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# Creativity and tradition in baby naming

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#### Abstract

Parents sometimes display creativity when they give a name to their baby, but generally they follow the traditions of the family, society, culture or religion. Various types of creativity are illustrated in the introduction. The paper then presents an analysis of data from baby naming 2005 in the Swedish city of Malmö. The rich immigration and great heterogenity of the Malmö population are reflected in the unusual variation of names.

Baby naming in the USA reflects the mixed populations and cultures, but also the creativity and rapid change in the USA society. Of the top 20 female names 1900 only half remain in the top list after 20 years 1920, other names are substituted, often names of new sports idols, artists or film stars. *Elizabeth* is the most sustainable name. For men the development in the USA is slower than for women and half of the male top names 1900 remain in the top list 1940. The most stable male names are: *Joseph*, *William*, *John* and *James*.

Statistics from female French names 1900–2000 show rapid changes, in particular in the later years. Of the top 10 female French names 1900 only half remain after 25 years. *Marie* is the only French name which survives from 1900 to 2000. One may draw the conclusion that during 1900–2000 the top female names change in Western cultures so that about 70 percent remain after 10 years, and that male names change somewhat slower. There are a few names which survive 100 years and a few may return after about 100 years.

The baby naming procedures in the East Asiatic people of Kammu are also described. In Kammu there is no standard list like a calender, but the time or remarkable events when the child was born are often reflected in the name. This method is found in many societies which have not been under the influence of Christianty or Islam as noted by the author Ryszard Kapuściński.

## 1 Introduction

Parents may show creativity in many ways. Breaking the family tradition by not giving a son the name of his father or father's father may be seen as evidence of creativity (and disobedience). We may call this case 'Breaking kinship rules'. The ceremonies and rules governing naming have long interested anthropologists, see e.g. Barnes 1982. Choosing a name which is not in the standard (religious) calender or almanach may also be seen as evidence of creativity (and disobedience). We may call this case 'Breaking the calender rules'. In Christian societies a clergyman often controlled the baptism and constrained the parents' choice of names.

Other ways of being creative have to do with the form of the names. Names may be respelled, reshaped, simplified, abbrieviated, derived or compounded in various ways. Variant names often enter the top lists. One may spell differently: Lars as Larz, Niklas as Niklaz, Sigurd as Sigurdh, Philip as Filip, Love as Lowe, Michael as Mikael, Marie Anne as Mary-Ann or Marianne. A number of names have developed shorter variants (cf. Otterbjörk 1963, Modéer 1964, Brylla 2004) over the years (centuries) as illustrated by: Johannes, Johan, John, Jon; Nicholaus, Niklas, Claus, Klas, Nils, Nisse; Brigitta, Birgitta, Birgit, Britta, Britt, Berit, Bibbi, Gita; Christina, Christin, Chris, Stina, Tina, Kirsten, Kerstin: Margaretha, Margit, Margot, Martha, Märta, Greta, Carita, Marita; Elizabeth, Eliza, Liza, Betty; Katarina, Karin, Karen, Katrin, Kitty.

In Sweden, many names have a variant used as a nickname (hypochorism), e.g. Lasse for Lars, Adde for Anders, Fabbe för Fabian, Madde for Madeleine, Biggan for Birgitta, Nisse for Nils, Hasse for Hans. These nicknames are generally bisyllabic with a double (geminated) middle consonant and end in e (for males), a (for females). New borrowed names can also be supplemented with such nicknames. The basic rule for creating such nicknames is: take the first stressed syllable of the name, double the first postvocal consonant; if there are several consonants, double the most consonantal (least sonorant) consonant and add e or a.

