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## The Universals Archive: A Brief Introduction for Prospective Users

### Summary

The Universals Archive aims to provide comprehensive documentation of the linguistic universals on record. Currently including some 1,500 entries, it is now available on the internet as a searchable database. For its updating and overhaul the cooperation of the typological community is solicited. Here we outline what kind of information is held in the archive and how it can be accessed and used.

### 1. The remit

Typology is about how languages, or rather their grammars and lexicons, can and cannot differ from each other, and universals are the laws regulating crosslinguistic variation. Although the typological research programme has been under way for several centuries now, there is regrettably little awareness of just how many such putative laws have been accumulating. Often what comes to mind, even that of many a practicing typologist, is little more than (a subset of) the 40 or so universals suggested in GREENBERG (1963) and conveniently collected in the appendix of this modern classic. Perhaps, if universals had been named after their discoverer as laws are in other sciences (even when they are so unlawful as SAUSSURE'S Law and other such diachronic regularities, limited in scope to particular families or indeed languages), their impact would have been greater. In actual fact, there are laws galore on record, though few have been officially passed by the typological legislature and no systematic effort has ever been made at proper codification. In view of their significance for the field, these scattered laws, whatever their substance and quality, deserve to be collected and recorded and to be made available for ready consultation.

Occasionally, more or less narrowly circumscribed selections of universals have indeed been catalogued, notably in BURQUEST et al. (1982), KIRBY (1995), and PLANK (1998).<sup>1</sup> Within the national typology programme of the Deutsche Forschungsgemeinschaft, initiated in 1995, a more comprehensive effort in this direction is being made by the project "Sprachbaupläne", based at the Fachbereich Sprachwissenschaft of the Universität Konstanz.<sup>2</sup> The remit of this project is to document existing universals, no matter how hypothetical their validity, and not to suggest new ones: a putative universal needs to be in print, or at least be

<sup>1</sup> We hesitate also to mention DÉCSY (1987).

<sup>2</sup> The project is directed by FRANS PLANK, with ELENA FILIMONOVA as a research associate. We gratefully acknowledge the archiving assistance of SHIN-SOOK KIM, ARISTA DA SILVA, and BERNHARD METZ, as well as technical help from THILO DANNENMANN and EMILIA NAGY.

forthcoming, in order to get into the Universals Archive. All that may be added when a universal is being archived are comments of various sorts, contributed by the archivists or again drawn from the literature.

Although our collection of published universals is far from complete and the documentation of those already collected lacks polish, the Universals Archive has now been made available as a searchable database on the internet, as a tool for typologists and as an invitation for its further extension and refinement. What follows is a brief introduction of this archive for the special benefit of those who can access it at this address:

<http://www.ling.uni-konstanz.de/pages/proj/sprachbau.htm>

## 2. Guide through an archive under construction

What is being documented in the Universals Archive are linguistic universals. This notion is neither trivial nor self-explanatory; still, a few remarks will have to suffice here concerning what is and is not covered by the archive.

First, although the dividing line is sometimes difficult to draw, to qualify for inclusion in the archive universals ought to be substantive rather than being “design features”, whose universality is definitional (such as vocal-auditory channel, evanescence, duality of patterning; see HOCKETT 1963): lacking them, a communication system, instead of being considered a counterexample, would not be called a natural “language”.<sup>3</sup> Second, the substantive universals that are entered in the archive are statements preceded by a universal quantifier ranging over all natural languages; and in their basic form, which is not always easy to discern, they are either unconditional (“For all languages, there is or is not p”) or conditional, and in particular implicational, prescribing co-variation of two or more logically independent variables (“For all languages, if there is or is not p, then there will or will not be q”). Thus, to be universal, properties must be universally shared or, if they are not shared by all languages, they must not vary independently. This is a somewhat restrictive notion of universality, favouring a conception of universal grammar as the intersection of particular grammars rather than as their union set, as the grand repository of anything that any language is free to select. Third, universals are often conceded even by their proponents to be mere tendencies rather than categorical laws; such statistical universals are entered in the archive, unlike those regularities explicitly claimed to be limited to areas or families (Euroversals, Bantuversals, and the like). Fourth, laws are timeless; still, it is possible for universals to have a time dimension – as in claims that whenever a language has a particular property, it must have acquired it in a particular way and from a particular source. Fifth, going again for archival liberality, the properties figuring in the universals documented include all conceivable kinds of units, categories, constructions, rules, constraints, principles, or relationships between them, regardless of how concrete or abstract, theory-neutral or theory-bound.

