

control subjects were drawn from the same pool of prison inmates.<sup>13</sup>

#### METHOD

*Subjects.* Thirty-one male juvenile delinquents from a closed correctional institution constituted the experimental group. In Israel, correctional institutions usually house the more violent juvenile delinquents. The control group consisted of fifty-four boys from a vocational school, who lived in a dormitory during the school year. The two groups were comparable in terms of age range (14-18), socioeconomic background (low) and ethnic origin (Afro-Asian).

*Stimuli and Equipment.* Ambiguously violent scenes were used as stimuli. Ambiguity was determined experimentally by presenting the scenes to ten judges for identification. Only those scenes which were identified by about 50% of the judges as depicting violence, and by the other 50% as depicting nonviolence, were used as stimuli. The twelve scenes thus selected were photographed and prepared for slide presentation.

*Procedure.* The subjects were tested individually in a quiet, dark room. They were seated comfortably in front of a rear-view screen, upon which the stimuli were projected. The stimuli were presented in a prerandomized sequence for 200 milliseconds each. The inter-trial interval was sixteen seconds. Before the test itself, four stimuli were presented for practice. The instructions given to the subjects were as follows: "In animated films, such as Mickey Mouse, Popeye, and the like, there are scenes depicting different situations which affect children's behavior, even when the scenes are exposed for very short durations. I shall now show you a number of scenes taken from animated movies. Some of them are perceived by children and adults alike as depicting violent actions, funny actions, and the like. I am showing these slides to different groups of people all over the country; students, members of kibbutzim, sick people, and also prisoners. Our purpose is to compare their responses. Please look at the slides and tell us immediately following the presentation of each of them, what you have seen."

These instructions attempted to communi-

<sup>10</sup> Moore, *Aggression Themes in a Binocular Rivalry Situation*, 3 J. PERSONALITY & SOC. PSYCH. 685 (1966).

<sup>11</sup> Sarbin & Wenk, *supra* note 2.

<sup>12</sup> *Id.* at 349. See Kroger, *Effects of Role Demands and Test-Cue Properties Upon Personality Test Performance*, 31 J. CONSULTING PSYCH. 304 (1967).

<sup>13</sup> See, e.g., Berg & Toch, *supra* note 6; Sarbin & Wenk, *supra* note 2; Shelley & Toch, *supra* note 6.



**FIGURE 1**

One of the ambiguous stimuli used in this study. When presented for 200 milliseconds, it is not clear whether the man is holding a driller or a submachine gun.

cate to the subjects the idea that their responses were important because of their unique life experiences, hence perception of violence was acceptable. The instructions should have minimized any possible "cue effect."

#### GRADING CRITERIA AND RESULTS

Each subject received a "violence score" which indicated the degree of violence expressed in his verbal statements. The "violence score" was determined in the following manner. First, the critical word or phrase in each of the twelve responses given by each subject was identified. In the statement: "I see a man holding a driller (gun)," the word "driller" ("gun") was considered critical. The words, or phrases, thus selected from all responses of all subjects, were then put together in a single list for evaluation. The 204 item list was given to three judges for scoring on a four-point violence scale, ranging from one ("nonviolent at all") through four ("extremely violent"). The three judges first practiced together on a num-

ber of exemplary responses. Once they agreed upon the definition and scoring criteria, they proceeded to judge the subjects' responses individually. The final score for each item was determined on the basis of the majority rule. If a given item received three different scores, the final score was the average of the three scores. These scores were then applied to the subjects' statements. Each statement received one score, which was based on the judgment of its critical word or phrase. The sum of the twelve scores given to each subject constituted his "violence score," and was used for statistical analysis. Thus, the higher a subject's score, the greater his tendency to attribute violence to the ambiguous stimuli.

Analysis of the data showed that the juvenile delinquents gave more violent responses (mean: 22.09) than the control subjects (mean: 20.16).

The Mann-Whitney U test showed that the difference between the scores of the two groups was significant at the .001 level of confidence ( $z = 3.44$ ).

## DISCUSSION

The results of the present study corroborate previous findings showing that violent tendencies or exposure to violence affect perception by producing a tendency in the subject to perceive violence.<sup>14</sup> However, while in the previous studies one member of each binocular pair depicted a clear violent scene, in the present study single and ambiguous scenes were presented. In previous studies, the effects of personal experiences were demonstrated by the dominance of violent scenes over nonviolent scenes in binocular pairs. In the present study they were demonstrated by producing a tendency in the subject to attribute violence to scenes which were not inherently violent. Hence, projection of personal experience with violence was more pronounced in the present study than in the previous studies.

While the relationship between personal experience with violence and the tendency to perceive violence has been demonstrated in the present study by a different technique, the theory that may account for the responses to both binocular and ambiguous stimuli is similar.

In order for a visual stimulus to serve as a projective stimulus, it must be ambiguous, lending itself to different interpretations. In the binocular rivalry procedure, each eye perceives a different stimulus. But since both eyes project to the two hemispheres in the brain, the brain eventually processes simultaneously two different stimuli. For the brain, the final integrated input is ambiguous, since it is composed of two different, unrelated stimuli. In this sense the binocular rivalry procedure and the ambiguous figure procedure are rather similar. In both procedures, the effect of personal experience is manifested by a process of perceptual preference; one of two percepts in

a binocular rivalry situation or one of two concepts in an ambiguous stimulus presentation.

The differential responses given in the present study by members of the experimental and control groups to the ambiguous stimuli stand in contrast to Sarbin and Wenk's negative findings.<sup>15</sup> However, the differences between the procedures of the two studies defy comparison. First, Sarbin and Wenk compared violent and nonviolent prison inmates, while in the present study prisoners were compared with nonprisoners. Presumably, the members of the two groups tested in the present study had more dissimilar experiences with violence than those tested in Sarbin and Wenk's study. Second, the instructions given to the subjects in the present study were specifically formulated to minimize any possible "cue effect" that might have affected Sarbin and Wenk's results. Finally, the differences between the binocular rivalry and the ambiguous figure procedures might have contributed to the differences between the results obtained in the two studies.

Since these procedural differences between the two studies are significant, it is practically impossible to account for the differences in their outcomes. In particular, it is impossible to tell whether or not there is a "cue effect," and if so, how it operates.

However, the positive findings obtained in the present study using the ambiguous figure technique, together with the previous findings obtained in studies using the binocular rivalry technique, seem to reestablish the phenomenon that experience with violence is reflected in specific perceptual preferences for violent stimuli. While it is not quite clear why Sarbin and Wenk failed to find this relationship, it seems likely that their failure is due to procedural factors—a conclusion shared by the authors themselves.<sup>16</sup>

<sup>14</sup> E.g., Berg & Toch, *supra* note 6; Moore, *supra* note 10; Shelley & Toch, *supra* note 6; Toch & Schulte, *supra* note 6.

<sup>15</sup> Sarbin & Wenk, *supra* note 2.

<sup>16</sup> *Id.* at 349.