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### Kiksht "impersonals" as anaphors and the predictiveness of grammatical-categorial universals\*

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In remembrance of **Jerzy Kurylowicz** on his hundredth anniversary

1.1. Grammatical categories characterized. Grammatical categories -- the central theoretical concept of linguistics as an explanatory science -- are to be distinguished from categories of relative Saussurean distribution (or "formal categories" of "autonomous" grammar) and from structured denotational and other discursive distinctions (specifically and differentically communicated or signaled semantic and pragmatic content). Grammatical categories are the *categories of mapping between* such formal categories, definable under structures of morphological and syntactic combinatorics, and such communicable differentiations of denotational and other information as underlie modalized propositional text (or even the textuality of communicative interaction, more ambitiously).<sup>1</sup>

Once we distinguish grammatical categories in principle from formal (distributional) categories, we can see that the structural ingeniousness of languages universally is that some grammatical categories are, in fact, transparently coded in isolable paradigms of surface-segmentable (Bloomfield: "lexical") forms, and others are rather complexly coded in morphosyntactic configurations of concurrent paradigmatic forms in particular languages; and some potential grammatical categories, coded transparently or configurationally in some language(s), are not regularly or productively or other-than-collocationally coded in a particular language at all, though the semantic or pragmatic distinction *can be communicated* with the proper lexical items arranged in phrase-types of a sufficient complexity.<sup>2</sup>

Many of the more fundamental grammatical categories are expressed *only* in **paradigms of configurational cooccurrence** of other, more transparent grammatical categories brought together in a formal structure of a certain scope (constituting a particular distributional category-type, e.g., a phrase or clause of a particular type). Such is, for example, the situation with VALENCE, comprehending the coding of a predicate's number-of and configuration-of arguments, with respect to which classes of predicates can be defined. VALENCE is formally expressed only through the entire systematics of clause inflectional morphosyntax under all possible conditions of CLAUSE-LINKAGE in sentence-scope grammatical forms.

The typical statement of a grammatical-categorial regularity has the form of a complex function that maps structures of values of multiple variables (the quantized dimensions of semantic and pragmatic differentiation) into specific formal-distributional categorial values. There is a sense in which, then, the *unique* or *principal* or *recurrent* (note the degree concept) functional (mapped) associability of certain formal categories with some particular structure of semantic or pragmatic differentiation, no matter how many other variables may be involved, is the basis on which we can label some formal-distributional category by the associated semantic or pragmatic value. That is, we have linked distribution to denotation through grammatical categorization. CASE-marking, for example, is justifiably

called this --stipulatively labeled as about "case," that is -- for three reasons: [1] because it is anchored in universal and particular stipulations involving predicate-argument VALENCES, indicating the thematic roles (or case-relations) of particular denotata about which a state-of-affairs is being predicated, whatever other semantic and pragmatic variables, in particular formal constructions and/or in particular languages, may go into determinations of these diagnostic formal-distributional regularities; and [2] because any other variables involved in the CASE-marking system are themselves more transparently and paradigmatically coded in formal-distributional structures that do not, inherently, involve the predicate role of a designatum as argument; while [3] the putative CASE-coding is the most transparently and paradigmatically coded formal-distributional structure that maps into this structure of interlocked variables, under our formal account of such a mapping. (We might call these the [1] essentiality, [2] uniqueness, and [3] minimaximality conditions on transparency of coding, as theoretically-derived methodological evaluation criteria on grammatical-categorial analysis.)

1.2. The empirical character of grammatical-categorial description: predictiveness. There are three areas of linguistic function and transformation that begin to give us a sense of the nature of the relationship between typological compatibility-with (or at least "free-ride" non-incompatibility-with) a specific grammatical-categorial universal, and a language's specific conformity-

to (or formal exemplification of) it.

First, in a given language that is merely compatible with a typological universal of grammatical categorization, we can generally demonstrate *statistical tendencies* of formal-distributional coding that, in numerical, if not categorical terms, show a kind of non-structural but nevertheless demonstrable conformity-to the parametric structure of the universal. This means that in a certain sense the universal still inhabits the specific language and its users, though we must differentiate here as sharply as we might structural (competence; langue) and statistical (textual; parole) orders of factuality.

For example, in English case-marking, note that the denotational content space of various semanticopragmatic types of arguments intersects only marginally with VALENCE in determining distributional form. (The personal deictics have special accusative morphological case-markings for a variety of construction-types; otherwise Noun Phrase constituent-distribution relative to construction-type is the means of coding Nominative vs. Accusative/Dative/etc. case.) Yet, in experiment after experiment that investigated relations of the denotational (and pragmatic) content of Noun Phrases to communicated or likely-perceived argument-role, there are tendencies for Nouns to fall into numerically differentiated types according to what we might term "modal associability with" 'Agent'ive Subject and 'Patient'ive Object, falling down the cline dictated by the denotational content space. Textual token-counts as well bear out these conforming tendencies.