In English speaking countries many nicknames can similarly be created by adding y or *ie* after a similar doubling process as illustrated by: *Jimmy* from *James, Steffy* from *Stephany, Lenny* from *Leonard, Ronnie* from *Ronald, Larry* from *Laurence, Jerry* from *Gerald, Jenny* from *Jane, Jackie* from *Jacob/Jack, Willy/Willie* (and *Bill*) from *William, Conny* from *Conrad, Harry* from *Harald/Harold, Ricky* from *Richard, Danny* from *Daniel, Freddy* from *Fredrik/Fred.* 

Names may also be created or constructed (coined) from phonetic, lexical or morphological material as illustrated in: *Ängla* (from Swedish *ängel*, 'angel'), *Tindra* presumably from the Swedish verb *tindra* 'twinkle', *Parisa*, admittedly created from *Paris* by the child's mother.

It is not always possible to determine if a name follows a family tradition, a trend or is a new creation by the parents. And it is not always possible to find out which name is the point of departure. One would need to ask the parents in the individual cases. The book *Den store navnebok* (Villarsen Meldgaard 2002) deals with Danish names and the reasons for choosing them.

Parents are often pressed hard by their parents, other relatives and friends when they are to give a newborn a name. The associations to names vary a lot, and each individual has his or her opinions about names based on his or her life history. That is why name discussions can reveal differences and be harsh.

In royal families the choice of names may be very restricted. In the Danish royal family there is currently almost only a choice between *Christian* and *Fredrik*. In the Swedish court the preferred male names are currently *Gustaf* and *Carl/Karl*. In noble families there are often also name preferences. In the Swedish *Sparre* family all males get the name *Ambjörn*, in the Swedish family *Lilliehök* all members carry the name *Malkolm*. Similar preferences may be found in less noble families, e.g. the tradition that all boys get the second name *Nils*.

The modern Western European naming tradition is based on a list of names (the catholic almanach, calender) which mainly includes saints extended by biblical names, Hebrew names, Greek names, Latin names, royal names and later names of literary heroes and heroines, and celebrities from the film, sports and music. In Sweden a new extended calender was accepted by the state and church 2001 (see Brylla 2004). The clergymen have little influence on the selection of baby names these days, but names have still to be accepted and registered according to a law from 1982.

## 2 Baby naming in the Swedish city of Malmö

In the Swedish newspaper *Sydsvenskan* Febr 26, 2006, Hanna Rydén reports about an investigation of the names given to babies during 2005 in Malmö. The report is interesting as it shows many differences between Malmö and all Sweden and illustrates great creativity in the name giving in Malmö. Table 1 lists the most frequent female names in Malmö and all Sweden according to *SCB*, *Statistiska Centralbyrån*, the official Swedish Statistical agency. The figures within parenthesis are rank numbers for all Sweden 2004.

Many of the names are common between the two lists, and the topmost names are the same, but the order is somewhat different. Some Malmö names stand out as foreign: *Nicole, Fatima, Mariam*.

An interesting characteristic of Malmö is the many unique names, names only given to one person 2005. One child out of four had got a unique name.

Table 1. Female names in Malmö and Sweden.

Malmö		All Sweden			
rank	name	percent	rank	name	percent
1.	Maja	1.7	1.	Emma (1)	2.2
2.	Emma	1.6	2. 3.	Maja (2)	2.0
2. 3.	Julia	1.2	3.	Julia (5)	1.8
4.	Sara	1.2	4.	Alice (13)	1.8
5.	Alice	1.2	5.	Ida (3)	1.8
6.	Hanna	1.1	6.	Linnéa (6)	1.7
7.	Selma	1.0	7.	Elin (4)	1.7
8.	Sofia	1.0	8.	Alva (8)	1.7
9.	Amanda	1.0	9.	Hanna (7)	1.6
10.	Alva	0.9	10.	Ella (11)	1.6
11.	Ida	0.9	11.	Ebba (11)	1.5
12.	Filippa	0.9	12.	Wilma (9)	1.5
13.	Ebba	0.9	13.	Klara (10)	1.4
14.	Ella	0.9	14.	Moa (15)	1.4
15.	Olivia	0.9	15.	Amanda (16)	1.3
16.	Nicole	0.9	16.	Matilda (14)	1.3
17.	Elin	0.9	17.	Elsa (17)	1.2
18.	Matilda	0.8	18.	Sara (18)	1.1
19.	Tilde	0.8	19.	Emilia (19)	1.1
20.	Alicia	0.7	20.	Filippa (32)	1.1
21.	Alma	0.7	21.	Isabelle (29)	1.1
22.	Elsa	0.7	22.	Felicia (23)	1.1
23.	Emilia	0.7	23.	Tindra (24)	1.0
24.	Clara	0.6	24.	Saga (22)	1.0
25.	Fatima	0.6	25.	Ellen (21)	1.0
26.	Isabella	0.6	26.	Agnes (29)	0.9
27.	Mariam	0.6	27.	Olivia (28)	0.9
28.	Lovisa	0.6	28.	Tilda (20)	0.9
29.	Saga	0.6	29.	Nellie (38)	0.9
30.	Tindra	0.6	30.	Emilie (25)	0.9