To get started on our guided tour, the following universal, one of MORAVCSIK’s Many Laws, serves to illustrate what kind of information is maximally provided in an entry in the archive.

For identification entries are serially numbered, reflecting the order in which universals have been entered. Currently the only way to find and collect together universals which are thematically related is by following up cross-references in the Comments section. Eventu-

<sup>3</sup> We cannot here broach the issue of whether universals which do not hold for sign languages are to be considered substantive (and invalid) or definitional.

Number	31
Original:	If a language has Suffixaufnahme, it also has other NP-internal attributive constituents showing agreement in the same categories as the nominal attributive involved in Suffixaufnahme.
Standardized:	IF nominals show agreement by Suffixaufnahme, THEN there will also be other NP-internal attributive constituents showing agreement with their head in the same categories.
Formula:	Suffixaufnahme with nominals $\Rightarrow$ other attributive constituents agreeing with their head in the same categories
Keywords:	case, agreement, Suffixaufnahme, attribution
Domain:	inflection, syntax
Type:	implication
Status:	achronic
Quality:	absolute
Basis:	Suffixaufnahme languages surveyed in PLANK (ed.) 1995
Source:	MORAVCSIK 1995: 473, #G 17
Counter-examples:	Malto (Dravidian): Adjectives do not agree with their head noun if used attributively; neither do demonstrative pronouns, although they show all sorts of categorial distinctions when used alone (SCHELLINGER 1998).
Comments:	Languages confirming #31 (in PLANK (ed.) 1995): Old Georgian (S. Caucasian), Akhvakh, Chamalal (both Avar-Andian, E. Caucasian), Tabasaran-Dúbek, Tsakhur (both Lezgif, E. Caucasian), Hurrian (language isolate), Djingili (Australian), the Agaw group (Cushitic, Afro-Asiatic). For definition and extensive discussion of Suffixaufnahme see PLANK (ed.) 1995. What is being assumed in the universal, although this is not always uncontroversial, is that (typically genitive) nominals with Suffixaufnahme really are nominals (rather than derived adjectives) and that such agreements are NP-internal and hold between heads and attributives (rather than being NP-external, with the relationship, if any, being a looser one of apposition). See also #35, which is a special case of #31.

ally we hope to be able to number and arrange entries in a less arbitrary order. Of course, on-line users of the archive will get relevant subsets of universals arranged thematically when they search for particular domains or keywords.

The documentary part begins with the field "Original", where the universal is given approximately as stated in the original source. For various reasons, including readability and limitations of space, it is not always advisable to reproduce the source literally. Also, we translate into English even when source languages are among the more widely read ones (such as Russian).

Subsequently the original statement is, if necessary, standardized in style and terminology. Such transformations are always meaning-preserving, and sometimes meaning-enhancing.

Number:	1181
Original:	There are contrasting transfer patterns for thumbs and big toes on the one hand and the remaining digits on the other: Whereas the former are likely to be built on kin-terms of an older, ascending generation (e.g. ‘mother of the hand/foot’), the remaining fingers and toes tend to be derived from expressions involving terms for offspring or other younger relatives (e.g. ‘child of the hand/foot’).
Standardized:	Terms for thumbs and big toes tend to be derived from expressions including kin-terms of an older, ascending generation. Terms for the remaining fingers and toes tend to be derived from expressions including terms for offspring or other younger relatives.
Formula:	
Keywords:	body parts, kinship
Domain:	lexicon
Type:	unconditional
Status:	diachronic
Quality:	statistical
Basis:	118 languages of worldwide distribution
Source:	BROWN & WITKOWSKI 1981, WILKINS 1993, 1996, reviewed in HEINE 1997: 132
Counter-examples:	
Comments:	

It is these “Standardized” versions that are recommended to users for all practical purposes. Ideally they ought to be Authorized Versions, but obtaining authorization will no doubt occasionally prove unviable.

