Does Dream Color Reflect Emotion? A Long Term Journaling study

Robert Hoss, M.S. in collaboration with Curtiss Hoffman Ph.D. Presented at the International ASD Psiber Conference 2004

Summary

Color has been shown by researchers to stimulate human emotion in the waking state. Would it not therefore make sense that those same emotions stimulate colors in the dream state? This paper describes the results of an investigation into this question. It provides support for a hypothesis that color not only reflects emotional content within a dream image, but that the frequency of color recalled from a persons dreams over the long term can reflect the occurrence of emotional events and perhaps even be influenced by, or an indicator of, personality. Investigation into the physiology and psychology of color, established a basis for quantifying the human response to color. Investigation with individual dreamwork supported the premise that color in dreams relates directly to the waking emotional situations that stimulated the dream. This was done by correlating the results of a Gestalt role-play technique (to reveal emotional content within a dream image) with a color based emotional profile tool (the Luscher Color Test) and then with the waking life situation reflected in the dream. Further research, on the long term journaling of dream color data from approximately 8000 dream records, gave support to the premise that the frequency of colors we recall from dreams respond to emotional events in our waking life, as well as personality traits. Results presented here are preliminary in that more investigation and controlled study is required, however it is presented here as an indication of a potential relationship between dream color and emotion, as well as an invitation to join us in further research. Those who have long term journals with color content please contact the authors if you wish to participate (e-mal: robertjhoss@aol.com).

1.0 Sleep Research

1.1 We Generally Dream in Color

Research shows that the majority of our dreams are in color. In the sleep lab, when awoken from the REM state, distinct color was reported in 70% of the cases and vague color in another 13% [1]. The reason most people perceive dreams as colorless appears to be a matter of recall. Spontaneous non-laboratory dream reports (normal daily dream recall) indicate that only about 25% (Van De Castle) to 29% (Hall) of dreamers recall color (partial or full color). Another important aspect of color recall may be the emotional intensity of the dream or the colored imagery. People have a tendency to recall the most emotionally impacting or stimulating parts of a dream, and not so much the rest. Perhaps there is emotional significance to the specific dream colors we recall. This may explain why our brain assigns certain color to dream objects particularly when the color can be optional, for example dreaming of a red car versus a blue car.

1.2 Color May Add Emotional Content to Dream Imagery

In my investigation I have observed that color in a dream is a symbol much like any other dream image. Color appears to have meaningful symbolic associations with waking life feelings just as does other dream imagery. Also, as with other imagery, color appears to combine with dream imagery, to add emotional content to the final composite image (a process known as condensation). The purpose of the study is to support this hypothesys.

The importance of color, in adding emotional content to a dream image, can be postulated from the fact that processing of color occurs in a separate part of the brain than that of processing imagery [4]. When awake and we see a colored object, the entire visual stimulus comes from one sensory source, and regardless of where the brain processes the color and shape, all is combined in the visual cortex in direct accord with the sensory source. When dreaming, however, there is no external sensory source, the brain is activating itself totally from within. Although the dream may relate directly to a waking event, what is being perceived as the dream, is being generated from internal associations with that event. Some studies support the notion that it is largely emotional associations that stimulate the dream. Seligman & Yeller [17] view dream emotion as the primary shaper of the dream plot rather than a reaction to it.

As that emotional stimuli act on various centers in the dreaming brain, each center may provide its own unique associations with that stimuli. The center responsible for processing color may contribute a color to the evolving dream image that it associates with the emotional stimulus, just as the other active centers might contribute an associated event from memory. If this were the case then understanding the color of an image would provide a greater meaning to that dream image than just object identity alone. One might say it adds emotional "color" to the image.

2.0 The Human Response to Color

Unfortunately, color is one area that was given little attention by most researchers of dreamwork. Jung and Perls discussed the four-color grouping of red, yellow, blue and green appearing in dreams as representing a pattern for wholeness, or the presence of the natural inner balancing force [5, 6, 7]. This color grouping has been traditionally called the "psychological primaries" because it is thought that they are perceived as fundamental colors, rather than a mixture of other colors. Jung recognized the symbolic significance of color in dream related work [6], and loosely assigned color associations to the unconscious (black), consciousness (white or light) and his four primary "functions": intuition (yellow), thinking (blue), feeling (red), sensation (green). The lack of any actual research into the meaning of color in dreams, however, lead me to initiate an investigation based on understanding the waking human response to color. Here there was more test data and some established tools. I speculated that if I could establish a correlation between the human waking response to color, and the appearance of color in dreams, then the data on the waking response could be used to understand color content in dreams.

Over the last 50 years or so there has been a small, but notable, degree of research into the human and animal response to color [8, 9, 10, 11, 12, 13, 14, 15, 16]. The impact of this research in the field of "color psychology" is primarily seen today in the influence it has had in the field of advertising, food packaging, art, style, decorating and such. Much of the research indicates that color illumination evokes a common physiological response in human subjects, which in turn evokes common psychological associations.

