

# Colorless Lucid Dreams in University Students; It's Possible Relevance to X-Chromosome Linkage and Multi-Colored Visual Imaging



Seung Chan Kim<sup>1\*</sup>, Ga Young Kim<sup>2</sup> and Ji Hyea Hwang<sup>3</sup>

<sup>1</sup>Yonsei University, Korea

<sup>2</sup>Department of Cultural Anthropology, Yonsei University, Korea

<sup>3</sup>Underwood International College, Yonsei University, Korea

**Submission:** December 14, 2017; **Published:** January 09, 2018

**\*Corresponding author:** Seung Chan Kim, Medical School & College of Medicine, Yonsei University, Seoul, Korea, Email: [synedit@gmail.com](mailto:synedit@gmail.com)

## Opinion

Some people only tend to have black and white dreams while they are dreaming. There are studies that show that experience in black and white media have influence in this dream<sup>1</sup>. Also, Middleton (1942) found that 70.7% of 277 college sophomores reported “rarely” or “never” seeing colors in their dreams. The present study replicated Middleton’s questionnaire and found that a sample of 124 students in 2001 reported a significantly greater rate of colored dreaming than the earlier sample, with only 17.7% saying that they “rarely” or “never” see colors in their dreams. In our study, 190 Yonsei University students were randomly chosen to investigate whether they experience only black and white dream [1]. Ahead of investigation, 94 university students were asked about how frequently they dream and the validity to see color in dreams. Out of 93 respondents, a majority (34) answered that they frequently experience dreaming while they are asleep. Still, there are those who do not dream, for 20 people answered that they barely experience dreaming. The following question was made to investigate whether Yonsei University students dream in black and white. Surprisingly, over 10 percent of the people dreamed of black and white dreams. 79 respondents had multi-colored images in dreams like the real world, whereas 9 people had dreams that are only black and white [2]. In 9 people who dreamed only images of black and white, 7 respondents were male and 2 were female. The frequency of black and white dreamers was accordingly high in male. This supports the idea that it is possibly linked to sex chromosome X, as the frequency is high at men more than three fold. Genes related to red and green blindness are also linked to X chromosome 4,5, and 5.3% of boys and 0.2% of girls were found to be colour blind in the Singapore-based study<sup>5</sup>. It correlates to the data that was obtained about black and white dreams in the fact that frequency of female is relatively low [3]. Around 7%-10% of men have some form of what is commonly called red-green color blindness; according to Nature

Structural Molecular Biology<sup>6</sup> which ratio is similar to our results (7.95% male and 2.27% female). The relation of color blindness and black and white dreams were further investigated. 96 more students were asked with a survey with contents that evaluate whether their dreams are colorless or not, their red-green color blindness and their visual color imaging abilities [4]. 7 out of 95 respondents were red-green colorblind and there were 4 males and 2 females (1 unidentified). Furthermore, there were 7 males and 6 females who dreamt in black and white. In total, 14 males and 8 females dreamed colorless out of 160 respondents. However, there was no one who had both properties of colorless dreams and red-green colorblindness. The ones who dreamed in black and white were not color blind, and students with red-green colorblindness did not dream in black and white. Also, only a few of the students that dreamed colorless were easily available in imagining colors with their eyes closed. In a test made by a symbol with same areas of red, yellow, blue colors, only 2 respondents out of 23 were easy in imagining, whereas over 50% out of 95 Respondents said they were easily available in imagining in color [5]. This demonstrates that these colorless dreams are possibly related to visual color imaging abilities. Also, we still cannot deny the relation in terms of X-chromosome linkage, as the ratio of male colorless dreamers (8.75%) exceed the ratio of female colorless dreamers (5%) [6].

## References

1. Murzyn E (2008) Do we only dream in colour? A comparison of reported dream colour in younger and older adults with different experiences of black and white media. *Conscious Cogn* 17(4): 1228-1237.
2. Schwitzgebel E (2003) Do people still report dreaming in black and white? An attempt to replicate a questionnaire from 1942. *Percept Mot Skills* 96(1): 25-29.
3. Myers WA (1977) The significance of the colors black and white in the dreams of black and white patients. *J Am Psychoanal Assoc* 25(1): 163-181.

4. Seaton A (2009) Red-green blindness. QJM 102(9): 669-670.
5. Chia A, Gazzard G, Tong L, Zhang X, Sim EL, et al. (2008) Red-green colour blindness in Singaporean children. Clin Experiment Ophthalmol 36(5): 464-467.
6. (2007) Seeing science in color. Nat Struct Mol Biol 14(3): 173.



This work is licensed under Creative Commons Attribution 4.0 License

DOI: [10.19080/JOJS.2019.03.555602](https://doi.org/10.19080/JOJS.2019.03.555602)

**Your next submission with Juniper Publishers  
will reach you the below assets**

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats  
( Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

**Track the below URL for one-step submission**

<https://juniperpublishers.com/online-submission.php>