We had intended to standardize and indeed formalize universals yet further; but this has largely remained a task for the future. Presently the field “Formula” is of little utility, and is best ignored by users.

The fields “Keywords” and “Domain” classify universals by content at different levels of generality. At the highest level we currently distinguish these domains: syntax, morphology (sometimes differentiated as inflection and word formation), phonology (sometimes specified as prosodic phonology), phonetics, semantics, and lexicon. Lower-level keywords are devised as we go along. A separate inventory of keywords will soon be available for the benefit of on-line searchers of the archive.

The following three fields “Type”, “Status”, and “Quality” classify universals by kind. The basic “types” of universals are unconditional (like #1181, a lexical one, for a change) or conditional. The most important conditional relationship is that of material implication (one-way or mutual); but from the way relationships are sometimes named and characterized in the sources (e.g., “p correlates with q”, “p and q are mutually conducive”, “p favours q”, “p authorizes q”) it is not always easy to determine whether this is the intended reading. Here (and perhaps further in the field “Comments”) attention is also drawn to possibly misleading formulations of universals as implications in the original source. Not infrequently, what

Number:	12
Original:	If direct objects may control agreement (or take case marking) without doing so obligatorily, it will be the more definite and/or the more animate direct objects which are agreed with (or case-marked) obligatorily.
Standardized:	IF direct objects may control verb agreement (or take case marking) without doing so obligatorily, THEN it will be the more definite and/or the more animate direct objects which are agreed with (or case-marked) obligatorily.
Formula:	
Keywords:	agreement, case, direct object, definite, animate
Domain:	syntax, inflection
Type:	no genuine implication; rather: provided that
Status:	achronic
Quality:	absolute?
Basis:	unspecified
Source:	PLANK 1991c: 535, referring to CROFT 1988: 161
Counter-examples:	
Comments:	Even though direct transposition does not work, the claim at issue may be of an essentially implicational nature: IF less definite and/or less animate direct objects control verb agreement (or are optionally case-marked), THEN more definite and/or more animate direct objects also control verb agreement (or are also case-marked). Cf. ##46, 488, 1284.

is given in the form of an if-then statement is not really a material implication but a kind of conditional relationship which is paraphrasable as “q, provided/given that p”. Implications can be transposed under negation of both implicans and implicatum: “if p then q” is equivalent with “if not q then not p” (e.g., “if there is a trial, then there is a dual” ≡ “if there is no dual, then there is no trial”); if relationships fail the test of transposition, they are not genuine implications, or need some tinkering to reveal their implicational essence. Universals ##12 and 170 are examples.

“Status” is about the historical nature of universals. When they are purportedly of time-less validity, proscribing or prescribing structures independent of previous or later states of a language, they are referred to as “achronic”. “Diachronic” universals are laws of change, linking structures of an earlier with those of a later stage of a language and perhaps specifying a mechanism of how to get from one to the other. The problem is that these labels are frequently a matter of interpretation, and ultimately raise profound questions about the relationship between typology and diachrony (see e.g. PLANK 1999, PLANK & SCHELLINGER 2000). Without going into this issue here, we refer back to #31 as an example of a universal that is clearly intended as (and presumably indeed is) achronic. So is #17, while #38 is clearly intended as diachronic; and this pair goes to show how intricately achronic and diachronic

