

A Phylogenetic Approach to New Testament Textual Criticism

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The New Testament

- The New Testament has been preserved in more manuscripts than any other work composed in Western antiquity.
- There are three main sources of data:
 - Over 5,000 Greek manuscripts of various parts of the New Testament.
 - Several foreign-language versions, the most important of which are Latin, Syriac, and Coptic
 - Quotations by theologians throughout the centuries.

The Text Critical Problem

- These manuscripts have been hand-copied over the course of two millennia, and by this human process they differ from one another.
- The task of the N.T. textual critic, therefore, is to sort through the various and varying witnesses to the text of the N.T. and account for the textual evidence in these sources.

Notions of Textual Evidence

- Textual critics consider both *external* and *internal* evidence.
- External evidence:
 - Age and Provenance
 - Textual affiliation
- Internal evidence:
 - Intrinsic probabilities
 - Transcriptional Probabilities

A Critical Text

- An important goal, then, of textual criticism is to establish a *critical text* that best explains the state of all extant witness.
- This critical text is assumed to be one that is as close as humanly possible to that of the “originals.”



Five Basic Approaches

- There are five basic approaches to New Testament textual criticism:
 - The Copy Text method
 - The Majority Text method
 - Reasoned Eclecticism
 - Thoroughgoing Eclecticism
 - Stemmatology



Copy Text Method

- Chose the “best” manuscript and follow its readings, except when it can be shown to be clearly in error.
- The copy text is chosen on various grounds (e.g. age, convenience).

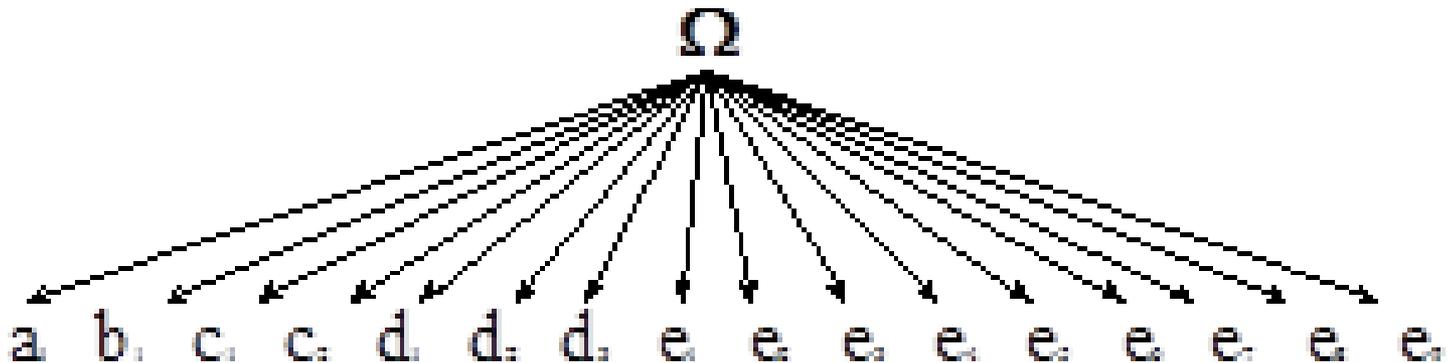
A pixelated, black and white capital letter Omega (Ω) with a white center, positioned at the top of a vertical line.



A pixelated, black and white lowercase letter 'e' with a white center, positioned at the bottom of the vertical line.

