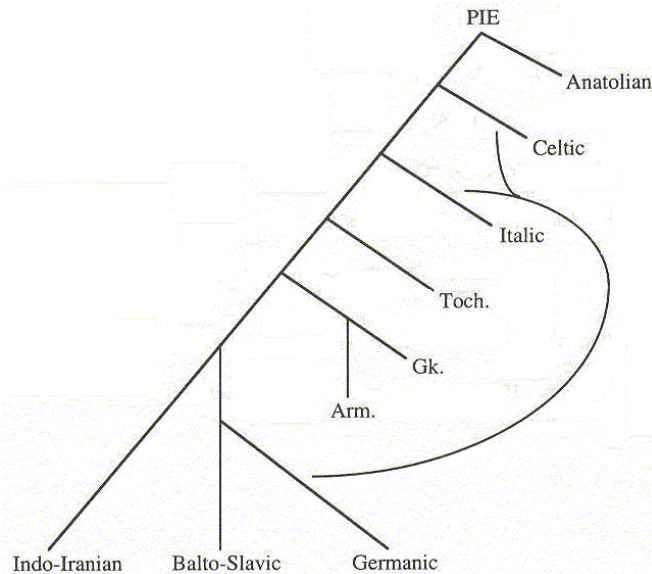**EVOLUTIONARY MODELS AND LANGUAGE CONTACT**
IN INDO-EUROPEAN
BRIDGET DRINKA
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I. CLADISTIC MODELS
1. THE COMPLEX POSITION OF GERMANIC (Taylor et al. 2000: 407)

2. CATEGORIES OF I-E VERB SYSTEM (Ringe et al. 2002: 117-19).
1. one stem per lexeme
    a. two conjugations [Hitt.]
    b. single conjugation [Luv., Lyc.]
2. present / aorist / perfect contrast
    [Arm., Gk., Alb., Ved., Av., OCS, Lat., OPers., Osc.,   Umb.]
3. present / subjunctive / preterit contrast, the former two largely
    parallel [TA, TB]
4. present / preterit / infinitive contrast [Lith., OPrus.]
5. present / preterit contrast, the latter in two conjugations
    ("strong" vs. "weak") [OE, Goth., ON, OHG]
6. present / subjunctive / future / preterit contrast [OIr.]
7. present / subjunctive / preterit contrast, the latter two usually
    sigmatic [Welsh]

3. AORIST VS. IMPERFECT

Skt. √$k\!r$ 'make':

  Root Aorist: *akaram*   Imperfect: *ak\!r\!navam*

   a-   kar –   am   *a-   k\!r\!nav-   am*

aug. + aor.stem + sec.end.   aug. + pres.stem   + sec. ending

                                    ($k\!r$ + $\dot{n}$-infix)

4. FAMILY TREES:
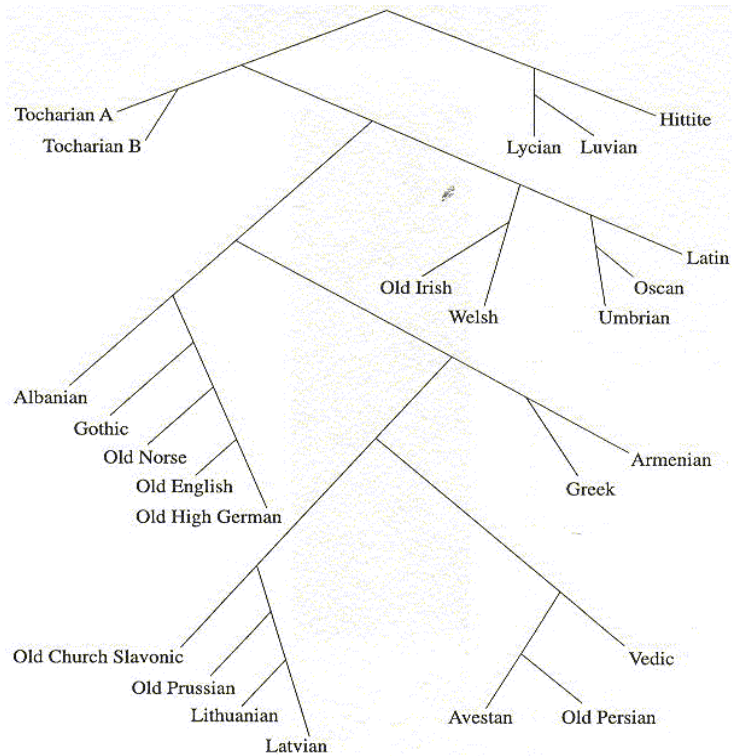 non-explanatory
  inaccurate depictions
  undervalue contact as an essential element of change
  insufficiently complex