Among unique female names are: Amora, Beckasine, Etta, Moska, Parisa. Among the unique boys' names are: Dylan, Hamse, Marseille, Palme, Siam, Vår. Strangely enough the name Zlatan (the name of a famous football player from Malmö) is lacking in the list from 2005. But there are 13 persons with the name Zlatan listed in Malmö and 150 for all Sweden.

It is easy to get associations to different countries, cultures or religions from some names: Abdulla, Muhammed, Omar, Faruk, Abdul, Akilles, Oussama, Ahmed, Yaser, Arafat, Dominic, Sean, Saddam, Mustapha, Hasan, Habib, Giovanni, Igor, Vladimir, Anastacia.

The explanation for the special situation in Malmö is the rich immigration. Almost 50% of the persons in Malmö are classed as immigrants or persons with a foreign backgrund. Over 100 languages are spoken in Malmö. 137

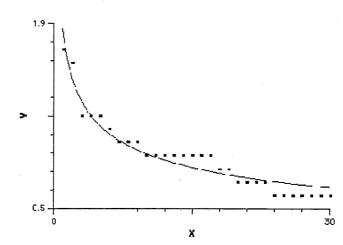


Figure 1. Distribution of 30 most frequent girls names registered in Malmö 2005 with approximating curve.

The many unique names and the restricted use of names have certain effects. The most common names only reach about 1.7 percent, as is shown in Table 1, while they reach about 2.2 percent in all Sweden. The 30 most frequent names in Malmö only cover about 30% of the babies, while the 30 most frequent names in all Sweden cover about 40%. The distribution of the frequencies of the 30 most common names is shown in Figure 1. An approximating curve is added. Its equation is  $y = 1.8 \cdot x^{-0.3}$ . It fits the data fairly well as can be seen ( $r^2 = 0.93$ ). The corresponding distribution and curve for the 30 most frequent names in all Sweden would be similar but placed somewhat higher up in the diagram.

Statistics about the names given in different periods and different regions of Sweden can be found in Allén & Wåhlin 1979.

## 3 Long term development of popular names in the USA

There are name data on the Internet (address: http://www.ssa.gov/OACT/ babynames/) which make it possible to study the development of names in the USA from 1880. It is obvious that American parents have been very creative in giving names to their babies. Table 2 shows the top 20 female names 1900–2000. The table displays how many names remain since 1900, which they are and which names have been added. The names within square brackets are the names which have been added since 1900. It is obvious that about 70 percent of the list remain for every 10-year period.

#### 1900.20:

Elizabeth, Mary, Helen, Margaret, Ruth, Anna, Mildred, Clara, Rose, Grace, Bertha, Bessie, Alice, Emma, Edna, Annie, Lillian, Marie, Ethel, Florence

1900-1910. 15 (14): Elizabeth, Mary, Helen, Margaret, Ruth, Anna, Mildred, Marie, Alice, Florence, Ethel, Lillian, Rose, Edna, Annie [Dorothy, Frances, Gladys, Evelyn, Louise]

1900-1920. 12 (10): Mary, Helen, Margaret, Ruth, Mildred, Elizabeth, Anna, Marie, Alice, Florence, Lillian, Rose