Second, intersecting grammatical-categorial dimensions comprise a space of parametric orderings that map into formal-distributional coding regularities, in ways that define modal and extreme intersections of such dimensions relative to a specific language's formal categorial system. At the extremes of particular dimensions, the formal expression should be relatively rarely encountered (in structural terms, not only text-counts), and should be especially formally elaborated as compared with modal and less densely categorial intersections. Thus note that so-called "pure" ergatively-oriented case-marking systems with specifically ergative case-marking

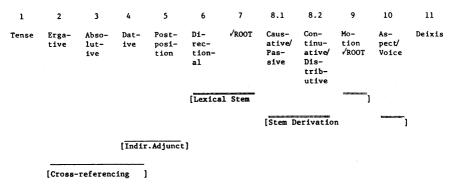
across the entire space of intersecting variables of VALENCE, etc. are vanishingly rare of occurrence.<sup>3</sup>

Third, in an area my extended Kiksht example here will illustrate, facts of the way a language both conforms to and is compatible with a set of grammatical-categorial universals determine an *analogical space* in which both the synchronic and diachronic analogical tendencies of users of a language operate. Grammatical change is propagated and spreads in analogical space, that is, the space of susceptibility of spread of innovations through a grammar, once they have a hold in statistical compatibility-space and in structural ("markedness" or) conformity-space. The classical theory of so-called analogy, that is, of mechanisms of force or influence of one grammatical-categorial-coding construction type upon another, of course presupposes an analysis of linguistic structure in just such grammatical-categorial terms.<sup>4</sup> We are now able to articulate such a theory of the rise and spread of newly distinctive formal-categorial structure as a filling out of tendencies already present in the way that a particular formal-categorial structure is compatible with and conforming to the "potential" (Mathesius) of a set of grammatical-categorial universals that define a field of analogical pressure.

This can be illustrated with the rise of a distinctive purposive clause construction in Kiksht (Wasco-Wishram) and its particular use of what are otherwise non-cross-referencing "impersonal" inflections as bound anaphors. Let us look to the details of the process. We take up first the grammatical structure in which "impersonals" can be located, and then show the change that can be documented to speakers born in the last quarter of the 19th century.

2.1. Ergative Impersonals in pronominal inflection. Kiksht<sup>5</sup> (or Wasco-Wishram Chinookan) inflectional syntax is consistently head-marking (Nichols 1986:57-8) in formal-distributional surface organization. It uses cross-referencing inflectional pronominals (categorized for person, number, and gender agreement) prefixed to the head word to signal the functional syntactic relations of constituents within lexically headed phrases. Thus, note the chart in (1), which lays out the numbered maximal order-classes of an independent-clause finite verb. We can see that up to three cross-referencing pronominals can occur -- in sequence, in the order-classes ergative2, absolutive/nominative3, and dative/locative4, these three, for example, fully inflecting a verb of the 'give' valence-class. Of course, not every verb shows all of the three pronominal inflections; most occurring verbs have a combination of one or two in basic form.

(1) Morphological structure of Kiksht verbs:



Exactly what pronominal forms occur in the various possible inflectional sets of the different valence-classes is, however, a complex function of both a valence-class schema and of what I have termed (Silverstein 1976:124-5) a "global" (as opposed to "local") case-marking schema of noun-phrase denotational content: for a given valence-schema of arguments, determined by verbal valence-class, the categorially-differentiated denotational content of at least two (as opposed to only one) argument-coding verb adjuncts (as well as valence-class) determines the surface inflectional form, here the form of at least one of up to three cross-referencing pronominals. (2) exemplifies this.

- (2) (a) i<sub>1</sub>-m<sub>2</sub>-sh<sub>3</sub>-(a)n<sub>4</sub>-l<sub>5</sub>-u<sub>6</sub>-/t<sub>7</sub> 'you(sg)<sub>2</sub> just<sub>1</sub> gave<sub>7</sub> them(du)<sub>3</sub> to<sub>5</sub> me<sub>4</sub>'<sup>6</sup>
  - (b)  $i_1$   $sh_3$ -(a) $m_4$ - $l_5$ - $u_6$ -/ $t_7$  '[ $I_2$ ]  $just_1$  gave<sub>7</sub> them(du)<sub>3</sub> to<sub>5</sub> you(sg)<sub>4</sub>'

Note in (2a) that the "direct" order of  $-\underline{m}_2-\underline{sh}_3-(\underline{a})\underline{n}_4-\underline{l}_5$ - '2sgAgt-3duPat-1sgDatto' codes all of the pronominals as expected for 'you (sg) [A] ... them (du) [P] to me [D]', while the "inverse" order of (2b) shows  $-\underline{sh}_3-(\underline{a})\underline{m}_4-\underline{l}_5$ - '[1sgAgt]-3duPat-2sgDat-to' as the coding for 'I [A] ... them (du) [P] to you (sg) [D]'. Observe that (2b) shows obligatory non-expression of the first person singular 'Agent' when the 'Dative' is second person; the surface morphology shows no segment identifiable as first singular. So the expression of predicate-argument relations maps determinately into the dependent variables of pronominal cross-referencing, within a "space" of two independent variables of grammatical categorization, verbal-predicate valence-class crossing local and global denotational content of argument-adjuncts.

