
VIDEO RHYTHMS AND RECALL

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The importance of rhythmic structure in communication is currently being studied by a number of social researchers. Erickson (see Douglis, 1987), for example, has commented on the importance of rhythm and beat in language to help us organize the information in a conversation to “avoid cognitive overload by focusing on predictable, strategic moments to pay attention.” In spoken language, for instance, the words you stress are the important ones, and you automatically speed up or slow down on the words in between so that major points of stress form a regular chain of beats. Erickson has found that the beat is when speakers often convey key information and bring up new topics.

In video, a sense of rhythm and pace, largely an instinctive matter/ is also important. In terms of making a cut from one shot to another, Raymond Spotswoode, an early film theorist, for example, suggested that a cut should be made at the peak of the “content curve,” which is the point in the shot at which the audience has been able to absorb most of its information (Giaunetti, 1976).

However, content is in the eye of the consumer as well as under the control of a commercial director. As shown by Young and Robinson (1987), frame-by-frame viewer attention to the visuals in television advertising can vary widely even during a “forced” viewing of an ad. This is inter-

preted as due not only to the effects of film editing but also to the operation of selective perception by the viewer.

Video communication can be thought of as having a structure that reflects a complex dance between a commercial director and a consumer viewer—one partner might lead but the other must follow. The rhythms of that interaction can be described in operational terms with a video content curve as measured by the method of the TLK (Tatham-Laird & Kudner) Picture Sort. In this article, we will show how an analysis of this empirical structure of commercial video rhythms can lead to an understanding of consumer recall of television commercials.

TLK Picture Sort

The technique is a picture-sorting task which is conducted during a one-on-one consumer interview, usually as part of a communications copy test. Respondents in the test are recruited by mall intercept and screened for target audience membership. Sample sizes may vary but are typically 50 to 100 respondents per commercial. Qualified respondents individually view the test commercial one time and then answer a series of open-ended and closed-ended questions describing their reaction to the advertising. Then they are taken through the TLK Picture Sort.

The procedure uses a deck of

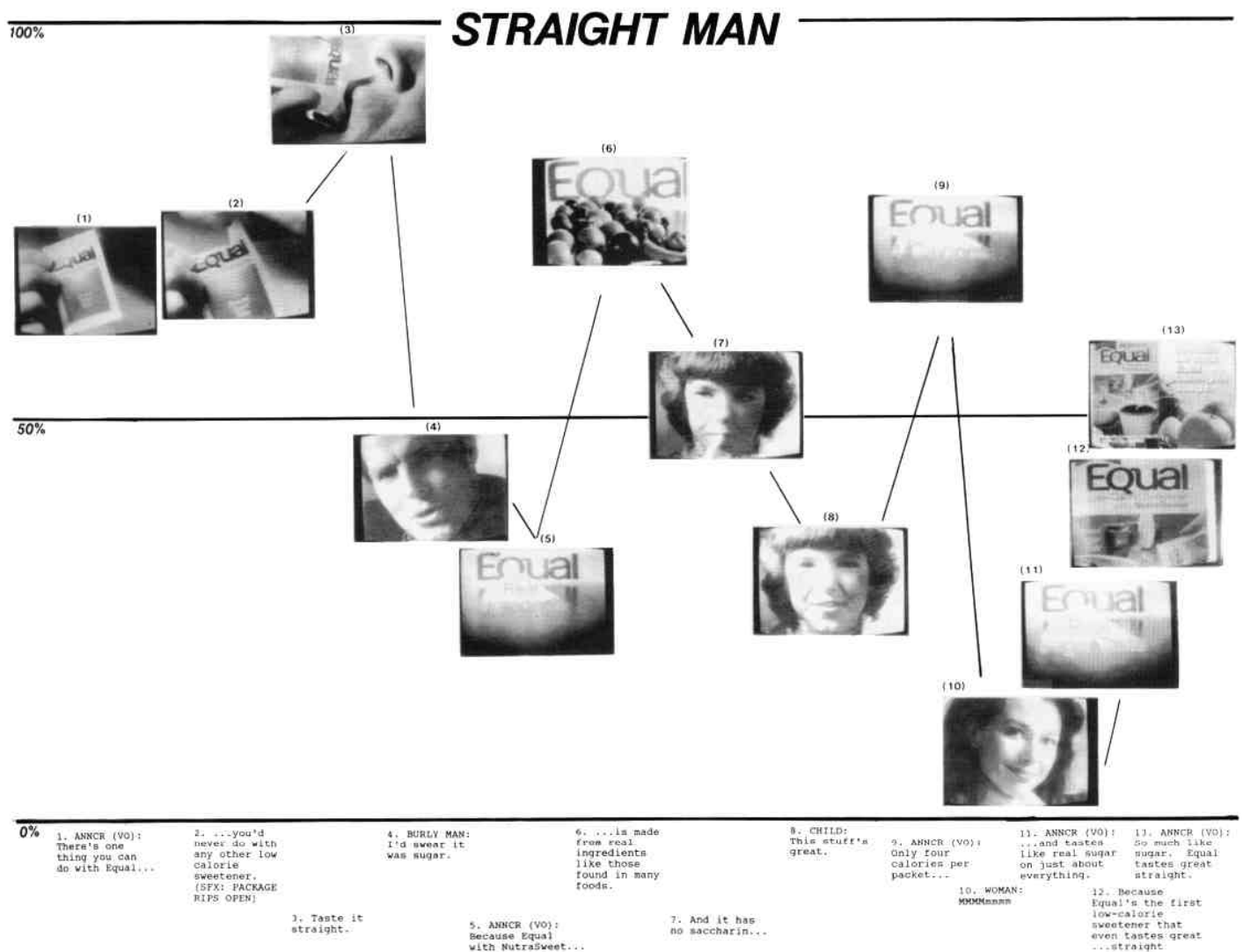
still photographs that were taken of a commercial or rough animated directly from a television screen. For a 30-second commercial, the deck typically consists of 15 to 20 photographs or as many as are needed to capture discrete images that reflect shifts in scene or movement in the action within

