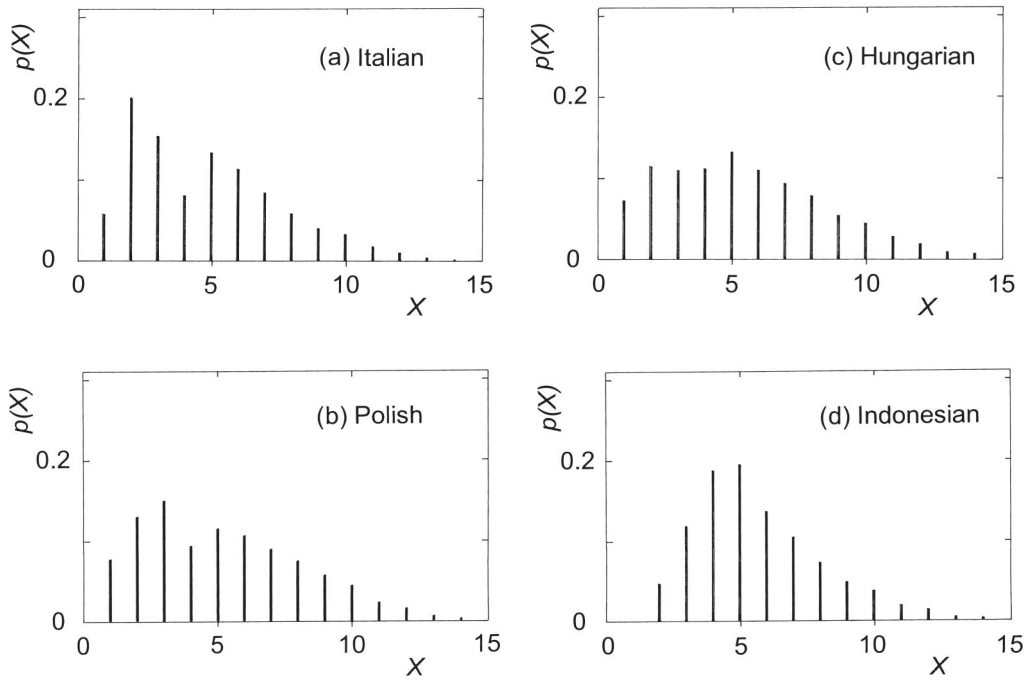

Fig. 7. Word spectrum of *Botchan* that was translated into (a) Italian, (b) Polish, (c) Hungarian, and (d) Indonesian. In sharp contrast to the uneven shape in the spectra of Italian, Polish, and Hungarian, the envelope of the Indonesian spectrum possesses a beautiful profile like a volcano, where no abrupt variation as was seen in the English spectra can be observed.

Table 4. Characteristic values for the word-length data of three translated texts of *Botchan* (#N1) by Soseki Natsume. Original texts written in Japanese are translated into English. Here Σ, L, Me, Mo, R, s, CV, α_3, and α_4 indicate, respectively, the entire number of words, mean, median, mode, range, standard deviation, coefficient of variation, skewness, and kurtosis of the data; the cumulative probability (r_F) of the Fibonacci data ($x = 1, 2, 3, 5, 8, 13, 21, 34, \ldots$) and the relative difference between r_F and $1/\phi$, respectively, are added to the second and the first column from the bottom. In order to make a comparison, those of the Poisson distribution with $\lambda = 3.8464$, for which the requirement of the golden distribution is met, are given.

	Poissonian	English (Sasaki)	English (Turney)	English (Cohn)
Σ	—	54899	53536	56868
L	3.85	4.11	4.10	4.07
Me	4	4	4	4
Mo	3	3	3	3
R	∞	18	35	16
s	1.96	2.25	2.19	2.16
CV	0.510	0.547	0.533	0.532
α_3	0.458	1.13	1.13	1.11
α_4	3.05	4.43	5.20	4.54
r_F	0.6180	0.6179	0.6206	0.6193
δ (%)	0	0.03	0.42	0.21

Table 5. Same as Table 4 but texts (#N1) translated into four non-English languages.

	Italian	Polish	Hungarian	Indonesian
Σ	45206	37619	38242	44986
L	4.83	5.26	5.56	5.74
Me	5	5	5	5
Mo	2	3	5	5
R	32	23	22	20
s	2.78	3.01	3.15	2.48
CV	0.576	0.573	0.566	0.433
α_3	0.779	0.618	0.713	1.02
α_4	3.35	2.86	3.39	4.36
r_F	0.611	0.558	0.519	0.440
δ (%)	1.1	9.6	16	29

are being made for all the texts currently available, specifically, German (55.9–57.2%), French (58.3–58.5%), Spanish (63.4–65.5%), Russian (54.6%), Turkey (45.0%), Filipino (55.9%), and Malay (45.7%) texts, where the numeral in each bracket indicates the latest estimation of r_F. Finally, preliminary results for texts including other languages but translations from other works in Japanese are given in Table 6. Evidently, among them, concerning the value of r_F, there is no case comparable to English. We would conclude that, with respect to the golden distribution of probabilities, the English texts could be regarded as cases passing along a golden mean between two extremes such as, e.g., the French and Spanish ones, for which $r_F < 1/\phi$ and $r_F > 1/\phi$, respectively.

To conclude, a method for generating artificial patterns from the word-length data will be mentioned. In this method, which was termed *spiral mapping* (Hayata, 2003), starting from the center (0, 0), one draws on the Cartesian coordinate a notched spiral with the counterclockwise rotation in accordance with the direction of a sequence. For in-