[Dorothy, Virginia, Frances, Betty, Evelyn, Doris, Irene, Louise]

1900-1930. 6 (7): Mary, Helen, Margaret, Ruth, Elizabeth, Alice [Betty, Dorothy, Barbara, Patricia, Joan, Doris, Shirley, Virginia, Dolores, Jean, Frances, Lois, Joyce, Evelyn]

#### 1900-1940. 4 (5):

Mary, Elizabeth, Helen, Margaret [Barbara, Patricia, Judith, Betty, Carol, Nancy, Linda, Shirley, Sandra, Dorothy, Joyce, Joan, Carolyn, Judy, Sharon, Janet]

1900-1950. 2 (3): Mary, Margaret [Linda, Patricia, Barbara, Susan, Nancy, Deborah, Sandra, Carol, Kathleen, Sharon, Karen, Donna, Brenda, Diane, Pamela, Janet, Shirley, Carolyn]

1900-1960. 2 (2): Elizabeth, Mary [Susan, Linda, Karen, Donna, Lisa, Patricia, Debra, Cynthia, Deborah, Sandra, Barbara, Brenda, Pamela, Nancy, Sharon, Cheryl, Teresa, Lori]

#### 1900-1970. 2 (2):

Elizabeth, Mary [Jennifer, Lisa, Kimberly, Michelle, Amy, Angela, Melissa, Tammy, Tracy, Julie, Karen, Laura, Christine, Susan, Dawn, Stephanie, Heather, Kelly]

#### 1900-1980.1(1):

Elizabeth [Jennifer, Amanda, Jessica, Melissa, Sarah, Heather, Nicole, Amy, Michelle, Kimberly, Angela, Stephanie, Tiffany, Christina, Lisa, Rebecca, Crystal, Kelly, Erin]

#### 1900-1990.1(1):

Elizabeth

[Jessica, Ashley, Brittany, Amanda, Samantha, Sarah, Stephanie, Jennifer, Lauren, Megan, Emily, Nicole, Kayla, Amber, Rachel, Courtney, Danielle, Heather, Melissa]

#### 1900-2000.3(1):

Elizabeth, Emma, Grace

[Emily, Hannah, Madison, Ashley, Sarah, Alexis, Samantha, Jessica, Taylor, Lauren, Alyssa, Kayla, Abigail, Brianna, Olivia, Megan, Victoria]

As about 70% of the list remain after a 10-year period it is possible to calculate approximately how many names out of 20 should remain (*R*) after a time (*t*) using the formula  $R = 20 \cdot 0.7^t$ , where *R* is the number of names

remaining and t is the number of 10-year periods (decades). The formula could be read: The number of remaining names, R, equals 20 times 0.7 raised to t, the number of 10-year periods passed. As can be seen the approximated values (figures within parentheses) fit the data fairly well.

About half of the names of the girls in USA have been exchanged after 20 years (half-life). After 80 years there is hardly any name left. *Elizabeth* is the most sustainable name, *Mary* also remains long. *Emma* and *Grace* return after 100 years.

The chances of remaining are greatest among the most popular names. One is tempted to associate some names in the lists to famous film stars (e.g. Shirley Temple) and other celebrities who have entered the lists over the years.

Boys' names are more conservative as is seen in Table 3. About 85% remain after a 10-year period; somewhat more in the beginning of the century. About half of the 20 names from 1900 remain after 40 years, 1940. The numbers within parentheses are calculated using the same formula as above but with the coefficient 0.85. The development in the Nordic countries is treated in Sigurd & Eeg-Olofsson 2004. The names *Joseph*, *William*, *John* and *James* are the most sustainable male names in USA.

## 4. Long term development in French names

French name data are available at the Internet address: http://www.aufeminin. com/world/maternite/prenoms/prenomlist.asp.

Table 4 shows the development from 1900 to 2000 and the number of remaining names since 1900. Figures in parenthesis are derived by the approximating formula  $R = 10.0.7^t$ , where R is the number of remaining names since 1900 and t is the number of decades passed.