Number:	170
Original:	If a language has case affixes on nouns, they are almost always suffixed.
Standardized:	IF there are case affixes on nouns, THEN they are almost always suffixed.
Formula:	
Keywords:	case, affix, suffix
Domain:	inflection
Type:	no genuine implication; rather: provided that
Status:	achronic
Quality:	statistical
Basis:	sample of 23 languages in SANDERS 1972; 200 languages in HAWKINS & GILLIGAN 1988 drawn from three samples: a 113-language sample of L. STASSEN, a 40-language sample of J. BYBEE & R. PERKINS, and a 50-language sample compiled by G. GILLIGAN
Source:	WUNDT 1904: 130; GREENBERG 1957:91; KUZNECOV 1960: 30; SANDERS 1972: 115 (1978: 71); KAHR 1976: 135–140; MORAVCSIK 1978: 9; MAXWELL 1979: 44; WILLIAMS 1981: 251 (crediting K. HALE, p. c.); DONEGAN & STAMPE 1983: 344; CUTLER, HAWKINS, & GILLIGAN 1985: 729; HAWKINS & GILLIGAN 1988: 222; MCCREIGHT YOUNG 1988: 49; WANDRUSZKA 1992: 4; MORAVCSIK 1994: 49
Counter-examples:	Classical Armenian, Hungarian [pronouns] (BALDI 1983); some Semitic and Bantu languages (MORAVCSIK 1994); Semitic, Cushitic (HETZRON 1980); Amharic (Semitic, Afro-Asiatic) (LEHMANN 1982: 93); Idoma (Benue-Congo, Niger-Congo) (REH 1986: 121); Krongo (Kordofanian, Niger-Congo) (REH 1985: 98); Non-Bari group of Eastern Nilotic (Nilo-Saharan) (DIMMENDAAL 1987; HEINE & VOSSEN 1983); Zulu (Bantu, Niger-Congo) (SKALIČKA 1979: 202); Eastern Bushman (Oceanic, Austronesian) (LANHAM & HALLOWES 1956); Mangarayi (MERLAN 1982); Nungali (HODDINOTT & KOFOD 1976); Mara, Burrara, Alawa (all Australian) (see also BLAKE 1987: 19); Murut (Borneo, Austronesian) (PRENTICE 1981); Huamelultec Chontal (Hokan) (WATERHOUSE 1967); Squamish (Salish) (KUIPERS 1967); Coast Tsimshian? (Tsimshianic) (DUNN 1979); Zapotec (Oto-Manguean), Oaxaca Chontal (Hokan) Squamish (Salish) (HAWKINS & GILLIGAN 1988: 222)
Comments:	This is in essence what is being claimed: Case affixes on nouns tend to be suffixed. There is an implication hidden here, though: If an affix on nouns is a suffix, then it is almost never a case marker. See also #1401 for SANDERS' claim.

Number:	17
Original:	If Suffixaufnahme occurs with the head present, it also occurs with the head missing.
Standardized:	IF Suffixaufnahme occurs with the head present, THEN it also occurs with the head missing.
Formula:	SA head-present $\Rightarrow$ SA head-missing
Keywords:	case, attribution, agreement, Suffixaufnahme, head, ellipsis
Domain:	syntax, inflection
Type:	implication
Status:	achronic
Quality:	absolute
Basis:	Suffixaufnahme languages surveyed in PLANK (ed.) 1995
Source:	MORAVCSIK 1995: 469, #G2, with special reference to BOEDER 1995
Counter-examples:	
Comments:	To exemplify headless attributives (sometimes called hypostasis constructions): The duke's palace is big, but the king's [ONE] is even bigger. Cf. the diachronic analogue #38.

Number:	38
Original:	If a language has Suffixaufnahme both in headed and headless NPs at one time and at some later time it has Suffixaufnahme in only one of the two contexts, that context is headless NPs.
Standardized:	IF there is Suffixaufnahme both in headed and headless NPs at one time and at some later time there is Suffixaufnahme in only one of the two contexts, THEN that context is headless NPs.
Formula:	
Keywords:	case, attribution, agreement, Suffixaufnahme, head, ellipsis
Domain:	syntax, inflection
Type:	implication
Status:	diachronic
Quality:	absolute
Basis:	Suffixaufnahme languages surveyed in PLANK (ed.) 1995, especially developments in Kartvelian
Source:	MORAVCSIK 1995: 478, #G21, with special reference to BOEDER 1995
Counter-examples:	
Comments:	diachronic analogue to #G2, here #17. In other words: If Suffixaufnahme is lost, it will be lost in headed NPs before headless NPs.

