## Appendix

## A. Feature chart

Table 7. Phonological feature values of Turkish consonants (Erguvanlı Taylan, 2015).
Abbreviations: son: sonorant, cont: continuant, strid: strident, ant: anterior, cor: coronal, lab: labial, lat: lateral, and nas: nasal

|  | p | b | t | d | k | g | $\mathrm{t} \int$ | d 3 | f | v | s | z | $\int$ | 3 | f | h | m | n | l | r | j |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| son | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | + | + |
| voice | - | + | - | + | - | + | - | + | - | + | - | + | - | + | + | - | + | + | + | + | + |
| cont | - | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | - | - | + | + | + |
| strid | - | - | - | - | - | - | + | + | + | + | + | + | + | + | - | - | - | - | - | - | - |
| ant | + | + | + | + | - | - | - | - | + | + | + | + | - | - | - | - | + | + | - | + | - |
| cor | - | - | + | + | - | - | + | + | - | - | + | + | + | + | - | - | - | + | - | + | - |
| lab | + | + | - | - | - | - | - | - | + | + | - | - | - | - | - | - | + | - | - | - | - |
| high | - | - | - | - | + | + | + | + | - | - | - | - | + | + | + | - | - | - | + | - | + |
| back | - | - | - | - | + | + | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| lat | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - |
| las | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - |

## B. Variable exclusion

Aestheticising: Demircan (1987) proposed a factor called distributional balance or aestheticising. This factor states that speakers would choose a linking consonant that would balance the distribution of features or segments across the reduplicated form. This factor is related to the total identity and partial identity variables. An avoidance in identical features or segments to those of the base form will maintain a balance distribtuion of segments or features. In other words, given the number of all possible features/segments in the reduplicated form, the best linking consonant would minimise an excessive presence of any feature/segment. Under a different interpretation, Wedel (1999) suggests that there is a tendency to balance the word-level sonority, such that speakers would select a linking consonant to balance the overall sonority of the reduplicated form. In the current study we excluded this factor since our focus was on the identity avoidance effect and it has been partially captured by our existing identity variables.
Avoiding phrase formation: Demircan (1987) observed that speakers would avoid a reduplicated form that forms a meaningful phrase. For instance, Demircan suggests that the reason tatl 'sweet' would be reduplicated as tap-tatll and not tam-tatl is because the latter would result in a reduplicated form, i.e., tam 'full, exact', which is an existing lexical item in Turkish. For this reason, $-m$ is avoided as the LC in this particular instance. In the current study we excluded this factor since our focus was on the identity avoidance effect and this was left for future work.
Vowel height effect: Wedel (1999) proposed an articulatory markedness factor concerning the height of the first vowel in the base form and the linking consonant. The observation was that [s] and [m] are used when the first vowel is a high/mid vowel, while only [s] is used in the context of a low vowel. The articulatory explanation is that the lip closure required for [m] is further away from the jaw position required for a low vowel than for a high or mid vowel. While we have considered articulatory/perceptual markedness, our inclusion of transitional phonotactic probability covers only the linking consonant and the initial consonant. Following almost all previous studies (e.g., Yu, 1999), vowel features were excluded in the current study and were left for future work.

## C. Descriptive statistics

Table 8. Mean ( $\mu$ ) and standard deviation ( $\sigma$ ) of acceptability ratings by item groups (rows) and by linking consonants (columns)

| Item group | $[\mathrm{p}]$ |  | $[\mathrm{s}]$ |  | $[\mathrm{m}]$ |  | $[\mathrm{r}]$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mu$ | $\sigma$ | $\mu$ | $\sigma$ | $\mu$ | $\sigma$ | $\mu$ | $\sigma$ |
| $\mathrm{C}_{1} \mathrm{C}_{2}$ | 4.8238 | 2.5023 | 3.4090 | 2.4937 | 3.3466 | 2.4466 | 1.5124 | 1.2405 |
| $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ | 4.8386 | 2.4124 | 3.5218 | 2.5124 | 3.1855 | 2.3566 | 1.8382 | 1.7104 |
| $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ | 4.7639 | 2.4231 | 4.0388 | 2.4842 | 2.8835 | 2.1946 | 2.0113 | 1.8725 |

Table 9. Descriptive statistics of variables for each of the three item groups. T: true; F: false; $\mu$ : mean; $\sigma$ : standard deviation