Because of the various factors that contribute to the inflectional schemata of cross-reference, partly "local" and partly "global" in nature, each coherent region of the space of grammatical categories of denotational content seems to have its own particular morphological paradigm of formal case-marking, as shown in (3) [adapted from Silverstein 1976:141]. At the extreme leftmost end of the representation of denotational types is the 'second person singular', which is invariant in form (always -m-) and whose grammatical coding as cross-referencing pronominal is simply a function of its position of occurrence relative to others in the whole set of inflectional pronominals: if in first relative position, it is always "Subject"; if in non-first relative position, it is always non-"Subject"; the 2SG GRAMMATICAL CATEGORY is invariantly "accusative" in case-marking compatibility. This is true for 'first person singular' as well, except when a 'second person' serves as a thematically lower argument of a predicate valence-schema, in which case the 1SG has a special, "ergative"-like form, namely zero [cf. (2b) above].

In (3), a linearization of Kiksht NP-category types based on the multidimensional ordering of denotational content space theorized in Silverstein 1976; 1977; 1985, the correspondence of content types and case-marking schemata are laid out in the vertical dimension. As (3) shows, coherently definable regions of the grammatical category space of denotational content -- what can be called 'natural classes' in grammatical-categorial terms -- show similarly coherent case-marking regularities, in conformity with the predictions of how systems range between "accusativity" and "ergativity" in their surface distinctions.

(3) Kiksht splits of case-marking alignments:

2sg	1 <u>sg</u>	1 <u>ex</u>	$\frac{1ex}{p1}$	inc du	inc pl	2 <u>du</u>	2 <u>p1</u>	1 <u>ex</u> <u>du</u>	$\frac{1ex}{pl}$	3 <u>du</u>	3 <u>p1</u>	3 <u>nt</u>	3sg fm	3sg ms	<u>imp</u>	
	with	2 '0,0'	arg.													
ACCUSATI V	Æ GLOB	AL ERGA	AT I VE			THREE-WA	AY A:S	:0	••••	3-WAY	A:0:S	LOCAL	ERG AT	( VE	ERG	

At the extreme rightmost end of the representation of denotational types is the so-called *impersonal* category, represented by the unique form  $a_2$ . This representation with fixed subscript '2' indicates that the impersonal form occurs ONLY in ergative2 order-class as a pronominal, thus having a "defective" pronominal paradigm of only one member. In its basic impersonal usage, it does not cross-reference the nominal head of any headed phrasal projection of a dependent argument, as do pronominals agreeing with full, nominally-headed noun phrases. Denotationally, its impersonal character means that while it presupposes that there is/are some quantifiable entity or entities -- generally human and stereotypically agentive -- the descriptive backing for referring to them (cf. Searle 1969:80-91) is purely in terms of the predication of which the suggested person or persons unknown function(s) as an argument. It is a definite, but nonspecific reference spanning the canonical Donnellan (1971:102) "attributive" reference conditions<sup>7</sup> and our English impersonals in they and derivatives, e.g., the paranoid's classic "They are out to get me!" As in English or French or Russian, therefore, as well as in Menomini and other Algonquian languages, the "impersonal" forms in -92- function as 'Voice'-like in discursive implicature, since for a known 'Patient' (normally coded in absolutive3 order-class) or known 'Recipient/Benefactee/Experiencer/Locus' etc. (normally coded in dative4 orderclass), a predication with a definite but nonspecific 'Agent' (coded by -q2-) codes as much information about a predicable event or state of affairs as a bipartite or "agentless" 'Passive Voice' category. 8 Thus note example (4) from a war narrative told to Edward Sapir (1909:210.12ff.) in 1905 by Louis Simpson, born ca. 1830, and describing events of ca. 1867 in which Wasco and Wishram people were participating in hostilities with Paiute people.

(4) Agha kWapt ga<sub>1</sub>-q<sub>2</sub>-nch<sub>3</sub>-u<sub>6</sub>-/[k]lh<sub>7</sub>-xh. Ga<sub>1</sub>-nch<sub>3</sub>-u<sub>6</sub>-/i<sub>7</sub>-[i]x iaghailh

'Now then we<sub>3</sub>-were-taken (=lead). We<sub>3</sub>-went-(to a) large lake (where wilhala adatilhx i[t]t'wanxhayuksh. Nawit ilhk'alaimat#pa ga<sub>1</sub>-q<sub>2</sub>- nch<sub>3</sub> - were) many Paiutes. Right up-to#a-bridge we<sub>3</sub>-were-lead-over-to.

-u<sub>6</sub>-/klh<sub>7</sub>-am<sub>10</sub>-axh. Agha kWapt lhk'up ga<sub>1</sub>-q<sub>2</sub>- sh<sub>3</sub>-nch<sub>4</sub>-l<sub>5</sub>-u<sub>6</sub>-/xh<sub>7</sub>-axh.

Now then shoot-at we<sub>3</sub>-were-done-to.

Agha kWapt ga<sub>1</sub>-q<sub>2</sub>-nch<sub>3</sub>-u<sub>6</sub>-/pghna<sub>7</sub>-iw<sub>8</sub>-(a)nan<sub>8</sub>-(m)xh ...

Now then we3-were-severally-called-out-by-name...'