5. THE APPARENT BEST TREE FOR THE ENTIRE INDO-EUROPEAN
   DATASET   (Ringe et al 2002: 87).

6. We must acknowledge that family trees cannot tell the whole story, but equally that they do capture one important aspect of linguistic history; this does not mean we should castigate or reject the tree model for not incorporating contact, which it was never designed to do in the first place.

(McMahon & McMahon 2005: 18)

7. If we are serious about rehabilitating contact-induced change and want to be able to account for both aspects of Kessler's 'historical connectedness' (2001), then our concentration on trees is problematic.   (McMahon & McMahon 2005: 137)

II. A PHYLOGEOGRAPHIC MODEL OF INDO-EUROPEAN DIFFUSION AND THE ANATOLIAN HYPOTHESIS (BOUCKAERT ET AL. 2012)
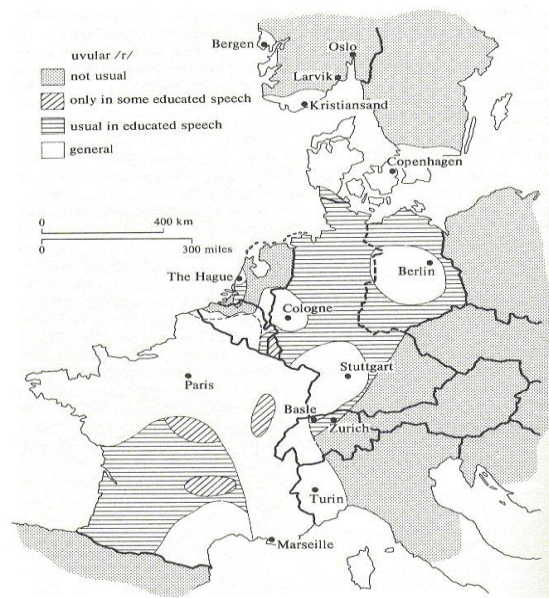
Description of model: amalgamation of geneological and
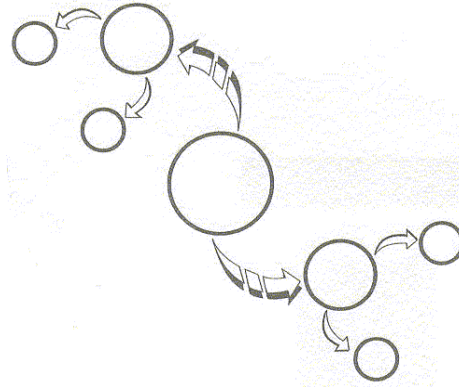   geographical information
Claims and implications
Critical analysis of contributions and drawbacks of the model

III. ACLADISTIC MODELS OF LINGUISTIC CHANGE: WAVES, RIVERS, AND ENTANGLED BANKS
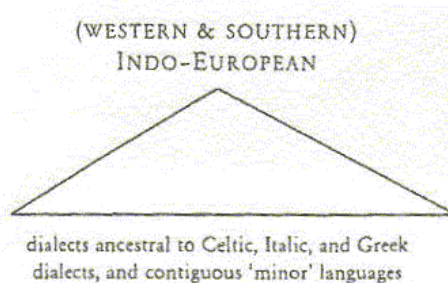
8. THE DISTRIBUTION OF UVULAR R (Trudgill 1983: 58)

