

The halo effect of banknotes — Arguments for good banknote design

Article by: Frank van der Horst, De Nederlandsche Bank

Introduction

The “halo effect” is a well-known phenomenon in psychology. This cognitive bias is at play when people who are remarkable for certain characteristics are perceived to have other positive traits as well, even in the absence of material evidence of such virtues. It is also known as the “what is beautiful is good” stereotype.

Could it be true that the halo effect also applies to banknotes? If so, other features could benefit “on the back of” an improved design. De Nederlandsche Bank has studied this question using underlying data derived from a biennial survey conducted by Motivaction into the public’s familiarity with and appreciation of euro banknotes¹.

» Banknotes must be genuine and incapable of being counterfeited. How would you rate your confidence in the authenticity of the euro banknotes you receive?

As is evident from Figure 1, there is in fact a strong positive correlation between the average appreciation and the average confidence mark ($R^2=0.5212$). Deep appreciation of the banknote’s appearance and high confidence in its authenticity go hand in hand. For instance, a lack of confidence in the banknote’s authenticity, with respondents giving it a mark of 1, corresponds with an average appreciation of 2, i.e. the “rather ugly” category, whereas a mark of 10 in terms of confidence corresponds with an average appreciation between “rather pretty” and “very pretty”. Ratings exceeding a pass mark (6) correspond with an appreciation mark exceeding neutral (3).

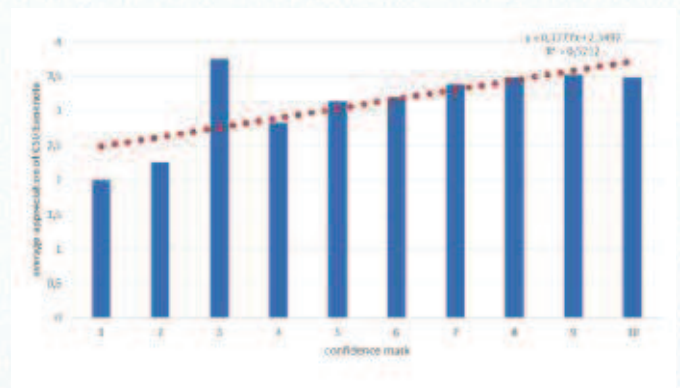


Figure 1 Relationship between appreciation of €50 banknote and confidence in its authenticity

Relationship between appreciation and confidence in authenticity

Initially, we looked for a correlation between appreciation and confidence by linking the answers to the following questions:

» How would you describe the appearance of the €50 banknote? (1=very ugly, 2=rather ugly, 3=in between, 4=rather pretty, 5=very pretty)

Relationship between appreciation and perceived cleanliness

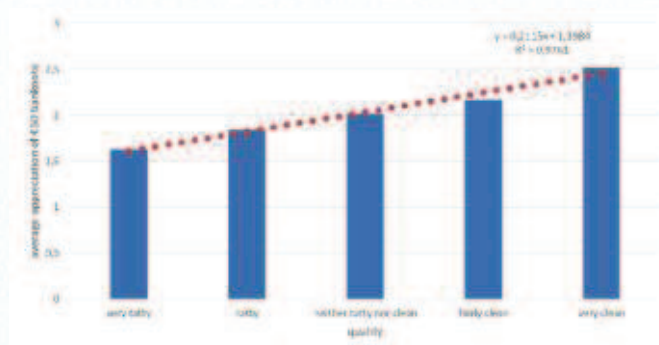
We also studied the relationship between the banknote’s beauty and its perceived cleanliness in circulation. To test this, we asked the following question in the survey:

» How do you rate the quality of the 50 euro banknote? What is your opinion about its general appearance in terms of dirt, wrinkles, tears, writing, tape, etc.? (1=very tatty, 2=tatty, 3=neither tatty nor clean, 4=fairly clean, 5=very clean).

Figure 2 clearly shows that there is a halo effect here, too. The greater the perceived beauty of the banknote, the higher its perceived quality in circulation. Respondents rating the banknotes “very clean” in terms of quality appreciate them as “rather pretty” (4) on average.

Figure 2

Relationship between appreciation of €50 banknote and circulation quality rating



Relationship between appreciation and knowledge of features

DNB has asked Motivaction to discuss the relationship between average knowledge of security features and appreciation in its report, believing that it would be great if deep appreciation could contribute towards increased awareness of the euro banknote security features. Regrettably, Motivaction draws a different conclusion: “There’s no correlation between the number of security features one can mention and his/her appreciation for the euro banknotes”.

Using the underlying data, we have visualised this conclusion in Figure 3. An R2 below 0.1 signifies a very weak correlation.

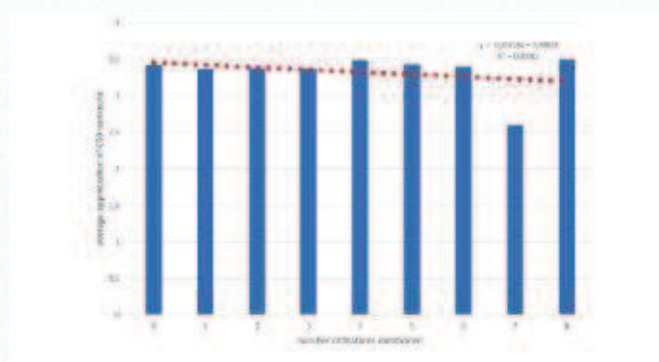


Figure 3 Relationship between appreciation of €50 banknote and number of security features mentioned)

Conclusion

The ‘halo effect’ also applies to banknotes. Increasing appreciation of the €50 banknote’s appearance corresponds with higher confidence in its authenticity and increasing appreciation of its quality.

Although it would appear that there is no correlation between banknote appreciation and security feature awareness, this is unrelated to the halo effect. After all, knowledge is not an opinion.



¹ Randsdorp, Y. and I. Zondervan (2015), A biennial study about knowledge and appreciation of euro banknotes among the Dutch, Study prepared for De Nederlandsche Bank, Amsterdam, http://www.dnb.nl/en/binaries/Rapport%202015%20-%20Awareness%20and%20appreciation%20of%20euro%20anknotes_tcm47-322785.PDF.