Mr Simpson describes a whole series of events in his chronological account with both intransitive and transitive finite verb forms in which the 'First Plural Exclusive' pronominal -nch3,4- occurs in absolutive3 or dative4 order-class. Observe how the statements coded in transitive and ditransitive forms describing things done to Mr Simpson and his Wasco mates are inflected with 'Impersonal' forms in ergative -q2-, which Sapir translated in the instance with bipartite ("agentless") English passive constructions preserved here.

There are two other kinds of occurrences that will locate the impersonal -q2-construction in grammatical-categorial space for the language of Mr Simpson's generation. One is the relation of impersonal forms to the two VOICE systems of finite verbs, and the second is the use of finite impersonal forms in subordinate, non-subject-pivoted relative clauses, making DEVERBATIVE "ADJUNCTIVES." Let

us take these in turn.

- **2.2.** Impersonals in relation to VOICE categories. From a morphological perspective, Kiksht has two distinct systems of distinguishing non-'Active' 'Voice'. One is a suffixal system of syncretic ASPECT x VOICE forms. These are lexically derived from roots so as to make stems of 'changes-of-state', 'accomplishments' and 'achievements' in the Vendlerian-Dowtyan understanding of "Aktionsarten"; the predicable here is always conceptualized from the perspective of actional endpoint or its aftermath. Thus note in (5a) the RESULTATIVE PASSIVE in -it10 ("to have become V-ed"; "be V-ed") and in (5b) the TRANSITIONAL PASSIVE in -x8--it10 ("to get-to-be V-ed"; "become V-ed").
- (5) (a) ni<sub>1</sub>-d<sub>3</sub>-u<sub>6</sub>-/chxm<sub>7</sub>-it<sub>10</sub> 'they<sub>3</sub> long-ago<sub>1</sub> became/were<sub>10</sub> boil<sub>7</sub>ed'
  - (b)  $ni_1$ -d<sub>3</sub>-u<sub>6</sub>-/chxm<sub>7</sub>-x<sub>8</sub>-it<sub>10</sub> 'they<sub>3</sub> long-ago<sub>1</sub> got-to-be/became<sub>8+10</sub> boil<sub>7</sub>ed'

Each of these forms shows valence-changing (reducing) effects on such 'Direct Transitive' verb stems as -[]2-[]3-<u>u6</u>-/<u>chxm</u>7- '[]2 boil []3' (i.e., those coding a predicate schema 'p(A,P...)'). At their level or layer of derivation, note, the passive voice suffixes are generally incompatible with full transitive inflectional cross-reference, even where a particular lexical template built from a root is defective and shows only a passive-like derivational form. Thus note that forms in -q2- (obligatorily ergative) impersonal inflection do not occur in the morphological space of stems and themes with passive x aspectual suffixation. So there is a complementarity of IMPERSONAL pronominal cross-reference and PASSIVE x TELIC/RESULTATIVE suffixal derivation in Kiksht that is not unlike what we see in even strongly "accusative" and "local" case-marking systems like that of English, where PASSIVE VOICE and NONSPECIFIC subject they also show complementarity.

By contrast, let us consider the two prefixal systems involving marked VOICE, both syntactically-productive and important for seeing the historical trajectory of IMPERSONAL usage. In (6) are shown the morphological formations of the three kinds of cross-referencing REFLEXIVES-RECIPROCALS, marking substantial referential identity (or non-distinctness) of at least two of the arguments of a predicate (cf. English -self anaphors), at the same time as they express the

MIDDLE or MEDIOPASSIVE VOICE category.

- (6) (a) <u>direct reflexive</u>: i<sub>1</sub>-n<sub>3</sub>+xh-|g|<sub>5</sub>-/ga<sub>7</sub> 'I<sub>3</sub> just<sub>1</sub> grabbed<sub>5+7</sub> myself/mine'
  - (b) <u>indirect</u> reflexive: i<sub>1</sub>-sh<sub>3</sub>-n<sub>4</sub>+xh-l<sub>5</sub>-u<sub>6</sub>-/t<sub>7</sub> 'I<sub>4</sub> just<sub>1</sub> gave<sub>7</sub> myself/my<sub>4</sub> twoof-them<sub>3</sub>'
  - (c) <u>inverse</u> reflexive: i<sub>1</sub>-n<sub>4</sub>+xh-ll<sub>5</sub>-/lha<sub>7</sub> 'I<sub>4</sub> just<sub>1</sub> caught-a-whiff-of<sub>5+7</sub> myself<sub>4</sub>'

That is to say, in Kiksht the system of MIDDLE/MEDIOPASSIVE VOICE is used for intra-clause REFLEXIVE/RECIPROCAL anaphoric pronominalization, just as, conversely, in many "SAE" languages the formal-distributional reflexive and reciprocal pronoun systems are used to code MEDIOPASSIVE/MIDDLE VOICE and other VALENCE-reducing semantic effects. In each of the Kiksht examples, a form -xh- is postposed to the *rightmost* cross-referencing pronominal position coding a two-plus-argument valence category, (thus representing in order ergative? 'Agent', absolutive3 'Patient/Subject', dative4 'Recipient/Experiencer'), on which the 'Middle' relation of nondistinct argument is definable. What would appear in the unmarked ACTIVE as a more leftwardly pronominal element (or equivalent) is suppressed. Observe the range of types: there are 'Agent-Patient' MIDDLES, as in (6a), also termed "direct reflexives" after the so-called "direct" object; 'Agent-Dative' and 'Subject-Dative' MIDDLES, as in (6b), also termed "indirect reflexives" after the so-called "indirect" object; and 'Theme-Experiencer/Goal' middles, as in (6c), also termed "inverse reflexives" after the "inverse" subject coded by the dative order-class pronominal. Of course the inflection of a form with MIDDLE VOICE involving the 'Agent' excludes any inflection with IMPERSONAL markers, just as it excludes other cross-referencing transitive subject ('Agent') pronominals which would be leftward of any others. Mediopassivization plays a central role in the morphology of verbs in subordinate clauses, however, as we will see below.

