

READINESS TO PERCEIVE VIOLENCE AS A RESULT OF POLICE TRAINING

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A group of men who had undergone a three-year course in law enforcement were tachistoscopically presented with a 'violent' picture to one eye, and a matched 'neutral' picture to the other. The results were compared with those obtained from novices in the training programme, and from psychology students.

The trained subjects were found to see 'violent' scenes fully as often as they saw 'neutral' ones, whereas the control subjects reported comparatively few 'violent' pictures.

It was concluded that specialized training may supplement past experience in areas in which the average person's experiences are inadequate. In this fashion, a person may become perceptually 'sensitive' in situations which ordinarily rarely occur.

Several recent experiments have explored the effects of presenting different meaningful figures to the two eyes by means of a stereoscope. Engel (1956) has shown that a relatively familiar figure (an upright face) will predominate in binocular rivalry over a less familiar figure (an inverted face). This result was confirmed by Hastorf & Myro (1959), who also used postage stamps as stimuli, and by Bagby (1957) in a cross-cultural study. Bagby paired photographs of 'Mexican' scenes with comparable 'American' scenes, and presented these to Mexican and American subjects. He reported that cultural familiarity tended to determine which picture any given subject would see.

The present study was designed to test the hypothesis that specific past experiences acquired under particular conditions or training could 'sensitize' a person to related content in a binocular rivalry situation. The content category selected for the study was that of violence and crime. Relevant training was available in undergraduate programmes offered by the School of Police Administration and Public Safety of Michigan State University. The explicit purpose of these programmes, as described in the *Catalog* (Michigan State University, 1960), is 'to develop professional competence in the fields of law enforcement administration, police science, the prevention and control of delinquency and crime, correctional administration, industrial security administration, and highway traffic safety administration' (p. 113).

In our experiment, sixteen advanced police administration students were tested. They were compared with two control groups—one consisting of 27 introductory psychology students, and another comprising 16 first-year students in police administration.

APPARATUS

The apparatus used for the study was a modified stereoscope designed by Engel (1956). This stereoscope is completely enclosed, and the fields are subject to variable illumination. In the present experiment, the light intensity was maintained at 0.2 candles/ft.² in both fields.

An interval timer was attached to the stereoscope to permit control of the exposure times of stimulus figures. Exposures of 0.5 sec. were used throughout the study.

Stimulus figures

Nine stereograms were made up of eighteen figures selected out of a collection of pictograms. One figure in each pair represented a scene of violence or crime. The subject-matter of these figures comprised three murders, two suicides, an act of theft, an imprisoned convict and a policeman. Each of these 'violent' figures was carefully matched with a 'neutral' one corresponding to it in size and outline, and covering roughly the same area in the visual field. These stimuli include a farmer, a worker operating a drill press, a radio announcer, a mailman and two women. A sample stereogram, comprising the 'violent' and 'neutral' slide, is reproduced in Fig. 1.



Fig. 1. One of nine stereograms used in the experiment.

PROCEDURE

The nine pairs of slides were presented in the same order to each subject. 'Violent' figures were alternately presented to the left and right eye, as a control for eye dominance. As additional control, the entire series was presented a second time, with the order of alternation reversed. Thus, each eye of each subject was exposed to all eighteen figures.

The slide holder of the stereoscope was individually adjusted for optimal fusion. No attempt was made to test for visual abnormalities, but subjects were questioned about the condition of their eyes, and were requested to wear glasses if needed.

All subjects were told that the experiment was concerned with 'visual recognition of objects under specific conditions', and that the aim was to ascertain 'how well each of the objects can be recognized'. The subjects were also told that similarities might exist among some of the pictures, but that they were to watch for differentiating details. Whenever one exposure did not permit confident identification, the subject was permitted to view the slide again.

RESULTS

Except for a negligible number of fusions or confusions, subjects had no difficulty in perceiving a single picture for each stereogram presented to them. This figure, as described by the subject, almost always clearly corresponded to one of the monocular fields.

Table 1 contains a summary of the number of times the 'violent' figure was described. The group of 27 psychology students (Control Group 1) yielded from 1 to 7 anti-social percepts; the largest number of 'violent' pictures perceived by anyone in

the group was 7. The average subject in the group saw 4 'violent' pictures. The 16 first-year police administration students (Control Group 2) performed very similarly: they saw between 2 and 9 of the 18 violent figures; their group mean is 4.69. (For both control groups, the Mode and the Median were 4.)

The Experimental Group (the advanced police administration students) saw an average of 9.37 'violent' figures. The lowest number of 'violent' percepts reported was 6, and the highest was 15 out of 18 presentations. Only 9 of the 43 subjects in both Control Groups saw enough 'violent' figures to overlap with the Experimental Group. Inspection of the data therefore suggests that there is a difference in the proportion of violent percepts achieved by the experimental and control subjects.

The significance of the difference was separately tested for each Control Group. In each case, the scores of the Control Group and those of the Experimental Group were combined, and a Median Test was applied to this combined distribution. The difference between control and experimental subjects falling above and below the Median in each case proved significant beyond the 0.01 level.