|  | Variable | $\mathrm{C}_{1} \mathrm{C}_{2}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Response | $\mu: 3.273, \sigma: 2.526$ | $\mu: 3.346, \sigma: 2.508$ | $\mu: 3.424, \sigma: 2.491$ |
| $\mathrm{C}_{1}$ | Total identity | T: 398, F: 6526 | T: 541, F: 8903 | T: 216, F: 4732 |
|  | Sum featural identity | $\mu: 1.423, \sigma: 1.235$ | $\mu: 1.488, \sigma: 1.139$ | $\mu: 1.362, \sigma: 1.098$ |
|  | Sonorant identity | T: 318, F: 6606 | T: 576, F: 8868 | T: 418, F: 4530 |
|  | Voice identity | T: 1636, F: 5288 | T: 2338, F: 7106 | T: 1470, F: 3478 |
|  | Continuant identity | T: 796, F: 6128 | T: 1672, F: 7772 | T: 674, F: 4274 |
|  | Strident identity | T: 357, F: 6567 | T: 910, F: 8534 | T: 247, F: 4701 |
|  | Anterior identity | T: 4392, F: 2532 | T: 5156, F: 4288 | T: 2460, F: 2488 |
|  | Coronal identity | T: 1542, F: 5382 | T: 2554, F: 6890 | T: 974, F: 3974 |
|  | Labial identity | T: 732, F: 6192 | T: 842, F: 8602 | T: 494, F: 4454 |
|  | Nasal identity | T: 79, F: 6845 | - | - |
| $\mathrm{C}_{2}$ | Total identity | T: 563, F: 6361 | T: 631, F: 8813 | T: 572, F: 4376 |
|  | Sum featural identity | $\mu: 1.792, \sigma: 1.479$ | $\mu: 2.046, \sigma: 1.342$ | $\mu: 2.325, \sigma: 1.474$ |
|  | Sonorant identity | T: 1384, F: 5540 | T: 2440, F: 7004 | T: 1402, F: 3546 |
|  | Voice identity | T: 2284, F: 4640 | T: 3842, F: 5602 | T: 2154, F: 2794 |
|  | Continuant identity | T: 2192, F: 4732 | T: 3072, F: 6372 | T: 1792, F: 3156 |
|  | Strident identity | T: 452, F: 6472 | T: 616, F: 8828 | T: 288, F: 4660 |
|  | Anterior identity | T: 3736, F: 3188 | T: 5792, F: 3652 | T: 3760, F: 1188 |
|  | Coronal identity | T: 2044, F: 4880 | T: 2090, F: 7354 | T: 1558, F: 3390 |
|  | Labial identity | T: 238, F: 6686 | T: 1142, F: 8302 | T: 416, F: 4532 |
|  | Nasal identity | T: 79, F: 6845 | T: 329, F: 9115 | T: 134, F: 4814 |
| $\mathrm{C}_{3}$ | Total identity | - | T: 285, F: 9159 | T: 206, F: 4742 |
|  | Sum featural identity | - | $\mu: 1.444, \sigma: 1.470$ | $\mu: 1.668, \sigma: 1.420$ |
|  | Sonorant identity | - | T: 2064, F: 7380 | T: 1388, F: 3560 |
|  | Voice identity | - | T: 2572, F: 6872 | T: 1880, F: 3068 |
|  | Continuant identity | - | T: 2216, F: 7228 | T: 1242, F: 3706 |
|  | Strident identity | - | T: 488, F: 8956 | T: 175, F: 4773 |
|  | Anterior identity | - | T: 3652, F: 5792 | T: 1980, F: 2968 |
|  | Coronal identity | - | T: 1990, F: 7454 | T: 1090, F: 3858 |
|  | Labial identity | - | T: 320, F: 9124 | T: 250, F: 4698 |
|  | Nasal identity | - | T: 339, F: 9105 | T: 248, F: 4700 |
| $\mathrm{C}_{4}$ | Total identity | - | - | T: 166, F: 4782 |
|  | Sum featural identity | - | - | $\mu: 1.483, \sigma: 1.666$ |
|  | Sonorant identity | - | - | T: 1002, F: 3946 |
|  | Voice identity | - | - | T: 1334, F: 3614 |
|  | Continuant identity | - | - | T: 410, F: 4538 |
|  | Strident identity | - | - | T: 206, F: 4742 |
|  | Anterior identity | - | - | T: 2508, F: 2440 |
|  | Coronal identity | - | - | T: 1160, F: 3788 |
|  | Labial identity | - | - | T: 254, F: 4694 |
|  | Nasal identity | - | - | T: 462, F: 4486 |
|  | Transitional phonotactic probability | $\mu: 4.737, \sigma: 1.201$ | $\mu: 4.576, \sigma: 1.177$ | $\mu: 4.506, \sigma: 1.155$ |

## D. Pairwise association

Table 10 summarises the pairwise association results between the response variable and each of the predictors in Section 2.3 .1 for each of the three item groups. In the two-consonant group, the total identity variables and sum featural identity variables of $C_{1}$ and $C_{2}$ are all
significant and have negative coefficients. This suggests that they have an identity avoidance effect on the linking consonants as expected. Most individual featural identity variables are significant, except for the anterior identity of $\mathrm{C}_{1}$, the strident identity, the anterior identity, and the coronal identity of $\mathrm{C}_{2}$. Of the significant individual featural identity variables, only the voice identity of $\mathrm{C}_{1}(\hat{\beta}=0.4045)$ has a positive coefficient.

In the three-consonant group, the total identity variables and sum featural identity variables of $\mathrm{C}_{1}, \mathrm{C}_{2}$, and $\mathrm{C}_{3}$ are all significant and have negative coefficients. All individual featural identity variables are significant, except for the anterior identity of $\mathrm{C}_{2}$, the continuant identity, the anterior identity, and the coronal identity of $\mathrm{C}_{3}$. All of the significant individual featural identity variables have negative coefficients.

In the four-consonant group, the total identity variables and sum featural identity variables are all significant, except for the total identity of $\mathrm{C}_{4}$. Amongst the significant total identity variables and sum featural identity variables, only the sum featural identity of $\mathrm{C}_{3}$ ( $\hat{\beta}=0.1581$ ) has a positive coefficient. All but six individual featural identity variables were insignificant - the nasal identity of $\mathrm{C}_{2}$, the sonorant identity, and the anterior identity of $\mathrm{C}_{3}$, and the voice identity, the anterior identity, and the labial identity of $\mathrm{C}_{4}$. Of the significant individual featural identity variables, six have positive coefficients - the strident identity $(\hat{\beta}=0.4654)$ and the anterior identity of $C_{2}(\hat{\beta}=0.4449)$, the continuant identity ( $\hat{\beta}=01.2100$ ), the strident identity ( $\hat{\beta}=0.9814$ ), and the coronal identity of $\mathrm{C}_{3}(\hat{\beta}=$ $0.6786)$ and the sonorant identity of $\mathrm{C}_{4}(\hat{\beta}=0.2887)$.

