

The Classification of Languages and Social Processes: A Historical Analysis of Genetic Links

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Abstract

This study examines the similarities between languages and their development over time. The findings show how certain languages are inherited through generations as well as how different languages may have a common ancestry. The data from Romance languages, East Asian number systems, and Indo-European properties are used in the study to demonstrate the systematic cross-linguistic patterns. By focusing on limitations resulting from temporal depth and differentiating inherited features from elements introduced by contact, the study displays methodological problems for establishing the genetic ties. The findings of the study improve our knowledge of language categorisation and evolution. The investigation substantiates extant scholarship in classical linguistics through its delineation of a systematic analytical framework that synthesizes traditional comparative methodologies with contemporary linguistic approaches in examining genealogical relationships among linguistic systems.

Keywords: genetic linguistics, the classification of languages, the comparative method, historical linguistics, language families

1. Introduction

The genealogical affiliation among linguistic systems constitutes a fundamental paradigm within diachronic linguistics. This investigation posits that such relationships illuminate the mechanisms of linguistic diversification processes and the evolutionary trajectories of language systems through time. By examining the relations, researchers can follow the language family trees of human communities and grow together with the forces that unfold the language change. Beekes (2011) provides a basic definition for that: “Languages are related to each other when they all derive from one common ancestor. The study of the relations which exist between such cognate languages is what we call their comparative linguistics” (p. 4). This statement, however, means that the fact of “descent from a common ancestor” makes it very clear that anything similar which comes through chance, propensity, or pairs more differ, and acquisition through one language for the other language should not be part of the genetic

nature of the languages. Also, the term “comparative linguistics” implies that it is not enough simply to notice similarities; we have to compare them systematically.

As articulated by Campbell (2013), “historical linguistics deals with language change” (p. 3), thereby implying that the examination of genetic affiliations is fundamentally linked to temporal transformation. Such changes are discernible across all facets of linguistics: phonological, morphological, syntactic, and semantic, which generate analysable patterns that exhibit systematic evolution among languages. In the perspective of Harrison (2003), the objectives of comparative historical linguistics can be characterized as “essentially three in number: the identification of cases of genetic relationship between languages; an investigation of the history of individual languages; and the construction of a theory of linguistic change” (p. 214).

The methodical analysis of linguistic structures is of critical importance, as highlighted by Greenberg's (2005, p. 364) pivotal assertion: "In the world, we observe numerous distinct and mutually unintelligible languages. We discern that their variations are not fortuitous. German and English, despite being two separate languages, are evidently much more similar to each other than either is to French." This empirical assertion sheds light on the organized interconnections among linguistic frameworks, thus establishing the foundational principles of genealogical linguistics. The theoretical implications reside in the acknowledgment that all linguistic frameworks, despite their superficial disparities, exhibit systematic relationships rather than arbitrary ones.

2. Theoretical Framework

In linguistics, thinking about how languages are related gives us the methods for looking at language change and diversity. In his work, Ruhlen (1987) suggests that genetic classification involves the subgrouping of each and every relevant language into genetic nodes (p. 4). Having a hierarchical conceptualization of genetic classification makes it easier to group languages into families and subgroups according to their shared inherited characteristics. As language assigning and classification are concerned, a core issue in historical linguistics arises. Blust (2013) notes that scholars must “weigh the relative merits of four competing explanations for similarity: 1. chance, 2. universals, 3. borrowing, 4. divergent descent from a common ancestor” (p. 687). This systematic evaluation helps to identify the true genetic relationship from linguistic similarities. Taking into account and eliminating each potential explanation, genetic relations can be established among languages. To comprehend these relationships, it is imperative to acknowledge the temporal dimension intrinsic to the evolution of language. According to the findings of Ruhlen (1987, p. 6), all languages undergo continual

transformation. Thus, the dialects that exhibit mutual intelligibility are likely to diverge progressively, assuming they remain isolated from one another for an extended duration.

