Displaying Red and Black on a First Date: A Field Study Using the “First Dates” Television Series

Supplementary Material

Robin S. S. Kramer1,2 and Jerrica Mulgrew2

1 School of Psychology, University of Lincoln, Lincoln, UK
2 Department of Psychology, Trent University, Peterborough, Canada

Preliminary analysis: Binary coding by the authors

For each participant, we (the two authors) coded both the pre-date interview and the date itself for the presence/absence of red. This within-subjects baseline (clothing worn outside of a dating context) represents an important strength of the current design. To determine the presence of red clothing (e.g., shirts, trousers, jackets) or accessories (e.g., shoes, jewelry, purses), both authors coded every interview and date. Where any disagreement arose, a third person was consulted. We accepted a range of reddish hues (pink, red, and scarlet), thereby including prototypical, but excluding atypical, shades of
red, such as orange, maroon, or purple (Niuesta Kayser et al., 2016). Multicolored items were categorized as the color that was most prevalent (Tracy & Beall, 2014).

Results

Data were analyzed using McNemar’s test. Although similar to Pearson’s chi-squared test, this statistic incorporates the ‘repeated measures’ nature of the data (taking into account each participant’s clothing during the pre-date interview and the date itself). The crucial values for comparison are the discordant pairs, i.e., the number of participants who displayed red in the pre-date interview but not during the actual date, and vice versa. These represent the influence of context – going from the interview to the date itself, some participants chose to add red while others chose to remove it. (See Table S1 for all pairs.)
Table S1. A summary of the data for all participants, as well as subsamples based on sex and sexuality.

|                | ‘Yes then’ | ‘Yes then’ | ‘No then’ | ‘No then’ |
|----------------|------------|------------|-----------|-----------|
|                | n          | Yes’       | No’       | Yes’      | No’       |
| All participants| 546        | 11         | 33        | 70        | 432       |
| Women          | 279        | 7          | 19        | 48        | 205       |
| Women - heterosexual | 251         | 7          | 18        | 38        | 188       |
| Women- homosexual | 28          | 0          | 1         | 10        | 17        |
| Men            | 267        | 4          | 14        | 22        | 227       |
| Men - heterosexual | 219         | 4          | 11        | 17        | 187       |
| Men - homosexual | 48          | 0          | 3         | 5         | 40        |

*Note*. Columns are labelled ‘A then B’, where A defines whether red was displayed in the pre-date interview, and B defines whether red was displayed during the date itself.

When the discordant pairs are summed, low total values (less than 10-25, depending on the reference material) are considered small samples. In these cases, the asymptotic McNemar test may not be well-approximated by the chi-squared distribution, and the McNemar mid-\(p\) test is recommend for calculating \(p\)-values (Fagerland, Lydersen, & Laake, 2013). For this reason, we calculated both values in all cases.
The results are summarised in Table S2. We found that the proportion of women
displaying red during their dates was higher than during their pre-date interviews, while
men showed no significant difference across the two contexts. This pattern also applied
to both heterosexual and homosexual subgroups of each sex.

Table S2. A summary of the results for all participants, as well as subsamples based on
sex and sexuality.

| Group                  | $\chi^2$(1) | $p$   | mid-$p$ | OR   |
|------------------------|-------------|-------|---------|------|
| All participants       | 13.29       | < .001| < .001  | 2.12 |
| Women                  | 12.55       | < .001| < .001  | 2.53 |
| Women - heterosexual   | 7.14        | .008  | .008    | 2.11 |
| Women - homosexual     | 7.36        | .007  | .006    | 10.0 |
| Men                    | 1.78        | .182  | .188    | 1.57 |
| Men - heterosexual     | 1.29        | .257  | .265    | 1.55 |
| Men - homosexual       | 0.50        | .480  | .508    | 1.67 |

*Note.* Two-tailed values for both asymptotic McNemar tests and mid-$p$ tests are
reported. OR = odds ratio.

*Limitations*
Our preliminary analysis provided support for the hypothesis that red was displayed more often on first dates than during pre-date interviews, at least in women. However, there are several improvements to our approach that could be made. First, although we attempted to remain unbiased while coding the clothing in each context, there is always the possibility that our knowledge of the study’s hypothesis may have unconsciously affected our color perceptions, at least in situations where decisions were not clear-cut. Second, binary coding (presence/absence) of red clothing is a coarse measure and fails to incorporate the amount of red that participants may have worn, and whether this could have changed across contexts. Further, this method of coding equally weights small (red earrings) and large (red dress) items, whereas a measure of quantity addresses this distinction. Third, although using McNemar’s test is the appropriate analysis for repeated measures binary data, it fails to take into account concordant pairs (‘yes then yes’ and ‘no then no’ participants). As such, the behaviours of 81% of the participants were excluded from our analysis. Fourth, a consideration of additional colors could better inform as to whether red is unique, or if we see similar patterns with other clothing colors.

To address these issues, we recruited coders who were blind to the study’s hypothesis, and collected ratings of the amount of red (along with two additional colors) that was worn. This analysis is presented in the main article.
References

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