9. THE GRAVITY MODEL OF LINGUISTIC DIFFUSION
(Wolfram & Schilling-Estes 2003:724)

10. …linguistic features are passed on primarily horizontally, more or less on the pattern of features of parasites, through speakers' interactions with member of the same communicative network or of the same speech community. (Mufwene 2001: 150)

11. MODEL OF WESTERN AND SOUTHERN I-E SUB-GROUPING
(Garrett 1999)

(WESTERN & SOUTHERN)
INDO-EUROPEAN

dialects ancestral to Celtic, Italic, and Greek
dialects, and contiguous 'minor' languages

IV. AMALGAMATION OF "TREE" AND "WAVE"

12. The goal of genetic comparison is linguistic history, while that of typological comparison is often said to be linguistic universals. But one can and, I insist, must compare the components and manifestations of a linguistic area in order to draw *historical* conclusions. (emphasis his) (Watkins 2001: 63)

13.To reconstruct the history of a language family adequately, a model is needed which is significantly more sophisticated than the family tree based on the use of the comparative method. It needs to incorporate the diffusion and layering process as well as other language-contact phenomena such as convergence, metatypy and hybridization. The desideratum is a synthesis of all the processes that affect language formation and development. (Chappell 2001: 354)

14. Mainstream historical linguists realize that it is not possible to understand diffusion fully without knowing the genetic affiliation of the languages involved, and vice versa, it is not possible to account fully for what is inherited without proper attention to what is diffused. That is, it is not two distinct, opposed and antagonistic points of view that are involved, but rather both are needed and they work in concert. (Campbell 2006: 18)