The examination of these pairwise associations indicates that a vast majority of the identity variables (total, sum or individual) have the expected identity avoidance effect. The unexpected effect of identity preference (the opposite of identity avoidance) is most systematic in $\mathrm{C}_{3}$ in the four-consonant group since it not only has the highest number of variables with a positive coefficient, but also their joined effect was enough to drive the direction of the sum featural identity variable ( $\hat{\beta}=0.1581$ ).

Table 10. Pairwise association between the response variable and the predictors for each of the three item groups. $\beta$ : coefficient; $\Delta \mathrm{AIC}$ : AIC $_{\text {subset }}-$ AIC $_{\text {superset }}$; statistical significance is denoted by $*$ if $\Delta$ AIC $>2$; significant positive coefficients of identity variables are in bold.

|  |  | $\mathrm{C}_{1} \mathrm{C}_{2}$ |  | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ |  | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Variable | $\hat{\beta}$ | $\triangle \mathrm{AIC}$ | $\hat{\beta}$ | $\triangle \mathrm{AIC}$ | $\hat{\beta}$ | $\triangle \mathrm{AIC}$ |
| $\mathrm{C}_{1}$ | Total identity | -2.7295 | 484.48* | -3.3533 | 887.93* | -3.5667 | 455.92* |
|  | Sum featural identity | -0.7498 | 328.65* | -0.8825 | 694.31* | -0.8825 | 344.53* |
|  | Sonorant identity | -0.8756 | 27.25* | -0.3972 | 8.46* | -0.9690 | 37.38* |
|  | Voice identity | 0.4045 | 16.18* | -0.7797 | 82.03* | -0.6439 | 27.57* |
|  | Continuant identity | -1.8726 | 264.66* | -1.8134 | 404.03* | -1.0103 | 60.91* |
|  | Strident identity | -2.8421 | 406.08* | -2.3863 | 533.07* | -1.8935 | 121.56* |
|  | Anterior identity | -0.0581 | -1.80 | -0.2134 | 4.6793* | -0.1465 | -1.1464 |
|  | Coronal identity | -1.3305 | 171.48* | -0.7432 | 75.96* | -1.3190 | 119.26* |
|  | Labial identity | -1.6677 | 202.46* | -2.2203 | 415.52* | -2.6013 | 314.25* |
|  | Nasal identity | -2.2434 | 65.15* | - | - | - | - |
| $\mathrm{C}_{2}$ | Total identity | -0.8473 | 58.78* | -0.9739 | 93.90* | -0.2840 | 3.46* |
|  | Sum featural identity | -0.9713 | 338.90* | -0.9515 | 577.13* | -0.4508 | 45.29* |
|  | Sonorant identity | -1.6623 | 259.66* | -0.3711 | 19.25* | -0.5162 | 17.98* |
|  | Voice identity | -1.7804 | 289.21* | -1.0600 | 94.13* | -1.9901 | 125.83* |
|  | Continuant identity | -0.8028 | 62.24* | -1.0975 | 160.63* | -0.4688 | 11.29* |
|  | Strident identity | -0.1831 | -0.05 | -1.5609 | 184.68* | 0.4654 | 6.18* |
|  | Anterior identity | 0.0626 | -1.75 | 0.0160 | -1.97 | 0.4449 | 3.62* |
|  | Coronal identity | -0.1313 | -0.14 | -1.3716 | 252.17* | -0.2486 | 2.36* |
|  | Labial identity | -3.4130 | 304.18* | -1.8492 | 318.23* | -1.0904 | 44.91* |
|  | Nasal identity | -1.8311 | 42.45* | -0.9771 | 42.34* | 0.2067 | -1.12 |
| $\mathrm{C}_{3}$ | Total identity | - | - | -0.9235 | 35.30* | -0.6774 | 13.14* |
|  | Sum featural identity | - | - | -0.3898 | 77.65* | 0.1581 | 7.13* |
|  | Sonorant identity | - | - | -0.8435 | 92.46* | 0.0436 | -1.86 |
|  | Voice identity | - | - | -0.5918 | 46.94* | -0.6155 | 19.26* |
|  | Continuant identity | - | - | 0.1541 | 1.63 | 1.2100 | 107.80* |
|  | Strident identity | - | - | -0.3390 | 5.64* | 0.9814 | 22.67* |
|  | Anterior identity | - | - | 0.0979 | 0.70 | -0.1583 | -1.24 |
|  | Coronal identity | - | - | -0.1611 | 1.84 | 0.6786 | 33.35* |
|  | Labial identity | - | - | -1.5442 | 90.21* | -0.7171 | 11.98* |
|  | Nasal identity | - | - | -1.1722 | 65.84* | -0.8816 | 24.12* |
| C4 | Total identity | - | - | - | - | -0.1119 | -1.67 |
|  | Sum featural identity | - | - | - | - | -0.3054 | 31.43* |
|  | Sonorant identity | - | - | - | - | 0.2887 | 4.03* |
|  | Voice identity | - | - | - | - | -0.0537 | -1.78 |
|  | Continuant identity | - | - | - | - | -1.1192 | 52.52* |
|  | Strident identity | - | - | - | - | -1.6822 | 81.85* |
|  | Anterior identity | - | - | - | - | -0.2237 | -0.02 |
|  | Coronal identity | - | - | - | - | -0.8604 | 54.17* |
|  | Labial identity | - | - | - | - | -0.2263 | -0.57 |
|  | Nasal identity | - | - | - | - | -0.3971 | 5.83* |
|  | Transitional phonotactic probability | 0.2174 | 28.54* | -0.0110 | -1.88 | 0.0292 | -1.62 |

