Where do *mama*/*papa* words come from?

1. Mas and pas. If you ever look at a list of basic words in a number of languages from around the world, you will be struck at once by one observation in particular: the words for 'mother' and 'father'. In language after language after language, we find that the word for 'mother' is something like *mama*, or perhaps *nana*, while 'father' is something like *papa* or *dada*. Table 1 gives just a tiny sample to begin with. In a few languages, the forms given are 'my mother' and 'my father', since different words are used for other people's parents. A hyphen indicates that something else must be attached to the word in speech, and a colon marks a long vowel.

	'mother'	'father'
Swahili	*mama*	*baba*
Kikuyu (east Africa)	*nana*	*baba*
Xhosa (South Africa)	*-mama*	*-tata*
Tagalog (Philippines)	*nanay*	*tatay*
Malay	*emak*	*bapa*
Romanian	*mama*	*tata*
Welsh	*mam*	*tad*
Urdu	*mang*	*bap*
Turkish	*ana, anne*	*baba*
Pipil (El Salvador)	*naan*	*tatah*
Kobon (New Guinea)	*amy*	*bap*
Basque	*ama*	*aita*
Hungarian	*anya*	*apa*
Dakota (USA)	*ena*	*ate*
Nahuatl (Mexico)	*naan*	*ta'*
Luo (Kenya)	*mama*	*baba*
Apalai (Amazon)	*aya*	*papa*
Chechen (Caucasus)	*naana*	*daa*
Cree (Canada)	*-mama*	*-papa*
Quechua (Ecuador)	*mama*	*tayta*
Mandarin Chinese	*mama*	*baba*

Table 1. Some words for 'mother' and 'father'.

The traditional Turkish form for 'mother', *ana*, is still current in Anatolia but has been oddly modified to *anne* in standard Istanbul Turkish. Of these twenty-one languages, Swahili, Kikuyu and Xhosa (Nelson Mandela's mother tongue) are all moderately closely related, but observe that no two of them have closely similar forms for 'mother' and 'father': *mama* and *baba*, *nana* and *baba*, *-mama* and *-tata*. Tagalog is distantly related to Malay, but again the words in these languages are far from identical: *nanay* and *tatay*,

emak and *bapa*. Finally, Romanian, Welsh and Urdu are all *very* distantly related, but their words for 'father' are not so similar: *mama* and *tata*, *mam* and *tad*, *mang* and *bap*. Otherwise, no language in the list is known to be related to any other.

What we see above is typical of the languages of the world. In the 1950s, the American anthropologist George P. Murdoch examined the words for 'mother' and 'father' in 470 languages from all over the globe. He found that the word for 'mother' contained a syllable of the form *ma*, *me* or *mo* in 52% of the languages in his sample, while the words for 'father' contained one of the same syllables in just 15% of his languages. And he further found that the word for 'father' contained a syllable of the form *pa* or *po*, or *ta* or *to*, in 55% of his languages, while these syllables occurred in the words for 'mother' in only 7% of his languages. In fact, his figures are perhaps slightly on the low side. The Caucasian language Abkhaz, for example, has *an* for 'mother' and *ab* for 'father'; these would not have been counted by Murdoch's criteria, but they still look very much like the other words in my list. Perhaps they have been shortened from originally longer forms.

Observe also that Murdoch found that a few languages have these words "the wrong way round", with something like *papa* or *tata* for 'mother' and something like *mama* for 'father'. Here are a few languages that exhibit this state of affairs for one word or for both:

	'mother'	'father'
Georgian (Caucasus)	*deda*	*mama*
Pitjantjatjara (Australia)	*ngunytju*	*mama*
Jacaltec (Guatemala)	*mi'*	*mam*

The conclusion is inescapable: such words for 'mother' and 'father', which we will call the *mama/papa* words, do indeed occur in languages in every corner of the planet.

What should we make of this observation? Murdoch didn't know, and he issued an appeal to the community of linguists to find a linguistic explanation for his observation. That appeal produced a famous response, which we will look at a little later. Meanwhile, let's consider another possibility.

2. The Proto-World conjecture. We cannot be looking at an accident. Again and again and again, we find something like *mama* or *nana* for 'mother', and something like *papa* or *dada* for 'father'. Only once in a while do we find them the other way round. And we do not find hundreds of languages in which *mama* or *dada* means 'finger' or 'smile' or 'six'. Nor do we find hundreds of languages in which something like *gugu* or *hoho* or *zaza* means anything at all. We find the forms given above, and we find them in the meanings of 'mother' and 'father'. There must be something deeply significant going on here. But what?

Well, there are quite a few people out there who are ready with an explanation. What is that explanation? Those people tell us this: these words for 'mother' and 'father' occur in lots of languages because they were present in the ancestral language of all humankind, which we may call "Proto-World", and the words have simply survived in

hundreds of modern languages, in much the same form and with precisely the same meaning. Well, this explanation is obvious, simple and elegant, and so it's probably right. Isn't it?

No. It is not right. In fact, it is shriekingly wrong, and not just wrong: it is impossible. The conjecture that the *mama/papa* words are descended from "Proto-World", the ancestral language of all languages, is worse than just wrong: it is incompatible with the evidence. In reality, if some almost inconceivably ancient ancestor of all human languages had genuinely possessed something like *mama* for 'mother' and *papa* for 'father', then we should definitely not see what we do see.

Why not? Am I being perverse? No. Here is a fundamental fact: languages change, and that they change very fast. If it were true that all languages were descended from a single common ancestor spoken perhaps 100,000 years ago, then no trace of that ancestral language would still be visible today. Even if a few fragments of the ancestral language had by some miracle managed to survive down to today, they would be unrecognizable – because language change is so fast.

Imagine that all human beings spoke a single language 100,000 or more years ago, and that this single ancestor has given rise to all the languages of the world. How much change do you suppose each of the modern languages would have undergone, after a thousand centuries or so? King Alfred lived only eleven centuries ago, but already his English is not just incomprehensible to us: it's not even *recognizable* as English.

Let's consider what we should find if the Proto-World conjecture were right. Bear in mind that this conjecture requires the ancestral words for 'mother' and 'father' to have remained virtually unchanged in form and in meaning in hundreds and hundreds of modern languages which are separated from the hypothetical "Proto-World" by perhaps 100,000 years or more. That means at least a hundred millennia, a thousand centuries, perhaps four thousand generations, during which practically nothing at all has happened to the ancient words for 'mother' and 'father'. Is such a thing conceivable?