2.1 The Physiological Response to Color

The functioning of the eye itself may determine much about our instinctive associations with color. The eye has the highest visual acuity for yellow light, whereas with deep blue we have very low acuity and it is very difficult for the eye to focus [12,13]. Red, orange and yellow appears relatively light in bright illumination, whereas blues and greens appear relatively bright in dim illumination. Bright illumination, which makes activity more possible, would therefore create a natural association between outgoing activity and the colors on the red, orange and yellow end of the spectrum. Dim illumination, which makes activity less possible and initiates a restful state, would likewise create a natural association between inward focus and relaxation and the blue end of the spectrum.

Furthermore, research has shown color illumination affects the autonomic nervous system directly, creating different responses to color across the spectrum [8]. Blue illumination, for example, has been observed to calm the parasympathetic branch, resulting in reductions of heartbeat and breathing. The color red has been observed to have the affect of exciting the sympathetic branch, causing certain processes such as heartbeat to speed up. Brown [14] also found that the brain electrical response to red is that of alerting and arousal, whereas the response to blue is that of relaxation.

2.2 The Psychological Response to Color

Although our human associations with color are influenced to a degree by cultural and personal associations, some research has found a more common psychological or emotional response to color. Goldstein [16] found that red stimulation corresponds to the experience of being disrupted, attracted to the outer world, inciting activity, aggression, excitation and emotionally determined action. He found green to correspond to withdrawal from the outer world and retreat to ones own center, to a condition of meditation and exact fulfillment of the task. Ertel [15] conducted a 3-year study on room color and its effect on learning with children. He found that yellow, yellow-green, orange and light blue increased learning while white, black and brown caused a decrease in learning; and orange improved social behavior.

The mechanism for this is not well understood, but I speculate that emotional response to color is likely related by direct association to our physiological response. For example, when we are angry or excited, our body reacts similarly to when it is illuminated with red light, thus the brain would create a natural association between the three events: a) increased heart rate and breathing, b) red color, and c) anger/excitement. The emotion of

anger thus naturally would be associated with red. The same for blue, i.e., the "cooler" peaceful emotions being associated with the relaxation of the body, and thus blue.

While these brain, eye and nervous system responses are often below the threshold of awareness, they have over time created an evolutionary backdrop of association between color and emotional experience. Some work has been done over the years to try to quantify that association. The Rorschach test uses the various ways that a subject names or projects color, on color and monochrome test cards, in the associative scoring. Another psychological testing tool, that more directly associates color with emotional experience, was created by Dr. Max Luscher, Professor of Psychology at the University of Basel. His research lead to the introduction in 1947 of a testing tool based on color preference, called the Luscher Color Test [8]. It gained its beginnings on some work by Hering who established a link between physiological change within the eye and color contrast [8]. While it is little used today, it gained broader usage in the 50's and 60's in the medical and psychological field, including use in industry as a job applicant-screening tool. It was supported by over 140 clinical investigations and papers. The full Luscher test is based on making 43 choices against seventy-three different colors with norms established on a 1000 person sample. There is a simpler version using only eight colors which I used in this investigation. The tool correlates an emotional state to the person's selection of colors in a preferred sequence.

Figure 1 below illustrates the general relationships between the spectrum of color and a corresponding emotional spectrum according to the findings of Luscher (over simplified summary for brevity). Research findings described above as related to each part of the spectrum are placed in the right hand column for comparison. Figure 2 illustrates the relationships for the achromatic spectrum of black, gray and white using both Lucher and Jungian work. The details of all of this work have been incorporated in the color questionnaire table, used for my investigation and dreamwork, at the end of this paper.

Figure 1 -The Human Physiological and Psychological Response to Color

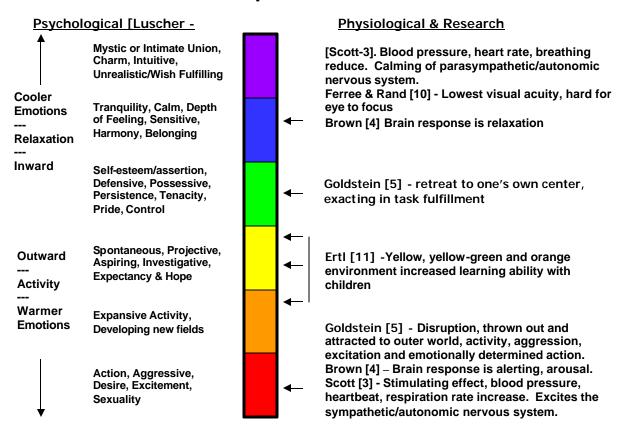
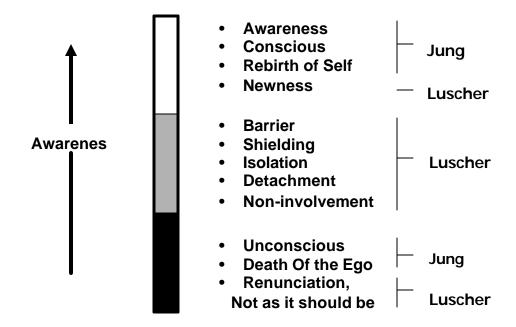


Figure 2 – Associations with the Achromatic Scale



3.0 Individual Imagery - Investigation of Color Content

The question to be answered: If Color Stimulates Emotion in the Waking State, Does Emotion Stimulate Color in the Dream State?