To the degree that Kiksht is substantially an "ergative" inflectional type of language, we expect it as well to show an ANTIPASSIVE VOICE, as indeed it does. This voice is marked by a prefix -ki/k'i- in the sixth order-class position, that replaces the otherwise occurring 'Directional' prefixes -u6- 'distad' and -t6- 'proximad'. Thus note in (7) that both antipassive forms show this characteristic morphological shift.

(7) ANTIPASSIVEs of ga<sub>1</sub>-lhk<sub>2</sub>-d<sub>3</sub>-u<sub>6</sub>-/dina<sub>7</sub>-xh<sub>10</sub> 'long-ago<sub>1</sub> they(coll)<sub>2</sub> used-

to<sub>10</sub> kill<sub>7</sub> them(pl)<sub>3</sub>'

(a)  $\underline{\mathit{finite}}$ :  $ga_1$ -lh<sub>3</sub>- -**k'i<sub>6</sub>**-/dina<sub>7</sub>-xh<sub>10</sub> 'long-ago<sub>1</sub> they(coll)<sub>3</sub> used-to<sub>10</sub> kill<sub>7</sub>

[sc., many]

(b) <u>nominal</u>: it3-lha4-lk'i6-/dina7-xh<sub>10</sub> 'they-who4 habitually-kill<sub>7+10</sub> them(pl)3'

As seen in (7a), the antipassive marker, -k'i6-, implies that no pronominal occur in a verb's absolutive3 order-class coding a 'Patient' argument; that is, in *finite verbs*, ANTIPASSIVE excludes cross-referencing expression of a 'Patient', fully in keeping with a universal asymmetry of voice categories across morphosyntactic types. In the finite antipassive form (7a) there is, to be sure, an absolutive3 pronominal -lh3-'[third person] neuter-collective', but it cross-references the nominal 'Agent' argument of the predicate, which is morphologically *intransitive*.

By contrast, as shown in (7b), in the derived nominalization based on the antipassive verbal inflectional stem, two pronominal-like elements are once again present. But here, the morphology of nominal inflection dictates that the "absolutive3"-like first pronominal is the nominal-stem's '[Person-]Number-Gender' prefix, while the "dative4"-like second pronominal is the cross-reference of the (here, obligatory) nominal 'Possessor'. Compare an English participial their4 habitually-killing them3 (where the subscripts translate the Kiksht thematic relations of the example). Notice that in Kiksht, too, the predicable 'Agent' of such a direct transitive coding is in specifically "adnominal dative4" or "genitive4" coding, while the predicable 'Patient' surfaces in the derived nominalization only as an "adnominal absolutive3," also termed the 'P/N/G' prefix of the noun. As will be seen below, it is the dative4 pronominal position, not the other one present in the nominalization of a verb coding a two-argument predicate, that is the "pivot," or site for anaphoric binding in complex sentences.

The semantic interpretation of a form with productive antipassive (that is, as opposed to its form without such prefix) is an "active intransitive" with genericized, not specifically denoted 'Patient' (by implicature, characterizing whatever category of things are presupposed to be usual and customary targets of an action). Therefore, such forms are frequently used for genericized, that is, habitual, event-implicature as well: "she (habitually) sells (things [sc., sea shells]) by the sea shore"; etc. Note that there is an overwhelming statistical association of ANTIPASSIVE in Kiksht with USITATIVE, CONTINUATIVE-SIMULTANEOUS (present), and ITERATIVE verb-stem formations, confirming this genericizing, generalizing usage. Thus note in (7) the antipassive forms in both (a) finite verbal and (b) deverbal nominalized variants of the construction, each with its aspectual suffixation for USITATIVE in -xh10.

2.3. Impersonals in adjunctive participial clauses. In the "polysynthetic" and "holophrastic" verbal morphology of Kiksht, as (1) above shows, the various 'Adverbial' types of relations, such as "location in/on/at/etc.," "direction to/into/out of/away from/through/under," "use on/for/with," etc. are coded in the *combination* of a potentially cross-referencing DATIVE pronominal position at -[]4-, with a particular "postpositional" element -- it is post-posed to the pronominal it governs in the morphology -- at order-class position -5-. Some of these sequences of -[]4-Postp5- constitute part of the morphological template of a particular lexical item, while others are freely added or removed as additional specifiers of a predication, much like facultative "adverbial phrases" in less holophrastic language structures like that of English. Thus note that in (2) above, -[]4-I5- in the forms for 'give' is part of the expression of obligatory predicate-argument relations for this ditransitive verb, coding the 'Recipient', while this sequence added to the transitive lexical item -[]2-[]3-...-/chxm7- '[]2 boil []3' that underlies examples in (5) would give an additional specification of 'in []4'.