3. What we would expect to see. Suppose it is true that all languages are descended from a single common remote ancestor. (Nobody knows whether this is true or not, but it might be.) That hypothetical ancestor must have been spoken over 100,000 years ago, and possibly closer to 200,000 years ago, since fully modern human beings (*Homo sapiens*) have lived on the planet for about that long. And presumably that hypothetical ancestor would have possessed a respectable number of words, including words for 'mother' and 'father'. Suppose, as the proponents of Proto-World would have us believe, that the Proto-World words for 'mother' and 'father' were approximately *mama* and *papa*.

Now, given all these suppositions, just how much trace of those ancient words should still be detectable in modern languages, 100,000 or more years later? In how many languages should those original words survive, and how well would they retain their ancient forms and their ancient meanings?

Nobody knows the answer to questions like these, because there are no known cases of words from 100,000 or more years ago surviving down to the present day to be examined. So, the best we can do is to examine those cases in which we *can* trace the histories of particular words over time, see what we can observe, and then try to extrapolate to greater ages. Let's try that.

Let's look at the Indo-European (IE) family, since that family is particularly well understood. The family has an estimated time-depth of about 6000 years, meaning that the common ancestor of all the languages in the family was last spoken about 6000 years ago, after which the ancestral language began to break up into its several daughter languages. Admittedly, 6000 years is a drop in the bucket beside 100,000 years or more, but it is very close to the maximum time-depth we can so far achieve in assigning languages to families.

Now, what words shall we choose? It might seem obvious that we should choose the word for 'mother' or for 'father', but I want to postpone consideration of these words till later, because they happen to illustrate beautifully another point I want to make. Let us therefore choose another word from the same general semantic area. Let's try the words for 'woman'.

Proto-Indo-European (PIE), the ancestor of all the IE languages, had a word for 'woman', which we in fact can recover. However, before I give you that ancestral word, let us first look at the words for 'woman' in some modern IE languages. Since the IE languages fall conveniently into distinct branches, I'll organize the languages by branch: each language finds its closest relatives in its own branch. A few languages have more than one word for 'woman'. Look at Table 2.

Romance branch:

French	*femme*
Spanish	*mujer*
Italian	*donna*
Romanian	*femeie*

Germanic branch:

English	*woman*
Dutch	*vrouw*
German	*Frau, Weib*
Swedish	*kvinna*

Celtic branch:

Irish	*bean*
Welsh	*gwraig, benyw, dynes, merch*
Breton	*maouez*

Baltic branch:

Lithuanian	*moteris, zhmona*
Latvian	*sieva*

Slavic branch:

Russian	*zhenshchina*
Polish	*kobieta*
Czech	*zhena*

Hellenic branch:

Greek	*yineka*

Indo-Iranian branch:

Persian	*zan*
Hindi	*stri, aurat*

Table 2 Some Indo-European words for 'woman'.

Now, this is an entirely representative sample of the words for 'woman' in the IE languages of Europe. Recall that all of these languages are descended from a common

ancestor spoken about 6000 years ago, and that this ancestral language had a word for 'woman'. Can you tell what that ancestral word was? Can you even get a glimmering of that ancestral word? Probably not: there seems to be very little rhyme or reason to this collection of words, and nothing much stands out. There hardly seem to be two words here which even resemble each other. Of course, I hope you already know that resemblances are meaningless in historical linguistics anyway, but let me just give you a gentle reminder of this fact.

While you were searching my list of words for possible cognates, your eye very likely fell upon French *femme* and Romanian *femeie*. After all, we know that French and Romanian are very closely related, having separated probably no more than 1500 years ago, when the Latin-speaking Roman Empire began to break up, and these two words are *awfully* similar in form – now aren't they? Surely they must be the same word in origin?

No. They are not the same word, and they are not even distantly related. French *femme* descends from Latin *femina*, which also meant 'woman'. But Romanian *femeie* has nothing to do with Latin *femina*: instead, it descends from the unrelated Latin word *familia*, which in Latin meant 'domestic servants', 'household' and was derived from *famulus* 'domestic slave'. Latin *familia* eventually developed the sense of 'family' in the Romance languages, and it is the French form of this word which provides English *family*. In Romanian, however, the sense of 'family' or 'children' is confined to some of the regional dialects, while in the standard language the word has developed the sense of 'woman'.

There is no doubt about these conclusions: they have been reached only after the most careful and scrupulous examination of the linguistic evidence. So, even in languages which we already know are closely related, words that are mere lookalikes in form and meaning need not be connected in any way. And, of course, in languages that are not already known to be related at all, mere lookalikes are worthless as evidence of anything.

Now, a very few of the words listed above share a common origin in the ancestral IE word for 'woman'. It is not obvious which words those are, but we'll get to that shortly. Meanwhile, most of the words in my list do not appear to be related to one another, and for the very best reason: they are not related. Words for 'woman' in the IE languages have been rather unstable: they have been lost and replaced by other words on many occasions. But there is more.

Of all the words in my list, the ones that share a common origin in PIE are these: Swedish *kvinna*, Irish *bean*, Welsh *benyw*, Czech *zhena*, Persian *zan*, the first part of Russian *zhenshchina*, and the first part of Greek *yineka*, both of which contain a second element. This fact was probably not obvious, since these words do not especially resemble one another, but then words that genuinely share a common origin often fail to resemble one another, because of the remorseless changes in pronunciation which are constantly applying to every language.

In this case, specialists have painstakingly worked out that the PIE word for 'woman' was **gwena-*, and that this word is the ancestor of the seven words just mentioned. You can see that not one of the seven languages retaining the word has kept anything very close to the original form, though Swedish *kvinna* perhaps comes closest. Most IE languages have lost this original word, at least in the sense of 'woman', though it may remain in the language in some other sense. This original **gwena-* survives in

English, in fact, though in a quite different sense. Can you figure out what the English word is which descends from **gwena-* and which long ago meant 'woman' but which in modern English means something rather different? Perhaps you've spotted it by now, but, if not, ask yourself this question: what kind of woman wears a crown?

All the other words for 'woman' in my list have some other kind of origin. Briefly, these origins are as follows. French *femme* descends from Latin *femina* 'woman', which is derived from a root meaning 'suck', also present in the Latin words underlying English *fetus* and *fecund*: the original sense was 'one who suckles'. Spanish *mujer* descends from Latin *mulier*, also 'woman', of wholly unknown origin, though possibly derived from a root meaning 'soft, delicate'. Italian *donna* descends from Latin *domina* 'mistress', the feminine form of *dominus* 'lord'. Latin *femina* still exists in Italian as *femmina* and in Spanish as the somewhat less recognizable *hembra*, but these words now mean only 'female', not 'woman'. Romanian *femeie* has already been explained as descending from Latin *familia* 'household'.