The methodological process of examining genealogical relationships among the linguistic systems necessitates meticulous analytical procedures and diverse evidentiary sources. Aikhenvald and Dixon's (2001, p. 1) theoretical framework delineates distinct categories of linguistic similitude by encompassing universal properties or tendencies, chance similarities, diffusion phenomena, and genetic retention. This taxonomic classification provides a systematic framework for investigating linguistic interrelationships through multiple analytical dimensions.

3. The Process of Language Diversification

The diversification of the linguistic systems constitutes a multifaceted and incremental process manifesting through diverse mechanisms. François (2014) articulates that “new languages often arise from the internal diversification of a single language, which gradually evolves into separate daughter languages over time. In this process, external input does not necessarily play a central role” (p. 161). The evolutionary trajectory and the developmental patterns of the linguistic systems proceed autonomously, independent of exogenous variables. Through the examination of endogenous linguistic enrichment processes, a salient theoretical paradigm within diachronic linguistics emerges: linguistic systems manifest divergent trajectories and developmental patterns absent external catalysts.

Furthermore, the mechanisms underlying diversification are clarified through notable case studies. Millar (2015) contends that “The inevitable processes of language change of course affected English: new words, new meanings, new pronunciations and grammatical forms began to creep into their speech and, at the same time, old ones began to drop out of use” (p. 154). Thomason and Kaufman (1988) explicate this phenomenon, asserting: “all languages change. The main stimuli for the change are drift as tendencies built into the language to change in certain ways as a result of structural imbalances; strongly differentiated dialects and between weakly differentiated dialects of particular changes” (p. 9). This analysis unveils a multitude of factors relevant to linguistic diversity. Bybee (2010, p. 1) posits that languages exhibit “both structure and variance” and experience “considerable variation at all levels: languages vary from each other but after all, it is evident that all languages are structured by the same principles”.

As François (2014, p. 162) notes, the world languages do not stay the same all the time. The new language emergence through diversification and the language extinction through

social pressure are the two opposite forces that work towards the genetic relationship. The methodological emphasis on observable patterns of linguistic diversification, juxtaposed against the inherently unknowable characteristics of extinct linguistic systems, illuminates a fundamental epistemological constraint within diachronic linguistics.

4. The Comparative Method

The comparative methodological framework serves as the principal analytical paradigm for elucidating genealogical associations among various linguistic systems. Campbell's (2013) theoretical exposition articulates this methodology as "a method (or set of procedures) which compares forms from related languages, cognates, which have descended from a common ancestral language (the proto-language), in order to postulate, that is to reconstruct, the form in the ancestral language" (p. 109). This definitional structure accentuates the dual analytical aims: the establishment of genealogical linkages and the reconstruction of ancestral linguistic forms via systematic comparative examination.

Thomason and Kaufman (1988) provide four important methodological aspects, which are: "the establishing of phonological correspondences among words of the same or related meanings, the reconstruction of phonological systems, the establishing of grammatical correspondences, and the reconstruction of grammatical systems" (p. 202). This is a methodological framework to establish linguistic relations. The identification of phonological correspondences can be seen as a first step of the analysis when we see that sound changes happen regularly. The rebuilding of phonological systems shows that the change is systematic. The reconstruction and the grammatical correspondence allow us to see how grammatical systems and their structural features change over time.

Harrison's (2003, p. 215) theoretical framework elucidates that the foundational criterion for the genealogical inference necessitates the systematic elimination of features exhibiting potential independent emergence through natural processes, chance occurrence, or inter-linguistic diffusion and borrowing phenomena. Milroy's (1985) work goes on to say that 'although the ultimate aims of historical linguistics may be to specify universals of change, the methodology of historical linguistics has always been comparative' (p. 344). This methodological paradigm underscores the centrality of comparative analysis within diachronic linguistic investigation, while acknowledging the broader theoretical objectives of identifying universal patterns of linguistic transformation. As a result, we see that the centrality of comparative method to the study of linguistic change and establishing genetic relationships is of utmost importance.