15. GERMANIC, ROMANCE, AND CELTIC lolo DATA ON NEIGHBOURNET (McMahon & McMahon 2005: 161).
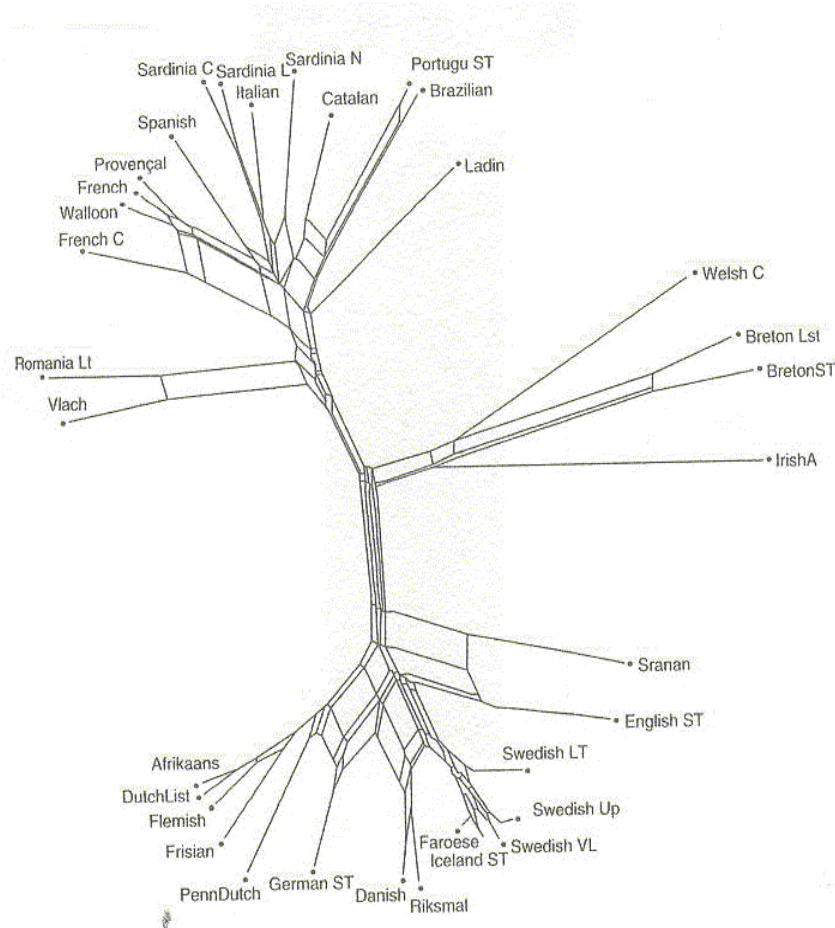
16. INDO-EUROPEAN RELATIONS USING NEIGHBORNET (McMahon & McMahon 2005: 164).
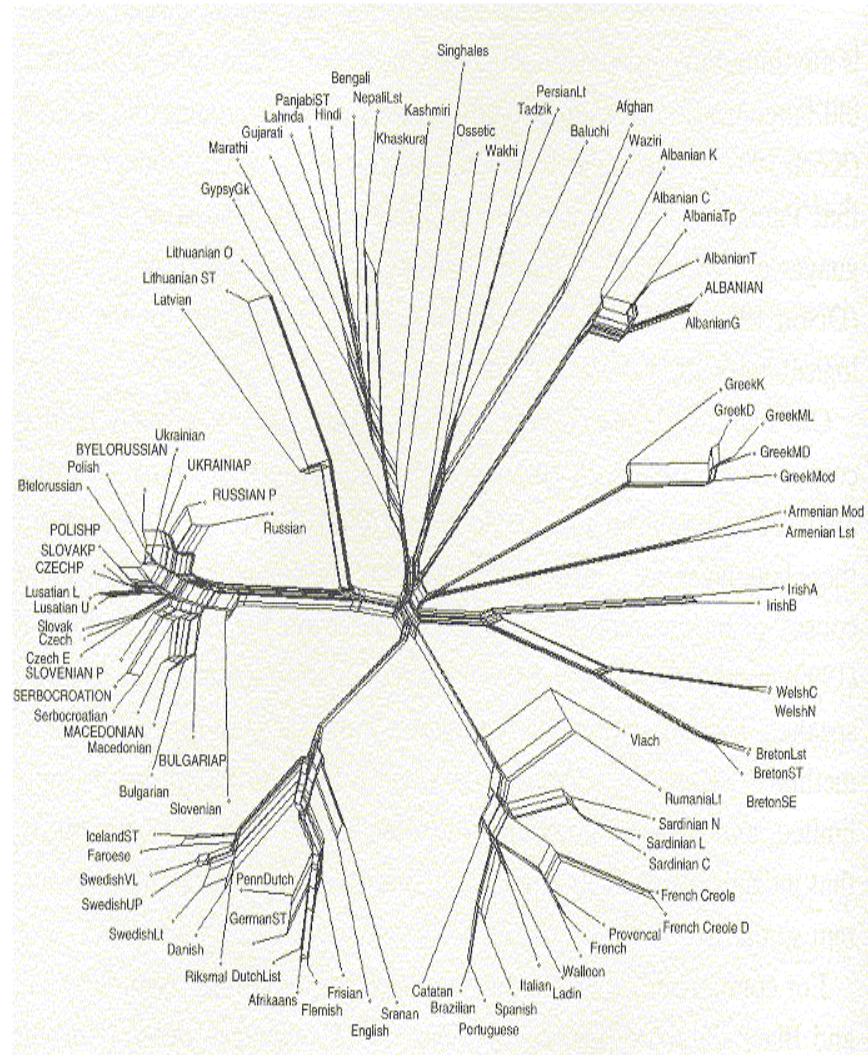
V. STRATIFIED MODELS OF INDO-EUROPEAN RELATIONSHIP

17. MODEL OF A DEVELOPING PROTO-LANGUAGE (Meid 1975)
I. *early Indo-European* (c. 5th millennium B.C.) represented by
     archaisms in both the eastern and western areas
II. *middle Indo-European* (c. 5th-4th millennium B.C.) represented   by
more recent features found in both east and west   III. *late
Indo-European* (3rd-2nd millennium B.C.) represented by   recent
innovations in differentiated languages
          a) *eastern group:* esp. Greek, Indo-Iranian
          b) *western group*: esp. Italic, Celtic, Germanic