The numbers of names kept are fairly high in the first 20 years (8 and 7) but decrease rapidly then. The approximation by the formula is therefore too low during the first 20 years but fairly good during later years. Only about half of the French female names remain after about 25 years.

We note that the only new names 1910 are *Hermaine* and *Renee*. The only new names 1920 are *Renee*, *Pauletee* and *Denise*. But by 1930 only two names from the list 1900 remain: *Marie* and *Jeanne*. We also note that *Marie* is the only name which survives from 1900 to 2000.

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Table 3. The most frequent male names (USA)

1900: John, William, James, George, Charles, Robert, Joseph, Frank, Edward, Henry, Thomas, Walter, Harry, Willie, Arthur, Albert, Fred, Clarence, Paul, Harold 1910. 19 (17):

John, James, William, Robert, George, Joseph, Charles, Frank, Edward, Willie, Henry, Thomas, Walter, Albert, Paul, Harry, Arthur, Harold, Clarence [Raymon]

1920. 16 (14): John, William, Robert, James, Charles, George. Joseph, Edward, Frank, Thomas, Harold, Walter, Paul, Henry, Arthur, Albert [Richard, Raymond, Donald, Jack]

1930. 13 (12): Robert, James, John, William, Charles, George, Joseph, Edward, Thomas, Paul, Frank, Harold, Walter [Richard, Donald, Jack, David, Kenneth, Raymond, Billy]

1940. 11 (10): James, Robert, John, William, Charles, Thomas, George, Joseph, Edward, Paul, Frank [Richard, David, Donald, Ronald, Larry, Jerry, Kenneth, Michael, Gary]

1950. 9 (9): James, Robert, John, William, Thomas, Charles, Joseph, Paul, George [Michael, David, Richard, Gary, Larry, Ronald, Donald, Kenneth, Steven, Dennis, Stephen]

1960. 8 (8): James, John, Robert, William, Thomas, Joseph, Charles, Paul [David, Michael, Mark, Richard, Steven, Timothy, Jeffrey, Kevin, Kenneth, Daniel, Donald, Brian]

1970. 6 (6): James, John, Robert, William, Joseph, Thomas

[Michael, David, Christopher, Brian, Mark, Richard, Jeffrey, Scott, Jason, Kevin, Steven, Eric, Daniel, Timothy]

1980. 5 (5): James, John, Robert, Joseph, William [Michael, Christopher, Jason, David, Mathew, Joshua, Daniel, Brian, Justin, Ryan, Eric, Nicholas, Jeremy, Andrew, Timothy]

1990. 5 (5): James, Joseph, John, Robert, William [Michael, Christopher, Mathew, Joshua, Daniel, David, Andrew, Justin, Ryan, Nichola, Anthony, Jonathan, Kyle, Brandon, Jacob]

2000. 4 (4):

Joseph, William, John, James [Jacob, Michael, Mathew, Joshua, Christopher, Nicholas, Andrew, Daniel, Tyler, Brandon, Ryan, Zachary, David, Anthony, Justin, Alexander] 141

 Table 4. The most frequent female names (France)

1900. 10: Marie, Jeanne, Marguerite, Germaine, Louise, Yvonne, Madeleine, Suzanne, Marthe, Marcelle

1900-1910. 8 (7). Marie, Jeanne, Marguerite, Madeleine, Yvonne, Suzanne, Louise, Marcelle [Hermaine, Renee]

1900-1920. 7 (5): Marie, Jeanne, Madeleine, Suzanne, Yvonne, Marcelle, Marguerite, [Renee, Paulette, Denise]

1900-1930. 2 (3): Marie, Jeanne, [Jaqueline, Jeannine, Denise, Yvette, Paulette, Monique, Simone, Ginette]

1900-1940. 1 (2): Marie, [Monique, Nicole, Jaqueline, Francoise, Christiane, Jeannine, Colette, Josette, Yvette]