## E. Random effects summaries

Table 11. Random effects summary for Study I (two-consonant base forms).

|  | Standard Deviation |
| :--- | ---: |
| Participant (Intercept) | 0.5994 |
| Base form (Intercept) | 0.8775 |
| Word shape (Intercept) | 0.9995 |
| Linking consonant (Intercept) | 0.2457 |

Table 12. Random effects summary for Study I (three-consonant base forms).

|  | Standard Deviation |
| :--- | ---: |
| Participant (Intercept) | 0.5859 |
| Base form (Intercept) | 0.7890 |
| Word shape (Intercept) | 0 |
| Linking consonant (Intercept) | 0.8209 |

Table 13. Random effects summary for Study I (four-consonant base forms).

|  | Standard Deviation |
| :--- | ---: |
| Participant (Intercept) | 0.6606 |
| Base form (Intercept) | 1.1707 |
| Word shape (Intercept) | 0.2133 |
| Linking consonant (Intercept) | 1.5917 |

F. Model comparison for feature specificity

Table 14. Model comparison for feature specificity. $\Delta \mathrm{AIC}:$ AIC $_{\text {subset }}-$ AIC $_{\text {superset }}$

| Drop from total and individual | $\mathrm{C}_{1} \mathrm{C}_{2}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ |
| :---: | :---: | :---: | :---: |
| Total identity | 87.07 | 291.94 | 249.08 |
| Individual featural identity | 1016.18 | 1791.52 | 1094.96 |
| Drop from total and sum | $\mathrm{C}_{1} \mathrm{C}_{2}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ |
| Total identity | 150.88 | 376.39 | 339.42 |
| Sum featural identity | 461.79 | 1028.13 | 473.5 |

Table 15. Model comparison for feature specificity: AIC

|  | $\mathrm{C}_{1} \mathrm{C}_{2}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3}$ | $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{C}_{3} \mathrm{C}_{4}$ |
| :---: | :---: | :---: | :---: |
| Total and individual featural identity | $\mathbf{2 8 8 5 3 . 6 3}$ | $\mathbf{3 9 1 3 1 . 3 2}$ | $\mathbf{2 0 2 9 8 . 7 8}$ |
| Total and Sum featural identity | 29408.02 | 39894.71 | 20920.24 |
| Individual featural identity | 28940.70 | 39423.26 | 20547.86 |
| Sum featural identity | 29558.90 | 40271.10 | 21259.66 |
| Total identity | 29869.81 | 40922.84 | 21393.74 |

## G. Preference hierarchy

Demircan (1987) observed that the majority of the consonant-initial forms reduplicate with [p]. On the other hand, [m] and [s] are similarly frequent, around half of [p]. In Demircan's list, [p] was preferred for 48 , whereas [s] for 29 , and [m] for 24 items. There are nearminimal pairs such as [basbajat] 'very stale' and [bembejaz] 'very white' that suggest that the two LCs are not exclusive of each other. [r] was the rarest LC, with only six items in Demircan's list.

Yu (1999) compiled an extended corpus of 152 attested emphatic adjectives: 123 forms were taken from Hatiboğlu (1973); 121 of the 152 items were consonant initial. It was found that $46 \%$ of the forms reduplicate with [p], $29 \%$ with [s], $18 \%$ with [m], and $7 \%$ with [r]. This distribution supports the preference hierarchy. Similarly, Taneri (1990) and Kelepir (2000) reached the same conclusion regarding the preference hierarchy [p] > [s] $>[\mathrm{m}]>[\mathrm{r}]$.

Given that the previous observations were almost exclusively based on forced choice responses (but see Demir, 2018 for open-set response task, and Yu, 1998 for a small acceptability judgement task), the preference hierarchy was examined using our acceptability ratings from a larger set of items. Our data confirmed the preference hierarchy from Yu (1999). Table 8 shows that all three item groups have the same preference hierarchy - [p] $>[\mathrm{s}]>[\mathrm{m}]>[\mathrm{r}]$; however, the mean difference between [s] (3.4090) and [m] (3.3466) is small for the two-consonant group.

To test if the preference hierarchy still holds after factoring in the fixed and random effects, we examined also the random intercepts of the linking consonants of the three models (Tables 11, 12, and 13). The random intercepts of the two-consonant model suggest the same ranking as the raw ratings $-[\mathrm{p}](0.0054)>[\mathrm{s}](-0.1854)>[\mathrm{m}](-0.5839)>[\mathrm{r}]$ (-2.1823). However, the random intercepts of the three-consonant model shows a different ranking $-[\mathrm{s}](-1.9795)>[\mathrm{m}](-2.2302)>[\mathrm{p}](-2.4501)>[\mathrm{r}](-3.8005)$. The random intercepts of the four-consonant model again shows a different ranking - [s] (-4.3475) $>$ [ p$]$ $(-4.5443)>[\mathrm{m}](-5.0474)>[r](-7.7329)$. While these rankings do not entirely match the preference hierarchy based on raw ratings, there remains a few similarities: In all three item groups, [p] is preferred over [r], [s] is preferred over [m], and [r] is the least preferred linking consonant. This dispreference for [r] even when we factored in the identity variables supports Wedel (1999, 2000)'s conclusion that the reduplicant with [r] might be lexicalised.