Given this morphological possibility, we should observe that there is a kind of finite clause in Kiksht with a characterizing function; it seems to provide a description for some noun in a "higher" clause -- which English accomplishes with a restrictive relative clause, note -- as also denoting whatever is pronominally coded in the dative4 position of the verbal form constituting the "lower" clause. Observe the following example (8) from Sophia Klickitat, a speaker of Louis Simpson's generation:

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(8) [S. Klickitat, quoted in Sapir 1909:230.3]

a<sub>1</sub>-q<sub>2</sub>-a<sub>3</sub>-t<sub>6</sub>-/lha<sub>7</sub>-[a]m<sub>10</sub>-a<sub>11</sub>

'they/one<sub>2</sub> will<sub>1+11</sub> bring<sub>6+7</sub>-over<sub>10</sub> a-bucket

q<sub>2</sub>-a<sub>4</sub>-1<sub>5</sub>-k'i<sub>6</sub>-/chxm<sub>7</sub>-al<sub>8</sub>

in<sub>5</sub>-which<sub>4</sub> one<sub>2</sub> (habitually)-boils<sub>7+8</sub> [thing<sub>56</sub>]'
```

Observe that the  $-a_3$ - absolutive 3 in <u>aqatlhama</u> 'it will be brought over' cross-references  $a_3$ -t'iwat 'a/the bucket' as the 'Patient' of the transitive verb -[]2-[]3-t6-/lha7- 'bring' (directionality "hither" prvided by -t6-). The other verbal form describes the bucket as "the one in which one habitually boils/the one which one habitually uses for boiling/the one in which one is boiling/the one being used for boiling."

The verb form <u>galk'ichxmal</u> has many of the characteristics of USITATIVES and CONTINUATIVEs that function descriptively in several other, specifically subordinate clause types, including the genericizing ANTIPASSIVE for transitives. Since it is an ANTIPASSIVE form of the verb theme -[]2-[]3-[]4-15- -/chxm7- -- note the presence of the morpheme -k'i6- -- there is no pronominal expression of 'Patient' and the 'Agent' should be coded in the pronominal of absolutive3 orderclass. What we find is that the impersonal pronominal g<sub>2</sub>- is *initial* in such a form, looking like an ergative2 pronominal element though having the derived grammatical relation of an "intransitive" subject. 11 Note especially its characteristic lack of a TENSE prefix, inasmuch as it describes the denotatum of its dative<sub>4</sub> pronominal as "habitually" or "characteristically" being of such-and-such kind in the frame of the other predication. In other respects such a form is like a complete and independent clause, with all the machinery of a finite predication of PRESENT TENSE or SIMULTANEOUS RELATIVE TENSE value about an elsewhere-denoted referent (here, the bucket in question introduced explicitly in the other clause as the 'Patient' of 'bring'ing).

Since the description focuses upon and applies to a locative, instrumental, or other kind of "adverbially"-functioning entity, I borrow Stanley Newman's felicitous term for this class of "adjunctives" which occur as deverbative participials in Yokuts (1944:162-7) in strikingly parallel fashion. In Kiksht, it should be stressed, these formations are TENSEless though finite clauses, "adjoined relatives" (Hale 1976) which have various translation-equivalents in languages like English and other "SAE"s depending on the particular "adverbial" role the focused-upon predicate adjunct (not argument) plays in the designated situation. The translation-equivalent in a language like English will shift among in which, on which, with

which, from which, etc., or among while Ving in it/them, while Ving on it/them, etc., depending on the particular complex verb morphology of the -[]4-Postp5-sequence in a proper Kiksht lexical construction.

It can be understood now that the so-called "impersonal" pronominal q2- is lowest in rank in the space of denotational content, and is paradigmatically defective insofar as occurring only in ergative2 position in normal explicitly "Tense'd finite forms. It is apparently drawn into the system of cross-clause reference-maintenance through the adjunctive participial formation, where it apparently serves as the "dummy subject" for a clausal descriptor in which reference is maintained to the denotatum of whatever is cross-referenced in the descriptor's dative4 order-class. To see the significance of this kind of reference-maintenance in the Kiksht of Mr Simpson's and Mrs Klickitat's generation, we must look more broadly at the overall system of reference-maintenance across clause-like units in Kiksht. Then we will be able to see the nature of the changes obviously taking place in a following generation of speakers, fortunately caught by Sapir in records from 1905.

- 3. Clause-linkage and sites of referential binding. As a grammatical category, the type of CLAUSE-LINKAGE that connects two potentially autonomous predicables seems to constitute a complex space of multiple semantic and pragmatic connections. Within this space, however, it has become possible to define various grammatical-categorial parameters that make a typology useful to prediction across all morphosyntactic types. 12 The two abstract parameters of interest to us here are [a] LOCAL vs. GLOBAL variants of CROSS-CLAUSE REFERENCE-MAINTENANCE, and [b] (relative scalar) DEGREE OF LINKAGE of predicables. We eschew here a careful development from fundamentals (for which see Silverstein 1976, 1985, 1993; and -- developing Schachter's [1977] concepts of semantic 'Role' and pragmatic 'Reference' -- Foley & Van Valin 1984; Van Valin [ed.] 1993; and numerous specific language studies). We can briefly and intuitively characterize these dimensions, in particular as they apply to Kiksht.
