

Tranquilizing Effect of Color Reduces Aggressive Behavior and Potential Violence

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I would like to report on a significant use of color to reduce potential or actual aggression. It has been discovered that the use of a specific shade of pink can have a moderating effect on subjects experiencing feelings of anger or agitation. The calming effect of pink if appropriately applied, relaxes hostile or agitated behavior in approximately ten to fifteen minutes.

In 1978, Glen Wylie of Santa Ana, California, showed John N. Ott, noted photo-biologist, a Kinesoid experiment utilizing the colors pink and blue. If a two foot by three foot piece of bright pink construction paper is placed in front of a subject's eyes, the response is a significant loss of muscular strength. In the experiment, the subject stretches his arm straight out in front of his body, thereby creating a 90° angle. The experimenter's goal is to bring the subject's arm down to the hips. The subject attempts to resist this effort by exercising maximum resistance at the agreed upon command. It

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is essential that the experimenter and subject be of comparable strength.

To establish the subject's baseline strength, press down on the subject's arm, at the agreed upon command, for three seconds. The subject should be able to resist the experimenter's efforts, if they are of comparable strength. (Wrist watches which keep time by utilizing an oscillating system or emit any radiation, even from the digital read-out, reduce subject's strength and must be removed before testing. Similarly, too much clothing made of synthetic blends has a weakening effect.) Next, place the pink construction paper about 15 inches in front of the subject's eyes. Repeat the resistance test. The subject experiences a significant loss of muscular strength. Finally, place a blue construction paper at a similar distance from the subject's eyes. Strength returns and the subject shows no evidence of the earlier loss of muscular strength.

This experiment has been tried with 153 subjects. Using the Kinesoid method, only two subjects failed to demonstrate a loss of strength to the pink color (.01 percent).

Experiments with 38 subjects using an adjustable dynamometer show similar results

All 38 subjects exhibited losses of strength, when exposed to the pink color, ranging from six to 23 percent.

As early as 1932, research has shown that visible wavelengths of light reach the pineal and pituitary glands through neurochemical channels independent of the optic system (Krieg, 1932). This suggests that colors can have a direct effect on the entire endocrine system. Recent research supports this premise. (Wurtman and Axelrod, 1956; Shipley, 1964; Hague, 1964; Kerenyi, 1977; Wurtman, 1975; Valenzano and Pooler, 1979). The importance of these independent neurochemical channels as it relates to health and behavior has been given considerable attention by John N. Ott. (Mayron, Ott, Nations, and Mayron, 1974; Ott, 1974; Treichel, 1974). Human response to color and light has been studied by Faber Birren (1979) and Max Luscher (1969). In animal experiments, some behavioral and morphological changes were recently reported by Salterelli and Coppola (1979) when mice were exposed to pink light (45.7 cm fluorescent lamps (F15T8, 15W, General Electric); 550-700 nm, 620 peak). Pink light, they reported, increased the weight of the adrenals compared to all other light conditions ($p < 0.05$) when the mice were exposed for 12 hours each day for a total of 30 days. However, the relationship between pink color and human aggressive behavior has not previously been reported.

In 1978, I demonstrated the Kinesoid experiment, involving pink color, to a series of classes on innovative treatment techniques in corrections (Schauss, 1978). As a result of this provocative demonstration, I had suggested that a pink holding cell might be useful as a "time-out" room for acting out confinees. Two commanding officers at the U.S. Naval Correctional Center in Seattle, Washington, decided to try the pink holding cell in early 1979.

On March 1, 1979, Chief Warrant Officer Gene Baker and facility commander Captain Ron Miller, ordered that a holding cell used for initial confinement of new inmates be painted completely pink, except for the floor. The cell selected housed new inmates for less than 15 minutes. Newly confined

inmates at intake are generally more prone toward violence than any other inmate. Before painting the experimental holding cell pink, duty intake officers remarked to the prison administrator CWO Baker that hostile behavior by new inmates was daily a "whale of a problem".