German *Frau* and Dutch *vrouw* are the same word, originally the feminine form of a word meaning 'master' and distantly related to English *first*. German *Weib* – which is now a rather insulting word – continues a Germanic word of utterly unknown origin; it is the same word as English *wife*, which used to mean 'woman' once but no longer. English *woman* is historically *wife-man*, which is literally 'woman-person', since *wife* meant 'woman' and *man* once meant 'person'.

Welsh *gwraig* and *dynes* are both female derivatives of words meaning 'man'. Welsh *merch* meant only 'girl' and 'daughter' until very recently, but today it has become yet another word for 'woman' in a language which hardly seems to need another word of this meaning. Breton *maouez* originally meant 'girl', which is still the sense of the closely related Cornish *mowes*.

The earlier Lithuanian word *zhmona* is simply the feminine form of a word for 'man', but this word is now mainly specialized in the meaning 'wife', and the more usual word for 'woman' is *moteris*, which in earlier Lithuanian meant 'mother', and is in fact the same word as English *mother*. Latvian *sieva* originally meant 'wife', but has come to mean also 'woman'.

Polish *kobieta* was until the eighteenth century an offensive term for a woman, but since then it has remarkably lost its insulting connotations and become the ordinary word for 'woman'. It has replaced *niewiasta*, which was the ordinary word until the eighteenth century; this word is literally 'not-known', and it originally meant 'bride' (since the custom was for a bride to move into her husband's household, where she was not known), but then it shifted to 'woman', before being displaced.

Hindi *stri* is of wholly unknown origin: the word is mysterious. Hindi *aurat* is taken from Arabic, and its original sense was 'one-eyed', 'defective'. The word was once extremely contemptuous, but it has nevertheless become an everyday word for 'woman' in Hindi and in other languages of the Indian subcontinent.

So, what do we have? In the space of only 6000 years or so, the fate of the original PIE word for 'woman' in almost every daughter language has been as follows: (1) it has disappeared completely; (2) it has changed its meaning to something quite different (as with English *queen*); or (3) it has changed its pronunciation so much that it is no longer easily recognizable as the same word (as with Irish *bean* or Greek *yineka* or Persian *zan*). There is, in fact, scarcely a single IE language in which the PIE word

survives with a recognizable form and the same meaning. Swedish *kvinna* looks a good bet, but in fact the Old Swedish word for 'woman' was *kona*, which today is strictly an offensive word for a woman, and it is something of a fluke that the modern Swedish word looks so conservative in form.

Therefore, when we look at the Indo-European languages, we find that only a small minority of them still preserve the ancestral word for 'woman' in the same sense, and that those that do preserve it have changed its form greatly. It is hardly likely that Irish *bean*, Swedish *kvinna*, Greek *yineka* and Persian *zan* leapt off the page at you, proclaiming themselves to be the same word. Indeed, it is only because of generations of patient and painstaking investigation of all these languages that we *know* they are the same word. If anything, it was probably French *femme* and Romanian *femeie* which caught your eye at once – but these words are not even remotely related. In linguistics, searching for lookalikes is a waste of time: the words that look alike are very probably not related, and the words that are genuinely related very often do not look alike. Only the most scrupulous investigation of the historical facts can determine which words are related and which are not.

And this is what we see after no more than 6000 years of language change. But the Proto-Worlders want us to believe that *some* words have remained practically unchanged in hundreds of languages after 100,000 years or more. Well, have I cheated? Are words meaning 'woman' more unstable than other words? In particular, are they more unstable than words meaning 'mother' and 'father'? Maybe we should look at a few more words.

4. Another look. The word 'woman' is semantically related to 'mother' in one way, but words for 'woman' have clearly not been very stable within the IE family. Let's try a word which is semantically related to 'mother' in a different way: 'child'. In fact, while we're at it, let's look at the words for all of 'boy', 'girl' and 'child' – again in a sample of IE languages. So as not to overwhelm you, let me this time just give you the words, with a minimum of commentary. Look at Table 3.

	‘boy’	‘girl’	‘child’
Romance branch:			
French	*garçon*	*jeune fille*	*enfant*
Spanish	*chico, muchacho*	*chica, muchacha*	*niño*
Italian	*ragazzo*	*ragazza*	*fanciullo, bimbo*
Romanian	*baiat*	*fata*	*copil*
Germanic branch:			
English	*boy*	*girl*	*child*
Dutch	*knaap*	*meisje*	*kind*
German	*Knabe*	*Mädchen*	*Kind*
Swedish	*gosse, pojke*	*flicka*	*barn*
Celtic branch:			
Irish	*buachail*	*cailín*	*leanbh, paiste*
Welsh	*bachgen, hogyn*	*geneth , hogen*	*plentyn*
Breton	*paotr*	*plac’h*	*bugel, krouadur*
Baltic branch:			
Lithuanian	*vaikas*	*mergaite, mergele*	*vaiki*
Latvian	*puisis, puika*	*meita*	*berns*
Slavic branch:			
Russian	*mal’chik*	*devica*	*rebenok*
Polish	*chlopiec*	*dziewczyna*	*dziecko, dzieicie*
Czech	*chlapec, pachole, hoch*	*holka, dívka*	*díte*
Hellenic branch:			
Greek	*aghori*	*kori, koritsi, kopella*	*pedhi*

Table 3. Some Indo-European words for ‘boy’, ‘girl’, ‘child’.

Well, what do you think of this collection? This time, there are hardly any words with any given meaning in this list that even resemble each other. And in fact there are hardly any two words in the list which are genuinely related.

Of the words for 'boy', Dutch *knaap* and German *Knabe* are of course the same word in origin, both being the same word as English *knave*, which once meant 'boy'. Polish *chlopiec* is the same word as Czech *chlapec*. Irish *buachail* and Welsh *bachgen* are not related at all, in spite of the vague resemblance in form, though the Irish word is related to Breton *bugel* 'child'. Swedish *pojke* and Latvian *puika* look suspiciously similar, and they are connected in a fashion: these words are not native, but are borrowed from the neighbouring Uralic languages Finnish and Estonian, which do not belong to the IE family.

Among the words for 'girl', Dutch *meisje* is related to German *Mädchen*, though the two don't look particularly similar, and the Russian and Polish words are related. But that's about it: no other languages in the list share a word for 'girl'. (The Irish word, of course, has been borrowed into English as *colleen*.)

Of the words for 'child', Dutch *kind* and German *Kind* are the same word, and so, less obviously, is English *child* – though the informal English *kid* is related to none of these. Swedish *barn* and Latvian *berns* are the same word, and in fact this word exists in the form *bairn* in the local English of much of Scotland and northern England, thanks to the Viking settlement of much of Britain many centuries ago. The Czech word is related to the Polish ones. Otherwise, the words in this column are all of different origins.

