A Word-Scale Probabilistic Latent Variable Model for Detecting Human Values

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Errata of Takayam et al. 2014.

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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			
	K	# docs	# sentences	
wealth	0.629	102	3,563	
social order	0.683	102	2,859	
justice	0.420	99	2,641	
freedom	0.620	101	2,431	
innovation	0.715	94	1,147	
honor	0.430	80	352	

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

Value			
varue	K	# docs	# sentences
wealth	0.621	102	3,156
social order	0.688	102	2,503
justice	0.423	99	2,267
freedom	0.628	101	2,155
innovation	0.714	94	1,018
honor	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	\mathbf{F}_1	
SVM(w)	0.7924	0.6802	0.7320	
SVM(w, b)	0.7784	0.6988	0.7365	
sLDA	0.7016	0.4821	0.5715	
$LVM(y_n = 0)$	0.7916	0.6931	0.7391	
LVM	0.800 <mark>1</mark> 0.800 0	0.713 <mark>3</mark> 0.713 2	0.7542	

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

Method	Precision	Recall	\mathbf{F}_1
SVM(w)	0.7784	0.6638	0.7166
SVM(w, b)	0.7535	0.6809	0.7154
sLDA	0.6875	0.4591	0.5506
$LVM(y_n = 0)$	0.79 <mark>10</mark> 0.79 3 0	0.6 <mark>785</mark> 0.6 869	0.73 <mark>05</mark> 0.73 61
LVM	0.78 <mark>66</mark> 0.78 85	0.690 <mark>2</mark> 0.690 9	0.73 <mark>53</mark> 0.73 65

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

Value	Precision		Recall		F_1	
	SVM(w)	LVM	SVM(w)	LVM	SVM(w)	LVM
wealth	0.7859	0.79 <mark>08</mark> 0.79 34	0.6977	0.7 <mark>402</mark> 0.7 392	0.7392	0.76 <mark>46</mark> 0.76 54
social order	0.8235	0.7803	0.7587	0.7332	0.7898	0.7984
justice	0.7275	0.7823	0.5558	0.5483	0.6302	0.6447
	0.7275	0.78 00		0.5492		0.64 46
freedom	0.7461	0.7911	0.6654	0.67 <mark>29</mark>	0.7035	0.72 <mark>72</mark>
		0.79 27		0.67 42		0.72 87
innovation	0.8139	0.7898	0.5629	0.5756	0.6655	0.6659
	0.0109	0.8023		0. 5817		0. 6744
honor	0.4324	0.5085	0.2019	0.0946	0.2753	0.1596
		0. 6051		0. 2593		0. 3631
average	0.7730	0.7849	0.6510	0.6737	0.7068	0.7251

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 F₁) 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 Fugure 2, the missing symbol *W* is added to the right lower square.