On the Frequency Distribution of First Names

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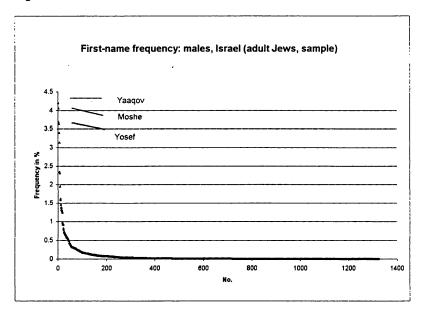
Comparison of distribution patterns of the frequency of current first names in three societies (Berlin, Israel and the United States) shows a close resemblance of all three, especially when graphically represented. This resemblance is independent of the size of the various populations. In western societies, the frequency of the most common male first name has an upper limit of about 4% of the male population. The number of "conventional" names is fewer than one thousand, regardless of the size of the population, at least in societies which are linguistically rather uniform.

In the process of research on first names in Israel, the Israel telephone directory (Hebrew edition, 1998) was sampled for male first names. For purposes of this research, only names of Jews were collected, whether or not they were in Hebrew. Jewish names in Israel are easily identified, especially when surnames are taken into account. Every fiftieth column was checked for Jewish male names. The resulting list contained 1324 male names, belonging to 24,400 individuals; thus forming a sample of about 2% of the Jewish male population; these were arranged in descending order of frequency

The list shows very few frequent names, and a very large number of rare names. This fact has been noticed before, for example by Lawson (1991), who writes: "A fairly small number of names accounts for a high percentage of the total sample" (105). However, it has rarely if ever been dealt with systematically. To express it quantitatively, the data were plotted on a scatter-chart; the result is shown in figure 1, where each dot represents one name, and it is situated according to the frequency of that name, in percent. Where there are many names with the same frequency, the dots cluster and form what looks like a continuous line.

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Figure 1.



In order to ascertain whether this distribution is unique to our list, a comparison was made to three other lists of male first names: from the United States (Census Bureau 1997), from Berlin (Geschke 1997), and from Israel (Eliassaf 1981, tables 2 and 5b). Three corresponding charts were created by the same method.

The results, shown in figures 2-4, resemble one another very closely and they are quite similar to the distribution shown in figure 1 as well. Importantly, this similarity appears to be independent of differences in the size and type of the various populations shown in table 1.

Table 1. Society and Sources

Society	Reference	Source and Population Considered
Israel	1,220,000 adult males	Telephone Directory; Jews; Sample
United States	134,000,000 males	Entire Population; Sample
Berlin	632,000 male adults	Telephone Directory; Entire Population
Israel	2,300,000 males	Entire Population

Figure 2.

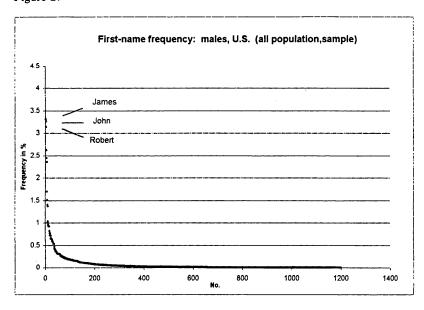


Figure 3.

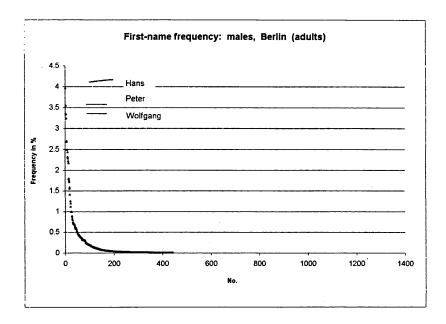
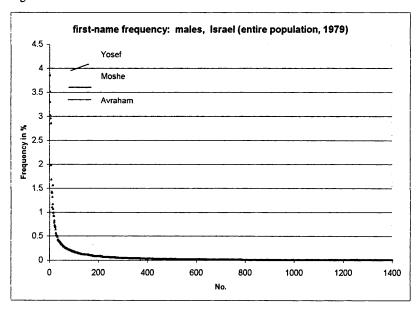


Figure 4.



Conclusions

The Most Common Names

In Israel, 3.85% of the men are called by the most frequent name (Yosef)¹, in Berlin, 3.9% (Hans), and in the United States, 3.3% (James), suggesting that the most frequent name has an upper boundary which is fundamental and ensures that only a limited number of people will have the same name.

At least in Western-style societies this upper limit does not exceed 4%. It remains to be seen if this restriction holds only for names in societies with naming systems based on first name and family name, and without legal limitations on naming.

The slightly lower percentage for the United States may be explained by the fact that in the case of men with more than one given name, only the Israel and Berlin lists give all names, with the second or "middle" names often being common names.²

Number of First Names

We now focus on the more common names. Since the Berlin list ends with names of occurrence of 0.008%, for purposes of comparison,

we omitted names from the other groups with occurrence of less than 0.008%. Thus any name belonging to fewer than 50 adult Berliners, 98 adult Israeli Jews, 184 Israelis, or 10,000 Americans was omitted.³ The remaining names were defined as "conventional" names.

The lists of conventional names each contain about 90% of the names of the respective male populations: 791 for the United States, 1035 for Israel, 720 for Israeli Jews, and 430 for Berlin.

The high figure for the population of Israel as a whole is easily explained by the fact that Israel has a large minority of Arabs (16% at the time of the survey). This minority uses a distinct set of names, many of them frequent enough to appear on the conventional list. The United States and Berlin also have minority populations of similar proportions, but they are divided into many smaller cultural groups, such as Turks, Yugoslavs, and Italians in Berlin, and most of their names fall into the unconventional or less-common list.

From the foregoing we can state the following principle: there is a limit to the number of different conventional names in a given society. The limit for linguistically uniform societies is less than one thousand.

Further research can verify or refine these conclusions, and the principles noted here can be applied to other types of cultures.

Also, it is clear that a graphic representation can be a basis for further onomastic research and can be used, for instance, in analyzing differences in name patterns among different societies on a national scale, at different points in time in the same society, or among a group of sub-societies.

Notes

- 1. Eliassaf (1981, table 5b) gives Yosef as the most common name. However, this includes the Arab name Yusuf, which is very frequent and is spelled like Yosef in Hebrew letters; as well, there are many Yosefs who call themselves Yosi and register so in the telephone directory. Lawson (1991), who grouped names by their origin, found Moshe as the most popular name, but this included Moshe, Moses, Moise, and others. Our figure 1 has Yaaqov as the most frequent name.
- 2. Eliassaf (1981) found that 7% of Israelis had more than one given name (274). The U.S. Census Bureau included only the first name in cases of multiple given names ("Documentation and Methodology," 4).
- 3. In fact a large number of these omitted names turned out to be foreign, misspellings or alternative spellings, or nicknames. For instance, from the United States list: Hung, Eugenio; Kennith, Forest; Dusty, Scottie, respectively.

References

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