The Romance linguistic family presents paradigmatic manifestations of genealogical relationships, offering substantive empirical evidence for systematic inter-linguistic connections. Campbell's (2013) analytical framework, particularly through the presentation of cognate relationships in Table 1 (p. 110), demonstrates systematic phonological correspondences across these linguistic varieties. This empirical investigation serves as persuasive substantiation for the systematic phonetic correspondences that delineate genealogical affiliations within Romance language systems, consequently elucidating the patterns of historical evolution and metamorphosis throughout this linguistic family.

Table 1: Some Romance cognate sets

Italian		Spanish	Portuguese	French (Latin)	English gloss
capra	cabra	cabra	chèvre	capra	'goat'
caro	caro	caro	cher	caru	'dear'
capo	cabo	cabo	chef	caput	'head, top'
carne	carne	carne	chair	caro/carn-	'meat, flesh'
cane	can (archaic)	cão	chien	canis	'dog'

The changes from Latin initial "c" exhibit regularities across daughter languages: so a daughter language like Italian preserves the Latin /k/, a daughter language like French regularly palatalizes to /j/. The systematic alterations and description-preserving transformations indicate inheritance, not borrowing, very strongly. Spanish and Portuguese share similar correspondence patterns, given their close genetic relationship within the Romance languages.

The diversification of Romance languages shows how a language develops into genres. Table 1 shows that the sound correspondences have a systematic nature, which differ in inheritance.

The evidence from the Germanic language family is similarly illuminating. As shown by Millar (2015, p. 167) with comparative linguistic data, English, for instance, belongs to a group of languages chiefly spoken in northern Europe. Here are a few samples of some of those other languages that the family resemblance can easily be seen.

"- Dutch: De kat is in de keuken. 'The cat is in the kitchen.'

- German: Dies ist ein gutes Buch. 'This is a good book.'

- Swedish: Nils har en penna och en bok. 'Nils has a pen and a book.'

- Icelandic: Fólkið segir, að hún sé lík Anna. 'People say that she is like Anna.'

These examples show how words and grammar work in Germanic languages. The family includes Frisian (which is spoken in corners of The Netherlands and Germany) Dutch, Afrikaans (a distinctive offshoot of Dutch in South Africa), German (High and Low) Yiddish (a distinctive offshoot of medieval German) Danish, Faeroese (in the Faeroe Islands) Norwegian, Swedish and Icelandic (Millar, 2015, p. 167). This big language family shows the way genetic relations show up in a lot of related varieties when systematically compared in structure and lexis.

The Germanic linguistic exemplars delineated above constitute substantive empirical evidence for systematic interconnections in grammatical structures and lexical inventories. The sentential patterns demonstrate unambiguous correspondence mechanisms: core lexical elements (manifested in cognates such as “book”/“Buch”/“bok”), syntactic organizational principles (exemplified through subject-verb-object configurations), and systematic phonological correspondences. The geographical dispersion of Germanic linguistic varieties, extending from English to Icelandic and from Frisian to Yiddish across the northern European geographical sphere, empirically demonstrates the expansive developmental potential inherent within a singular linguistic family.

In the East Asian linguistic context, the genealogical relationships and borrowing phenomena manifest distinct patterns of interconnection. Rankin’s (2003) methodological framework employs a tabular representation for the comparative numeral analysis (p. 188), facilitating systematic cross-linguistic comparison through structured taxonomic classification. This analytical approach illuminates patterns of both genetic inheritance and historical contact phenomena within East Asian linguistic systems.