I found the Color Test to be valuable in my investigation and to have a surprisingly good correlation with the dreamwork. It not only correlated to at least a basic degree with laboratory research, but also appears to be the only test tool relating color directly with personality or emotional state. In my research, I did not attempt to validate the Color Test but proceeded on the premise that it represents a reasonable characterization of the human waking response to color.

3.1 Design

I designed my investigation to find a relationship between the dreamer's association with color imagery in dreams, and the waking response to color as represented by the Color Test. If a good correlation existed, then it might be possible to understand the color content of a dream image from data describing our common waking response or associations with that color. In order to establish the emotional associations within a dream image I used a common Gestalt role-play technique. This technique, tightly scripted for the investigation, results in spontaneous emotional responses from the dreamer, associated with the dream image. I then compared these responses with the

Luscher Color Test profile for people choosing that color as first preference. For simplicity I used the 8-color Color Test. I then asked the dreamer to relate the responses to a waking life situation that they associated with them. The procedure is as follows:

| 1) Role Play - | Subject: |
|----------------|----------|
|----------------|----------|

- a) Become the Image
- b) Let the Image Speak:

| • I | am (| (identity | and | characteristics) |) |
|-----|------|-----------|-----|------------------|---|
|-----|------|-----------|-----|------------------|---|

- My purpose or function is _____
- What I like about what I am and what I do is
- What I dislike about what I am and what I do is_____
- What I fear most is _____
- What I desire most is _____
- 2) Color Test Association
 - a) Subject: Pick a statement from the Luscher Test (or alternatively the color questionnaire see below) that best relates to a recent situation or a way you feel in waking life
 - b) Examiner: note any statement that relates to a) the role-play statements, b) the actions or situation in the dream
- 3) Correlation:
 - a) Subject: Relate to waking feelings and situation
 - b) Examiner correlate to color test: role-play statements, chosen color test associations, waking life situation, dream action

3.2 Observation – Color in Dreams Contains Emotional Content

When the content of the dreamer's statements, during role-play and/or the waking associations, were compared with the Color Test, a good correlation was observed in the greater majority of cases. I observed color to condense with dream imagery in four ways:

- 1) the role-play and Luscher statements were similar (thus color seemed to "amplify" the emotional content of the dream image);
- 2) the color association added new content that made for a more complete representation (it "complemented" the associations of the image alone);
- 3) the color association sometimes revealed hidden associations not revealed in the image work alone, often negative or suppression related emotions (color "compensated" for the associations the image alone);
- 4) sometimes colors appear outside of any object attachment seemingly to represent a general emotional environment associated with the dream story at that point.

Since the principle focus of this paper is to discuss the significance of color recall, as established from a study of long-term journaling records, further results of this individual imagery work is included in Appendix B. I will give one example from this study in order to illustrate that: a) indeed there is evidence that color in dreams contains emotional content that corresponds to waking emotional associations with that color, and b) that the color content relates to the waking emotional situation that stimulated the dream.

Case - "Woman in the Red Hat"

<u>Dream:</u> "In the dream I was one of three women, and was wearing a red hat. We were going into town, walking along a road, when suddenly we sank into the ground."

When the dreamer was asked to role-play the dream she expressed the following: "we are going out on the evening to have fun", "I feel vibrant." Also the body language of the dreamer during role-play turned from a detachment to being suddenly animated, as she "became" the woman wearing the red hat. Both the role-play statement and the body language correlated well with the Color Test association for red which is: "Intense vital and animated, taking delight in action. Desire to live life to the fullest." As the dreamer reviewed these statements she indicated that this is a way she had not felt for a very long time since she had suppressed her social life and desires, to take care of a family member. The action in the dream of sinking into the ground, or disappearing below, is a common metaphor or motif for suppression.

4.0 Color Recall as Related to Personality and Emotional Events– a Long Term Journaling Investigation

Based on the above investigation, if the color of a dream image relates to emotional content, then could the more frequently recalled colors at any point in time relate to emotional events in a person's life at that point in time? Extending this reasoning futher, might the frequency of colors recalled over a lifetime (or long period of time) correlate to key traits in the dreamer's personality? These were the questions to be answered in the remainder of the investigation. Since the Luscher Color Test was designed as a personality or emotional profile tool it seemed an ideal next step.

Dr. Curtiss Hoffman joined with me in this investigation as he had maintained a long-term journal of his dreams over a period of 11 years, in a computer database he had developed, and was able to sort on colors. He also was part of a long-term journaling group from which we could obtain at least 3 other dreamers samples of frequency of color recall over long periods of time. In all we collected color frequency samples from roughly 8000 dreams.

4.1 Basis for Investigation

For this investigation we used the Luscher 8 color Test tool. It was designed to derive a personality or emotional profile based on the subject's selection of color in a sequence from highest preference to lowest preference. The color preferences are paired and the test tool provides a specific analysis on each color pair based on relative location in the sequence. The totality of all the analysis for all the selected color pairs then equates to the profile for that point in time, and contains roughly 12 to 20 statements per profile relating to emotional state or condition.

I speculated that I might be able to use the Color Test on the frequency of colors recalled from dreams much as it is used to evaluate the preference of colors in the waking state. The Luscher test works because higher preference for a color in the waking state relates to the more important or impacting emotions in the subject's life at the time of the test. Likewise the study I performed above on individual dream imagery indicated that color recalled from dreams relates as well to the more important or impacting emotional associations from daily events. If this postulate is true then the Luscher Test might effectively be applied to the frequency of colors recalled from dreams. The most frequently recalled dream colors being directly associated with higher color preference when administering the Color Test.

