

The Fordham Experiment

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DURING THE “Fordham year” Harley Parker and I undertook to teach a course on The Effects of Television. After just two or three weeks with the students, we realized that we were meeting some serious resistance to our approach. These students had in previous semesters taken all the conventional courses in media; they knew the *right* (sociological) approach to radio, television, film, etc., and we clearly did not. Whereas they were expecting something that would fit into the scheme that they had spent years perfecting, we were providing a quite alien approach from the standpoint of the senses and of perceptual response. Harley and I decided to surprise the group by making them the subjects in an experiment designed to test just one of many differences between the two media, film and TV. (At the time, nothing like today’s rigorous guidelines about experimentation on human subjects had been developed, so we had considerable freedom as regards approach and no permissions to get or papers to sign.) We ran the experiment the next week, and the following week we announced the results to the class. Thereafter, we encountered considerably less resistance, and the course ended amicably.

A brief time after running the experiment, I wrote it up for a Canadian publication, *Monday Morning*. What follows is a slightly edited version of that article.

A FEW WEEKS AGO a small experiment was carried out involving some sixty or so university students in a seminar devoted to investigating the effects of television. The purpose of the experiment was twofold:

1. to demonstrate to the students that there was a difference between the effects of movies and those of TV on an audience, and
2. to try to ascertain what some of those differences might be.

Professionals in the entertainment industry routinely scoff at the idea that TV could be a “more involving” medium than movies, pointing out that TV has lower pictorial definition (even with colour), a smaller screen, and commercial interruptions. Furthermore, the TV viewer appears remarkably passive. All of these things were known to the class, which also noticed another distinction: Whereas movies reflect light off a screen, TV “passes light through” the screen—but this they thought to be a relatively minor consideration.

Accordingly, “light-on” versus “light-through” was selected to form the basis of the proposed experiment, which was set up as follows. We chose two short films, one highly organized and with a strong story line, the other with no narrative line. The students had previously been separated into two groups of roughly equivalent size. We decided to show both films to the first

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group in the regular “movie” manner and to the second group in a manner that simulated the TV condition of “light through” the screen. After showing each film, we asked the students to write a half page to a page of comment on their reactions to it. [The use of a questionnaire was decided against since, although it would make results much easier to tabulate and thus make life easier for those administering the experiment, it was felt that the short essay-of-reactions afforded the respondent the greatest latitude and room for spontaneity and the least chance of the experimenters’ biasing the results.]

As regards actual procedure and hardware, the screen used in all cases was a sheet of rayon, 3' x 6' (this tended to lend to all views of the movies a slightly blue-violet tint). [We used this material, not because of some technique or property of rayon, but because it was all we could lay our hands on in time for the class.] We set up the screen in the middle of the classroom and arranged the chairs on each side to face the screen. The projector thus was at one side of the room. The speaker we set beneath the screen so that the sound would emanate from the same source for all observers. One group of students sat on one side of the screen; the other, on the other side. The first group, then, saw the films projected *onto* the screen, with light bouncing off it, in the usual manner for film. The second group saw the same film on the same screen, only with the light passing through the screen, TVB-style. Image size in all cases was the same and approximately 4–6 times that of an average TV screen.

Of the two films, only the second (non-story-line) one will be commented upon here. The first film, a British “let’s-go-back-into-time”-type documentary dripping with erudite quotes and good taste (*Journey into History*), was partly rejected (disliked) by the first group of students and almost totally rejected by the second. The second film, *Dream of the Wild Horses*, on the other hand, provided more, and more concrete, comments and some surprising results.

Results were tabulated by counting the number of references (to items of their own choice) made by the students in their essay commentaries. Thus, if 15 out of 30 in one group referred to a specific item, this was tabulated as “[specific item]—50%,” and would be compared to the percentage of those in the other group who made a similar reference. Because of the relatively low number of students participating, and in order to reduce chance or random factors, differences of less than 20% between the two groups were not considered significant.

There is not room here adequately to discuss all of the variations in response between the two groups; even if there were, it is doubtful that it would be completely worthwhile. The experiment was evolved and set up simply to *indicate* to the students that a difference in their response to the two media existed, however large or small. It was not intended to be definitive. Consequently, the remainder of this discussion will be limited to the most striking differences. The many similarities in the comments of the two groups will be passed over here.

There were only two or three significant decreases in responses to *Dream of the Wild Horses*: Comments on cinematic techniques (such as cutting, panning, editing, etc.) went from 36% in the first (reflected light) group to less than 20% in the second; references to specific scenes dropped from 51% to 28%; objective references to a “sense of power” in the animals from 60% to 20%.

On the other hand, the increases reflect some striking shifts in response:

1. The number who commented upon a conscious feeling of sensory evocation or involvement rose from 6% to 36%.

2. The same is true of those (6% to 36%) who spoke of a feeling of tenseness.
3. Comments on feeling a loss of a sense of time rose even higher: from 6% to 40%.