1900-1950. 1 (2): Marie, [Martine, Francoise, Monique, Nicole, Chantal, Annie, Christiane, Jaqueline, Michele]

1900-1960. 1 (1): Marie, [Catherine, Sylvie, Christine, Brigitte, Martine, Patricia, Francoise, Veronique, Isabelle]

1900-1970.0(1): [Nathalie, Valerie, Sandrine, Isabelle, Sylvie, Sophie, Laurence, Christelle, Catherine, Veronique]

1900-1980. 1 (1): Marie, [Celine, Emilie, Aurelie, Virginie, Stephanie, Laetitia, Sabrina, Audrey, Sandrine]

1900-1990. 1 (0): Marie, [Elodie, Laura, Julie, Marine, Marion, Pauline, Aurelie, Camille, Melanie]

1900-2000. 1 (0): Marie, [Lea, Manon, Camille, Chloe, Emma, Oceane, Sarah, Laura, Mathilde]

## 5 Baby naming in Kammu

Kammu is a minority people in Laos, but partly also in adjacent parts of China, Burma, Thailand and Vietnam. The language is spoken by some 500,000 people. Their language and culture including the naming customs are fairly homogenuous although all speakers do not live together. This paper is based mainly on information offered by the author Damrong Tayanin. Some variation in naming may not have been taken into account. Naming customs in Kammu have not been treated before to our knowledge. Some information about the Kammu population is given in Lundström & Svantesson 2005.

Babies in Kammu are given names chosen fairly freely. The names of grandparents or relatives have no first priority, but may occur as a second name. The child will often have his/her own name and then his/her father's or

mother's name as second name. Beside his official name *Damrong* has the Kammu name Kam and his second name is Raw; Raw is his father's first name, but Kam's sister also has the second name Raw.

Dead relatives play special roles, they do not disappear. If a child was born, and some days after one of the family members died, then the family must change the child's name in order to hide the child from the deceased ancestor. A dead relative may hurt or even kill a newborn baby according to Kammu thinking.

When the parents are going to give the name to a child one of the parents should boil an egg. When the egg is cold, the parent gives it to the child and says: "Today we give you a name, accept this name and have a long life". The parents then offer one name after another until the child accepts one. If the child cries continually, after he or she has got a name, that means the child does not like the name. Then the parents must proceed and select another name.

There is no established list of names as a calender to choose from, but occasionally a child gets a name from the Kammu lunar calender which includes names of particularly important days and days of the Kammu 12-day week. The custom to give the child the name of the day is practical as it tells people which weekday the child was born.

Several children often get the same name, which does no seem to bother the Kammu. Many names could be given both to boys and girls. The typical names have meanings recognized by people and often denote remarkable events which have occurred in the family or in the village. The name often indicates what happened when the child was born, e.g. if he or she needed help, if he or she was much wanted as a previous child had been lost, if he or she was born in the woods, if a buffalo or cow had been sacrificed, etc. The name consequently bears witness of the history of the person. The author Damrong got the name *Kàm*, as he was very weak; *kàm* means 'rescue'. After having got the son named *Christer*, Damrong was also called 'Christer's father'. Another person got the name Pri which means 'forest', as he was born in the forest. Some names express feelings or emotions, some names signal wishes. Table 5 gives a short list of Kammu names (in a special transcription) with their associated meanings indicated by an English (near) equivalent. Comments mention the reasons for the names.