Some of those origins may be quite surprising: among the original senses of these words are 'nourisher', 'immature', 'stableboy', 'cowherd', 'servant', 'bathed', 'maimed', 'cropped', 'offspring', 'ragged', 'rogue', 'bald head', 'creature', 'worker', 'little one', 'son', 'daughter', 'concubine', 'bear', 'suckling', 'stump', 'spike', 'fool', 'patch', 'unmarried', 'born', and 'womb', among others. But pursuing these fascinating matters would take us too far from our subject.

It is enough to observe that words for 'boy', 'girl' and 'child' have been coming and going at a dizzying rate in the IE languages. By comparison, the words for 'woman' have been replaced only with glacial slowness. So, recall the question I asked earlier: are words for 'woman' more unstable than other words? Hardly. Words meaning 'woman' are positively models of stability compared to words of some other meanings.

Of course, it may be that you still suspect me of cooking the books. Perhaps I have, with great cunning, singled out the words for 'woman', 'boy', 'girl' and 'child' because I happen to know that such words change exceptionally rapidly. Perhaps these words are atypical, and words with other meanings do not change anything like as fast.

Well, if you're thinking along these lines, then what other words do you suppose might be far more stable than the ones I've considered so far? Perhaps words meaning 'head'? Or 'leg'? Or 'wife'? Or 'tree'? Or 'food'? Or 'sky'? Or 'river'?

No. I could present comparable lists for the words in any of these meanings, and always you would see the same result: a large number of unrelated words in the various IE languages, with the genuinely related words hard to identify as such because they have changed their forms so much. For example, it is far from obvious that Romanian *cap* 'head' is historically the same word as English *head* but is unrelated to German *Kopf*

'head' – but this is indisputably true. As always, lookalikes are a waste of time, and words that genuinely share a common ancestry do not have to resemble one another.

The Proto-World account of the *mama*/*papa* words is beginning to look pretty bad. That account requires us to believe that words meaning 'mother' and 'father' have remained substantially unchanged in hundreds of languages over an astronomical period of time. Yet a little investigation quickly reveals that words are not so stable: even within just a few thousand years, they are frequently replaced by different words, or, if they survive, they change their forms or their meanings so much as to become unrecognizable. The Proto-Worlders would have us believe that the *mama*/*papa* words are immune from the ordinary processes of linguistic change to a degree that is positively magical. And we linguists don't believe in magic.

But there's more – lots more. There is something else about the *mama*/*papa* words which we haven't considered yet, something obvious and important, something that needs to be explained – but the Proto-World conjecture can't explain it.

5. They just keep coming. The Proto-World conjecture requires that the *mama*/*papa* words should be nothing more than fantastically ancient remnants of an unknown language spoken by our first human ancestors almost inconceivably long ago. Well, if these words are *remnants*, then they are just left over. They can't do anything other than hang about in a language until they finally disappear from that language or change their forms or meanings beyond recognition. In other words, the *mama*/*papa* words should be slowly but steadily disappearing from the world's languages. Are they?

Well, these words are assuredly not magical, and they are subject to the same linguistic processes as other words.

Let's look at Japanese. The modern Japanese word for 'mother' is *haha*. This doesn't look entirely like the other words listed above. But surface forms are worthless in linguistics, as I hope you've realized by now. Historians of Japanese have established that the modern Japanese consonant /h/ derives from Old Japanese */p/, and that every single instance of */p/ in Old Japanese (except for doubled */pp/) has changed to /h/ in modern Japanese. So, the Old Japanese word for 'mother' was **papa* – in line with the forms we've been talking about, but one of the less usual cases which are "the wrong way round". And Old Japanese was spoken only a few centuries ago. In just a few centuries, the earlier **papa* has been altered to *haha*, which scarcely even resembles its own earlier form.

A very unusual case is provided by Manchu, the now virtually extinct language of the Manchus, who in the sixteenth century erupted out of Manchuria and conquered the great Chinese Empire. Manchu has these words:

	'mother'	'father'
Manchu	*eme*	*ama*

This looks like no other case we have seen. But, in fact, this pair of words is part of a larger generalization in Manchu. Look at a few more pairs:

hehe 'woman'	*haha* 'man'
erselen 'lioness'	*arsalan* 'lion'
emile 'hen'	*amila* 'rooster'

You can easily work out what's going on here. Manchu has developed a system of sex marking in nouns, by which the female form contains the vowel /e/ at every opportunity, while the corresponding male form has /a/ instead. We don't know how this system arose, but it did arise, and it came to be extended even to the words for 'mother' and 'father', with the result that we now cannot tell whether one of the two words *eme* and *ama* is the original from which the other is derived, or, if so, which word it is.

Or consider Indo-European. Linguists have reconstructed the Proto-Indo-European words for 'mother' and 'father', and these forms are **mater* and **pater*. You can see at once that these are *mama*/*papa* words which have acquired a suffix *-ter*, the same kinship suffix which occurs also in PIE **bhrater* 'brother' and **dhugater* 'daughter'. Already these words were being treated like other words in the language. Since PIE, the original words for 'mother' and 'father', where they have survived at all, have undergone the usual changes in pronunciation in the languages possessing them. Original **mater* and **pater* have developed into *madre* and *padre* in Spanish, with only modest changes. In English they have become *mother* and *father*, reflecting the usual developments in Germanic, and they don't look so much like *mama*/*papa* words any more. In Swedish, things have gone a little further, and the Swedish forms are *mor* and *far*, with complete loss of the original */t/. French is somewhat similar, with *mère* and *père*, again with loss of */t/. In Irish, the words are written *mathair* and *athair*, but these conservative spellings conceal the modern pronunciations, which are roughly [ma:hir] and [ahir]. You can see that the original */p/ has completely disappeared – as it always did in Celtic, and these words were not exceptions – and that original */t/ has been weakened all the way to that weakest of consonants, /h/. It is scarcely likely that anyone would recognize [ahir] as a *mama*/*papa* word now, but in origin it definitely is.

Clearly the *mama*/*papa* words are in no way resistant to the ordinary processes of linguistic change, including regular changes in pronunciation. Nor are they resistant to loss. The ancestral PIE words have been completely lost in a number of the daughter languages, lost and replaced by other words. Two of those languages are Romanian and Welsh, repeated here from earlier:

	'mother'	'father'
Romanian	*mama*	*tata*
Welsh	*mam*	*tad*

But look at the words which have replaced the lost older ones! The newer words which have replaced the older ones are themselves *mama*/*papa* words. According to the Proto-World account, this is impossible. The *mama*/*papa* words are supposed to be no more than ancient survivals, and they can't do anything except survive for a while longer or disappear. They absolutely can't *reappear* in languages which have lost them.