Table 2: Basic numerals in East Asian languages

	Numeral	Tibetan	Chinese I	Chinese II	Burmese	Japanese	Korean	Thai
'one'	čiq	1	it	tiʔ	iči	il	(nə)ŋ	
'two'	ňis	ær	ńzi	hnił	ni	i	sə:m	
'three'	sum	san	sa	hnił	san	sam	sa:m	

The comparative methodological framework illuminates intricate patterns of genealogical inheritance and linguistic borrowing mechanisms. The analysis of lexical

variations in cardinal numerals 'one' and 'three' demonstrates how fundamental vocabulary elements may simultaneously manifest inherited features from antecedent linguistic strata while incorporating borrowed elements from exogenous sources. The observable variations across these linguistic systems illuminate a significant theoretical principle: even core lexical inventories, traditionally resistant to borrowing phenomena, may exhibit substantial cross-linguistic influence under conditions of intensive language contact.

The quantitative evidence presented in Table 2 elucidates complex patterns of both genealogical transmission mechanisms and inter-linguistic borrowing phenomena. Rankin's (2003) significant observation that "in East and Southeast Asia, however, it is well known that even the simplest numerals are often borrowed from Chinese" (p. 187) provides a crucial analytical framework for interpreting apparent similarities in numerical systems across linguistic varieties that likely lack close genealogical affiliation. This theoretical insight facilitates more nuanced interpretations of linguistic similarities, distinguishing between genuine genetic relationships and patterns of historical linguistic contact and influence.

The stability of linguistic features is a good theoretical concept which is useful to understand the genetic relationship. Nichols (2003) performs a systematic comparative analysis of Indo-European features using their stability with the help of the tabled data (p. 285).

Table 3: Three Indo-European features and their stability

Language 1sg. suppletion Genders Declension classes			
English	Yes	No	No
German	Yes	Yes	Traces
Lithuanian	Yes	Yes	Yes
Russian	Yes	Yes	Yes
Bulgarian	Yes	Yes	No
French	Yes	Yes	No
Albanian	Yes	Yes	In part
Ossetic	Yes	No	No
Armenian	Yes	No	Traces

This comparative framework illustrates the remarkable stability of certain features, such as the first-person singular suppletion, in the Indo-European languages, while other features, such as gender systems and declension classes, are more variable. This pattern provides

important methodological advice for determining which features are the readiest or easiest to use in drawing the genetic relationships.

The study of genetic connections shows different patterns of stability across the linguistic features. The Indo-European property data given in Table 3 shows that the first person singular suppletion is one of the most stable features across languages, while other features show more variation.

5. Deep-Time Relationships Across Languages

The methodological constraints inherent in investigating the genealogical relationships across extended temporal dimensions manifest particular epistemological challenges, notably when juxtaposed against other scientific disciplines. Nichols' (2003) comparative analysis illuminates this methodological limitation by noting that "Compare this with the record of biological genetics, which is able to trace descent lines back with certainty for thousands of millions of years... we know that humans do descend from a shared ancestor" (p. 284). Whereas genetic material preserves ancestral information across millennia, linguistic systems demonstrate significantly reduced temporal preservation capacity. This temporal constraint constitutes a fundamental methodological impediment to linguistic reconstruction processes and semantic interpretation, particularly regarding proto-linguistic systems across extended chronological dimensions. This methodological limitation necessitates the development of alternative investigative frameworks for examining deep linguistic interconnections.

Greenberg (2005, p. 371) elaborates that the processes involved in the development of the variation and eventual separation take place in the same way as the one in the past does in the present. The cyclicity leads to a sort of evolution due to genetic linguistics. Languages often slip from its sources through complicated social processes. Whenever people who talk a language get something new from abroad, a new word must go with that new thing. The text can be rewritten as—due need or prestige, one language words get adopted into another language (Campbell, 2013, p. 58) and language is the medium. Campbell continues that the geographical patterning of languages often depends on the depth of their borrowing, which in turn gets affected primarily by their prestige and need. So, languages borrow words from the others due to the prestige and need of that other language (Campbell, 2013, p. 58). In addition, the distribution of the genetic relationships among languages usually reflects the history of the migration of people, and the subsequent geographical dispersal of languages. Nichols (1992), who examines the spread phenomena, states that there are "two types based on the amount and kind of diversity they replace" (p. 234). The language was spoken in the small city of Rome, some 2,500 years ago. Nonetheless, in a few hundred years the Romans had made an empire

