HOW SURNAMES CAME TO BE
Naming across cultures

Ships from William the Conqueror crossing the English Channel, ca. 1066 CE, from the Bayeux Tapestry (Scene 39) —Glasshouse Images/Alamy Stock

It wasn't always common to have surnames. In England, the process started about 1,000 years ago with a detailed compendium of all the property-holders in the lands captured by William, Duke of Normandy, in 1066 CE. William was of Norse or Scandinavian descent, hence a Norman or North-man. After conquering England, he commissioned a great census, and the result was the Domesday Book, completed in 1086 CE. It listed the nobles, property owners, royal appointees, and the amounts of farm land they controlled. It also counted the number of mills and the teams of oxen that were available to till the soil. While it recorded numbers of individuals, it did not name them all. Another great census, the Hundred Rolls survey, was conducted in the 1270s. It was part of Edward I's attempt to wrest more royal control and tax revenues from local nobility. Like the Domesday Book, this survey is a remarkable snapshot of the medieval English population and geography.
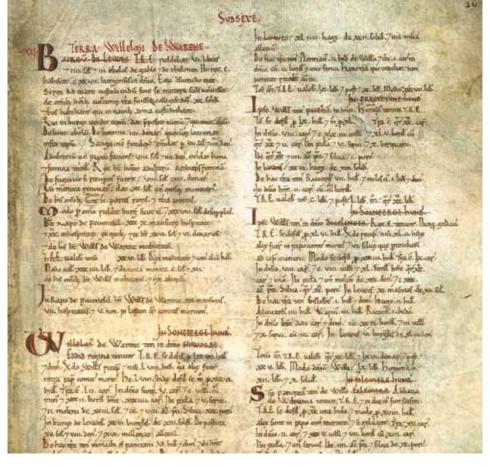
By the 1500s, surnames were common in England. The majority were based on placenames, occupations, or paternal lineage, since England was a patrilineal society. Others came from landscape features—"Ford," "Woods," "Hill," or "Holmes" (a Middle English word for "island" or "rise"). The same pattern generally followed in Wales, Scotland, and Ireland, with different prefixes standing in for "son of" or "from." In Scotland, the prefix "Mac" or "Mc" came from Gaelic, meaning "son of" or "of the family or clan of," and in Ireland the "O'" prefix served the same purpose. In Wales the prefix "ap" for "son of" was anglicized by incorporating the prefixed "P," so "John ap Harry" became "John Parry," and "ap Richard" became "Prichard."

But why should a woman be named "son of" anyone? This is a relic of patrilineal naming conventions, and not universal. Some societies that use patronyms (a version of the father's name), solve the problem by attaching a suffix that reflects the gender of the person being named. In Slavic language tradition, the son of a man named "Ivan" may have the surname "Ivanov" (son of "Ivan"), but his sister might go by the surname "Ivanova," with "ova" marking gender. Similarly, in Poland, the son of a man named "Kowal" (meaning "blacksmith") would be "Kowalski," but his sister, "Kowalska."

In eastern European Jewish communities, many surnames were adapted from women's given names, especially in cases where the woman's name carried prestige. In some cases, women ran stores or businesses and men worked from home as craftsmen. In places such as Belarus, where rabbinical authorities were more involved in selecting surnames than non-Jewish registrars, as much as 30–40 percent of surnames derive from women's given names, resulting in such surnames as "Sorkin" or "Serkis" (from the Yiddish name "Sorke" or "Sarah"), or "Eidels" (from "Eidel").

In matrilineal societies, descent is based on the matriline from grandmother to mother to daughter, and surnames often followed the same principle. In Indonesia, the Minangkabau culture represents the largest matrilineal society in the world with about eight million people in highland Sumatra. The most common surnames

A section from the Domesday Book of 1086 CE
—https://commons.wikimedia.org/wiki/File:Domesday_Book

make reference to the dignity and importance of the named maternal clan or lineage. For example, the surnames "Rajo" and "Sutan" make reference to positions of leadership or kingship. The surname "Alamsyah" refers to a connection to the land or universe, and the common name "Bodi" means civilized or enlightened, following the Sanskrit.

FOR THOUSANDS OF YEARS, humankind got along without surnames. So, are they really necessary? The answer is "yes," but only if the population is big enough. When states expanded and brought new regions into their bureaucratic system, single names left too much ambiguity and room for error. It was an information science problem; two names increases the number of unique combinations, which is why census-makers or tax collectors called for them. The addition of surnames took place over centuries, often evolving by transforming the patronym, place name, or occupation into a proper surname. In all known cases, it also began with the highest ranking tiers of society. Nobles and landowners needed surnames before commoners. This seems to have been regularized in Mesopotamia, starting in 1000 BCE, and in China and Rome, in 700 BCE. In China, it began in the first millennium bce, especially with the first unification of China in 221 BCE, and became standardized during the Han Dynasty (206 BCE–220 CE). Some societies, such as in parts of Burma, Tibet, and Indonesia, still use only one name.

