

# THE GREEN: EMOTIONS REACTIONS

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## INTRODUCTION

**Synesthesia** is a genetic dysfunction consisting in a mix of the sensation coming from our senses, however it can also takes place in the same sensorial modality. Its most important characteristics as neurocognitive phenomenon are stability, perceptual and unique nature, it is automatic, it is a memorable generic experience, which works in one way, and which has an important emotional characteristic. People who experience it report feeling different kind of emotions, depending on the stimulus which they are facing. There are different kind of synesthesia. The most usual, and therefore the most studied, is the one in which letters, words or numbers evoke colours. This type of synesthesia has been denominatated grapheme colour. When the colour of the stimulus presented coincides with the one evocated because of their dysfunction, people who experience it inform that they are correctly colored and that fact produces them a positive sensation and a certain well being. However, when letters or words are presented in a colour incongruent with their perceptions, they inform about their mistake and feel annoyed for the discrepancy between the visual stimulus and their subjective internal perception.

**Emotional implications.** The perceptual dysfunction it is associated with the conviction that what they experience is real and valid. The presence or lack of coincidence between the stimulus perceptual characteristics (i.e. black letter) and the person experience (i.e. subjective experience of green) leads to situations of congruency and incongruity between both dimensions, which induce positive or negative emotional reactions in people who suffer the dysfunction.

## THE CULTURE OF GREEN COLOUR

It is a very balanced colour since it is composed by emotional colours (yellow warm) and more rational colours (blue cold).

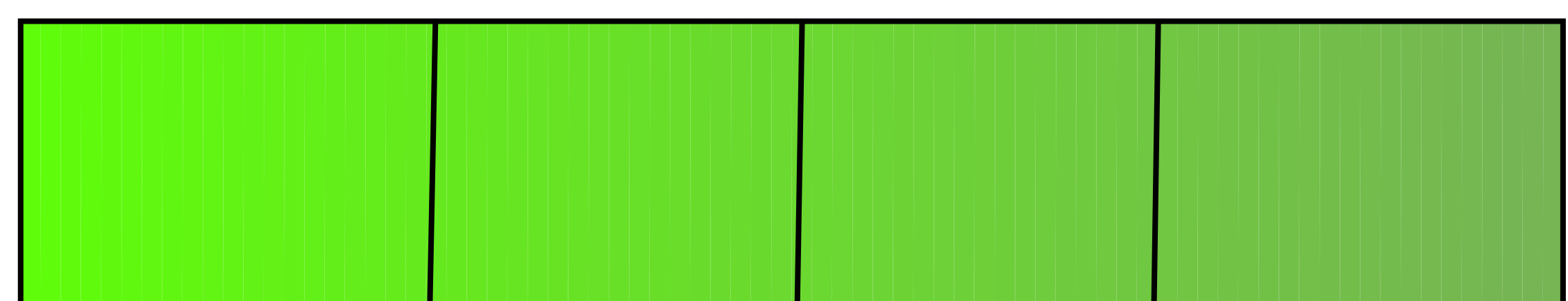
It incites to imbalance and it's the favorite of psycho-neurotics because it produces rest in anxiety and relief. Also because it suggests peace and love, and at the same time it is the jealous, moral degradation and madness colour.

It means reality, hope, reason, logic and youth. People who prefer this color detest solitude and look for company.

It suggests humidity, freshness and vegetation. It symbolizes the nature and growth.

## DEGRADATION OF SATURATION IN GREEN COLOUR

When a color belongs to the color wheel, it is said that it is saturated, it has the maximum power of pigmentation, or coloration. However colors are not always pure, but they are usually composed of complex mixtures, with unequal quantities of primary colors. In order to change one color saturation it is necessary to mix it with its complementary one. This way is obtained the saturation or gray scale.



## ANTECEDENTS INVESTIGATIONS OF REFERENCE

**Experiment 1.** Evaluate how emotional words are in a seven points scale, from – 3 (very negative emotion) to 3 (very positive emotion), being 0 the neutral point. Words are showed in different colors as the sinestheta perceives them (incongruous) or in the same color he experiences (congruous).

**Results (1).** When words were presented in a different color as how M.A. perceived them, they were evaluated as more negative than those consistent with her experience

**Experiment 2.** To classify the same words with the possible biggest speed as positive or negative. The influence of the color depended on the semantic valency of the word (of their meaning).

**Results.** M.A To it took in categorizing the positive words in congruous color or negative words in incongruous color the same time that the participants non sinesthetes and more when for the positive same words in incongruous color or negative words in congruous color.

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## OUTLINED INVESTIGATION

### OBJECTIVE

To study in an objective way the emotional reactions associated with the perception of stimuli of green color, with different saturation grades, appropriate with those evoked by the sinesthesia (colored in the same way that a person sinestésica perceives them) or incongruous (colored in way different to as it perceives it).