which included most of the area around the Mediterranean and much of Western Europe (Millar 2015, p. 165). As a result, the Latin language offers us a fascinating research object. This example shows how political and social factors are the main agents for spreading and diverging language. The process typically involves what Nichols (1992) calls “spreads that probably followed earlier spreads” (p. 234) generating a complex layering of languages in particular areas of the world. The analytical framework that distinguishes between the structural and the genetic diversity offers a sophisticated way to understand language relationships.

The interplay between the genetic transmission and the language contact gives rise to intricate paths in which languages develop and change. According to Thomason (2003), “most of what historical linguists study under the rubric ‘language change’ is due to contact” (p. 687) so it is necessary to distinguish between inherited and contact features carefully. The theoretical placement of contact as a primary agent of change marks a paradigmatic shift in the theoretical framework of historical linguistics. The idea of contact itself has the potential to account for language change, thereby challenging simplistic models of inheritance alone. This theory can help explain complicated processes we see in language families, where inherited features are being used and borrowed in dynamics.

In studying the genetic relations among languages, the sociocultural as well as the geographical factors have become important. The social and the geographical factors continue to significantly shape the development and the distribution of the genetic relationships. According to Renfrew (1989), “until the more recent trend of sociolinguistics, many academics tended to have rather a fixed view of individual languages” (p. 99). Furthermore, Mufwene (2003) makes an important theoretical remark about the classification process that goes as follows: “The identification of genetically similar language varieties as the dialects of the same language or as separate languages is somewhat analogous to identifying populations as belonging to the same or to different races’ (p. 126). The relationship between languages is not only linguistic but also social.

6. Methodological Advances and Future Directions

Current advances in genetic linguistics continue to show the methodological evolution. As Campbell (2013, p. 159) notes, further work will shrink the number of independent language families since as research proceeds, some of these families and isolates may prove to be related to others. Still, it is unlikely that the total number of independent language families will change much for Europe, most of Asia, or North and Central America.

The investigation of the genealogical relationships yields significant theoretical implications regarding the interpretation of linguistic transformation processes and human historical trajectories, particularly within diachronic linguistics. Greenberg's (2005) theoretical framework problematizes the phylogenetic modelling approach, noting parallels with genetic taxonomies: “the basic family tree approach, like gene trees, has problems. For example, at the lowest taxonomic level, difficulty in distinguishing separate species from varieties of the same species has its parallel in distinguishing dialect from language” (p. 371). This biological parallel throw light on some fundamental taxonomic problems in making discrete classificatory boundaries. This difficulty in methodology does arise especially at the basic level when the distinguishing traits begin to lose focus. The biological taxonomy issue is about whether a genetic change is a new species or a variant of an existing species. While the linguistic issue is the difficulty in deciding whether two languages are different or two dialects of one language.

7. Conclusion

The scientific comparison of languages in relation to their genetic relationship can tell us a lot about the history of language and language change through time. The use of the comparative methodology on different language families shows the existence of the systematic linguistic relation by evidence. The study of Romance languages, East Asian number systems, and the Indo-European family shows that there are features that can be inherited or borrowed. By focusing on the limits in time depth and boundaries in classification, some methodological issues in studying genetic relations through languages are noted.

The connection between genetic inheritance and language contact is essential for understanding the linguistic relations. An investigation of some sociocultural and geographic factors reveals the patterns and processes that shape relationships of languages and influence their diversification. Additionally, the study provides a structural and analytical framework for the analysis of the relationship among languages genetically.

By combining traditional comparative techniques with more recent theoretical ideas, we are able to achieve a fuller understanding of languages and how they evolve. This methodologically integrated approach identifies both the systematic nature of the relationships between languages and the social dynamics that impact the diachronic change.

Disclosures

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