18. A DIAGRAM OF THE SEQUENCE AND APPROXIMATE DATES OF SPLITS
     IN EARLY I-E (Anthony 2007: 100)
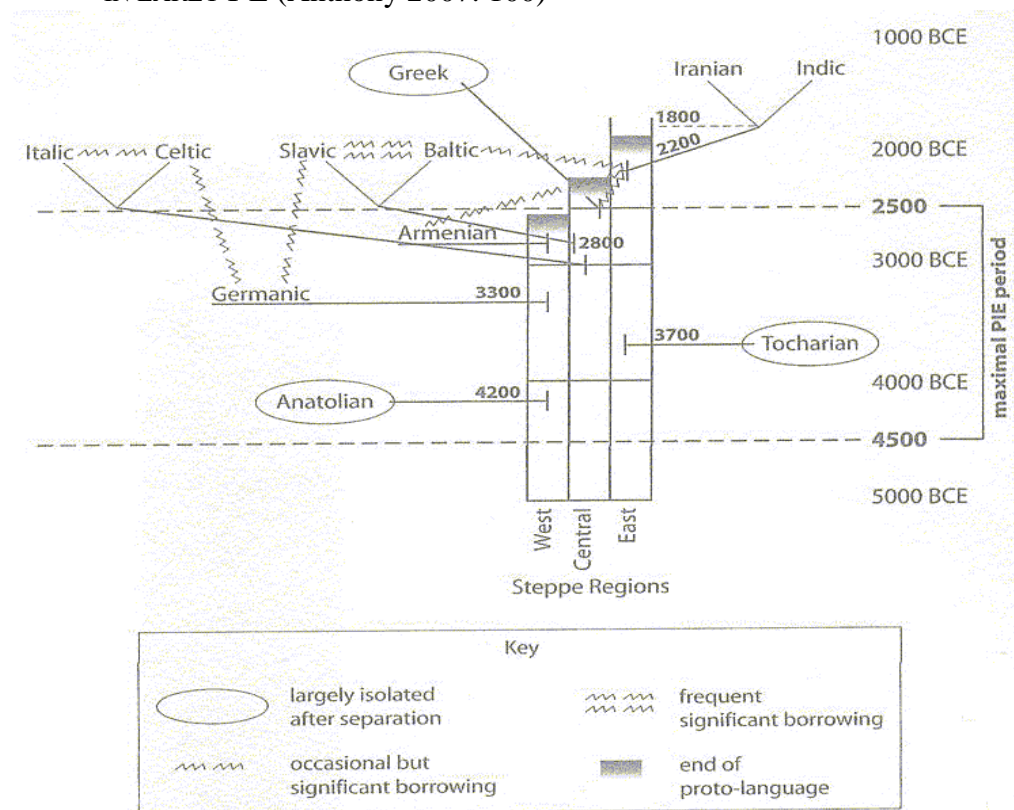
19. Culture groups of the Middle Bronze Age, 2800-2200 BCE
    (Anthony 2007: 379)