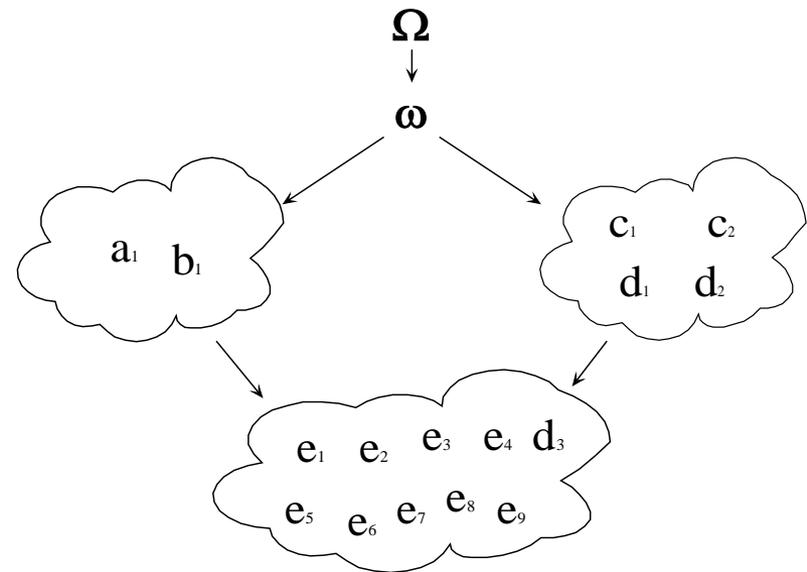
Majority Text Method

- Select the most attested variant among the extant witnesses.
- Internal evidence plays no role unless the manuscripts are deeply split.



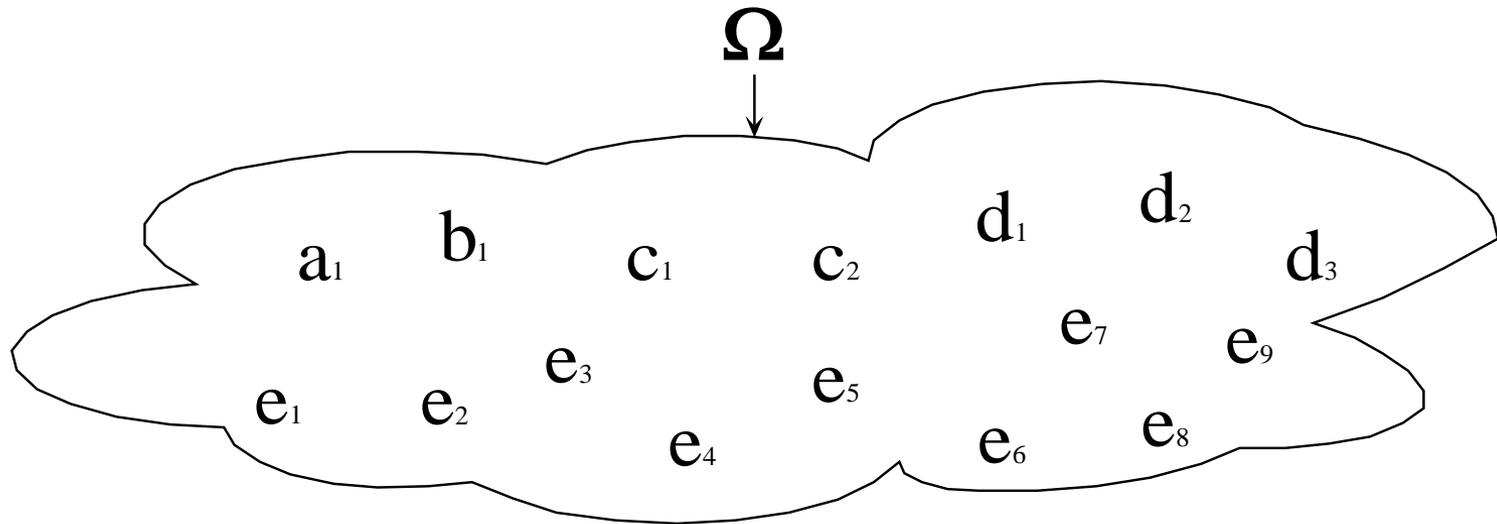
Reasoned Eclecticism

- At each variation unit, select the reading based on the external evidence and internal evidence
- External evidence is usually conceived in terms of “text types.”