Number:	1287
Original:	<p>Palatalization spreads from the back to the front consonantal series, that is the first consonant series to undergo palatalization will be the velar series, the next one the dental, and the last will be the labial series. Manner of articulation seems to be an equally important conditioning factor; thus for the dental series the direction of the diffusion of palatalizations seems to be from sonorants [l, n] to sibilants [s, z], and finally to stops and non-stridents [t, θ, ð].</p> <p>Palatalization of a prevocalic consonant spreads from high to low front vowels: if [k] palatalizes before a low front [a], so it must also before a mid [e] and a high [i].</p> <p>Glides constitute a more conducive environment to palatalization than the corresponding nuclei.</p>
Standardized:	<p>1. Targets of palatalization</p> <p>a. in terms of place of articulation IF a less back consonant is palatalized, THEN all more back consonants are also palatalized. (BACK-to-FRONT scale: velar &gt; dental &gt; labial)</p> <p>b. in terms of manner of articulation IF a less sonorant consonant is palatalized, THEN all more sonorant consonants are also palatalized. (SONORANCE scale: sonorant &gt; sibilant &gt; stop / non-strident)</p> <p>2. Triggers of palatalization</p> <p>a. in terms of place of articulation IF a less high front vowel palatalizes a preceding consonant, THEN all more high vowels also palatalize this consonant.</p> <p>b. in terms of consonantality IF a nuclear vowel palatalizes a preceding consonant, THEN a corresponding glide also palatalizes this consonant. (e.g., [y] &gt; [i])</p>
Formula:	
Keywords:	palatalization
Domain:	phonology
Type:	implication
Status:	unclear whether diachronic and/or achronic
Quality:	absolute
Basis:	languages mentioned in CHEN 1973
Source:	CHEN 1973a: 240, CHEN 1973b: 177, 181, 182
Counter-examples:	<p>mentioned by CHEN himself (personal communication with MARGARET LANGDON, SAMUEL S. KEYSER, and JOSEPH MALONE):</p> <p>dental palatalization without concomitant palatalization of velars in Cocopa (Hokan, Amerind), Canadian French (Italic, Indo-European), Ma'ûla Amharic (Semitic, Afro-Asiatic)</p>
Comments:	<p>CHEN is ambivalent between a diachronic and an achronic interpretation of his implications (steps in the historical spread of palatalization vs. universal constraints on phoneme systems valid at all times, regardless of the history of a language). However, since he suggests that counter-examples (on the achronic interpretation) can possibly be explained away by assuming successive cycles of palatalization, his implications are probably to be read diachronically as determining the historical spread of (a single cycle of) palatalization.</p>



universals may be related to each other, with the latter potentially rendering the former redundant. Universal #1287 posits hierarchies which are equally meaningful as timeless crosslinguistic constraints on segment inventories and as steps in the historical spreading within a language of the process in question, with the author of the universal himself wavering between an achronic and a diachronic reading.

In the field “Quality” universals are distinguished as (almost) absolute or statistical, according to their proponents. These assessments, especially those claiming absolute validity, may well be counterfactual, as is to be gathered from the field “Counterexamples”.

“Basis” identifies the languages on which the universal is based. The possibilities here are (i) that there is no way of telling, with the source at best mentioning some languages as examples (or indeed only one); (ii) that the basis is only known numerically (e.g., “some 500 languages”); and (iii) that the languages on which a crosslinguistic claim rests are actually identified in the source, possibly along with the criterion on which they have been selected (such as convenience, genetic representativeness as measured in one or the other sampling technique, areal representativeness, comprehensiveness, etc.).

Concluding the documentation part, “Source” gives author(s) and work(s) and page(s) where a universal has been suggested. Full bibliographic details are provided in a separate list of references, which is also available to on-line users of the archive. (When we are here quoting archive entries for illustration, such details are therefore omitted.) While sometimes more than one proponent is credited in a single entry, our policy is to have separate (cross-referenced) entries whenever different authors differ only slightly in what is being claimed.

Going beyond what is found in the sources or responsibly inferred from them, known evidence potentially at odds with the universal is given in the field “Counterexamples”. Again, full bibliographic details are collected in a separate list. Needless to add, counterexamples are highly prized knowledge, of which currently we have far too little – without really knowing whether this is as good for the universals concerned as it might seem. The journal *Linguistic Typology* has set aside a special rubric, “Implications Register”, for such findings (inaugurated by PLANK & SCHELLINGER 1997, and updates of FILIMONOVA 1999a/b should follow before long).

Finally, the field “Comments” is intended for cross-references to other universals, for explanations of the terminology used in stating the universal and of its theoretical background, for re-statements, for further references, and generally for concise queries and suggestions of any sort users might find helpful.