But they do. And they do it all the time. Let's consider some examples.

The Turkic family is a medium-sized family of languages in central Asia. The inherited Turkic words for 'mother' and 'father' are *ana* and *ata*, respectively, and these words – which are *mama/papa* words, of course – are still the everyday words in most Turkic languages. But, in the best-known Turkic language, Turkish, the word *ata* has now become specialized. It is no longer the everyday word for 'father', and instead it is an elevated word meaning 'forefather', 'ancestor'. The Turkish reformer Mustafa Kemal, when he compelled his countrymen to adopt surnames, gave himself the surname *Atatürk* – literally 'Father Turk'. But the everyday word for 'father' is now *baba.* This, of course, is another *mama*/*papa* word, and it used to be the Turkish word for 'daddy', but now it is the ordinary word for 'father', and 'daddy' must now be expressed by adding a diminutive suffix, producing *babacik* (pronounced roughly 'baba-jik').

Two other Turkic languages have likewise replaced the inherited *ata* as the everyday word for 'father'. Uyghur has *dada*, yet another *mama*/*papa* word, while Turkmen has the unusual *kaka* – another *mama*/*papa* word, but one of the rarer ones with consonants produced at the back of the mouth.

We have already seen that the inherited Indo-European words were **mater* and **pater*, and that these words have been lost and completely replaced by new *mama*/*papa* words in Romanian and Welsh. But there is much more to be said. In many IE languages, the inherited words, which are traditional and more formal, coexist with newer words, which are informal or intimate – and those newer words are *mama*/*papa* words. Table 4 shows just a few examples. In each case, the words on the first line are the ones inherited from PIE, while those on the second line are the newer and less formal words.

	'mother'	'father'
Modern Greek	*mitera*	*pateras*
	mama	*babbas*
Icelandic	*moðir*	*faðir*
	mamma	*pabbi*
Norwegian	*mor*	*far*
	mamma	*pappa*
French	*mère*	*père*
	maman	*papa*
Italian	*madre*	*padre*
	mamma	*babbo*

Table 4. Some new *mama*/*papa* words.

In some cases, the newer *mama*/*papa* words are still decidedly informal and largely confined to family use. But not always: for example, Italian *mamma* is now so

frequent that some commentators fear it may be driving the traditional *madre* out of the language altogether. And *babbo* is so frequent that it has already acquired a diminutive form *babbino*: opera buffs will know the famous aria *O mio babbino caro* 'Oh, my dear daddy'.

Now, in case you were wondering, there is no doubt that these informal *mama*/*papa* words are new additions to the languages containing them. Consider, for example, Modern Greek *babbas* 'daddy', where that final *s* is simply the ordinary Greek masculine ending. This word cannot be ancient in Greek. Why? Because the consonant /b/ of classical Greek changed in every case into /v/ in the post-classical period. For example, classical Greek had the word *biblios* 'book', which we have borrowed into English in order to coin technical terms like *bibliography* and *bibliophile.* But the modern Greek form of the word is *vivlio*, with the earlier /b/s changed into /v/s. Likewise, classical Greek *sabbaton* 'Saturday' is *savvato* in modern Greek.

So, for some centuries, the consonant /b/ was absolutely lacking in Greek, and all modern Greek words starting with /b/, like *babbas*, have been added to the language since the post-classical period. This is the kind of conclusion that good historical work allows us to draw.

In Bengali, the formal word for 'father' is the inherited *pita*, but the informal one is *baba* – and *ma* is now the only word for 'mother'. In the closely related Hindi, the inherited *pita* is now strictly an honorific term, and the ordinary word for 'father' is *baba* or *bap*. In Polish, the formal word *matka* 'mother' coexists with informal *mama*, and, in Ukrainian, the formal word *bat'ko* 'father' coexists with informal *tato*.

In Persian, the inherited words *madar* and *pedar* now coexist with informal counterparts *maman* and *baba*. In Latvian, the formal words are *mate* and *tevs*, but the informal words are *mama* and *paps*. In Gothic, the extinct Germanic language of the Goths, who invaded the Roman Empire, the expected Germanic word *fadar* 'father' is barely recorded, and then only in the elevated Christian sense, and the ordinary Gothic word for 'father' was *atta*.

This phenomenon is not confined to the IE languages. We find similar cases all over the world. In Finnish, formal *äiti* 'mother' coexists with informal *mamma*. In the Eskimo language West Greenlandic Inuit, the formal words for 'mother' and 'father' are *arnaq* and *anguti*, but the informal words are *anana* and *ataata*. In Tamil, a Dravidian language of southern India and Sri Lanka, the formal words are *taayi* and *takappan*, but the informal words are *ammaa* and *appaa*. In Karina, a language of Surinam in South America, the formal words are *sano* and *yumi*, but the informal words are *tata* and *papa.* In the North American language Abenaki, the formal words are *-igawes* and *-mit'gwes*, but the informal words are *-nonon* and *-dadan*.

In the Polynesian language Fijian, you must refer to your mother and your father as *tina-* and *tama-*, respectively, using the common Polynesian words which have been inherited from the ancestor of the Polynesian languages, but you must *address* them as *nana* and *tata*. In Koasati, a language of Louisiana, the older word *pici* for 'mother' is now almost obsolete, and the word *maama* is preferred in all contexts – and *taata* is now the only word for 'father' in use. In Tonkawa, an extinct language of Texas, a speaker had to refer to his father as *iwas*, but had to address him as *tata*. In Maltese, the Semitic language of Malta, the formal word for 'father' is *bayi*, but young children address their father as *papa*. And so on, from language to language.

English presents an embarrassment of riches. Alongside our traditional standard word *mother*, we have British *mummy* and *mum* (US *mommy* and *mom*), plus *mama* and *ma* (or *maw*), and southern American *mammy*. And most of us have encountered the *mam* of Irish English from reading Frank McCourt's book *Angela's Ashes*, or from seeing the film. For standard *father*, we have two sets of forms. One set includes *daddy*, *dad*, and the *da* of Welsh English, while *dada* is still considered strictly baby-talk. The other set includes *papa*, *pop*, *poppy*, *pappy*, and *pa* (or *paw*). All of these informal terms are first recorded only in the last few centuries. These words are not yet threatening to drive the traditional words out of the language, but few of us these days are in the habit of addressing our parents as *mother* and *father*.