## H. By-item acceptability rating

To assess the inter-rater reliability of the ratings, we computed the split-half reliability estimates. The split-half reliability is the split-half correlation, corrected with the SpearmanBrown formula. For each group of participants who completed the same list of words, participants were randomly divided into two equally-sized subgroups. To obtain a stable estimate of the split-half reliability, the splithalf.r function from the multicon library was used
to compute the mean split-half reliability with 1,000 random splits. Overall, the inter-rater reliability were high with the mean reliability of .984 averaged across the five lists (ranging from .980 to .988 ). This indicates that there is a high degree of agreement among the participants and that our ratings are reliable.

Ratings were first standardised for each participant to remove by-participant variations. Means and standard deviations of the standardised ratings were then computed for the four linking consonants for each word. The dominant linking consonant (LC) is shown in the second column, following by the means and standard deviations of the standardised ratings for [p], [m], [s], and [r]. The words in bold ( 24 words) were expected to be more variable concerning the expected linking consonants based on a meta-analysis of previous studies (not reported here) as well as the linguistic intuition of one of the authors who is a native Turkish speaker. Contrary to expectations, only a minority (six) of these 24 words were particularly variable with two linking consonants with a mean difference in standardised acceptability rating of smaller than 0.5 .

|  |  | Mean |  |  |  | Standard deviation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Word | LC | [p] | [m] | [s] | [r] | [p] | [m] | [s] | [r] |
| başka | m | -0.5272 | 1.6196 | -0.4173 | -0.8359 | 0.6771 | 0.3509 | 0.5384 | 0.2281 |
| bayağ1 | s | -0.6010 | -0.6745 | 1.2934 | -0.8319 | 0.6144 | 0.5347 | 0.5357 | 0.4621 |
| bayat | s | -0.465 | 0.1436 | 1.0538 | -0.8986 | 0.7579 | 0.8043 | 0.6283 | 0.3457 |
| bedava | s | -0.6607 | -0.3800 | 0.5600 | -0.9489 | 0.5248 | 0.7004 | 0.7927 | 0.2416 |
| bej | m | -0.2402 | 0.4016 | -0.0804 | -0.8608 | 0.8686 | 0.9356 | 0.8742 | 0.3428 |
| belli | s | -0.6313 | -0.5485 | 1.5664 | -0.7319 | 0.4811 | 0.3847 | 0.3420 | 0.2823 |
| rabe | s | -0.4466 | -0.5378 | 0.4468 | -0.6615 | 0.6261 | 0.5198 | 0.8887 | 0.4610 |
| errak | s | -0.3011 | 0.1880 | 1.0162 | -0.6831 | 0.6475 | 0.8784 | 0.7776 | 0.4612 |
| ter | s | -0.6782 | -0.0740 | 1.1602 | -0.6813 | 0.5944 | 0.9464 | 0.7204 | 0.5656 |
| beyaz | m | -0.5071 | 1.3456 | 0.0340 | -0.8907 | 0.5331 | 0.4213 | 0.6924 | 0.2569 |
| bok | m | -0.7463 | 1.2729 | 0.0025 | -0.8361 | 0.5028 | 0.4598 | 0.7243 | 0.4183 |
| bol | s | -0.7065 | 0.0229 | 0.9685 | -0.8326 | 0.5494 | 0.8535 | 0.6131 | 0.3949 |
| boş | m | -0.2967 | 1.4897 | -0.3665 | -0.8080 | 0.8051 | 0.4472 | 0.7493 | 0.3446 |
| boz | m | -0.1174 | 0.3516 | -0.4442 | -0.7480 | 0.8554 | 1.0456 | 0.5907 | 0.5002 |
| bulanı | s | -0.4127 | -0.3009 | 0.9995 | -0.8000 | 0.7906 | 0.7058 | 0.6901 | 0.4871 |
| buruşu | s | -0.1380 | 0.6910 | 0.7139 | -0.7562 | 0.8461 | 0.9423 | 0.7713 | 0.4811 |
| bütün | s | -0.5542 | -0.3716 | 1.5462 | -0.7274 | 0.4902 | 0.6450 | 0.3382 | 0.3904 |
| büyük | s | -0.4886 | 0.0006 | 1.2179 | -0.9242 | 0.5782 | 0.7911 | 0.5945 | 0.2743 |
| çabuk | r | 0.0352 | -0.7324 | 0.0961 | 1.1485 | 0.8926 | 0.3973 | 0.7523 | 0.6907 |
| nlı | p | . 4464 | -0.5808 | 0.1484 | -0.8038 | 0.2958 | 0.4721 | 0.8883 | 0.3856 |
| avlak | s | . 3044 | -0.5002 | 0.7277 | -0.6720 | 0.8434 | 0.6169 | 0.8701 | 0.5505 |
| çevik | p | 0.6888 | -0.5385 | -0.0884 | -0.0955 | 0.8031 | 0.6598 | 0.8318 | 0.8329 |
| çevre | p | 1.0130 | -0.4751 | -0.0254 | -0.6744 | 0.6906 | 0.6471 | 0.7956 | 0.6052 |
| çĭg | p | 1.0651 | -0.1656 | -0.3477 | -0.6815 | 0.6465 | 0.8452 | 0.7296 | 0.4188 |
| çirkin | p | 1.2560 | . 0527 | -0.2878 | -0.8237 | 0.5273 | 0.8133 | 0.8329 | 0.3506 |
| dil | s | 0.4197 | -0.4116 | 1.0832 | -0.4875 | 0.8917 | 0.7060 | 0.7428 | 0.5949 |
| cıliz | p | 1.2310 | 0.0086 | 0.2155 | -0.6714 | 0.4854 | 0.8190 | 0.8491 | 0.4142 |
| clik | p | 0.3112 | -0.4685 | -0.1288 | -0.6153 | 0.8095 | 0.6463 | 0.8739 | 0.5271 |
| çıplak | r | -0.2002 | -0.3860 | 0.3361 | 1.1594 | 0.9205 | 0.6213 | 0.8445 | 0.7756 |
| vik | p | 0.8665 | -0.0122 | 0.6507 | -0.4215 | 0.8172 | 0.8147 | 0.9209 | 0.7738 |
| çürük | p | 1.2022 | 0.0527 | 0.1902 | -0.8069 | 0.5198 | 0.8242 | 0.8003 | 0.4266 |
| dağınık | p | 1.3091 | -0.5433 | 0.3923 | -0.7048 | 0.4777 | 0.5702 | 0.8929 | 0.4841 |
| dar | p | 1.5300 | -0.1174 | 0.4913 | -0.7610 | 0.3165 | 0.8252 | 0.9321 | 0.4001 |


