Eye of the beholder "blind"

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Poor children and rich kids in the eyes of the world, when you eat and hunger in the eyes of the world in your eyes and the eyes of the world is different, you see only what you want to see. Said that "seeing is believing", "Figure truth", people seem to have decided the eyes to see things objectively true, however, psychological research found that the human visual perception is not an exact copy of the outside world. Visual perception is not only selective (such as "Why you can not see the" latent "fugitive? Mentioned" non-attention to blindness ") and has a bias, but will be subject to higher cognitive functions of emotions, motives, etc. The impact of change.

20 In the 1940s and 1950s, Bruner (Bruner), who proposed a new perspective (New Look approach) to understand the perception, that perception is actively building process by a variety of top-down factors. In other words, what we see not only the object itself, the impact of physical characteristics, but also by the impact of our ideas and state.

As the support of its theory, Bruner and Goodman (Goodman) in 1947 conducted a classic experiment: they let a group of 10-year-old children by adjusting an aperture size to estimate the size of the coin. Their results show that children overestimate the size of the coin, and the greater the nominal value of the coin, the greater the extent of this overestimation. More compelling, they found that children from poor families to overestimate the extent of the coin is greater than the rich people children. Of the interpretation of this is: for children from poor families, the greater the value of the coin, so they will feel that the diameter of the coin; for the children of the rich, the value of the coin is relatively
small, so the judgment of its diameter is relatively objective.

However, subsequent researchers questioned the interpretation of Bruner and Goodman. They pointed out that the children of the poor not because of a miscarriage of justice on the size of a quarter coins more attractive to them, may also be because they have less contact with the coins, the coins are not familiar with size; or due to memory lapses, rather than perception of bias. Bruner’s “new perspective” theory in many points by the attention, but because of the method to be challenged, so the impact of the motivational factors of visual perception is not yet fully psychology of attention. However, recent studies provide support.

In 2006, Cornell University Bao setisi (Baletis) and Dunning (Dunning,) carried out five experiments to test the impact on the visual perception of the motivational factors. Suppose you have participated in their first experiment.

Come to the laboratory, the experimenter would like to invite you to taste and evaluation of two drinks: a bottle of drink looks Attempt to orange juice squeezed out; another bottle of dark green mucus do not see what is liquid, but on the label the words “organic vegetable drinks. The experimenter then two drinks were open let you smell the flavor. Well, first bottles really have the flavor of orange juice, but your nose so close to the second bottle ... “uh, good foul!” Then you may begin to meditate on: drink orange juice is definitely better than that Han vegetable juice. 

Then the experimenter told you to spend 3 minutes to imagine the feelings of each beverage to drink 240 ml. After a lively imagination, it is estimated that you have begun to pray: “We must let me taste the orange juice, or disgusting (of course, does not exclude people with special passion for organic vegetable juice).”

Then, the laboratory assistant to tell you, you taste what kind of drink determined randomly by a computer program, presented on the computer is digital, you drink orange juice: If you are presented a letter, I am sorry, would help the taste of vegetable juice (the other half Contrary to the participants, the numbers indicate the drink vegetable juice, letters to drink orange juice).

Laboratory assistant to open the computer program, and went to put my information. You stare at a computer screen full of look forward to the emergence of the figure. Waiting, you see the screen flashed Figure 1, you jump out of a window that prompts the program does not respond. The program crashes? ! Waited a few minutes, the program still does not respond, you have to call the lab assistant to come. He saw the picture of the screen, sighed loudly, and the old machine crashed! And then ask you: have just seen what? If your response with the majority of participants are the same, they will not realize this is a Zhang Shuangqi Figure, only honest answer: see, is 13! (Of course, if the letter you will drink orange juice, your answer is B). The statistical results demonstrate the author’s assumptions: the desire of participants will affect the content they see.