### 3. Some advice for users at a distance

The Universals Archive is a FileMaker Pro 4.1 database. This software is easy to deal with and serves the intended purposes reasonably well. In particular, without much ado it enables users of the archive to do and to see at a distance what can be done and seen locally. One crucial difference, however, is that those visiting the archive on the internet cannot alter the database directly; if this is what they desire, they have to prompt the archivists to take local action. And, annoying locals no less than visitors, formatting and special characters do not transmit well on the web. We tend to use Symbol and PalPhon to supplement the standard font (Times) whenever needed, especially in phonological/phonetic and semantic universals, but visitors may not be able to see it (yet, pending Unicode), even if they choose the same fonts on their screens. Profuse apologies.

Number:	613
Original:	When the switch-reference marker is a suffix, the Marking clause precedes the Reference clause; when the switch-reference marker is a verbal prefix, the Marking clause follows the Reference clause.
Standardized:	IF the switch-reference marker is a suffix, THEN the Marking clause precedes the Reference clause; IF the Switch-Reference marker is a verbal prefix, THEN the Marking clause follows the Reference clause.
Formula:	
Keywords:	switch-reference, suffix, prefix, order
Domain:	syntax, inflection
Type:	implicational
Status:	achronic
Quality:	absolute
Basis:	languages surveyed in HAIMAN & MUNRO 1983
Source:	HAIMAN & MUNRO 1983: xii
Counter-examples:	
Comments:	Following MUNRO 1980, HAIMAN & MUNRO identify the clause in which switch-reference is marked as the Marking clause, and the clause with reference to which it is marked as the Reference clause.

Number:	614
Original:	If a language has switch-reference marking between non-adjacent clauses, it will also mark switch-reference between adjacent clauses.
Standardized:	IF there is switch-reference marking between non-adjacent clauses, THEN switch-reference between adjacent clauses will be marked as well.
Formula:	
Keywords:	switch-reference, order, adjacency
Domain:	syntax, inflection
Type:	implicational
Status:	achronic
Quality:	absolute
Basis:	languages surveyed in HAIMAN & MUNRO 1983
Source:	HAIMAN & MUNRO 1983: xiii
Counter-examples:	
Comments:	Following MUNRO 1980, HAIMAN & MUNRO identify the clause in which switch-reference is marked as the Marking clause, and the clause with reference to which it is marked as the Reference clause.

Number:	615
Original:	If there is switch-reference marking, languages will mostly be verb-final.
Standardized:	IF there is switch-reference marking, THEN basic order is mostly verb-final.
Formula:	switch-reference marking $\Rightarrow$ verb-final
Keywords:	switch-reference, order, verb-final
Domain:	syntax, inflection
Type:	implicational
Status:	achronic
Quality:	statistical
Basis:	languages surveyed in HAIMAN & MUNRO 1983
Source:	HAIMAN & MUNRO 1983: xv
Counter-examples:	Lenakel (E. Malayo-Polynesian, Austronesian) (LYNCH 1983)
Comments:	

Visitors can access the Universals Archive in two different ways. They can browse through it or they can search it for anything they hope to be in it. To familiarize themselves with what they can reasonably expect to find, it is recommended that they first browse a bit, scrolling through the myriad universals in chunks of ten. To improve user-friendliness, there will in future be pop-up windows in particular for keywords, the likeliest guides for systematic searches. (To the same end, it is planned to add links from references given in individual universals files to the separate bibliographies for universals sources and for counterexamples and comments.)

When browsers turn searchers, they can retrieve universals in terms of any string of symbols or of any combinations of symbol strings which occur in any field of a universals file, from "Number" to "Comments". If they simultaneously want to search for items from more than one field (e.g., Original and Domain), they need to determine whether they should be joined with "AND" or "OR". As is likewise explained on the web page, searchers then only need to enter the item(s) to be searched for in the relevant right-hand field(s) and click on "Search" below. There are two options for searching, to be determined in the pull-down menus of the left-hand fields: "begins with" looks for any words beginning with the character strings entered (e.g., *case* in the fields Original or Standardized will find you files where *case*, *cases*, and *case system* occur in these fields; *aggl* will find you *agglutination*, *agglutinative*, and *agglutinating*, *num* will find you *number*, *numeral*, and, who knows, *numerology*, *numinous*, *numbskull*), while "is" only looks for words exactly identical with the term you enter.