The most impressive rises, however, were concerned with “involvement.” Since the students mentioned both “involvement” as well as “emotional involvement,” these were tabulated separately:

1. Mention of “total involvement”: 15% for the first group; 64% for the second group.
2. Mention of “total emotional involvement”: 12% for the first group; 48% for the second.

[The other film—*Journey into History*—received a similar, though less pronounced, response. For example, comments on pictorial realism or a sense of perspective dropped from 33% (reflected) to 0% (light-through).]

Let us now examine these figures to see what sensory shifts they imply. We know that the visual sense is the only one that allows detachment and objectivity, and that tactility is the most involving of the senses. All of the significant decreases reflect a drop in objectivity or detachment. This drop, then, suggests a lessening of emphasis on the visual component *when light is passed through* a screen rather than reflected from a screen.

What sensory shifts do the increases imply? In order, they are as follows:

1. Rise in tactility
2. Rise in proprioception and tactility
3. Drop in visual (we organize our sense of—linear—time in a purely visual manner)
4. Rise in tactility
5. Rise in tactility (and possibly also of proprioceptive and visceral)

The conclusions to be drawn from examining the result of varying *just one* aspect of the differences between film and TV are clear.

The beauty of this experiment rests in its simplicity. It can be reproduced by anyone who has five things available: a short movie (or two or three), a film projector, a class of students, a few dollars for a screen, and a basic working knowledge of the sensory modalities.

As mentioned above, we didn’t intend the experiment to be conclusive or rigorous—only indicative. In this it succeeded. If anything, it ought to have failed, simply because little was done to emphasize the many other differences between the movie and TV viewing experiences. The movie experience, it might be argued, was mitigated by at least two factors: the much smaller-than-usual image size, and the relatively poor reflective qualities of the rayon screen. On the other hand, the “TV experience” was not closely duplicated, since the image was larger than usual, since the images were film images (not composed as a mosaic of dots of light but delivered as 24 static frames per second), and since the theatre situation was retained.

In spite of all this, sufficient differences in response were noted to permit conclusions regarding the heightened tactility and lessened visuality of the TV experience over that of film.

Several students from the first (reflected light) group elected to participate in the second (light-through) showing. Their comments are illuminating since they were the only ones to see the films both ways and therefore had a basis for comparison. Here is a brief sample:

First film (*Journey into History*)

“I now [i.e., from the light-through side] feel almost drawn into the screen. I feel part of the picture. I’m experiencing what is shown in that I feel there, with the picture.”

Second film (*Dream of the Wild Horses*)

“I had just seen this film at the front projection. I had been almost hypnotized by it. Now I feel that more. I felt like one of them before and more so now.”

And another: “*Dream* was much more noticeably effective shown through the screen. I was frozen into an almost hypnotic trance. It had an ethereal quality that was necessarily more intensely involving than the first showing. This intensity was heightened in all facets of this type of presentation. The horses conveyed a dynamic sensuousness that was almost erotic. It was an undeniably beautiful, horrible film. Obviously, it is very well suited to TV.”

So went the article written at the time.

Afterthoughts (in this year, 2000)

MANY OBJECTIONS have been raised about hidden differences that might influence the results. For example, clearly, the light-through side will have all printed information (shop signs, billboards, film credits, etc.) in reverse. Also, there is a significant (and subtle) factor called left/right bias in Western imagery. For example, most sinister actions and threats emanate from one side of the screen; their positive counterparts use the other side. These things too would be reversed. To explore these factors’ influence on results, image-reversing lenses have been used so that the reflected-light side would get the reversed image, films have been started late and stopped early to circumvent seeing credits and titles, and films have been selected that do not show alphabetic information inside the film. One subsequent “run” even used a closed-circuit TV camera that sent the image from the “normal” film screen directly to a TV monitor. The audience was split in half, as usual, but one group watched the film on an actual film screen; the other watched the same film on the closed-circuit TV screen. Care was taken to keep the film image the same size as that on the TV screen. In other words, all possible mechani-

cal variables have been tested for, without any indication that the presence or absence of one or another produced a noticeable skew in the results.

Since the first “run” (reported above), some 30 years ago, the experiment has been re-run by me, and by others at other schools, about a dozen times, and with various audiences of varying ages and sophistication. Always the results evince the same pattern, although of late they are all skewed in the “TV-side” direction—a factor that I attribute to the increasing presence among us of TV and now of computer screens. Back then, in the late sixties, even colour TV was sufficiently new (and costly) that only a few people had them. Now, it is the rare person that has, let alone uses, a monochrome TV (or computer screen).

In one recent “run” (which had as subjects faculty and staff of the graduate school at a major Canadian university), the test film used was Buster Keaton’s *The Railroader*. Just a few minutes into the film, a dramatic difference in response was clearly evident: Only one side of the screen was laughing. The other side was in fact noticeably puzzled by the laughter emanating from the one side—so much so that at least one of them (a neurosurgeon) got up and went around the screen to make certain that those on the other side were in fact watching the same images.