

tigation where the method proved itself. To adduce one example only: CASTLOTS was capable to sort out the Samson Cycle as a foreign body in the Book of Judges which should suffice to convince the skeptic how subtle and sensitive the method is. In this case, and incidentally in all others, results confirmed the critical view (of heterogeneity) against the traditional (of homogeneity).

The end product of our endeavours is a voluminous typescript with more than 100 tables and charts. Since it is most doubtful that it will be available in print before 1984, we were asked by colleagues to make at least a small part of it immediately accessible in a concise abstract. The present article was written in response to this request.

The text that served us was the Letteris Bible.<sup>2</sup> Variants were disregarded as immaterial in a statistical enquiry, nor did we deem it our task to take any stand vis-à-vis the many inconsistencies and repetitions found in Genesis. How to account for them, i.e. whether by hermeneutics or by fragmentation of the book, we decided not to be of our concern. Not so, though, the other main pillar of the Documentary Hypothesis, namely, what its proponents call style. This term is rather loosely used, mostly ill-defined and so subject to personal taste that arguing from style is precarious both for or against the homogeneity of a literary text. Moreover, style – whatever it may mean – is closely connected to content. Therefore, instead of style, a preferably large number of formal criteria must be defined to specify what we chose to name a writer's language behaviour – his finger prints, so to say. To qualify, these criteria must not be prescribed by rules of grammar, syntax etc. to make their use or not optional. What is even more important, they must be countable and lie beyond the writer's conscious control. Then only can one be sure that they cannot be changed at will nor, *a fortiori*, be imitated. Our criteria set comprised 56 such variables. The most potent discriminants among them were word length in terms of phonemes, the definite article, the conjunctive and consecutive *waw*, and the frequencies of transitions between word categories (nouns, finite verbs, non-finite verbs, pronouns etc.). Experience in other Biblical books proved that this battery describes language behaviour satisfactorily and is capable of distinguishing between one author and another.

Of the many versions of the Documentary Hypothesis we chose the one cited in the *Encyclopaedia Judaica*.<sup>3</sup> It is detailed enough and at the same time not extremist. Since a statistical enquiry into 20000 items (words) is most unlikely to be influenced by minutiae, opting for another

recension of the hypothesis (which is feasible at any time) would not distort findings significantly if they are clearcut – and clearcut they are.

The first step was analyzing Genesis linguistically word for word. What this means is demonstrated in our Key-Word-in-Context Concordance to the book.<sup>4</sup> Not demonstrated there, though, is that we added to each word one of the sigla *J*, *E*, or *P*, respectively (the ›Redaktor‹ *R* does not appear in the aforementioned recension). On afterthoughts, we also marked words by *N* when the narrator speaks, by *H* when they are uttered by his *dramatis personae*, or by *D* when they occur in Divine direct speech. All this information, including chapter, verse and no. of word within the verse, was registered on magnetic tape. In this manner, we were able to test consistency in language behaviour in three dimensions: per Documents (DOC), per Sorts-of-Discourse (SDS) and per Divisions (DIV). By the latter we mean the *Urgeschichte* (chs. 1–11, DIV I), the Patriarchal Cycle (chs. 12–36, DIV II) and the Joseph Story (chs. 37–50, DIV III). Excluded from all calculations were two portions which we considered as poetry and hence not comparable with prose, even if rhythmic: ch. 11–23 and ch. 49<sup>1-27</sup>. Re-inserting either into calculations if its poetic character is doubted is always possible.

Essentially, we proceeded in two stages: (A) *ex hypothesi* and (B) without any *a priori* assumptions. Of each, no more than an example or two of procedures and results have place in a resumé.

In stage (A), all portions ascribed to *J*, *E*, and *P*, respectively, were extracted and pooled together. The three corpuses were then compared with each other and the probability computed of each pair stemming from the same statistical population, taking 54 variables into consideration. This resulted in

- (a) the probability of *J* and *E* being homogeneous: 82.0%
- (b) the probability of *J* and *P* being homogeneous: 0.000000%
- (c) the probability of *E* and *P* being homogeneous: 0.000000%

How enormously high the percentage (a) is can best be illustrated by comparison with what Newton called a ›fool's test‹: when the probability was calculated, on the basis on transition frequencies as above, of Kant having written Kant, and of Goethe having written Goethe, it transpired that it was in the first case 8% and in the second 22%.<sup>5</sup> In the light of these data, one of the foremost claims of the Documentary Hypothesis, and in

<sup>2</sup> Published by the British and Foreign Bible Society, under the supervision of M. L. Letteris, in 1852 and reprinted ever since.

<sup>3</sup> *Encyclopaedia Judaica* (Macmillan and Keter Publishing House), vol. 7, col. 391, s. v. Genesis see p. 479.

<sup>4</sup> Y. T. Radday, An Analytical Linguistic Key-Word-in-Context Concordance to the Book of Genesis, The Computer Bible Project vol. 18, ed. J. A. Baird and D. N. Freedman (Wooster OH: Biblical Research Associates, 1979).

<sup>5</sup> For particulars on this research in German literature see D. Wickmann, Eine mathematisch-statistische Methode zur Untersuchung der Verfasserfrage literarischer Texte, durchgeführt am Beispiel der Nachtwachen von Bonaventure mit Hilfe der Wortartübergänge (Opladen: Forschungsberichte des Landes Nordrhein-Westfalen, 1969).