4.2 Methodology

The dream records of a subject over a long period of time are recorded, preferably in a computer program where a word search can be performed to establish the number of times that a color (from separate color images) is mentioned in the dream reports. The frequency of each color from all color reports is listed in a table by month then, sorted and added by month and by year and in total for all the reports.

Color names from the dream reports were grouped to correlate with the 8 colors in the Luscher Color Test. Where a color was named to be a combination of multiple colors (tan, mauve, teal, etc.) and this not a fit with the limited 8 color test, it was not used in the study. This was done in favor of force fitting them into one or both color categories. These combinations were small in number in comparison with those that fit the 8 color categories, and judged not significant enough for this first order effort to effect the indications we were looking for.

Color frequency reports were sorted into monthly or yearly aggregates based on the correlation being tested for. Monthly or yearly aggregates, for example, would be tested against specific emotional events during that timeframe. The sum total of all reports would be used to test against baseline personality profile.

The aggregates by month or by year or in total would have the Luscher Color Test applied as if the highest frequency of color reported related to the greater color preference of the subject, and so on to the lowest frequency of color reported. The color pairs would be identified in order of frequency of report, and the test administered, and an analysis profile prepared based on statements in the Luscher tables.

Next each discrete statement would have a [bracket] placed at the end of it for grading. Generally there would be about twelve to twenty such statements in a profile. The subject would be sent the statements and asked to self-grade the statements against what they perceive as their emotional state. If the total aggregate over all dreams reported is profiled, the subject is asked to grade how closely the statement matches who they perceive themselves to be as a personality. If the aggregate is done with dreams reported in specific periods, the subject is asked to grade how closely the statement matches their emotional experience (how they felt or acted) during this timeframe.

For this initial investigation the following self-grading criteria was used:

- + =yes it fits
- o = sometimes or partial fit (fits but not exactly as stated)
- = does not fit as a statement or theme

The scores were then assigned the following values: + = 1, 0 = .5 and - = 0, and the scores tallied and normalized against the maximum all 1 score to determine the relative correlation.

4.3 Data Collection

Figure 3 illustrates the nature of the frequency profile of colors recalled for this subject for 4791 dreams over an 11-year period. It is aggregated by year but for shorter periods of study it could be profiled by month. Note although white and a few other colors are listed, these are not used in the Luscher 8 color test and were eliminated for this initial profile testing.

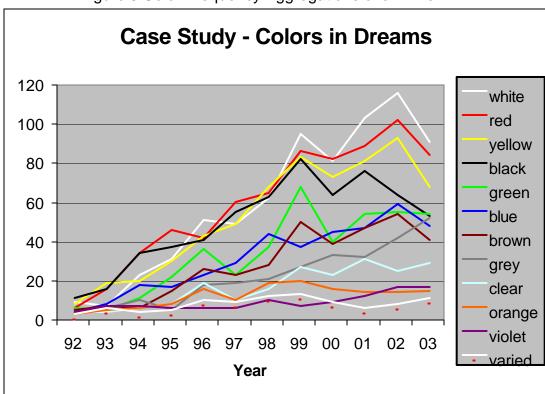


Figure 3 Color Frequency Aggregations over Time

5.0 Does Dream Color Recall Reflect Emotional Events?

In order to establish whether there might be a correlation between color recall and emotional events, the data in figure 3 was normalized to establish a table that indicates relative percentage of one color versus another by year. This establishes the sequence of color preference by year as needed to apply the Luscher Color Test. The following graph was established.

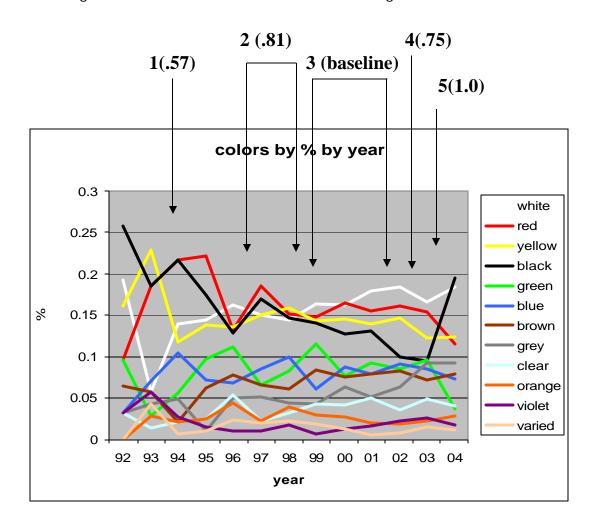


Figure 4 – Color Recall Correlation to Waking Emotional Events

- 1 uneventful period (poor correlation may be due to small sample size)
- 2 crisis period: Luscher profile = exaggerated emotional intensity and opposition (note Red/Blk pair) self-esteem and relationship issues (note blue/green reversal)
- 3 Lucher profile = virtually same as baseline, this was an uneventful average period
- 4 Luscher profile = worn out emotionally or physically
- 5 Luscher profile = disappointment, determination and stressful relationships

Once the normalized plot was established, the Luscher Color Test profile was established for each year. The first few years were not analyzed with the degree of detail as the remaining because the number of dream reports were relatively low and therefore the results not accurate as in later years. The year-by-year analysis results are summarized on the graph by the arrows and numbered timeframes. The numbers in (brackets) indicates the average self-grading correlations between the Luscher profile and the subject's recall of events, presented for each year in those timeframes.