20. A DIALECTOLOGICAL VIEW OF INDO-EUROPEAN
(Hock 1999: 15).

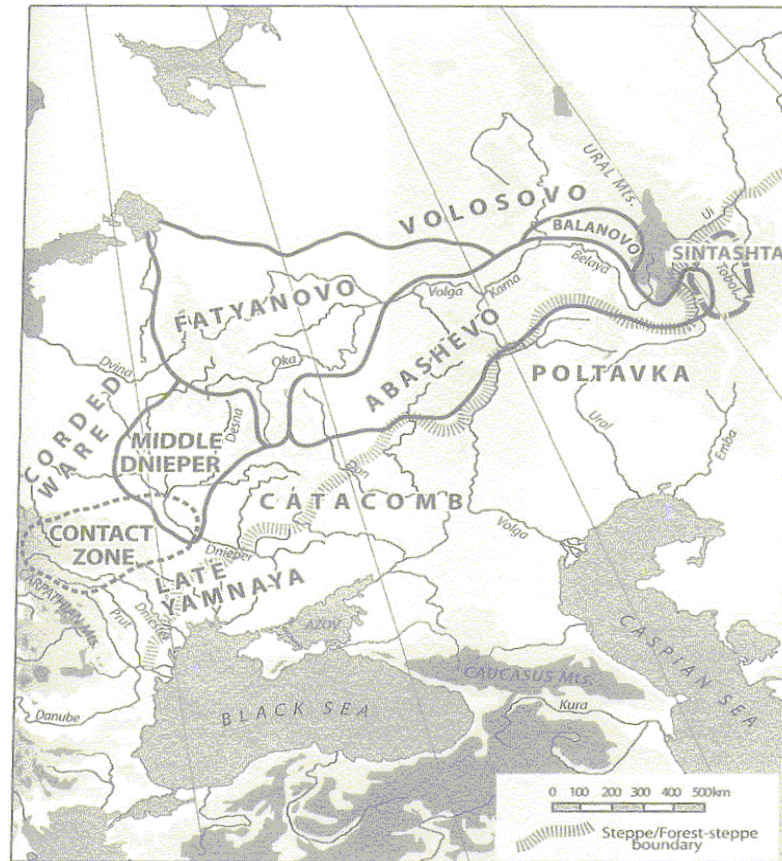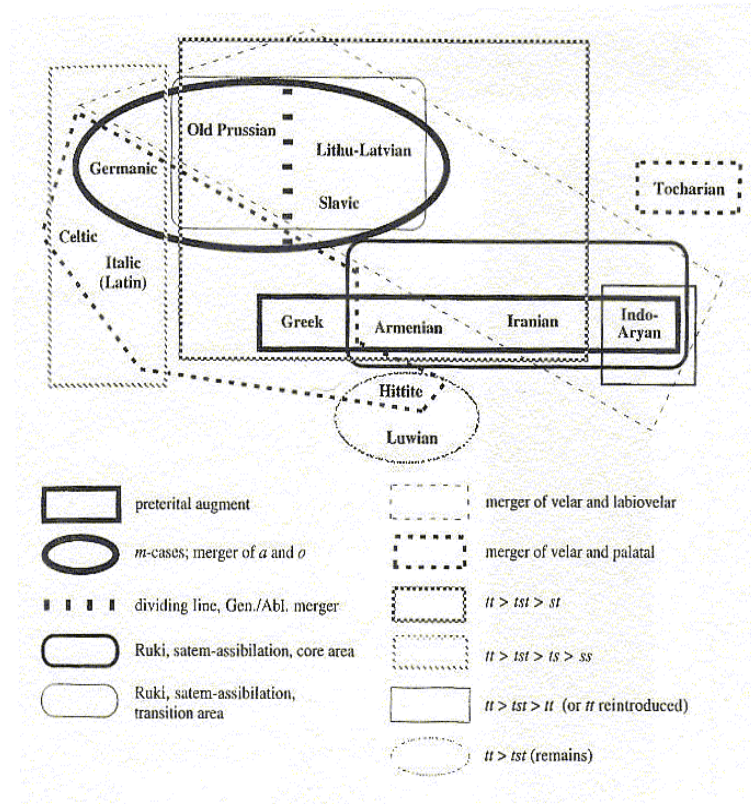|	
preterital augment	merger of velar and labiovelar
m-cases; merger of a and o	merger of velar and palatal
dividing line, Gen./Abl. merger	*tt > tst > st*
Ruki, satem-assibilation, core area	*tt > tst > ts > ss*
Ruki, satem-assibilation, transition area	*tt > tst > tt* (or *tt* reintroduced)
	tt > tst (remains)

VII. CONCLUSIONS

1) Family tree models are inadequate when used in isolation, and should be supplemented with more informative models which take contact into consideration.
2) The implication of constructing models which take "horizontal," areal influence into consideration is that the stratification of data—innovative layers building on more archaic layers—emerges as significant. Languages which share only archaic elements, such as Hittite and Tocharian, are presumed to have separated from other IE languages at an earlier time; languages which share an array of morphological, lexical, poetic, and other features, like Indo-Iranian and Greek, are assumed to have remained in contact for a longer period.
3) These facts constitute strong counterevidence to the claim that Proto-Indo-European could have originated in Anatolia.

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