a scene. Respondents are given a randomized deck of photographs to look through and asked to sort them into two piles—the pictures they remember seeing and the pictures they do not.

Analysis of the findings begins by plotting the pictures on a scoreboard, where the height of

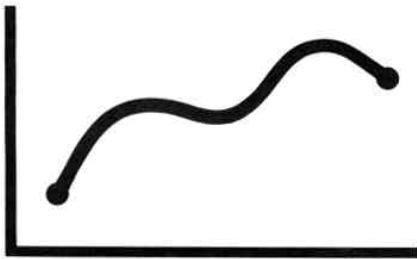
each picture shows the percentage of respondents recalling that frame and the pictures are plotted from left to right in the sequence in which they actually appear in the commercial (see Figure 1). The shape and content of the visual pattern thus formed is then analyzed to help us understand

Figure 1
Straight Man Storyboard



In the full 30 seconds of this ad, our attention is peaked 3 times and each time a different point is made about the product. First in frame #3, we learn that the product tastes good. So much like sugar that you could eat it straight from the packet. The second point is that this "artificial" sweetener is really made from *real* ingredients—like those you would find in apples, bananas, and oranges, shown in frame #6. Third, we learn specifically that this low-calorie sweetener contains four calories per packet, shown in frame #9. The product is clearly the hero of the spot. The "Equal" name is present in all three key frames. So as the product features are being communicated, they also are strongly linked in our minds to the brand name.

Figure 2
Video Content Curve



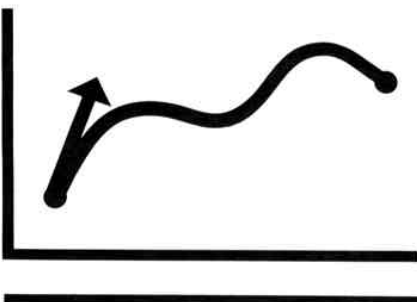
how the commercial is working.

Video Rhythm and Recall

To date, 38 studies have been conducted using the TLK Picture Sort on commercials which were also recall-tested using the ARS system. We have found no relationship between the absolute number of picture frames recognized and recall scores, with both above-average recall commercials and below-average commercials generating a picture recognition level of about 63 percent. However, there does appear to be a definite relationship between the *shape and content* of the video curve and commercial recall scores.