| ak | p | 0.5757 | 0.3225 | -0.3013 | -0.6286 | 1.0418 | 0.9839 | 0.7352 | 0.5018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rin | p | 1.2945 | -0.5726 | -0.0784 | -0.8123 | 0.4666 | 0.5872 | 0.7220 | 0.4719 |
| dik | m | 0.3626 | 1.3428 | -0.3305 | -0.7847 | 0.8213 | 0.4124 | 0.7288 | 0.4241 |
| nç | p | 0.9836 | 0.3556 | -0.3136 | -0.8170 | 0.8117 | 0.9059 | 0.7108 | 0.3960 |
| diri | p | 1.4334 | -0.1021 | -0.0163 | -0.8585 | 0.3165 | 0.7112 | 0.7368 | 0.4235 |
| dızlak | m | 0.6966 | 1.3603 | -0.2669 | -0.5695 | 0.7603 | 0.4734 | 0.7890 | 0.5697 |
| doğru | s | 1.0487 | -0.5547 | 1.4758 | -0.7666 | 0.6690 | 0.5418 | 0.5317 | 0.3085 |
| dolu | p | 1.4137 | -0.5768 | 0.5571 | -0.9340 | 0.4599 | 0.5489 | 0.8254 | 0.2045 |
| durgun | p | 1.3010 | -0.2371 | 0.2990 | -0.8838 | 0.4297 | 0.6929 | 0.7683 | 0.2943 |
| duru | p | 1.3569 | -0.3786 | 0.2959 | -0.8380 | 0.4222 | 0.4861 | 0.7237 | 0.3416 |
| düz | m | 0.7569 | 1.5026 | -0.6168 | -0.8014 | 0.8346 | 0.3918 | 0.4863 | 0.2233 |
| düzgï | p | 1.3146 | 0.7020 | -0.3383 | -0.8274 | 0.4609 | 0.7643 | 0.6838 | 0.4272 |
| gece | p | 0.5592 | -0.6303 | -0.2122 | -0.7771 | 0.9789 | 0.4135 | 0.8081 | 0.2988 |
| genç | p | 1.2771 | -0.3042 | -0.3205 | -0.9137 | 0.5022 | 0.6869 | 0.7372 | 0.3266 |
| geniss | p | 1.3126 | 0.0137 | 0.1912 | -0.6325 | 0.4397 | 0.8243 | 0.9420 | 0.6277 |
| gergin | p | 1.2793 | -0.5253 | 0.4275 | -0.7245 | 0.5818 | 0.6338 | 0.9363 | 0.3765 |
| gevşek | p | 1.0648 | -0.3506 | 0.4326 | -0.7233 | 0.6232 | 0.7677 | 0.8272 | 0.5028 |
| gök | p | 0.1522 | -0.1676 | -0.1763 | -0.7611 | 1.0003 | 0.9705 | 0.8941 | 0.6020 |
| güdük | p | 0.7903 | -0.1806 | 0.2834 | -0.8007 | 0.7356 | 0.7660 | 0.9418 | 0.4695 |
| gündüz | p | 0.8907 | -0.3302 | -0.1542 | -0.7714 | 0.5884 | 0.6578 | 0.7118 | 0.5359 |
| gür | p | 1.0520 | 0.0114 | -0.1255 | -0.4805 | 0.5389 | 0.7853 | 0.7678 | 0.7025 |
| güzel | p | 1.1055 | -0.4194 | -0.0485 | -0.8884 | 0.5622 | 0.7192 | 0.7415 | 0.3807 |
| kalın | p | 1.5471 | -0.4334 | 0.7206 | -0.7137 | 0.3194 | 0.6333 | 0.8293 | 0.4002 |
| kar | p | 1.3319 | -0.4841 | -0.1315 | -0.8095 | 0.4611 | 0.6091 | 0.7146 | 0.6020 |
| katı | s | 0.7612 | -0.4464 | 1.2112 | -0.6288 | 0.7931 | 0.5947 | 0.5680 | 0.6422 |