The subject in this case indicated that there was one particular emotional period during this 11 year period and challenged the Luscher test to find and describe that event. Note that (after the first few years) the correlation is very high (.75 to 1.0) for three specific identified periods of emotionally memorable situations. That two-year event was indeed described with an average correlation of 0.81 as shown in the timeframe marked with a 2. Another emotional period in 2003 (number 5) was perfectly represented by the Luscher profile with a correlation of 1.0. The intervening period of '99 through '02 was described as having not a lot going on and notice that the color profile closely matched the dreamer's baseline personality profile, which will be described next in figure 5.

Even though these are first attempt results, the degree of correlation over time between the changing color profile, the corresponding Luscher Test results, and the actual emotional events recalled during those periods is striking. These preliminary results provide positive indication that the recall of dream colors may indeed relate to dominant emotions in the dreamers life that those colors can be associated with.

6.0 Does Dream Color Recall Reflect Personality?

In order to establish whether there might be a correlation between which colors are most often recalled by a dreamer, and that dreamer's personality, the sum total of all colors recalled were sorted by recall frequency.

5.1 First Indications

For the subject above the color frequency from the 11 years of data was plotted in the chart and table shown below in figure 5.

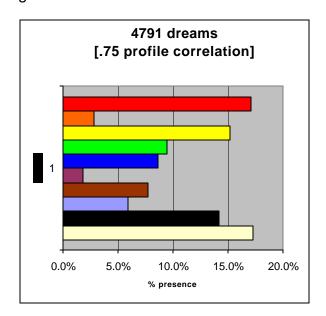


Figure 5 – Color Profile Correlated to Personality Profile

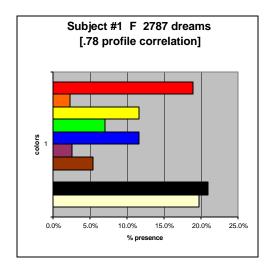
| Color | Count | % | Rank/Scor |
|------------|------------|--------|-----------|
| | | | |
| White | 682 | 17.2% | 1 |
| Black | 560 | 14.2% | 4 |
| Grey | 233 | 5.9% | 8 |
| Brown | 305 | 7.7% | 5 |
| Violet | 72 | 1.8% | 10 |
| Blue | 343 | 8.7% | 7 |
| Green | 375 | 9.5% | 6 |
| Yellow | 599 | 15.1% | 3 |
| Orange | 110 | 2.8% | 9 |
| Red | 676 | 17.1% | 2 |
| Total | 3955 | 100.0% | |
| Tot allClr | 4181 | | |
| Dreams | 4791 | | |
| | | | |
| Luscher C | orellation | 12 | 0.75 |
| A fit + | A fit + 1 | | 67% |
| Partial 0 | 0.5 | 2 | 17% |
| No fit - | 0 | 2 | 17% |

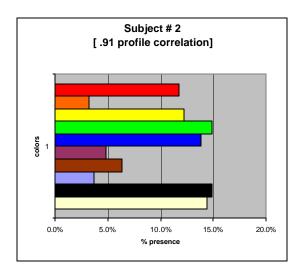
The table shows the relative sequence of colors (ranking) in terms of frequency of recall over this 11-year period. The Luscher Color Test tool was applied against this ranking as if it were the sequence of color preference. The resultant analysis was given back to the subject for self-grading of each of the statements in the analysis against the subjects perception of their own personality. In this case there were 12 personality profile statements and the subject self-graded them as 75% accurate.

5.2 Further Support

This same methodology was applied against two other subjects who submitted sets of color reports from their long-term journals. Correlation of the Luscher personality profile results, based on their dream reports, was even higher, 78% and 91% respectively as shown below.

Figure 6 – Color Profile Correlated to Personality Profile





While these results are based on self-grading and therefore subjective to a degree, it is interesting to note that the color frequency profiles, and resultant Luscher profiles, were strikingly different between all three, yet the self-grading correlations were high. It appears promising that recalled dream color over a long period of a persons life may indeed be influenced by personality traits that are associated with those colors.

Appendix A The Color Questionnaire for Dreamwork

As previously discussed, my investigation revealed that the Luscher Color Test agreed very well with content revealed through dreamwork, using the Gestalt approach. Therefore, I restructured the Luscher Color Test, which contains interpretive statements, into a spectrum of personal emotional statements. The statements in this questionnaire table therefore contain the original Luscher content and emotional theme, but are worded in a format intended to trigger associations rather than to interpret color choice.

The original Color Test provides both positive and negative statements regarding a color, depending on the order in which a color preference is chosen by the subject. Red for example can relate to energy as well as a need for energy depending on how it is chosen in the test. This I accounted for by providing both positive and negative associations with each color.

Using the works of other researchers (particularly Jung), I added some additional meaning to certain colors or color combinations, particularly the colors black, white, brown and the grouping of "psychological primaries." For example black and white relate to the Jungian motifs for conscious and unconscious forces natural that emerge and interact in dreams, a factor not considered in the Luscher test.