In most societies, some given names and surnames are especially common. In the United States, there are over three million living males named "John." Over 100 million people in China share the surname "Wang." There is the common Chinese expression, "three Zhang, four Li," which means "everybody" or "people, in general," comparable to the English expression, "every Tom, Dick, and Harry," because "Zhang" and "Li," like "Wang," are very common surnames. Part of the repetition of given names comes from names being passed down in families. Other given names go through waves of popularity. The most popular boy's name in the US in 2023 was "Liam," and for girls, "Olivia."

THE REPETITION OF NAMES serves an important function in information theory. Having some regularity in a data field lowers the field's entropy, making it less random. Relatively common names are also easier to remember, pronounce, and spell. This improves redundancy and error correction. Each of the more than eight billion people alive today could be given a unique identifier with just six characters (10 numerals, 26 capital letters, and 26 lower case letters), but our brains are not structured in a way that would allow us to remember a person named "J6m8N7," or connect her to her parents or siblings. Instead, our brains are more able to handle fewer names, but with redundancy.

In Denmark, parents must select first names from around 7,000 approved given names, and these names must reflect the gender of the child. The same is true in Germany, where the given name must be approved by the government registry, must reflect gender, cannot be the name of a product or common object, and cannot be a surname. The law's intent is to protect the child from ridicule. Versions of these limitations are held in other northern European countries, including Iceland. Iceland also adheres to the traditional system of patronymic naming, rather than using an inherited surname. So while not having an official surname, a person's given name is followed by their father or mother's given name plus an ending meaning "son of" or "daughter of."

IN SMALL SOCIETIES, one name is enough, as was the case for most of human history. However, when

societies get to a size where this starts to break down, it brings up an interesting anthropological theory known as "Dunbar's number." Biological anthropologist Robin Dunbar, professor emeritus of evolutionary psychology at the University of Oxford, published a paper in 1992 titled, "Neocortex size as a constraint on group size in primates." He observed that the typical group size of primates seems to correlate with the size of a critical part of the brain, the neocortex, and in human societies that natural group size seems to have an upper limit of around 100 to 150 people. This idea has been somewhat controversial but has led to the observation that many human social networks tend to function well enough until they reach a certain size, after which they tend to split into smaller groups. Some empirical examples of groups in the vicinity of "Dunbar's number" are the company size of modern armies, which are usually 120 to 200 people. The Roman army also had tactical units of 100-150, called "Maniples," led by "Centurions." Anthropologist Marshall Sahlins (1930–2021), of the University of Chicago, in his 1972 classic, *Stone Age Economics* (Routledge) said villages started to split up when they got close to 200 people. Studies of Hutterite and Amish religious communities have found that they tend to fission off daughter communities when they reach about 150 people. According to recent studies, 150 is the average number of people an individual interacts with on social media. It has nsot been determined, however, if the brain's neocortex is the limiting factor.

The information-processing problem of keeping track of thousands of people is analogous to the limits of Dunbar's number. It is similar to the problem people have of there being too many nodes in the social network of a village, but it relates to the state or empire having too many names to process, even in a nested system of villages, regions, states, and empires. It was not until 1936—with the creation of Social Security

Hindu naming ceremony in Maharashtra, India —ID 352182187 ©Rohan Patil–Dreamstime.com

Numbers—that a country began using a number as a unique identifier for individuals.

Using three names is another option, and it is common in many societies. In Spain and Latin America, people have a given name (or more than one), followed by the father's surname, then the mother's surname. Often only the first surname is used in everyday affairs. The gender of a person's second name or "middle name" does not have to match the gender of the first name, so a name like José María López Hernandez follows this convention. Names in the Arabic tradition may consist of a given name, the name of the individual's father, then grandfather, then surname. An example for a man would be, "Ahmed Mohamed Ali Ibrahim." A woman's name might include her given name, father's given name, and a family surname. In China, most surnames are a single character, but given names are usually two characters, effectively adding a third data field. Two-character given names have become more common in recent decades.

A name can say a lot about an individual, but sometimes the information is not accurate or prompts false assumptions. Names get changed for numerous reasons, some of them accidental. Many ethnic groups in the United States tell stories of how their names were changed in the process of immigrating to this country—a man arriving at Ellis Island as Wojciech Nowakowski might leave as Walter Novak. In one story a boy asked his father if their family was Irish, and the father answered "No, we're Jews from Poland!" The boy countered that his friends said he had an Irish name. The father explained, "Well, when your grandfather came to America, he couldn't speak a word of English, and when the immigration officer asked him his name he said 'shayn fergessen,' which in Yiddish means, 'I've already forgotten!' And that, Shane, is how we became an Irish-Polish-American family."

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