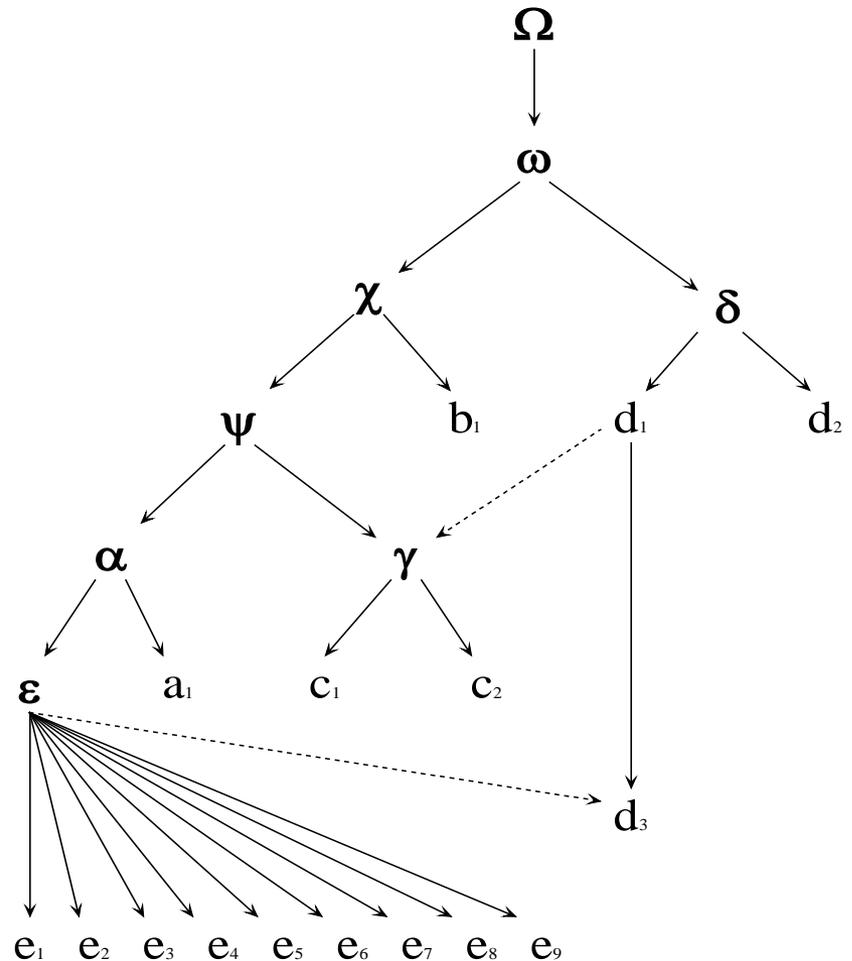
Thoroughgoing Eclecticism

- Select the reading strictly based on internal evidence.



Stemmatics

- Reconstructs the history of the text in the form of a stemma based on a “common error” criterion.





The Critical Edition of the New Testament

- The 27th edition (1993) is based on reasoned eclecticism.
- The 28th edition (2012) uses a novel computational technical called the Coherence-Based Genealogical Method to improve reasoned eclecticism.
- Carlson (2015), however, uses cladistics to improve stemmatics.

Computerization of Stemmatology

- In 1968, Dom Froger suggests that the first step of stemmatology can be split into two phases:
 - Shape and linkage
 - Orientation
- Orientation requires critical judgment, but the first phase can be automated.

Stemmatics and Systematics

- In 1977, H. Don Cameron noticed a deep analogy between biological systematics and textual stemmatics.
- In both fields, kinship is recognized by the presence of *shared innovation*:
 - Synapomorphy (biology)
 - Community of error (textual criticism)
- By 1987, cladistics had been applied to manuscript traditions.