Commercials that score well on recall tend to have a rhythmic structure such as that shown in Figure 2. The wavelike structure

Figure 3
A Rising Opening



in Figure 2 can be characterized using three parameters.

First, we have found that the opening frames of highly recalled commercials tend to have a strong positive slope, as shown in Figure 3. High-recall commercials will tend to have opening sequences that arouse the viewer in some way, then “hooks” the viewer into the commercial action, and thus prepares the viewer for the message that is to follow.

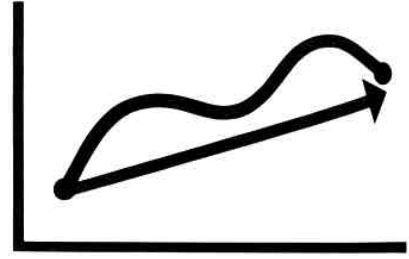
Second, comparing the end frames relative to the opening frames, we look for a positive trend to the plot of the curve, as shown in Figure 4. High-recall commercials will tend to build curiosity and involvement over time leading to relatively higher levels of comprehension of visual content at the close.

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Third, and most importantly, the “beats” of the video rhythm curve—the peaks of the wave in Figure 5—will tend to convey relevant product content in high recall commercials. Relevant product content would be a picture of the package or name of the product, a visualization of a viewer need or problem to be solved, or a demonstration of important product features.

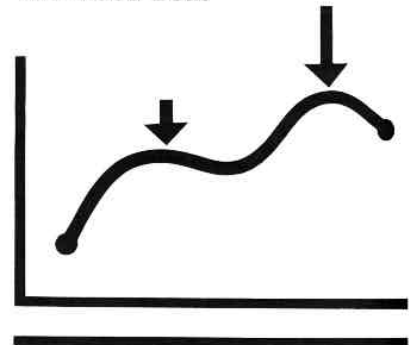
An analysis of the content of the video beats for the 38 commercials that were recall-tested is shown in Table 1. Commercials were grouped into those that scored at or above the ARS recall norm ($n = 16$) and those that scored significantly below the norm ($n = 22$). Commercials that scored at or

Figure 4
A High Ending “Note”



above norm were significantly more likely ($p > .01$) than below-norm commercials to have at least one video peak that conveyed the brand name or showed the package (56 percent versus 23 percent); that visualized the consumer need or problem to be solved (44 percent versus 9 percent); or that showed relevant product attributes (88 percent versus 41 percent). In other words, key product information is

Figure 5
The Video Beat



being communicated or the video beats.

In general, the greater number of beats per execution—which indicates that information is being conveyed and assimilated at a faster rate—the higher the recall score. Often we find that the beat falls on other executional content, which may be important to the overall effectiveness of the advertising; but, in terms of generating recall scores, the product should

Table 1
Content of Video Beats

Commercial score	n Commercials	Name/package (%)	Need/problem (%)	Relevant attribute (%)
At norm or above norm	16	56	44	88
Significantly below norm	22	23	9	41

clearly be the visual focus of the advertising.

Using a simple three-variable regression based on this model, we were able to predict recall fairly well. ARS recall scores were used as the dependent variable and three measures constructed from picture-sort data were independent variables:

$$\text{Recall} = b_1 \text{ Opening} + b_2 \text{ Focus Frames} + b_3 \text{ Close} + \text{Constant}$$

where:

- (1) Opening: the slope of the opening frames
- (2) Focus: a nominal variable which takes on values according to a scheme for coding the content of the beats described in Young and Robinson (1987)
- (3) Close: the height of the ending relative to the opening

As can be seen in Figure 6, a graph of actual versus estimated recall scores shows a good fit, with an adjusted multiple r of .75 ($p < .0001$).

As a caveat, however, we should note that recall is only one measure of advertising. It is our belief that, in many marketing situations, other dimensions of advertising may be more important determinants of effectiveness.

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Summary

We have presented a view of television advertising that analyzes commercial content in terms of the rhythmic structure of the video. The TLK Picture Sort provides us with an operational tool for tracking how consumers follow the frame-by-frame flow of commercial images. Recall was shown to be, at least in part, a function of how the product story is visualized—focusing on the brand name, the consumer need, and relevant product attributes—and how these visuals are synchronized with the rhythmic beat of the video. n

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Figure 6
Actual versus Estimated Recall Scores