| ke | p | 0.7799 | -0.1881 | -0.0547 | -0.8561 | 0.7486 | 0.7986 | 0.8262 | 0.3548 |
| kirli | p | 1.3843 | -0.5026 | -0.0559 | -0.9153 | 0.3125 | 0.5447 | 0.7541 | 0.2866 |
| kırmı | p | 1.4369 | -0.2852 | -0.3294 | -0.8618 | 0.2934 | 0.6113 | 0.6573 | 0.3834 |
| kısa | p | 1.4423 | -0.0877 | -0.6604 | -0.7204 | 0.5973 | 0.7751 | 0.5572 | 0.3930 |
| kıvrak | s | 0.4133 | -0.4943 | 1.4245 | -0.8519 | 0.9090 | 0.5421 | 0.5067 | 0.2927 |
| kızıl | p | 1.5234 | -0.0881 | -0.4858 | -0.7440 | 0.2965 | 0.7017 | 0.5689 | 0.2016 |
| koca | s | 0.2832 | -0.6989 | 1.3099 | -0.7407 | 0.8830 | 0.4729 | 0.3979 | 0.5213 |
| kocama | s | 0.4104 | -0.6907 | 1.3737 | -0.6524 | 0.7057 | 0.3875 | 0.3114 | 0.5568 |
| kolay | p | 1.0792 | -0.5073 | 0.7770 | -0.7694 | 0.7753 | 0.5156 | 0.9664 | 0.3609 |
| kö | p | 0.8624 | -0.0364 | 0.3306 | -0.9499 | 0.6911 | 0.7667 | 0.7409 | 0.3276 |
| kötü | p | 0.8013 | -0.3623 | 0.3379 | -0.5327 | 0.8109 | 0.5784 | 0.8854 | 0.5613 |
| kötürüm | s | 0.3724 | -0.4778 | 0.4133 | -0.3860 | 0.8482 | 0.5534 | 0.8766 | 0.7614 |
| koyu | p | 1.1976 | -0.4026 | 0.5497 | -0.8192 | 0.5864 | 0.6049 | 0.7079 | 0.3706 |
| küçük | p | 0.8366 | -0.2569 | 0.4990 | -0.8576 | 0.7812 | 0.8444 | 0.8547 | 0.3512 |
| kuru | p | 1.4436 | -0.3244 | -0.0584 | -0.8125 | 0.2991 | 0.6007 | 0.6986 | 0.4560 |
| mavi | s | -0.3452 | -0.6842 | 1.6016 | -0.8121 | 0.6445 | 0.4656 | 0.3007 | 0.2896 |
| mor | s | -0.7986 | -0.9545 | 1.4349 | -0.7711 | 0.4128 | 0.3624 | 0.2955 | 0.5442 |
| parça | s | -0.7969 | -0.0176 | 0.0679 | -0.7554 | 0.4433 | 0.8526 | 0.9114 | 0.4780 |
| parlak | s | -0.7859 | -0.4749 | 1.3516 | -0.6788 | 0.4842 | 0.6454 | 0.3333 | 0.5260 |
| pembe | s | -0.7016 | -0.6653 | 1.6069 | -0.7353 | 0.2996 | 0.4203 | 0.2826 | 0.2123 |
| perişan | r | -0.6947 | -0.3595 | 0.5774 | 1.3471 | 0.5406 | 0.7047 | 0.7662 | 0.3013 |
| pis | m | -0.6734 | 0.7724 | -0.5241 | -0.5604 | 0.6165 | 0.8927 | 0.6985 | 0.5314 |
| sade | p | 1.4246 | -0.3334 | -0.6532 | -0.8344 | 0.5368 | 0.7837 | 0.4449 | 0.2714 |
| sağ | p | 0.9654 | -0.2231 | -0.7780 | -0.7672 | 0.7708 | 0.8179 | 0.2907 | 0.2747 |
| sağlam | p | 1.0320 | -0.4185 | -0.8489 | -0.7116 | 0.6549 | 0.6581 | 0.4734 | 0.5546 |