Cladistics

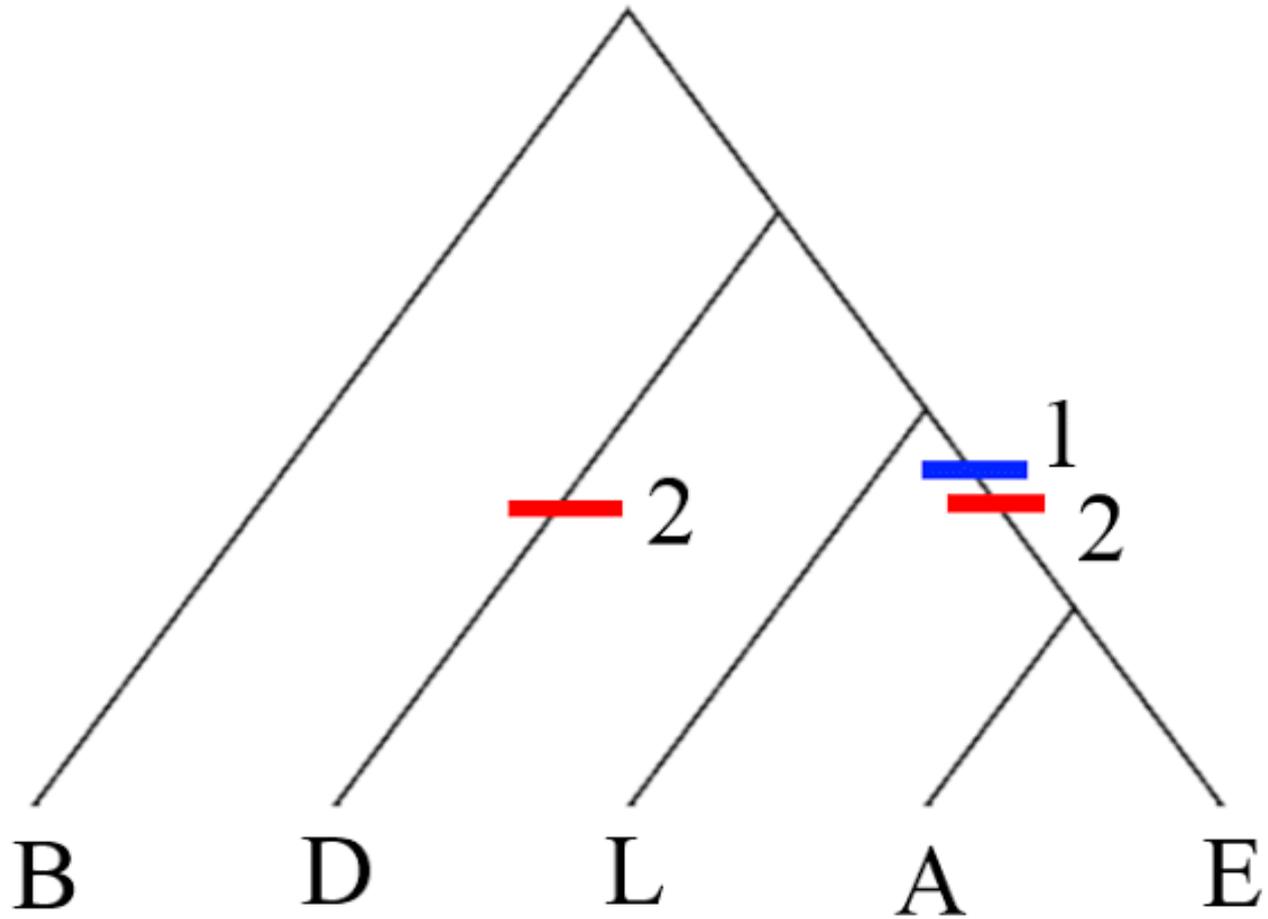
- All the witnesses can be placed on a family tree, called a phylogeny (biology) or stemma (textual criticism).
- Each family tree implies a history of changes.
- Choose the tree with the minimal changes.
- Computers can generate millions of trees and evaluate them for the number of changes.

A Simple Example

- Gospel of Mark.
- Five manuscripts: A B D E L
- At Mark 1:2, B D L read “Isaiah” but A E read “prophets”
- At Mark 1:4, B L read “the baptizer” but A D E read “was baptizing.”