- 3.1. Forms used in Kiksht LOCAL REFERENCE-MAINTENANCE. There is sometimes practical identity of reference in potential noun phrase (NP) distributional categories that code arguments; these frequently occur in what, to "predicate" (in Searle's [1969] sense) both predicables for these arguments, would have to be two autonomous formal clauses. Cross-clause REFERENCE-MAINTENANCE is the generic category for how language structure marks continuity/discontinuity of reference for denotata of argument-coding noun phrase positions -- call them NP<sub>1</sub> and NP<sub>2</sub> -- in two such different clauses. Depending on whether the respective clause-internal grammatical-categorial and distributional (formal) properties of both NP<sub>1</sub> and NP<sub>2</sub>, or only of either NP<sub>1</sub> or NP<sub>2</sub> are directly and transparently coded in some formal-distributional material, we have, respectively, a "GLOBAL" system of reference-maintenance marking (one NP each across two clauses) or a "LOCAL" one (a target or "pivot" NP position defined in its clause only). The typically recognized GLOBAL systems are so-called "switchreference" systems (see Jacobsen 1967; Haiman & Munro [eds.] 1983; Foley & Van Valin 1984:339-67) that signal syncretically for NPs in two linked clauses their RELATIVE REFERENTIAL IDENTITY and ARGUMENT-TYPE, e.g., referentially "same" vs. "different" most topical thematic-role or argument (mistaken as "subject" in much of the literature).

Kiksht, by contrast, has a LOCAL system of reference-maintenance, which is coded in the subordinate, restrictive-relative-like clause describing a denotatum as an 'habitual agent/actor', translatable by an English construction like <a href="who/which habitually Vs">who/which habitually Vs</a>. Observe that the fully LOCAL system manifests itself only in this particular type of CLAUSE-LINKAGE; the lower clause is specifically and differentially a restrictive descriptor of the denotatum introduced by some NP in a higher-level structure (thus distinguished from "adjoined relatives" such as those discussed above in 2.3.). The descriptor occurs as a deverbative nominalization, thus inflected with obligatory 'Person/Number/Gender' pronominal prefix and with adnominal dative4, i.e., 'Possessor'-like genitive4, for the "pivot" or anaphor bound by the coreferential upper NP. This derived anaphoric site characterizes intransitives no less than transitives, as (9) will make clear.

- (9) finite verbal forms and their derived nominalizations:
  - (a) intransitive: -[]3--/ga7-lal8 'be flying about';

via indirect mediopassivization:

(nal<sub>1</sub>-)  $\underline{a_4}+\underline{xh}-\underline{l_5}-\underline{l_{a_7}}-\underline{l_{a_1}}8$  'she<sub>4</sub> [who] (recently-was<sub>1</sub>) flying-about<sub>7+8</sub> [for<sub>5</sub>-self]';

via nominalization:

 $\underline{\mathbf{i}}_3$ - $\underline{\mathbf{cha4}}$ - $\underline{\mathbf{l}}(\underline{\mathbf{xh}}+\underline{\mathbf{i}}_5$ -)/ $\underline{\mathbf{ga7}}$ - $\underline{\mathbf{lal}}_8$  'she-who4 flies-about7+8'.

(b) transitive: -[]2-[]3- -/pchxa7-lal8 'be sewing';

via antipassivization + indirect mediopass.:

 $(\underline{nal}_1-) \underline{a_4} + \underline{xh} - \underline{l_5} - \underline{k'i_6} - \underline{pchxa_7} - \underline{lal}_8 \text{ 'she_4 [who] (recently-was_1)}$ 

sewing<sub>7+8</sub> [things<sub>6</sub>] for<sub>5</sub>';

via nominalization:

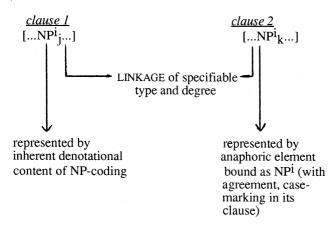
 $\underline{i}_3\underline{-cha}_4\underline{-|xh+\underline{i}_5-\underline{k'i}_6}\underline{-/pchxa}_7\underline{-|al}_8 \text{ 'she-who}_4 \text{ sews}_{7+8} \text{ [things}_6] \text{ (for}_5)'.$ 

As the examples in (9) show, and as I have elsewhere described (esp. 1976:146-9; 1993:493-4), the "indirect reflexive" (=MEDIOPASSIVE involving a dative4 pronominal position) and the ANTIPASSIVE construction are centrally involved in the system of clause-linkage in Kiksht, since they are essential to the derivation of forms with properly linkable pivots (and cf. sec.2.2.). Notice that the intransitive verb -galal in (9a) normally takes an absolutive3 pronominal inflection, and that the addition of the unmarked (or "dummy") postpositional sequence -[]4- $\frac{1}{2}$ 5-, medipassivized, allows the inflection to be -[]4+ $\frac{1}{2}$ 5-, with proper dative4 site of anaphoric binding if the finite form is to be used as a relative-clause-like descriptor. The nominalized verb, with or without the - $\frac{1}{2}$ 5- nominal form of ... $\frac{1}{2}$ 5..., 13