The conclusion is inescapable. The *mama*/*papa* words are not fossilized relics of some ancient ancestral language at all. Instead, they are being *created* all the time. New examples of *mama*/*papa* words are constantly being invented and passing into use. At first these new words survive alongside the older ones as informal or intimate versions, but eventually they may take over completely and drive the older words out of the language.

This process is self-renewing for ever. For example, as we saw above, the inherited PIE **pater* 'father' has been completely lost in Welsh in favour of the newer word *tad*. But now that *tad* is the established and formal word, what do you suppose is happening? Yes: Welsh-speakers have again coined a new informal word, *dada*. This new word will exist alongside *tad* until one day, perhaps, when it drives *tad* out of the language in turn, and then meets competition from yet another word.

This is what is going on, and the Proto-World conjecture is falsified. That conjecture gets nothing right and gets everything wrong. It must be dismissed as the hopeless rubbish it is.

This endless re-creation and recycling of *mama*/*papa* words explains a great deal. It explains why we find these words so often, in so many languages. It explains why the words are so consistent in form, and why they typically show so little of the effects of centuries or millennia of linguistic change. It explains why the *mama*/*papa* words so frequently coexist with other words for 'mother' and 'father', and why it is always the *mama*/*papa* words which are the less formal or more intimate members of the pairs. But, of course, there is still one big question yet to be answered: where are these words coming from? Who is creating them, and why? To that issue we now turn.

6. Jakobson's explanation: parents do it. The correct explanation of the origin of the *mama*/*papa* words was provided by Roman Jakobson, one of the greatest linguists of the twentieth century. Jakobson was born in Russia in 1896, but after the Bolshevik revolution of 1917 he fled to the Czech city of Prague. There he joined a group of Czech and Russian linguists in setting up the Linguistic Circle of Prague. The Circle produced a number of important works in linguistics, until it was broken up by the Nazi occupation of Prague in 1939. Forced into exile yet again, Jakobson fled first to Sweden and then to the United States, where he eventually obtained a chair at Harvard. He continued working in the USA until his death in 1982.

Jakobson contributed to many different aspects of the study of language, from child language – where he did fundamental pioneering work – to poetics. But here we are concerned with a little article he published in 1959. In that article, called 'Why

"mama" and "papa"?', Jakobson was responding to the appeal by George Murdoch mentioned earlier, and in it he turned his vast experience to the question we are considering in this chapter. And he had an answer.

Jakobson was among the first linguists to examine what children do when they begin acquiring their first language, and he was the first linguist to report observations which are now repeated in every introductory textbook. The key point here is that children go about the business of acquiring a first language in a highly orderly way. This is true for the acquisition of speech sounds, of vocabulary and of grammar, but here we are concerned only with speech sounds.

A young child at first produces no vocalizations other than sobbing and shrieking. Then it moves on to the stage we call *cooing* – making those familiar but hard-to-describe baby noises. At the cooing stage, the child is producing no recognizable speech sounds, and its parents do not believe the child is beginning to speak.

But then something momentous happens: the child abandons cooing and moves on to the *babbling* stage. Unlike cooing, babbling involves the production of recognizable speech sounds – consonants and vowels. These speech sounds are combined into syllables, with each syllable typically consisting of a consonant followed by a vowel, as in *da* and *pa*. Very frequently in babbling, however, these syllables are reduplicated – repeated – and so what the child produces is something like *dada* and *papa*.

Now, not all speech sounds are equally easy to produce, since some speech sounds require more work from the speech organs than others. Among the vowels, the easiest sound to produce is [a] – roughly the vowel of *father* – because this vowel requires no effort at all from the tongue or from the lips. Just open your mouth and make a noise, and the noise you get is the vowel [a], unless you go out of your way to produce some other vowel. Accordingly, [a] is the first vowel that children manage to produce, and it is the first vowel heard when babbling begins.

Likewise, not all consonants are equally easy to produce. For example, the consonant [θ] is notoriously hard to make. This is the consonant which occurs at the beginning of English *think* and at the end of *mouth*. Not only is this peculiar consonant famously hard for foreign learners of English to acquire, it is also difficult for English-speaking children, and it is always one of the very last speech sounds mastered by children learning English. Even a three-year-old may still be saying *fink* for *think* and *mouse* for *mouth*. Naturally, then, a babbling child seldom produces any noises like *θaθa*.

What, then, are the easiest consonants to produce? These are the sounds made entirely with the lips, like [m], [b] and [p]. These are easy because they require absolutely no work from the tongue: all you have to do is to put your two lips together and then release them. Accordingly, these *labial* consonants, as they are called, are the first consonants produced by babbling children. Of the three, [m] is slightly easier to make than the other two, since the other two require a little work at the back of the mouth – the raising of the velum – which is not required for [m]. As a result, the very first babbling sounds produced by young children are usually of the form *mama*, followed by *baba* and *papa*. This is universally true, regardless of the adult language surrounding the child, because these are simply the easiest sounds to make, and so they are always the first sounds produced by children.

The next easiest consonants to produce are those made by raising the front of the tongue, which we call *coronals*. Among the coronals are [n], [d] and [t]. Accordingly, after labial sounds appear, the next babbling noises to be heard are usually those of the forms *nana*, *dada* and *tata*.

All other consonants are still harder to produce. As a result, babblings like *kaka*, *lala*, *sasa* and *vava* are not often heard from a child until after the easy noises like *mama* and *dada* have been produced hundreds of times.

So, universally, young children begin to babble by saying *mama*, followed quickly by *baba* and *papa*, then soon after by *nana*, *dada* and *tata*. And how do their parents react to this behaviour?

Parents are eager to hear their child beginning to speak, and they listen impatiently for a child's "first words". At the cooing stage, the child is producing no recognizable speech sounds, and so the parents do not suppose that the child is trying to speak. However, once the child moves on to the babbling stage, the eager parents suddenly start hearing familiar speech sounds and recognizable syllables – and so they at once conclude, delightedly, that little Jennifer is trying to speak.

Now, this conclusion is an error. There is absolutely no evidence that babbling children are trying to speak, and in fact linguists are pretty sure they are not. Babbling appears to be no more than a way of experimenting with the vocal tract, and babbled sounds like *mama* and *dada* are not intended as meaningful utterances. But the parents think otherwise: they are sure little Jennifer is trying to talk.

But what is Jennifer trying to say? This is not obvious, and in fact the fond parents can only guess what Jennifer means to say. And what guess does Mother come up with? Does she guess that little Jenny is trying to say 'banana'? Or 'telephone'? Or 'go away'? No. In almost every case, Mother concludes that little Jenny is trying to say 'mother'.