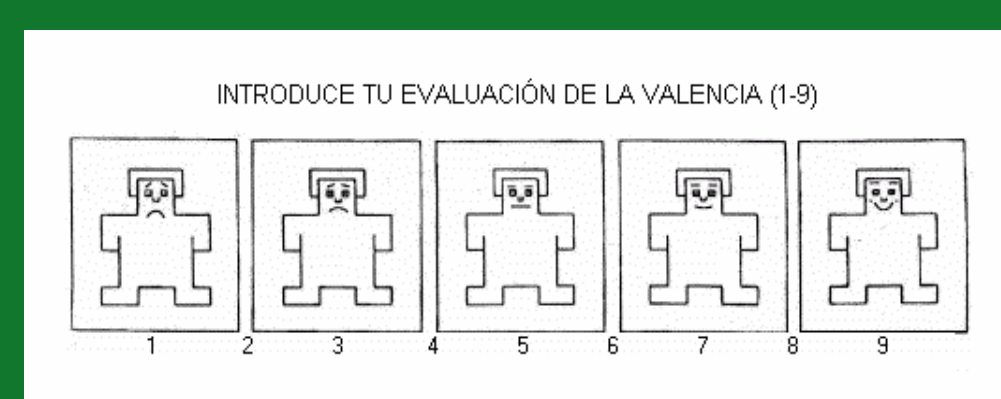
### PROCEDIMIENTO

- They showed up instructions in the screen of the computer that you/they informed the participant about the objective of the experiment.
- The task consisted on evaluating a group of words in the valency dimensions and mediating activation a scale pictográfica (SAM).
- An image of SAM was shown and the meaning of both dimensions was explained.
- The approximate duration of each experimental session was of 45 minutes.

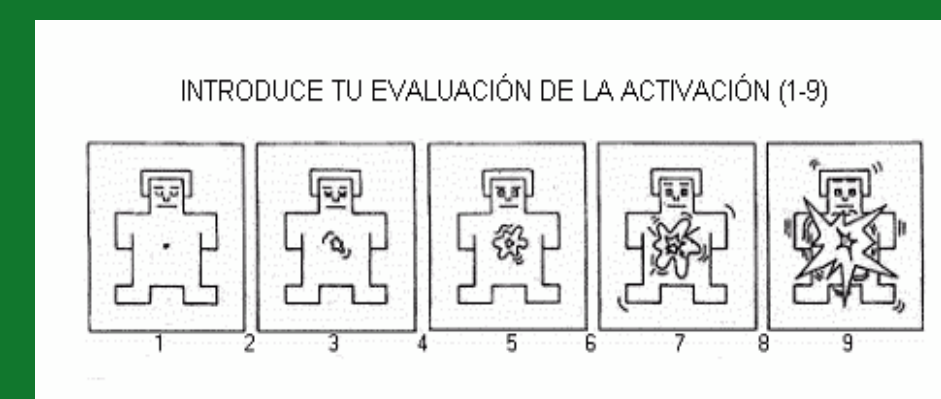
### METHOD

**Participants:** 48 students of F. of Psychology of the OR. Of Granada (24 men and 24 women), between 18 and 26 years

**Instruments:** The authors' of the "pencil version adapted version and paper" of SAM, consistent in the escaneo of the figures corresponding to the valency and the activation. The different values of each dimension were added in a scale of 9 points (you Figure 1 and 2), corresponding the highest values, respectively, to a bigger pleasantness and a bigger activation, and vice versa.



Dimensión de valencia



Dimensión de activación

**Stimulus:** 480 nouns selected starting from the norms of "pleasantness" of Muñoz-Yago (1983) later on enlarged for it López-deceved (1985).

**Control of variables:** To avoid the effect of the fatigue, it was divided, in an aleatory way, the initial group of 480 words in four blocks of 120 words. In the experimental session each participant one of these blocks evaluated.

### RESULTS

For fellows without sinesthesia find in a general way that: in the unpleasant words a negative relationship appears among "valency-activation", that is to say, as much as minor is the valency of a word, adult it is his activation. However, in the pleasant words, the valency is independent of the activation level.

When we evaluate of form simultaneous "valency-activation" and "saturation of the green" color, we find that: in the unpleasant words the negative same relationship appears among "valency-activation." But the distance grows among them as we vary the "saturation of the green" color, that is to say, to less saturation, the word is evaluated as of smaller valency and bigger activation. As for the pleasant words, the valency continues being independent of the activation level.

### CONCLUSIONS

The unpleasant stimuli usually provoke activation. The unpleasant stimuli of color little saturated, they provoke an even bigger activation

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