| k | p | 1.1209 | 0.0853 | -0.9345 | -0.6264 | 0.6390 | 0.8184 | 0.2467 | 0.7473 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sar1 | p | 1.4464 | -0.2508 | -0.8570 | -0.8627 | 0.2958 | 0.5570 | 0.3697 | 0.3092 |
| sebil | r | 0.3619 | -0.3128 | -0.6422 | 0.6168 | 0.8268 | 0.6449 | 0.3670 | 0.9527 |
| fil | r | -0.0632 | -0.3815 | -0.9204 | 1.2958 | 0.7996 | 0.6654 | 0.4321 | 0.5915 |
| rin | p | 1.2388 | -0.2668 | -0.8685 | -0.6031 | 0.3946 | 0.6597 | 0.3173 | 0.6081 |
| rt | p | 1.0825 | 0.9830 | -0.9223 | -0.8989 | 0.7385 | 0.7518 | 0.2916 | 0.4260 |
| silik | p | 1.0689 | 0.2056 | -0.9131 | -0.9311 | 0.6468 | 0.9107 | 0.3884 | 0.3320 |
| in | p | 1.2555 | -0.0839 | -0.8588 | -0.8077 | 0.4845 | 0.7613 | 0.5426 | 0.3961 |
| sivri | p | 1.5424 | -0.0103 | -0.7782 | -0.7256 | 0.4839 | 0.8263 | 0.4123 | 0.3273 |
| siyah | m | 0.3335 | 1.6189 | -0.8115 | -0.8330 | 0.8983 | 0.3422 | 0.1677 | 0.1931 |
| sicak | m | 0.5997 | 1.1739 | -0.8832 | -0.8219 | 0.7545 | 0.6959 | 0.4587 | 0.4464 |
| sığ | p | 1.1698 | 0.2767 | -0.7634 | -0.7859 | 0.6081 | 0.9664 | 0.2901 | 0.3149 |
| sık | m | 0.1017 | 0.6797 | -0.9448 | -0.8777 | 0.9529 | 0.8224 | 0.3276 | 0.2956 |
| sıkı | m | 0.7686 | 1.3796 | -0.8506 | -0.6754 | 0.7837 | 0.4025 | 0.3477 | 0.4949 |
| kın | p | 0.5850 | -0.0129 | -0.9338 | -0.9061 | 0.9756 | 0.8583 | 0.2662 | 0.3387 |
| klam | r | -0.2542 | -0.3870 | -0.7664 | 0.7790 | 0.7145 | 0.6115 | 0.3380 | 0.9542 |
| sıska | p | 0.8703 | 0.1227 | -0.6780 | -0.6583 | 0.7658 | 0.8615 | 0.3467 | 0.4764 |
| soğuk | p | 1.3435 | 0.2466 | -0.8328 | -0.7988 | 0.5328 | 0.8582 | 0.2088 | 0.2108 |
| lu | p | 1.3186 | -0.1221 | -0.9461 | -0.8789 | 0.3927 | 0.9096 | 0.2662 | 0.3318 |
| takır | m | -0.2366 | 1.4143 | 0.0347 | -0.7481 | 0.6656 | 0.3356 | 0.7942 | 0.4582 |
| tam | s | 0.0430 | -0.5618 | 0.6996 | -0.7265 | 0.8580 | 0.6241 | 0.8670 | 0.3717 |
| ma | s | 0.3765 | -0.3826 | 1.4137 | -0.6222 | 0.7811 | 0.7703 | 0.3252 | 0.6068 |
| tatlı | p | 1.0233 | -0.2614 | 0.0314 | -0.7454 | 0.7978 | 0.7184 | 0.7189 | 0.2723 |
| taze | p | 1.3494 | -0.0831 | -0.0577 | -0.8435 | 0.3750 | 0.6954 | 0.7255 | 0.3690 |
| iz | r | -0.1526 | -0.5765 | -0.5371 | 1.4664 | 0.7748 | 0.6744 | 0.5523 | 0.3765 |
| tok | P | 0.3258 | 0.2060 | 0.2081 | -0.6886 | 0.9626 | 0.9087 | 0.8946 | 0.5140 |
| top | s | -0.4289 | -0.6914 | 0.6909 | 0.3371 | 0.8491 | 0.4713 | 0.8417 | 1.1187 |
| topaç | s | -0.0306 | -0.4422 | 0.4515 | 0.1675 | 0.9311 | 0.5290 | 0.8542 | 0.9788 |
| runc | p | 1.3806 | -0.2706 | 0.1884 | -0.7014 | 0.5625 | 0.6650 | 0.8303 | 0.2842 |
| zulu | p | 1.2364 | -0.2069 | -0.5810 | -0.7145 | 0.6036 | 0.6001 | 0.4502 | 0.4739 |
| 1 n | p | 1.1253 | -0.4153 | 0.0338 | -0.8208 | 0.6390 | 0.7589 | 0.8811 | 0.3551 |
| alnız | p | 1.3325 | -0.3624 | -0.4896 | -0.7957 | 0.4028 | 0.6402 | 0.5621 | 0.3361 |
| yanlış | p | 1.2304 | -0.4160 | -0.2698 | -0.7577 | 0.5236 | 0.5191 | 0.6731 | 0.2573 |
| yarı | p | 0.4743 | -0.3967 | 0.1801 | -0.8025 | 0.8729 | 0.7499 | 0.8266 | 0.4306 |
| yaş | m | 0.4778 | 0.5367 | -0.5728 | -0.7907 | 0.8819 | 1.0068 | 0.5589 | 0.2058 |
| assı | p | 0.8995 | 0.5195 | -0.4644 | -0.7472 | 0.8100 | 0.9900 | 0.5962 | 0.3427 |
| yavaş | P | 1.0645 | -0.3271 | 0.2539 | -0.9051 | 0.5633 | 0.6488 | 0.8021 | 0.3266 |
| yeni | p | 1.4351 | -0.6550 | 0.0948 | -0.9329 | 0.3034 | 0.5030 | 0.7832 | 0.2950 |
| yeşil | m | 0.3812 | 1.6140 | -0.4133 | -0.7888 | 0.9417 | 0.4783 | 0.5570 | 0.1856 |
| yırtı | p | 0.9290 | -0.3057 | 0.4909 | -0.9081 | 0.6908 | 0.7108 | 0.8667 | 0.2798 |
| yoğun | p | 1.1671 | -0.4801 | 0.4598 | -0.7123 | 0.6378 | 0.5484 | 0.9441 | 0.3963 |
| yorgun | p | 1.0091 | -0.6846 | 0.6618 | -0.9034 | 0.6784 | 0.4155 | 0.7348 | 0.2768 |
| yumru | s | 0.5817 | -0.2130 | 1.0221 | -0.7591 | 0.7622 | 0.6680 | 0.6875 | 0.4734 |
| yumuşak | s | 0.5435 | 0.3196 | 0.9072 | -0.7306 | 0.7207 | 0.8395 | 0.6894 | 0.5479 |
| zayif | p | 1.4014 | -0.4054 | -0.7933 | -0.7710 | 0.3049 | 0.5109 | 0.4504 | 0.5047 |
| or | p | 1.3629 | -0.4034 | -0.6942 | -0.6904 | 0.5771 | 0.6219 | 0.4244 | 0.461 |