After 223 days of continuous use as a temporary holding facility for new confinees, the results have been impressive. A memorandum to the Bureau of Naval Personnel, Law Enforcement and Corrections Division, Washington, D.C, written 156 days after use of the pink holding cell stated: Since initiation of this procedure on March 1, 1979, there have been no incidents of erratic or hostile behavior during the initial phase of confinement. The memorandum went on to state that the new confinees only required a maximum of 15 minutes of exposure to ensure that the potential for violent or aggressive behavior had been reduced. The effect continues for fully thirty minutes after release from the cell! This is enough time to process the new inmate to a permanent cell.

According to Dr. Paul Boccumini, Director of Clinical Services for the San Bernardino County Probation Department, similar results have been reported at their Kuiper Youth Center, a co-educational residential facility for delinquents. Dr. Boccumini states that "the staff report excellent results, with the youngsters' aggressive behavior diminishing quite rapidly. In fact, it has worked so well that staff must limit their [delinquents'] exposure because the youngsters become too weak."

Similar results have now also been reported by the Santa Clara County Jail in San Jose, California. The County painted their large holding cell pink, at the recommendation of the jail commander, Captain Miller. However results have not been as consistent because large holding cells, or "fish tanks," hold many confinees at one time. This situation reduces the pink color's effect because other colors are worn by the inmates. In fact, so aware are the inmates in San Jose of the pink color's powerful effect that they have been scratching at the pink

color to remove it from the cell's walls. In discussions I have had with inmates at both the Seattle and San Jose facilities, all confirm the pink color's significant effect on their behavior.

The use of pink color in reducing aggression and causing muscular relaxation is humane and involves no medication or physical force. The phenomenon affects the endocrine system causing a tranquilizing effect on the muscle system. The effect can not be controlled by conscious or unconscious effort. This has been proven by experimenting with accomplished athletes in the martial arts and yogas. It is similarly effective with the color-blind. In repeated experiments with adolescents and adults, the non-drug anesthetic effect occurs, on the average in 2.7 seconds. I would suggest the use of pink color in any situation where sudden or uncontrollable aggression is likely.

Recent experiments with several middle aged males with a history of violence suggest that imagery can be a valuable adjunct to treating such subjects. The subject is trained to concentrate his eyes on the pink construction paper while imagining a violence provoking situation. Eventually a transference occurs so that the subject can visualize the color when provoked, thereby reducing this hostility. Further work in this area is proceeding.

The use of color in tranquilizing aggression and potential violence has many implications and is opening up a new frontier of behavioral technology heretofore not seriously considered.

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editor's Note: Please note that the cover of this issue is close to the shade of pink used in the experiments described by Alexander Schauss.

EXCERPTS FROM A TELEPHONE CONVERSATION WITH DR. HUMPHRY OSMOND

I met Alexander Schauss at the HIBR symposium in Houston in June and became very interested in the work he and Dr. John Ott are doing with the color pink. When I got back I got a number of pink papers and tried them out on a variety of people — psychologists and others. I found that it worked but no one had an explanation. Then I used it on a number of patients, particularly those who were having difficulty with tension, and I found there that it worked. There were one or two on whom it worked very well indeed. The effect is much quicker than even an injection. Then I bought some pink cloth and cut it into squares and gave it to patients urging them to look at it for two or three minutes out of every hour. They don't always do it, but those who do undoubtedly benefit. It means you can carry your own tranquilizer in your

TRANQUILIZING EFFECT OF COLOR

pocket — and it doesn't matter if you get addicted to it. In addition to this we have one man who is a very good visual imager, and he doesn't need paper or cloth now; he simply images the color, envelops himself in it and finds it very relaxing. We have recently painted the doors of some of our seclusion rooms pink and are waiting to see how that works.

I consider it a very promising development. It is a very simple thing to do, comparatively inexpensive and far safer than other methods of producing the same sort of tranquility. . . . Those who don't believe it can demonstrate it for themselves; it doesn't make any difference to the effect whether a person is skeptical or not. . . . It shows once again that there is a great deal that we don't know. But the fact that there is no satisfactory explanation should not be used against it, as much of medicine is not supported by explanation. What may be used against it is that it is safe, inexpensive, and available. That's a heavy burden for it to bear!

Certainly I have confirmed that it is useful to some people; now I want to know how useful to how many people, and this will require a great deal of inquiry. In the meantime we must see that it is put to use.