The table below is useful for both researching color associations (as in the examples above) or for use as a color questionnaire for personal dreamwork to stimulate associations with waking life situations that then can be further explored while working with the dream. It should NOT be used as a "dictionary of color" to derive "meaning" for dream colors, it does not work that way. It is intended only to suggest and stimulate personal associations with waking life events, based on a set of Luchser derived common color associations.

COLOR QUESTIONNAIRE FOR DREAMWORK

| RED | 1) I feel intense, vital or animated. 2) I feel transformed. 3) I feel assertive, forceful. 4) I feel creative. 5) I want to live life to its fullest. 6) I want to win, succeed, achieve. 7) I feel sexy or have strong sexual urges. 8) I desire something. 9) I need something to make me feel alive again. 10) I need to be more assertive and forceful. 11) I need to get out and enjoy myself. 12) I have a bad injury [physical dream]. |
|---------------------------------|---|
| ORANGE | 1) I want to expand my field of activity or develop new fields. 2) I want a wider sphere of influence. 3) I want more contact with others. 4) I want to shake off the shackles of self-doubt. 5) I feel restless, driven by desires and hopes. 6) I feel I am spreading myself too thin. |
| YELLOW | 1) I am seeking a solution that will open up new and better possibilities and allow my hopes to be fulfilled. 2) I feel the new direction I am taking will bring happiness out there in my future. 3) I am hopeful. 4) I need to find a way out of this circumstance or relationship. 5) I need relief. 6) I need a change. 7) I may be compensating for something. 8) I am acting compulsively |
| GREEN | 1) I need to establish myself, my self-esteem, my independence. 2) I want recognition. 3) I need to increase the certainty of my own value through acknowledgment by others of my achievements or my possession's. 4) Hard work and drive will gain me recognition and self esteem. 5) My opinion must prevail. 6) I must hold onto this idealized view of self in order to maintain my self-esteem. 7) I want what I am due. 8) Things must not change. 9) I need to increase my sense of security. 10) I need more money to feel secure. 11) I want healing or better health. 12) I must maintain control of the events. 13) Detail and logic are important here. |
| BLUE | 1) I feel tranquil, peaceful and quietly content. 2) I feel a sense of harmony with things. 3) I feel a meditative awareness or unity. 4) I feel a sense of belonging. 5) I need rest, peace or a chance to recuperate. 6) I need a relationship free from contention where I can trust and be trusted. 7) I need to feel I belong |
| VIOLET | 1) I like to win others over with my charm. 2) I feel an identification, an almost "mystic" union. 3) I sense an intuitive understanding. 4) There is a feeling of intimacy. 5) The feeling is erotic. 6) I seek a magical state where wishes are fulfilled. 7) I yearn for a "magical" relationship of romance and tenderness. 8) I seek to identify with something or someone. 9) I need intimacy. 10) I need this to compensate for my feelings of insecurity. 11) I seek intuitive understanding |
| BROWN | 1) I seek a secure state where I can be physically comfortable and relax or recover. 2) I desire physical comfort. 3) I want to satisfy the physical senses (food, luxury, sex). Dirty brown = 4) I have a physical problem, illness or injury; Natural wood color of brown = 5) I am concerned about matters of family, home, or my "roots". 6) I am concerned with a son or daughter. 7) I am searching for my true self or natural state of being |
| GRAY (Free of Color) | 1) I feel emotionally distant, only an observer. 2) It is as if I am standing aside and watching myself mechanically go through the motions. 3) I want to remain uncommitted, non-involved, shielded or separated from the situation. 4) I don't want to make a decision that will require my emotional involvement. 5) I wish to avoid further emotional stimulation. 6) I am trying to escape an anxious situation. 7) I have a compelling urge that I can't quite identify. |
| BLACK (Negation of Color) | Black is nothingness a boundary beyond which life (the EGO) no longer exists, thus generally represents the unconscious. Beautiful or shiny black can refer to looking into the depths of the unconscious self from which a new self can emerge. Emergence from darkness or black imagery is often unconscious material or parts of a new personality emerging. Something moving into darkness may relate to suppression of a feeling or part of self. Movement of self into darkness may relate to exploring the unconscious side of self or "death of the ego" (a potential personality change). Try these: 1) I am anxious and don't know why. 2) I am fearful of the situation. 3) Fate has dealt me a blow that I will not accept. 4) Nothing is as it should be. 5) I refuse to allow it or them to influence my point of view. 6) I protest the situation, unwilling to accept it and do not wish to be convinced otherwise. 7) I feel the need to take extreme action in revolt against, or to compensation for, the situation. |
| WHITE | WHITE - a newness, a new beginning or awareness, a "virgin page on which the story has yet to be written". 1) This is a new experience. 2) I'm becoming aware of new feelings. 3) I'm experiencing a new beginning, a reawakening. 4) I have a new outlook, a new awareness. 5) I feel innocent or open and accepting. 6) I feel unprepared. 7) I feel alone and isolated. PASTELS [COLORS MIXED WITH WHITE] - appear to represent a newness on one hand, or a lack of maturity on the other as related to the emotion associated with that color. The dreamer may have avoided and is thus not used to dealing with that emotion, resulting in a display of that emotion in an immature or inappropriate way. Alternatively they may be experiencing a new emergence or revival of that emotion. Ex: Pink (newness of white with the red of energy/transformation) often relates to feelings of rebirth, freshness and becoming alive. Alternatively (with a violet hue) it can represent an immature desire, intimacy or magical view of things. |
| COLOR GROUPS | RED/YEL/BLU/GRN - Whenever this group of 4 "primaries" appears together it relates to wholeness or a stable condition within the personality. If one color is missing from the group that is a clue to the condition that is missing and is needed in order for the dreamer to reestablish stability and wholeness - and thus reduce anxiety. BLACK & WHITE (patterns) - Generally represents the forces of unification, a potential merging of conscious (white) and unconscious (black) material to form a greater self. A unity of opposites. An internal change. |