Within one field, any number of words can be entered, separated by blanks. This is a possibility that will be particularly appreciated by typologists, who are after all out to discover co-variation, and for co-variation you need (at least) two variables. For example, if you are curious whether switch-reference has been claimed to co-vary with anything about the order of any kind of elements, simply enter these two words (*switch-reference order*) in any of the fields "Keywords", "Original", or "Standardized" and click on "Search" – and the archive will return you three files, ##613, 614, and 615. Those who suspect that tone some-

Number:	45
Original:	If there is a construction in which the verb agrees with some member of the relational hierarchy $S > DO > IO > Obl$ [ $> Genitive$ ], then there are at least some constructions in which the verb agrees with members higher on that hierarchy.
Standardized:	IF the verb agrees with Attributive, THEN it also agrees with Oblique. IF the verb agrees with Oblique, THEN it also agrees with Indirect Object. IF the verb agrees with Indirect Object, THEN it also agrees with Direct Object. IF the verb agrees with Direct Object, THEN it also agrees with Subject.
Formula:	verb agrees with Attrib $\Rightarrow$ with Obl $\Rightarrow$ with IO $\Rightarrow$ with DO $\Rightarrow$ with S.
Keywords:	agreement, verb, subject, direct object, indirect object, oblique object, attributive, relational hierarchy
Domain:	syntax, inflection
Type:	implicational hierarchy
Status:	achronic
Quality:	absolute
Basis:	languages mentioned in CROFT 1988, MORAVCSIK 1988; South Asian languages of India (Indo-Aryan, Tibeto-Burman, Dravidian, Munda) surveyed by SUBBARAO 1998
Source:	CROFT 1988: 164–169; MORAVCSIK 1988: 102 (Subj $>$ Obj agreement); PLANK 1991c: 534 (review); SUBBARAO 1998: 14 (adds Gen to the hierarchy)
Counter-examples:	Nepali (Indo-Iranian, Indo-European): verb agrees with Subject and Oblique but not Direct Object or Indirect Object (SUBBARAO 1998: 14)
Comments:	Cf. #44.

how correlates with case (e.g., with the number of tones inversely proportional to that of cases), and type in these two words together, will be pleased (or disappointed) to discover that no one before them has gone on record with such a suspicion, to the best of the archivists' current knowledge.

Sometimes a single conditional universal itself involves more than two variables. The best known instances are claims that a pattern – such as agreement (cf. universal #45), relativization, number distinction, or palatalization (#1287 above) – follows a hierarchy with several positions. Otherwise, however, information about how individual universals link up to form whole chains and networks, thus defining “the great underlying groundplans of language” (that “tout se tient” is unlikely), is far less convenient to extract from the Universals Archive. Lacking a suitable programme, it is so far only by hand that local as well as distant users can piece together implications as in the following examples.

