

THUS FAR AND NO FURTHER?

WHY SHOULD THERE BE A LIMIT ON HOW FAR BACK WE CAN RECOVER LANGUAGE HISTORIES?

Paul Heggarty

pah1003@cam.ac.uk

McDonald Institute for Archaeological Research, University of Cambridge

www.languagesandpeoples.com

WHY HISTORICAL LINGUISTICS?

- Language (divergence) data can inform us about the human past.

WHEN IT WORKS, AND WHEN IT DOESN'T...

- Recent times: very informative.
- Beyond Indo-European time-depths: 'no data'.
- Frustration: greater 'macro-families' could tell us much ...
- ... if only we had a method that could find them.

NEW METHODS?

To 'take over' from the comparative method at greater time-depths:

- 'Mass comparison': same data, laxer methodology.
- Structural, typological features: more stable over time?

Orthodox view: neither works.

WHY SHOULD THERE BE A 'TIME-LIMIT'?

- For any two originally related languages, as the millennia go by, change eats away at how many correspondences survive.

Eventually, too few correspondences are left to tell them apart from the 'background' level expected by chance and/or universals.

- Reconstruction also accumulates greater and greater uncertainty.

A LIMIT, YES — BUT WHEN?

- Traditional view of PIE time-depth: 6000 to 6500 BP...
- ... + the odd millennium more.
- Because Indo-European we *can* reconstruct.

Is this really set by the *method*, or by a *data* set? Indo-European?

HAVING IT BOTH WAYS?

- Indo-European is perfectly reliable.
- Its time-depth lies close to the limit of the 'unrecoverable'...

METHOD, OR DATA?

Other relevant variables:

- How many languages have survived into our data set.
- Which patterns of languages from which branches.

TRUST YOUR PIE RECONSTRUCTION?

SO WHAT IF...?

- *If there existed* a language family X, reconstructible to Proto-X...
- And if Proto-X were as close to PIE as Spanish is to Italian...
- Our reconstruction and classification are pushed back in time.
- Reassess the time-limit on the method?
- But nothing in the *method* has changed or improved...

BUT IN PRACTICE...

We find **no** families beyond Indo-European level.

- Usual interpretation: method breaks down: no result, 'no data'.
- Correct interpretation, stronger claim:
 - We trust our method.
 - If close **PIE** relatives existed, we would have found them.
- Their *absence* is a datum to use in our story of the human past.
- (Some qualifications.)

DODGING THE METHODOLOGICAL DEBATE

- Underlying principle: yes, at some point a limit.
- But cannot give an absolute date.
- No *chronological* answer for why we can't find deeper families.

A different approach ...

A TACIT ASSUMPTION?

Behind the frustration, an unquestioned assumption.

- There 'must surely have been' such great, deep families out there.
- Because diverging into big families is 'just what languages do'?

THE INEVITABILITY OF LANGUAGE CHANGE

— AND OF DIVERGENCE?

- Language **change**: **inevitable**
- Language **divergence**: **not inevitable**.

Some lineages undergo millennia of **change, without divergence**

– ‘Singleton’ branches within IE; all language ‘isolates’.

LANGUAGE DIVERGENCE DOES NOT 'JUST HAPPEN'

No natural law of how language lineages must develop.

Illusion from the bias in our surviving data set.

Why can't we find older families?

- Nothing to do with our methods...
- ... but because they never there to be found in the first place?

LANGUAGE DIVERGENCE: THE BASIC PRINCIPLE

How and **why** do we get language families in the first place?

How can language divergence can be informative of (pre)history?

→ Because those divergence patterns were moulded by the ‘forces of history’: demographic, socio-cultural, political, etc..

Divergence patterns form a ‘record’ of how those forces operated on speakers through pre-history.

LANGUAGES OF ITALY IN THE IRON AGE



CAUSE AND EFFECT

- What happened? Only one gave rise to a family.
 - Which? The one that expanded.
- No families without geographical expansion!

CAUSE AND EFFECT

A millennium later: which language won out?

→ The one spoken by the population that hit on the most powerful **forces** in the real socio-cultural context.

No coincidence!

CAUSE AND EFFECT

Unlike (some) language change, language expansion – and thus divergence – are not determined by any natural law of language itself, but by external (non-linguistic) forces.