<u>APPENDIX B</u>

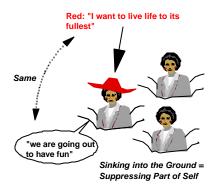
Dream Color and Dream Imagery

As we discussed above, when an image in a dream is of a certain color, it can be treated as a condensation of two symbols, one the color and the other the image. A red hat would be more expressive of vibrancy, than a colorless hat for example. Interpreting the results in terms of this condensation principle helps to more fully understand the role color plays in a dream. In the investigation, I found that the condensation of color and imagery appears to occur in at least four primary ways:

- 1) Amplification: Sometimes the statements from the Color Test and the statements expressed during role-playing are nearly alike. In this case the content within the color appears to "amplify" the content within the image. Perhaps the color and structure of the image were stimulated by the same original emotion.
- 2) Complements: Sometimes the color content adds new information that makes for a more complete representation or completes the "story". Here the color appears to "complement" the content within image. Perhaps the emotional event that stimulated the dream evoked different but associated responses from the parts of the brain processing color associations and that processing the imagery associations.
- 3) Compensates: At times the content within the color reveals a hidden meaning within the image that is not revealed in the image work alone. Often the color reveals the conflicting or suppressed nature of the associated image. The color might reveal how the dreamer reacts of feels toward the situation the image represents. Thus color in this case "compensates" for the content within the image. This is a case where the image is stimulated by one set of associations, and the color stimulated by a separate emotional or instinctual reaction to those associations.
- 4) Color as the Symbol: Sometimes colors appear alone without specific shape or object attachment perhaps representing the general emotional environment at that point in the dream. It may also appear as the collective pattern representing inner balancing forces (as Jung suggests) in a group of four color "primaries".

Examples of all of these observations are given below.

COLOR "AMPLIFIES" THE IMAGE



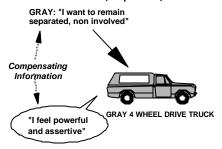
Dream: "There were a group of 3 women going into town, one wore a red hat. Suddenly they sank into the ground." Life: "I want to go out and live my life but I have to take care of one of my family members who is troubled."

COLOR "COMPLEMENTS" THE IMAGE (adds meaning)



Dream: "Later a flood came by. I tried to save my dog but he would not let go of a piece of wood held tight in his teeth. " Life: "I am afraid that if I let go of the family member they will leave and I will be overcome with sorrow [drown in emotion]."

COLOR "COMPENSATES" (or qualifies)



Dream: "There were 3 gray 4 wheel drive trucks." Life: "I try to avoid acting assertive, I don't like being that way because people won't like me."

GROUPING OF COLOR "PRIMARIES"



Dream: "There were a group of 4 spheres in red, yellow, blue, and green. The blue sphere landed on my finger like a ring" Life: "I am burned out at work and depressed over what to do. I was on a much needed vacation."

a) Color "Amplifies" the Image

Very often the color of an image and the image itself, represent the same situation or feelings. The statements from the Color Test are therefore observed to match the statements and feelings expressed during analysis of the image. In this case I consider that the color and the image "amplify" each other.

Case 1 - "woman in red hat"

This dream is illustrated in the top panels of the previous figure: "In the dream I was one of three women, and was wearing a red hat. We were going into town, walking along a road, when suddenly we sank into the ground." During role-play, the dreamer's associations with the woman in the red hat were "we're just going out on the evening to

have fun" and "I feel vibrant." This correlated well with the Color Test statement for red which is: "vital desire to live life to its fullest." It also supported the suddenly animated nature of the dreamer, as she "became" the woman wearing the red hat in her role-play. The action in a dream of sinking into the ground, or disappearing below, is a common metaphor or motif for suppression. Indeed the dreamer admitted that she was suppressing her desires go out and have fun due to a situation that was revealed in the second sequence of the dream (which I will discuss below).

b) Color "Complements" the Image to Reveal the Whole Story

Sometimes the color and the image complement each other, and must be understood together to give a complete message. The image work may reveal an inner feeling or decision, while the color work reveals the reason for it or vice-versa. In this case, the statements that come from the image role-play may not be the same but seem to support each other in some way. When a check against the associated waking life situation is done, correlation generally becomes obvious. The content of the color can be said to "complement" (or complete the story) expressed by the content of the image. Such is the case as we continue with the rest of the "woman in red hat" dream above.