This happens because Mother *wants* little Jennifer to say 'mother', and because she *wants* to believe that Jenny is trying to say 'mother'. So, as soon as Jennifer manages to produce any recognizable sequence of speech sounds at all, and particularly when she repeats that sequence, Mother happily concludes that Jenny is saying 'mother' as well as her little speech organs will allow her. As a result, one of the very earliest babbling sequences, usually something pretty close to *mama*, is taken to be "Jennifer's word" for 'mother'. And, of course, one of the earliest babbling sequences to follow, usually something like *papa* or *dada*, is taken to be Jenny's word for 'father'. The word for 'mother' is assigned first because infants spend more time with their mothers than with their fathers.

So far, of course, *mama* is merely "Jennifer's word" for 'mother'. But Mother is more than happy to use "Jennifer's words" in speaking to little Jenny, and it doesn't take her long to start making heavy use of the distinctive style we call *baby talk* in speaking to Jennifer. In particular, Mother will refer to herself as *mama* when she is speaking to Jenny, because that is "Jennifer's word", and so Jenny will presumably understand it.

Sometimes the process goes no further than this, and *mama* remains merely a baby talk word for 'mother'. But often – *very* often, in fact – it goes further. Adults begin using the baby-talk words *mama* and *dada* not just in talking to babies, but in talking to older children, and even in talking to other adults – such as their own parents.

This last point is especially important. Consider what happens to little Jennifer as she grows up. Jenny's mother has taught Jenny from infancy to address her as *mama*, and Jenny may very well continue to call her mother *mama* after she ceases to be an infant. At age five, at age ten, at age eighteen, at age 35, she may still be calling her mother *mama*, because that's what she learned to do in early childhood. Even though Jennifer has learned the traditional and more formal word *mother*, she seldom applies it to her own mother, whom she prefers to address as *mama* (or as *mummy* or *mommy* or *mum* or *mom* or some other baby-talk form in this vein).

Jennifer may go further. When talking to her friends, she may refer to her own mother as *my mama*, or *my mum*, or whatever, instead of as *my mother*. She may refer to her friends' mothers in the same way: as *your mama* or *your mum*, or whatever.

You can see what might happen. Bit by bit, the baby-talk form may begin to infiltrate the adult language, and it may begin to displace the traditional word for 'mother'. Eventually it may even drive the older word out of the language, leaving the *mama* word as the *only* word for 'mother'. And, of course, the *papa* word may do the same to an older word for 'father'. If this happens, then the language will come to have something like *mama* as its ordinary word for 'mother', and something like *papa* or *dada* as its ordinary word for 'father'. And this process, of course, explains the frequency of the *mama*/*papa* words in the world's languages.

We don't need to appeal to a hypothetical remote ancestral language of all humankind to account for the frequency of the *mama*/*papa* words, and anyway no such proposal can possibly explain the facts as we have found them. We have a beautifully simple explanation in terms of the universal behaviour of young children.

And this simple explanation has many virtues which we have not yet considered. We have already seen that Jakobson's account explains the central observation that *mama*/*papa* words are constantly re-created in language after language. But there is more.

As we saw above, the new word for 'mother' is most often of the type *mama*, but sometimes it has the form *nana* instead, and once in a while, as in Old Japanese, we get one of the less usual forms like *papa* or *dada*. The new word for 'father', however, is slightly more complicated. We get new words of the form *papa* or *baba* quite often, but just about as often we get words of the type *tata* or *dada* instead. And, of course, every now and again we get *mama* for 'father', as in Georgian, or occasionally even *kaka*, as in Turkmen.

Jakobson's account explains these facts rather well. A child *typically* produces *mama* before *baba* or *papa*, and all of these before *tata* or *dada*, and all of these before moving on to slightly more difficult sounds like *kaka* and *yaya* and *chacha*. And the proud parents *typically* assign the first such sequence they hear repeated to the meaning 'mother', and the second or so to the meaning 'father'. But none of this is engraved in stone, and individual children and individual parents may happen to do something slightly different.

Notice, by the way, that this variation in the details of the *mama*/*papa* assignments constitutes yet another formidable obstacle to the Proto-World conjecture. If there really was a Proto-World word for 'father', then it must have had some particular form. If that form was *papa*, then the Proto-World view is entirely helpless to explain why so many languages have *tata* or *dada* for 'father'. And, if that form was *tata*, then

the same difficulty arises with all the languages having *papa* or *baba* for 'father'. Jakobson's explanation requires only a narrowly circumscribed set of forms; the now clearly ridiculous Proto-World account has to have *one particular form* for each meaning, and it is helpless at dealing with the multiple forms we observe.

By now you have surely realized that the Proto-World conjecture is dead in the water. It explains nothing, and it makes all the wrong predictions. But there is yet more. If the Proto-World conjecture were right, then *mama* and *papa* would be no more than accidental survivals from an ancestral language – and, crucially, there would be no reason for these words to have any *particular* form. Instead of *mama*, the word for 'mother' in "Proto-World" might just as likely have been *tata*, or *fifi*, or *zuzu*, or for that matter *mother* or *dziewczyna* or even *kangaroo*. There is no earthly reason why the word should have had one form rather than another, and the Proto-World conjecture accordingly predicts no forms: in this conjecture, the discovery that 'mother' is *mama* is a complete surprise, just as much of a surprise as *dziewczyna* would have been. However, in Jakobson's explanation, the *mama*/*papa* words simply *have* to have the forms that they do have, because these are precisely the sounds that children produce first, universally. Jakobson's account would not work if the observed words were something different, like *fifi* and *zuzu*, unless of course the first sounds produced by children were also *fifi* and *zuzu*.

In other words, Jakobson's account is firmly rooted in observed facts: the universal facts of first-language acquisition by children. His explanation only works because the first sounds produced by children are identical in form to the words we are trying to account for. Jakobson's account *requires* that the widespread words we are talking about should have forms like *mama* and *papa*, because nothing else will do. The Proto-World conjecture tells us this much, at best: words for 'mother' will be universally similar in form. Jakobson's explanation, in great contrast, tells us this: words for 'mother' will universally have the form *mama*. This is a much stronger prediction than the first – and it's also right, of course.

You've probably read enough by now, but in fact there is still more evidence that we have not considered yet – evidence confirming Jakobson's interpretation and further demolishing the pathetic remains of the Proto-World conjecture. Let's look at some of that evidence.

7. Further babbling. There is no reason why parents should stop assigning meanings to their child's babbles after they have assigned 'mother' and 'father' to two of the earliest babbles. Sometimes they do stop at this point, but sometimes they go on, and assign some meanings to a few more babbles. I'll assume it's Mother assigning the meanings, which is realistic.

