LUCID DREAMS

UNIVERSITY OF LINCOLN

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Lucid Dreaming: large data base analysis.

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Key Points

• Lucid Dreaming is where, while dreaming people become aware that their current experience is in fact a dream

• It correlates with a distinct neurological state and links to cognitive ability in waking life.

• Basic quantitative information has been missing, but the experience appears to b actively sought by a wide population who share information via web sites and by the use of Apps.

• Data from one of the main App user groups was analysed.

• The time to learn to Lucid Dream was established.

• Preliminary analysis indicate differences in word frequency in descriptions of lucid and non-lucid dreams

Lucid Dreaming is where, while dreaming people become aware that their current experience is in fact a dream. Support was sought to employ a research assistant to initiate the analyses of a pre-existing data-set of thousands of dream reports. Fundamental statistics were extracted e.g. on the time required to acquire lucidity, age, gender. The words used in describing lucid and non-lucid dreams were compared. The possibility was explored of using automatic text recognition software to extract key features of lucid dreams.

Context

“Lucid dreaming is established as a genuine phenomenon in the scientific literature with demonstrated cognitive links to waking life abilities (e.g. Bourke & Shaw 2014) and to a distinct neurological state (Dresler et al 2011). Modest sized data sets constrain the research that can be done on lucid dreaming.

However a very large data set does exist, created by users of a free App (Awoken). This was designed to teach people how to lucid dream. Users upload written accounts of their dreams and agree to share these for research purposes. Initial discussions with the App developer led to an agreement to share the 200,000 dream database and to collaborate on developing the program to align it more fully with questions in the scientific literature.

Method

Users of the App entered their date of birth and gender when registering with the site. In addition they labeled each dream as lucid or non-lucid and identified themselves as either having or not having previous experienced a Lucid Dream. Each dream was entered and uploaded from an Android phone.

Results

Demographics

There were 11,762 unique users. The mean age was 24.18 (8.29). 75% were male. 94% of the dreams were recorded as non-lucid (11,762) and 6 % were recorded as lucid (743).

Learning to Lucid Dream

56% of users had never experienced a lucid dream before starting to use the App and 44% reported having previously experienced a lucid dream.

Words used in dream reports

There were 2,923,432 words in the data base. 11% of the words came from dreams marked as lucid and 89% from dreams marked as non-lucid.

The occurrence of each word as a percentage of words in lucid and in non-lucid dreams was computed separately and the relative percentages were compared.

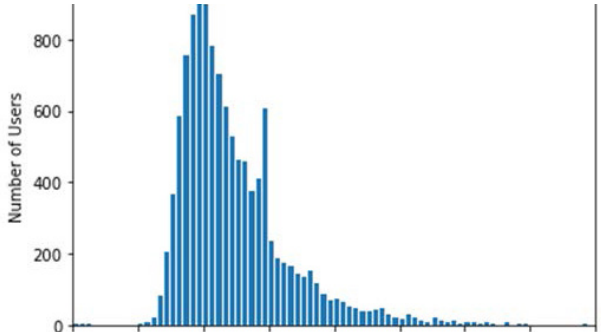
Overall, the percentages were similar in both types of dreams. However there were differences. Analysis is ongoing. The most frequently occurring words are shown in the Table below.

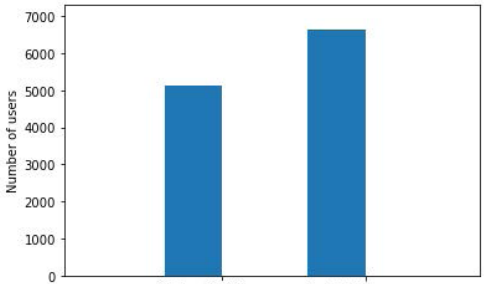
Top 15 words from lucid dreams

1. i 2. dream 3. my 4. lucid 5. Ik (i) 6.dreaming 7. is
8. up 9. myself 10. am 11. fly 12. this 13. reality 14. woke hands bed see check i'm lucid

Top 15 words from non-lucid dreams

we a was he were with the had
there on she they Und (and) some
de (from) him his for to Mit (with).





In Conclusion

The project illustrates the potential to use Apps to collect data on the content of dreams on a massive scale.

The usage patterns and isolated word count approach is already informative.

Going forward a Citizen Scientist approach is envisaged, whereby users provide information to address specific scientific questions; to explore the nature of lucid dreaming (e.g. perceptual quality and levels of control), to understand the motivation to acquire this skill and the perceived benefits of lucid dreaming.

To achieve this it is hoped to modify the App to:
(1) directly ask participants to allow automated text analysis of the dream narratives.

(2) to provide explicit ratings of experimenter specified aspects of the dream experience.

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