Case 1 (continued) - "drowning dog with brown wood"

In the next sequence of the "woman in the red hat dream" the dreamer stated: "Later a flood came by. I tried to save my dog who was in the water, but he would not let go of a piece of wood held tight in his teeth". When the dreamer role-played the dog she stated: "I must hold on to this wood with all my strength or I will drown." The Luscher Color Test statement that the dreamer most related to was "I am concerned about matters of family, home, or my roots". When relating these statements to the first part of the dream, bas well as her waking life situation, the correlation became obvious. The dreamer was suppressing her desires to "let go" and "have fun", in order to "hold on tight" to a family member for fear that if she did not, that person would leave and she would drown in the flood of emotions. Here the dominant color (brown) in the image of dog holding onto the wood, added the important link between the fear of drowning in emotion (the image of the dog with the wood in the water) and the need to hold onto a family member (brown color).

c) Color "Compensates" the Image

Sometimes the dreamer's associations with the image, and that of the color reveal a meaningful contrast. The nature of the contrast becomes obvious in the subsequent work on the color and the image. Dreamwork associations with the image, and associations with the color, might represent an internal conflict. The color can reveal the way you protect yourself from, or react to, whatever is within the image. The dream is essentially "painting" the image with the emotional response to it.

Case 2 - "gray trucks"

For example, protection is often the motive when you paint your dream image gray, which according to Luscher is the color of non-involvement, shielding and a barrier. "I dreamed of looking down on a sandy beach area where there were three gray 4-wheel drive trucks." When the dreamer role-played the trucks, she became animated, powerful, assertive and really appeared to enjoy the role. When asked what she liked about being gray trucks she surprisingly answered: "nothing - I don't like being that way, assertive and aggressive, I would drive others away." Luscher relates gray to a barrier or "wanting to remain shielded or separated from the situation". Here was a case where the truck image represented the characteristics of assertiveness and power that she had within her, but the gray indicated a conflict in her need to shield herself from those characteristics, for fear they would "drive others away" (also an interesting pictorial metaphor represented by the trucks). Here the dream appeared to be "coloring" the dreamer's powerful assertive side, or painting over it with a mood of noninvolvement in order to shield her from that part of herself.

d) Color as the Symbol

Sometimes color appears alone, not associated with any definable object. It can appear as an undefined color shape or color background or as in the case below a ball of color. In this case the color is the symbol itself, relating to an emotional environment being set for that segment of the dream.

Case 3 - "blue sphere" - The Psychological Primaries

The investigation revealed many occurrences of the "psychological primaries" (the grouping of Red, Yellow, Blue and Green) which Jung and Perls attributed to a representation of the pattern for wholeness or stability, a pattern representative of the inner balancing force. One man's dream illustrated this: "I dreamed of a blue sphere which was part of a group of four spheres colored red, yellow, blue and green. The blue sphere separated and landed on my finger like a "magic" ring that I perceived would give me the power to solve all my problems." In this case there is no definable image to roleplay, only the color blue. In the color table questionnaire given below, the dreamer identified most with the statement; "I need rest, peace and a chance to recuperate." The dream occurred on the first day of a much-needed vacation, and the dreamer admitted that recuperation indeed was what he really needed right now. If we follow Jung's style of interpretation in this case, the four-color spheres together would represent the state of emotional stability and balance. Blue separating from the other three colors would represent what the dreamer needed in order to reestablish a stable state - in this case a chance to rest and recuperate.

References

- [1] Robert L. Van De Castle, Our Dreaming Mind, Ballantine Books, New York 1994
- [2] E. Hartmann, *The Functions of Sleep*, 1973, Yale University Press
- [3] S. LaBerge, Lucid Dreaming, 1985, Ballantine Books
- [4] John J. Ratey, *A User's Guide to the Brain*, Vintage Books, a Division of Random House, New York, 2001
- [5] C.G. Jung, Man and His Symbols, Dell Publishing Co. NY, NY, 1973
- [6] C.G. Jung, Mandala Symbolism, Princeton University Press, 1972
- [7] F. S. Perls, *Gestalt Therapy Verbatim*, Bantam Books, Real People Press, 1974, pp. 27-76
- [8] Dr. Max Luscher, *The Luscher Color Test*, edited by Ian A. Scott, Pocket Books, New York, 1971
- [9] F Birren, The Symbolism of Color, 1988, A Citidel Press Book
- [10] F. Birren, *Color Psychology and Color Therapy*, University Books, Inc. New Hyde Park, N.Y., 1961
- [11] Charles A Riley II, Color Codes, University Press of New England, 1995
- [12] Faber Birren, Color and Human Response, John Wiley & Sons Inc, New York, 1978
- [13] C.E. Ferree and Gertrude Rand, "Lighting and the hygiene of the Eye", *Archives of Ophthalmology*, July 1929
- [14] Barbra Brown, New Mind New Body, Harpers & Row, New York, 1974
- [15] Henner Ertel, *Time*, 17 Sept 1973
- [16] Kurt Goldstein, "Some Experimental Observations on the Influence of Color on the Function of the Organism", *Occupational Therapy and Rehabilitation*, June 1942
- [17] Hobson et al, "Dreaming and the Brain", *Sleep and Dreaming*, Cambridge University Press, New York, 2003, pp 1 50.