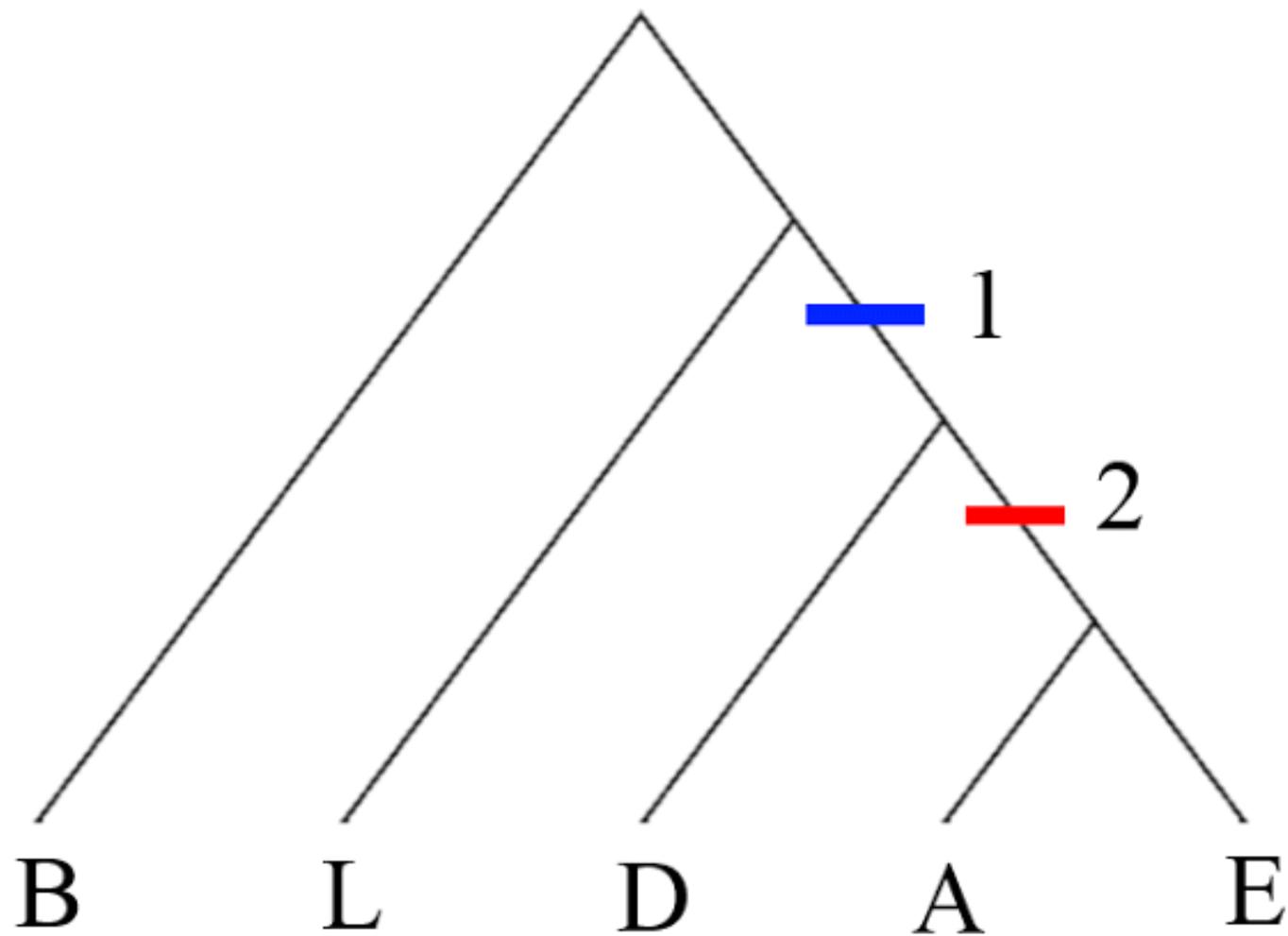


Tree 1





Tree 2



Results

- There are 33 other trees too.
- When you evaluate all of them, Tree 2 has the lowest cost.
- Therefore, Tree 2 is the one that is best supported by this evidence.

Try a longer example yourselves

- First chapter of Galatians
- Four witnesses: P46 Aleph A B
- 34 variation units (see handout)
- Cladistics online: <http://www.trex.uqam.ca/>

Data File for Example

4	34
P46	01111011100????101?011011111011???
Aleph	1001010001011?10000100000000100010
A	0001000000010001001100100000100100
B	0100000000100101100000010010001001