

## Errata of Takayam et al. 2014.

Takayama, Y., Tomiura, Y., Ishita, E., Oard, D. W., Fleischmann, K. R. and Cheng, A-S. 2014. A Word-Scale Probabilistic Latent Variable Model for Detecting Human Values, *Proceedings of the 23rd ACM International Conference on Information and Knowledge Management (ACM CIKM 2014)*, pp. 1489-1498.

Numerical values in Tables 2, 3, 4, and 5 are corrected as follows.

Table 2. Inter-annotator agreement and prevalence.

**Original** (numbers for original 9,890 sentences.)

| Value               | original |        |             |
|---------------------|----------|--------|-------------|
|                     | $\kappa$ | # docs | # sentences |
| <i>wealth</i>       | 0.629    | 102    | 3,563       |
| <i>social order</i> | 0.683    | 102    | 2,859       |
| <i>justice</i>      | 0.420    | 99     | 2,641       |
| <i>freedom</i>      | 0.620    | 101    | 2,431       |
| <i>innovation</i>   | 0.715    | 94     | 1,147       |
| <i>honor</i>        | 0.430    | 80     | 352         |

**Corrected** (numbers for 8,860 sentences used in experiments.)

| Value               |          |        |             |
|---------------------|----------|--------|-------------|
|                     | $\kappa$ | # docs | # sentences |
| <i>wealth</i>       | 0.621    | 102    | 3,156       |
| <i>social order</i> | 0.688    | 102    | 2,503       |
| <i>justice</i>      | 0.423    | 99     | 2,267       |
| <i>freedom</i>      | 0.628    | 101    | 2,155       |
| <i>innovation</i>   | 0.714    | 94     | 1,018       |
| <i>honor</i>        | 0.437    | 80     | 317         |

For Tables 3 to 5, cells with double rows in the following tables are corrected. The numbers of the upper rows in those cells are corrected ones, and numbers of the lower rows are original ones.

Table 3. Classifier effectiveness (micro-averaged without *honor*, 3×10-fold sentence cross-validation).

| Method                          | Precision                          | Recall                             | F <sub>1</sub> |
|---------------------------------|------------------------------------|------------------------------------|----------------|
| SVM(w)                          | 0.7924                             | 0.6802                             | 0.7320         |
| SVM(w, b)                       | 0.7784                             | 0.6988                             | 0.7365         |
| sLDA                            | 0.7016                             | 0.4821                             | 0.5715         |
| <i>LVM</i> (y <sub>n</sub> = 0) | 0.7916                             | 0.6931                             | 0.7391         |
| <i>LVM</i>                      | <b>0.8001</b><br><del>0.8000</del> | <b>0.7133</b><br><del>0.7132</del> | <b>0.7542</b>  |

Table 4. Classifier effectiveness (micro-averaged without *honor*, 102-document cross-validation).

| Method                          | Precision                          | Recall                             | F <sub>1</sub>                     |
|---------------------------------|------------------------------------|------------------------------------|------------------------------------|
| SVM(w)                          | 0.7784                             | 0.6638                             | 0.7166                             |
| SVM(w, b)                       | 0.7535                             | 0.6809                             | 0.7154                             |
| sLDA                            | 0.6875                             | 0.4591                             | 0.5506                             |
| <i>LVM</i> (y <sub>n</sub> = 0) | <b>0.7910</b><br><del>0.7930</del> | <b>0.6785</b><br><del>0.6869</del> | <b>0.7305</b><br><del>0.7361</del> |
| <i>LVM</i>                      | <b>0.7866</b><br><del>0.7885</del> | <b>0.6902</b><br><del>0.6900</del> | <b>0.7353</b><br><del>0.7365</del> |

Table 5. Per-category effectiveness (102-document cross-validation, micro-averaged).

| Value               | Precision     |                                    | Recall        |                                    | F <sub>1</sub> |                                    |
|---------------------|---------------|------------------------------------|---------------|------------------------------------|----------------|------------------------------------|
|                     | SVM(w)        | <i>LVM</i>                         | SVM(w)        | <i>LVM</i>                         | SVM(w)         | <i>LVM</i>                         |
| <i>wealth</i>       | 0.7859        | <b>0.7908</b><br><del>0.7934</del> | 0.6977        | <b>0.7402</b><br><del>0.7392</del> | 0.7392         | <b>0.7646</b><br><del>0.7654</del> |
| <i>social order</i> | <b>0.8235</b> | 0.7803                             | 0.7587        | <b>0.8174</b>                      | 0.7898         | <b>0.7984</b>                      |
| <i>justice</i>      | 0.7275        | <b>0.7823</b><br><del>0.7800</del> | <b>0.5558</b> | 0.5483<br><del>0.5492</del>        | 0.6302         | <b>0.6447</b><br><del>0.6446</del> |
| <i>freedom</i>      | 0.7461        | <b>0.7911</b><br><del>0.7927</del> | 0.6654        | <b>0.6729</b><br><del>0.6742</del> | 0.7035         | <b>0.7272</b><br><del>0.7287</del> |
| <i>innovation</i>   | <b>0.8139</b> | 0.7898<br><del>0.8023</del>        | 0.5629        | <b>0.5756</b><br><del>0.5817</del> | 0.6655         | <b>0.6659</b><br><del>0.6744</del> |
| <i>honor</i>        | 0.4324        | <b>0.5085</b><br><del>0.6051</del> | <b>0.2019</b> | 0.0946<br><del>0.2593</del>        | <b>0.2753</b>  | <b>0.1596</b><br><del>0.3631</del> |
| average             | 0.7730        | <b>0.7849</b>                      | 0.6510        | <b>0.6737</b>                      | 0.7068         | <b>0.7251</b>                      |

Based on these corrections of Tables, the description in fifth paragraph in Section 6.2 is changed as follows.

The value *honor* is omitted from the averages in Tables 3-2 and 3-3 because we focus our analysis of those tables on relative comparisons between usable classifiers. As Table 3-4 shows, the recall for *honor* is too low (0.28 in SVM-0.26, and 0.16 in LVM meaning about 3 of every 4 cases are missed) for practical application. ~~Table 3-4 also shows that our LVM achieves markedly better precision and recall (and thus better F<sub>1</sub>) on *honor* than does SVM(w), so including *honor* in the micro-averages would not have changed the direction of the improvement that Tables 3-2 and 3-3 currently show.~~

In Figure 2, the missing symbol *W* is added to the right lower square.