Subsequently, in order to re-verify the conclusion of Experiment 1, the authors changed an experimental program, the participants to taste three kinds of
products in a (water, candy, canned soybeans or mucus-like), but decided they taste which kinds of programs is no longer a random presentation, but play a little game. In the game, if you see on the card draw is livestock, have positive points; if you see the aquatic organisms, have a negative score (with the experimental one, contrary to the rules of the other half of the participants). A total of 15 cards, and Total decide what your taste: positive points is candy, and of eating mucus-like soy negative score of 0 to drink water. Your score will be clearly displayed on the computer screen side.

Figure 2. Horses and seals Bifidobacterium map.

Researchers experiment moving the hands and feet, all participants will encounter the same situation, ie to 12 cards, your score negative points, to 14, you find, as long as there is a positive points, you can go to taste the candy and not their looks disgusting canned. At this time, you see the picture in Figure 2.

If you are the same with most of the participants in the experiment, your reaction might be: Yeah! Good is Horsehead, I do not eat that canned! (Of course, the beginning of the lab assistant to tell you of aquatic organisms are divided, your response will be changed to: Yeah! Good is a seal, I do not eat that canned) Banonitis and Dunning's assumptions further validation.

Behind the three experiments, the researchers further validate the participants really only see the a Bifidobacterium graphics, rather than actually see two possible graphics, but reported only want that. This may be that you will only see the side you want to see - "the eye of the beholder" is a reality version of this phenomenon.

Outside the laboratory, we wish more of the hungry something to eat, thirsty have water to drink. Then the desire will give our eyes covered with a layer of special color? The two visual perception research gives us an affirmative answer.

University of Nice, France (University of Nice Sophia-Antipolis in Nice,) the researchers La Deer (Radel), and Clement - of Ji Yuean (Clément-Guillotin) in a study published in 2012 examined the need for food will on people visual perception of an impact. About the participants before lunch arrives at the lab (approximately 3-4 hours) After breakfast, after arrival of the participants, the experimenter told them: the experiment to be postponed. But with half of the participants 10 minutes to come back (starvation); delayed one hour, with the other half of the participants said they can use this space to eat lunch (participants really eat lunch) University of Nice Sophia-Antipolis the researchers La Deer (Radel), and Clement - of Ji Yuean (Clément-Guillotin) in a
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Again back to the lab, participants were natural hunger groups and non-hunger group. Participants to do the task is to confirm the fast rendering of the words on the screen. First, each participant completed a pre-tested to find the smallest font size that they can see. Then, the participants observed 33 milliseconds quickly flashed word (each word appears before will \# \# \# or \$ \$ \$ block). Participants read each word has two tasks: the visibility of the evaluation of the word and the two options (such as Cake and Sake choose one).

The statistics of the experimental results support the expectations of the authors: hungry participants feel that the food-related words visible more; and their food-related word recognition rate higher (via two alternative answers). Therefore, the researchers believe that motivation not only affects the perception, but also in the early stages of visual processing work, decide what we can see Bifidobacterium graphics.

In addition, (Mark Changizi) and Warren (Warren G Hall), Hall in 2001, the study also found that the participants of the body of water shortage will blur the perception of Bifidobacterium graphics for a more transparent, and transparent the main features is the water. This shows that thirst can also affect our visual perception.

The above two own that the motivation of the physiological impact on the perception of external objects, of course, caused by human beings as social animals, as well as social factors motivation. For example, we want to live happily, it is necessary to identify and avoid those who have done bad things. “Science” magazine has published a study shows that this recognition motives of the “bad guys” will affect our visual perception.

In 2011, Northeastern University, Anderson, E. Anderson, who through a clever binocular rivalry experiments found the same to be without significant emotional faces, we will pay more attention to who was assigned to the immoral behavior face. (For details, see the group posted the gossip affect human visual perception.)

Visual perception appears to be very simple, very direct psychological process, however, psychologists and other researchers in the field but found that this process not only very complex, but also by many of the impact of higher cognitive functions. Is possible that this complex system for machine vision difficult comparable to human vision.

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