- (1) #671 IF basic order is SOV, THEN question particles are almost always sentence-final; IF basic order is not SOV, THEN question particles tend to be sentence-initial. (ULTAN 1978)
- #495 Provided that question particles or affixes are positioned relative to the sentence as a whole, IF they are initial, THEN there are prepositions, and IF they are final, THEN there are postpositions. (GREENBERG 1963)
- thus:* SOV  $\Rightarrow$  Sent Q  $\Rightarrow$  Postp  
 not SOV ( $\Rightarrow$ ) Q Sent  $\Rightarrow$  Prep [less secure]
- from which follows, since implication is transitive:*  
 SOV  $\Rightarrow$  Postp  
 not SOV  $\Rightarrow$  Prep [less secure]
- which encouragingly fits in with:*
- #491 IF basic order is SOV, THEN with overwhelmingly more than chance frequency there are postpositions. (GREENBERG 1963)
- (2) #615 IF there is switch-reference marking, THEN basic order is mostly verb-final. (HAIMAN & MUNRO 1983)
- #438 IF basic order is verb-initial or free, THEN head-marking is favoured, and vice versa. IF basic order is verb-medial or verb-final, THEN dependent-marking is favoured, and vice versa. (NICHOLS 1992)
- #437 IF there is ergative alignment, THEN there will be dependent-marking, and vice versa. IF there is stative-active or hierarchical alignment, THEN there will be head-marking, and vice versa. (NICHOLS 1992)
- thus:* switch-reference  $\Rightarrow$  verb-final  $\Rightarrow$  dependent-marking  $\Leftrightarrow$  ergative alignment
- (3) #627 IF there is Suffixaufnahme, THEN basic order is verb-initial or verb-final. (PLANK 1995)
- #438 IF basic order is verb-initial or free, THEN head-marking is favoured, and vice versa. IF basic order is verb-medial or verb-final, THEN dependent-marking is favoured, and vice versa. (NICHOLS 1992)
- #896 IF there is head-marking, THEN adjectives tend to be grammatically similar to verbs; IF there is dependent-marking, THEN adjectives tend to be grammatically similar to nouns. (DIXON 1997)
- #801 IF adjectives are nouny, THEN verbs are tensed; IF adjectives are verby, THEN verbs are not tensed. (STASSEN 1997)
- #1031 Tensedness correlates with OV, Casedness of nouns, AND construction, absolute converbs; Non-Tensedness correlates with VO, Non-Casedness, WITH construction, no absolute converbs. (STASSEN 1997)
- thus:* Suffixaufnahme  $\Rightarrow$  verb-initial or verb-final
- |                  |    |                   |
|------------------|----|-------------------|
| verb-initial     | or | verb-final        |
| ↓                |    | ↓                 |
| head-marking     |    | dependent-marking |
| ↓                |    | ↓                 |
| verby adjectives |    | nouny adjectives  |
| ↓                |    | ↓                 |
| verbs non-tensed |    | verbs tensed      |
| ↓                |    | ↓                 |
| nouns non-cased  |    | nouns cased       |
| ↓                |    | ↓                 |

WITH construction



no absolute converbs

AND construction



absolute converbs

*which fits in with:*

- #664 IF converbs are prominent, THEN basic order is OV, and vice versa.  
(HASPELMATH 1995)
- (4) #635 IF there is Suffixaufnahme, THEN nominal inflection is agglutinative.  
(PLANK 1995)
- #589 IF morphology is agglutinative, THEN there is no grammatical gender. By transposition: IF there is grammatical gender, THEN morphology is not agglutinative. (MEINHOF 1936, RENAULT 1987, MORAVCSIK 1994)
- #247 IF there is an accusative case distinct from a nominative, THEN there is grammatical gender. By transposition: IF there is no grammatical gender, THEN there is no accusative distinct from a nominative. (PALMAITIS 1987)
- #440 IF alignment is non-accusative, THEN verb-initial basic order is favoured.  
(NICHOLS 1992)
- thus:* Suffixaufnahme  $\Rightarrow$  agglutinative (nominal) morphology  $\Rightarrow$  no gender  $\Rightarrow$  no nominative-accusative case marking  $\Rightarrow$  verb-initial favoured
- which fits in with:*
- #627 IF there is Suffixaufnahme, THEN basic order is verb-initial or verb-final.  
(PLANK 1995)
- #638 IF there is Suffixaufnahme, THEN alignment is ergative or otherwise non-accusative. (PLANK 1995)

Often enough, when implications which are entered individually in the archive are connected, and transitivity is employed to link directly variables which are only linked indirectly in such chains, there is no encouragement but cause for concern. However, discovering inconsistencies through such uses of the archive is just as well, since at this stage of the typological enterprise only few universals can rightfully shed the epithet “putative”.

#### 4. Document yourselves

The Universals Archive currently includes some 1,500 entries, and is constantly being overhauled and updated.<sup>4</sup> Since much relevant literature has so far remained unread by the local archivists, and some has no doubt been misread, the coverage of structural areas is patchy, and what is covered may fall short of perfection. To bring the archive up to scratch we solicit the cooperation of the typological community. We welcome corrections, further references, and constructive comments of all kinds. And in particular: Do send your own universals and those of your friends and enemies – or at any rate counterexamples to those of the latter!

<sup>4</sup> In the interest of documenting not only the constraints on, but also the possibilities of crosslinguistic diversity, there are also plans to have a separate department of the archive devoted to the opposite of universals – namely, *rara*, *rarissima*, and *nonexamples*.

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