Sometimes these forces dictate divergence, sometimes the opposite.

CAUSE AND EFFECT

Forces in **external context** → **linguistic effects** (divergence patterns).

→ Language families do not 'just happen'.

Each is to be explained, in terms of a commensurate 'real world' driving force.

CONSEQUENCES ...

- ... For **language classification**, including phylogenetic analyses.

Which best approximate how *languages* diverge (rather than species or populations):

- Which **models** of divergence?
 - Which **representations** of relationships (trees or networks)?
- ... For rival **hypotheses on the great language family expansions**.

... FOR HOW FAR BACK WE CAN RECOVER LANGUAGE FAMILIES

At the time-frame where our limit lies: what was going on?

In 'external contexts', human demography and social organisation?

→ The most important step-change in the entire development of human societies...

THE 'NEOLITHIC REVOLUTION'

*The Neolithic Revolution was the **first** agricultural revolution—the transition from nomadic hunting and gathering communities and **bands**, to agriculture and **settlement**...*

*The term refers to both the general time period ... and the subsequent **changes to Neolithic human societies** ...*

IMPACT ON HUMAN SOCIETIES

*The Neolithic Revolution is notable primarily for **developments in social organization** and technology, including:*

- *Permanent or semi-permanent settlements.*
- *Higher population densities.*
- *Less egalitarian society.*

In sum: **no complex societies without farming.**

(‘Farming’ in the broad sense: **crops and/or livestock.**)

BEFORE THE REVOLUTION

The hunter-gatherer subsistence basis had always imposed severe limits on human societies:

- Population **densities** per unit area: **low**.
- Population **sizes** of social groups: **very small** ('bands').
- **No** significant **social complexity**.
- **No** one band likely to have significant relative demographic/socio-cultural **advantage** over all its neighbours.

IMPACT ON DRIVERS OF LANGUAGE DIVERGENCE?

Such strict limitations in the size and nature of social groups...

→ ... cannot fail to find a correlate in language divergence history!

AT THE DAWN OF THE NEOLITHIC:

THE LINGUISTIC 'BIG PICTURE'

Default, background pattern:

- Up until the 'Neolithic Revolution', societies existed at levels at which no relative advantages existed that were powerful enough to drive grand-scale expansions of one small band's language at the expense of all others. (Yes, Afro-Asiatic too?)
- Whatever had happened at first colonisation, over the millennia of the Palaeolithic, great language diversity had developed.

COME THE REVOLUTION...

Language expansions of Indo-European scale became possible when **and only when** commensurate forces arise to drive them:

= The 'Neolithic Revolution':

- All ceilings on social groups finally broken:
 - population densities, population size and social complexity.
- At last highly significant net advantages of one group over another:
 - especially farmers *vs.* hunter-gatherers

The 'Neolithic Revolution' changes the ground-rules for language divergence: at last great language expansions are possible.

QUALIFICATIONS

Other variables, various qualifications:

- 'Revolution' a process, a **transition**, not an event.
- At different times, in different forms, in different parts of world.
- Hunter-gatherer language expansions do happen, in certain circumstances.

THE 'NEOLITHIC REVOLUTION': A POINT OF SCALE

- By Palaeolithic standards, the switch to food production is rapid.
- Debates, yes, but few archaeologists doubt its great significance.
- Very widely accepted and recognised, a defining term.

If we're really serious about *historical* linguistics, than we must think of its linguistic consequences.

WHY CAN'T WE FIND OLDER FAMILIES?

– A NEW EXPLANATION

Circumvent the 'methodological' controversy.

A more **practical**, real-world explanation:

- The nature of the human social structures.
- How and when real-world factors arose to drive expansions.

CONSEQUENCES FOR ‘MACRO-FAMILIES’?

- No reason to *expect* they ever existed in the first place.
- Would *undermine* the agriculture—language dispersals hypothesis.

The reconstructed history of agriculturalist dispersal from Southwest Asia makes an associated and radial dispersal model for [Indo-European, Afro-Asiatic and Elamo-Dravidian] very appealing. Proto-Nostratic need not be such a wild idea after all.

Bellwood (2005:217)