Table 1. *Number of 'violent' pictures seen in eighteen stereoscopic presentations by the Experimental Group and two Control Groups*

| | Number of 'violent' percepts | | |
|---|------------------------------|-------------------------|----------------------|
| | Lowest no. in group | Highest no. in group | Average for group |
| Control Group 1 ($N = 27$) | 1 | 7 | 4.03 |
| Control Group 2 ($N = 16$) | 2 | 9 | 4.69 |
| Advanced Police Ad. Students ($N = 16$) | 6 | 15 | 9.37 |

DISCUSSION

Students who are exposed to several years of police training appear not only to have acquired information, but also to have sustained other effects. Given a task in which others predominantly perceive non-violent content, subjects with police schooling have become relatively aware of violent content.

We can assume that the difference in perceived violence is indeed an expression of increased 'awareness', because there was no time or opportunity in our task for interpretation or selection. The subject 'sees' only one figure; the stimulus in the other monocular field never 'reaches' him.

In other words, our experimental subjects seemed to have different data mediated to them by their perceptual process from that mediated to our controls. The question which faces us is, what accounts for the difference?

One explanation which suggests itself is that individuals who enter law enforcement as a profession are motivationally predisposed toward violence, and could therefore be relatively sensitive to it. But we may recall that our two control groups yielded very similar results. If persons with 'aggressive' needs were drawn into police work, should not our first-year students show evidence of it?

The difference in the proportion of perceived violence thus seems to be produced during training. What type of change could be involved? One possibility is that law

enforcement training removes inhibitions which ordinarily 'defend' people against the perception of material 'loaded' in favour of hostile, anti-social impulses. By providing the person with the opportunity to externalize aggression, law enforcement training could make violence less objectionable, and reduce the need selectively to exclude percepts having 'violent' connotations.

Advocates of this 'perceptual defence' view could point to the fact that our Experimental Group reported *precisely* the number of violent percepts expected *by chance* if the monocular fields are structurally comparable. Since the Control Groups saw only *half* the number of violent figures expected by chance, could not 'defence' have excluded the rest?

Quite possibly. However, the same data can lead to a different explanation: the person with run-of-the-mill experience is, after all, very infrequently exposed to extreme anti-social conduct. As a consequence, most people may unconsciously have come to assign a low probability to open violence in their expectations of reality. They may have formed the conception that violence is unusual, whereas more routinely experienced themes are likely to recur.

In ambiguous situations such prognoses become relevant. Given a choice of interpretation, the most commonly experienced occurrence becomes the best 'bet'. Perceptual experiments show that familiar meaning connotations determine perception under non-optimal conditions (Allport & Pettigrew, 1957) or when structure is neutral (Toch & Ittelson, 1956).

A momentary exposure of rival fields in a stereoscope presents a perceptual task in which one set of meanings must be elaborated at the expense of another. If the fields are mutually exclusive (so that they cannot 'fuse'), and if neither field asserts itself through structural advantages (such as those of a strongly articulated figure competing with a vaguely outlined one), familiarity clearly becomes the only remaining basis of choice.

Assuming that extremely violent scenes are comparatively unfamiliar, we would thus expect violence to be relatively infrequently perceived in true binocular rivalry. We would predict the type of result we obtained from our Control Groups.

We could assume that law enforcement training *supplements* this experiential deficit in the area of violence and crime. Unusual experiences, after all, become 'familiar' in the course of *any* specialization. The funeral director or the medical intern, for instance, may learn to accept corpses as part and parcel of everyday experience. The dedicated nudist may acquire a special conception of familiar attire. The air pilot may come to find nothing unusual about glancing down out of a window at a bank of clouds.

In the same fashion, law enforcement training can produce a revision of unconscious expectations of violence and crime. This does not mean that the law enforcer necessarily comes to exaggerate the prevalence of violence. It means that the law enforcer may come to accept crime *as a familiar personal experience*, one which he himself is not surprised to encounter. The acceptance of crime as a familiar experience in turn increases the *ability or readiness to perceive violence where clues to it are potentially available*.

An 'increased readiness to perceive' is highly functional. It permits the person to cope with otherwise improbable situations. The law enforcer thus learns to dif-

ferentiate within violent scenes— to 'detect' or 'investigate' crimes; the mechanic becomes able to react with dispatch to unusual engine noises; the sonar operator can efficiently respond to infrequent underwater sounds.

Further research with marginal or ambiguous perceptual situations might shed light on this process. Such research could also deal with the relative 'effectiveness' of different phases of training, and with the impact of various kinds of practical experience.

If subsequent work confirms our hunch that police officers are 'trained' to perceive violence with relative ease, this should not lead to the conclusion that law enforcement training is a danger to the community and requires drastic modifications. To the extent to which vocational training affects perception, it helps to accomplish its purpose. It increases the trainee's readiness to act in the sort of world he is likely to face.

If a person is to deal with non-everyday occurrences, he must first be able to reduce these to workaday reality. In Goethe's words, he must be able to convert 'deficiencies' into 'events'. Our data suggest that this task can be facilitated through intensive familiarization.

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The figures were reproduced from a collection of pictograms copyrighted in 1942 by the Pictograph Corporation of New York. Permission to use the stimuli could not be secured, since the owners of the copyright could not be located.

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