If Mother has not already decided to assign the early babble *mama* to herself, she may very likely assign it instead to something else which is obvious. What else is obvious? One thing that is obvious is her breast, which her child is often seeking. So, we find that 'breast' is *mamma* in Latin, *mama* in Hausa (in northern Nigeria), and *-ama-* in Xhosa (in South Africa). The Latin word, of course, is the source of our technical terms *mammary gland*, *mammogram* and *mammal* (a mammal is an animal in which females have breasts). A similar choice led to the creation of a word for 'nipple' which occurs

widely in European languages, including English, where it appears as the now rather old-fashioned *pap*.

Once 'mother' and 'father' have been assigned, though, Mother may choose to assign further babbling noises to other family members: aunts and uncles, brothers and sisters, grandparents, and the like. English does little of this, though *nana* or *nan* is used for 'grandmother' in some British varieties of English. At this later stage, however, little Jennifer is probably producing a greater range of babbling noises than formerly, and so the babbles assigned now may show more variety in sounds. There may be new consonants, like *kaka*, *yaya* and *chacha*, and there may be more variety in the vowels, with things like *nene* and *dadi*. For example, in the Louisiana language Koasati, where *maama* and *taata* have become the ordinary words for 'mother' and 'father', we find *yaaya* used for 'older brother or sister'.

Here are a few examples of these later assignments. Let's look at the Turkic languages, which are all closely related but which show great variation in the choices made. Kyrgyz has *aga* for 'older brother', and Uyghur and Uzbek have *aka* for the same meaning. In Tatar and Turkmen, however, *aga* means 'uncle', and quite different words are used for 'older brother'. For 'grandfather', we find *bobo* in Uzbek, *baba* in Azerbaijani, and *dede* in the very closely related Turkish, where *baba*, recall, has become the ordinary word for 'father'. For 'older sister', we have *apa* in Kazakh and Tatar, but *opa* in Uzbek, and *eje* in Kyrgyz. But *apa* is also 'aunt' in Kazakh and Tatar, while 'aunt' is *bibi* in Azerbaijani and *amma* in Uzbek. For 'grandmother', we find *nine* in Turkish, *moma* in Uyghur, *abi* in Tatar, and both *ene* and *mama* (!) in Turkmen. All these languages are closely related, but they differ greatly in their choices of babbling words for these relatives.

We find much the same thing elsewhere. In Bengali, for example, *dada* means 'paternal grandfather' among Muslim speakers but 'older brother' among Hindu speakers. Even though they speak the same language, the two religious groups have chosen different assignments for this babbling noise. Even non-relatives can occasionally be singled out: in Basque, for example, *tata* has become the word for 'nursemaid', 'nanny', and English *nana* formerly had the same meaning (that's why J. M. Barrie named the dog *Nana* in his play *Peter Pan*: because it is the children's nursemaid).

Mother may in fact go on to assign babbling noises to other things of interest to Jennifer, but these further assignments seldom leave the domain of baby-talk. In Basque, for example, *papa* is a baby-talk word for 'bread', but it remains strictly baby-talk, and it shows no sign of displacing the adult word, *ogi*.

There is one last point to be noted here, of the greatest importance in understanding how these meanings are assigned to Jennifer's babbling noises. As we have seen, it is enormously frequent for early babbling noises to be assigned the meanings 'mother' and 'father', and it is also common for babbling noises to be assigned as labels for other older relatives, like older brothers and sisters, aunts and uncles, and grandparents. But observe: it is virtually unheard-of for a babbling noise to be assigned to labelling a *younger* relative. We practically never find babbling noises assigned to meanings like 'younger brother', and we absolutely never find them assigned to 'son' or 'daughter'. Why not? It's obvious: when little Jennifer is babbling away happily in her cot, she *has* no younger relatives. By the time, some years later, when she finally acquires one or two younger relatives – most likely brothers and sisters – she is long past

the babbling stage, and nobody is interested any longer in assigning babbling noises as labels for the newcomers.

This is yet another nail in the coffin for the "Proto-World" conjecture about the *mama*/*papa* words. For the Proto-Worlders, there is no earthly reason why babbling noises should be found for 'older brother' but not for 'younger brother'. But Jakobson's account actually *predicts* that we should find just this state of affairs – and we do.

8. Conclusion. As the evidence shows clearly, the *mama*/*papa* words are created by parents who are eager to believe that their children are trying to talk when in fact those children are merely producing the universal babbling noises. Since every child babbles in much the same way, parents everywhere hear the same noises, and they almost always choose to assign the same meanings to the childish noises they hear. Again and again parents create words like *mama* 'mother', and again and again these creations pass out of the nursery into adult speech, displacing other words in the process. As a result, we find the *mama*/*papa* words in languages all over the planet, in much the same form everywhere, and we frequently find them in the process of displacing older and more formal words, which themselves may be the greatly changed remains of earlier *mama*/*papa* words.

So, if you happen to run into somebody who wants you to believe that the *mama*/*papa* words are descended from the ancestral language of all humankind, ask him how he proposes to explain a few things:

• Why is the "ancient" word for 'mother' of the form *mama*, and not *zuzu* or *fifi* or *kangaroo* or something?

• Why do the *mama*/*papa* words so closely resemble the first babbles produced by children?

• Why do we have both *dada*/*tata* words and *baba*/*papa* words for 'father'?

• Why do closely related languages often differ as to whether they choose *mama* or *nana*, *papa* or *tata*?

• Why do some languages have these words the wrong way round?

• Why have these "ancient" words changed so little, while other words have changed their forms dramatically?

• Why is it so often the case that the traditional or formal words for 'mother' and 'father' are something else, while the newer or less formal words are *mama* and *papa*?

• Why do we find languages in which *mama*/*papa* words have *replaced* earlier words for 'mother' and 'father'?

• Why does English have so many different *mama*/*papa* words?

There will be no answers, because no answers are available. The *mama*/*papa* words are not survivals from some unimaginably ancient ancestral language of humankind. Instead, as Roman Jakobson realized, these words are created anew, over and over again, in language after language, and always in the same way. Children universally produce the sounds [m] and [a] earlier than other sounds, followed by [b], [p], [n], [d] and [t], and parents almost universally assign the meanings 'mother' and 'father' to the child's first identifiable noises.

Reference

Jakobson wrote his article in 1959, in response to Murdoch's appeal. The article is very brief and rather sketchy, and it does not touch upon all the points made above. It can be found reprinted in two places:

R. Jakobson. 'Why "mama" and "papa"?' In R. Jakobson (1962), *Selected Writings*, Vol. I: *Phonological Studies*, pp. 538–545. The Hague: Mouton.

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