#### Table 5. Kammu names

2	21 for				
Àay Dán	'love' (name for male, emotion expression)				
Bún	'good luck' (well wish)				
Cén	'full moon' (at time of birth)				
Cáa	'birth day', (name of the first day of the Kammu 12 day week)				
Càŋ	'long life, strong' (well wish)				
Cíam	'stranger' (strangers in village at the time of birth)				
Сдру	'help' (the baby needed help)				
Hák	'hold' (parents have lost a child and want this one to stay)				
Kàm	'rescue' (child ill, need help)				
Khám	'gold' (much appreciated child)				
Khán	'other' (to separate from other child)				
Kwàay	'water buffalo' (a sacrifice for sick child)				
Láa	'change' (other name, given in order to prohibit the ancestor who died recently from recognizing the child)				
Lèel	'small wasp, fly, bug'				
Lóŋ	'forget' (name given to child when someone has just died given in order to prohibit the ancestor from recognizing the child)				
Mán	'strong'				
Ìən	'soft, mild, light'				
Ŋìa	'cow' (as sacrifice for sick child)				
Ρίδο	'empty' (name of day)				
Pòn	'pass, escape' (given to escape misfortune)				
Ràay	'dangerous, evil' (something dangerous or evil happened in the village)				
Síal	'keep alive' (name given as the parents very much want the child to live)				
Stip	'replace' (name given wishing that the child will succeed someone who has just				
-	died)				
Тэ́әт	'gather' (name given when people have gathered as something dangerous has happened in the village)				

## Conclusion

Shakespeare was right in asking: What is in a name? There may be a lot in a name. Names may carry many associations, different for most individuals as their life histories are different. That is why the parents' choice gives rise to so much discussion. The Malmö names give evidence of the different cultures and the endevours of the parents to give the child a unique name. The American data presented show how the parents follow European traditions, but also how the parents' temporary and changing admiration for idols and stars influence the baby naming. Both the American and the French statistics show how fast the popular names change.

One may draw the conclusion that during 1900–2000 the top female names change in Western cultures so that about 70 percent remain after 10 years, and that male names change somewhat slower. There are a few names which survive 100 years and a few may return.

The Kammu names seem to be independent of fashions and religions. The names rather reflect the time when the baby was born, memorable events in the village at the time or the emotions and well wishes of the parents.

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It seems proper to end this paper by a (translated) quote from Ryszard Kapuściński's book *Ebony* (p. 63 in the Swedish translation *Ebenholts*):

In many African societies the children get names after an event which has happened at the birthday. The name Edu was short for education, as the first school in the child's village was opened the same day.

Where Christianity and Islam were not rooted the richness of names was infinite. The poetic talents of the parents were displayed when they e.g. gave the name 'Bright morning' (if born in the early morning) and 'Acacia shadow' (if born in the shadow of an acacia tree). If a child had been born when Tanganyika had gained its independence the child could have been christined to *Uhuru* (Swahili for 'independent'). If the parents were adherents of president Nyerere the child could be given the name *Nyerere*.

The introduction of Christianity and Islam had reduced these opulent worlds of poetry and history to a few dozens of names from the *Bible* and the *Koran*. Since then there are only long rows of *James* and *Patrick* or *Ahmed* and *Ibrahim*.

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## A bidialectal experiment on voice identification

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## 1 Introduction

Our voice and speech are part of our identity and we can distinguish different humans through their voices. The voice gives the listener a cue about the speaker's gender, age and regional background, and socio-economic class. We have all successfully recognized friends and family members by voice alone. For example when a friend has called us on the telephone and not said who was calling. False, or incorrect, identifications occur. We have all incorrectly recognized the voice on the telephone as the voice of a friend. False identifications also occur among unfamiliar voices due to voice disguise. This can create problems for the judicial system when relying on earwitness testimonies and voice identification tests as direct evidence in a criminal case. This paper, based on a study by Sjöström 2005, provides an insight in the field of earwitness identification and empirically investigates the power of dialect as an attribute that listeners use when identifying voices and how a switch of dialect affects the success of voice identification.

The voice is unique for each person and is dependent upon the shape of the vocal tract and individual phonetic habits. Further, we do not always produce exactly the same sounds: the situation as well as our health and emotional state affect our voices. This is referred to as intraspeaker variability. Differences between speakers are referred to as interspeaker variability. It is generally assumed that interspeaker variability is greater than intraspeaker variability. This makes voice recognition and identification possible. Research on voice imitation, has demonstrated the flexibility of the human voice and that it is possible to alter one's voice and speech to near that of another person (Zetterholm 2006). This might cause problems in an identification task.

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