uses the dummy 'P/N/G' prefix  $i_3$ - '[3]Sg.Masc.', and the derived possessor -cha4 in the adnominal dative4 or genitive4 position. The transitive verb -pchxalal in (9b), too, requires in effect the addition of a -dative4-postposition5- sequence to allow the derivation of the finite MEDIOPASSIVE, and in addition uses the ANTIPASSIVE to delete (and, semantically, genericize) the 'Patient'. The deverbative nominalization here, too, shows the genitive4 pronominal -cha4- 'her' for the potential pivot when the form ichaxhik'ipchxalal is a descriptor of habitual agency.

Having been introduced to both the finite and nominalized forms involved in local reference-maintenance, we should note that the finite form with dative 4 "subject" can be construed as a descriptor of some denotatum introduced elsewhere, while the nominalized form is always so usable, with all of the characteristics of a restrictive relative. This fits into the general schema of LOCAL systems, as shown in (10). Observe that the order of clause 1 and clause 2 here is irrelevant to the generalization, though in this visual schema it is the second clause, clause 2, that contains the pivot NP position in some derived case-relation of permissible pivothood.

#### (10) Schematization of LOCAL REFERENCE-MAINTENANCE:



where i is the referent(s) index, and j,k represent derived case-relation

As shown in schematization (10), it does not matter what is the grammatical function of any NPi in clause 1 to which the Kiksht forms in (9) -- which would occur in schematic clause 2 -- are bound; the entire burden of potential pivothood rests on the grammaticosemantic properties in clause 2 of whatever NPi can be derived into dative4/genitive4 order-class pronominal cross-reference. As clause types, moreover, these fit into both a language-specific, and a more general, universal set of expectations about CLAUSE-LINKAGE, to which I now turn.

3.2. Distribution of clause-types by DEGREE OF LINKAGE. Such LOCAL type of reference-maintenance seems to be particularly associated in

Kiksht with very "tight" or "high-degree" grammaticosemantic linkage of clauses (predicables). Indeed, it is possible to invoke a schema of overall scalar degree of clause-linkage on which various specific semantic categories of inter-relationship of predicables can be arrayed. We can study for each language, as for language in general, the "space" created by distributions of reference-maintenance mechanisms in this cline of linkage types. Indeed, there is an important cross-linguistic empirical regularity

that emerges as the structure of this "space," one illustrated here for Kiksht. (It is thus important to see that Kiksht is a language in specific conformity to the space of linkage types, making a distinction as will be seen of three regions of the way that formal reference-maintenance devices are distributed in linkage-space.)

Such a general schema, reproduced from Silverstein 1976:163, is annotated

in (11) for the Kiksht specificities to be discussed.

#### (11) Schematization of DEGREE OF LINKAGE of clauses:

1	Ergative languages	ninalisation distinctness f connexion	possessive habitual actor habitual agent	 -[Gen] <sub>4</sub> - anaphor
	antipassivisation ominative-dative normal forms agent hierarchy	of nomi ormal d	relative clause (making definite refer purposive complement (dative infinit desire complement indirect discourse complement temporal adverbial clause	adj'd. fin. cl.; NP del. in 2nd
	probability of antipassi probability of nominativ norms suspension of agent hi	probability of n degree of form markedness	if—then disjunction conjunction clause sequence (sequitur) clause sequence (non-sequitur)	parataxis
	prol prol s			

For each language with more than one type of reference-maintenance mechanism involved in one or more of these LINKAGE DEGREES, the LOCAL REFERENCE-MAINTENANCE mechanisms of linkage, such as sites of bound anaphora (pivothood) are associated with relatively HIGH-DEGREE LINKAGE, while GLOBAL REFERENCE-MAINTENANCE mechanisms such as "switch-reference" systems are associated with a region below, and no specifically **structural** reference-maintenance, distinct from the mechanisms of textuality, are associable with the lowermost regions. Of course, no specific language need have both LOCAL and GLOBAL mechanisms; but when they do, they conform to these generalizations, which then can be said to hold over all languages. Observe how the facts of Kiksht conform.

As shown in (11), in Kiksht the 'habitual Agent' and 'habitual Actor' modifier-clauses are the most tightly linked; they have LOCAL REFERENCE-MAINTENANCE by employing the bound-anaphora genitive4 position in the 'habitual' descriptor. At the very other extreme, grammaticalized multi-clause constructions cease showing special structural features distinct from what they would show as sentence-scopes in running denotational text (though one must

never confuse the projection of structural types with the existence of multi-sentence-scope segments of text!). For a range of recognizable types of semantic and pragmatic linkages, Kiksht uses merely structural **parataxis** as its mode of indication, any REFERENCE-MAINTENANCE being simply a function of how textual reference is treated, for example in non-repetition of nouns, or of the use of sense-relations among nouns to employ reference-maintaining hyponyms, etc. In the mid-range, note, various types of "ADJOINED" FINITE CLAUSES occur, with NP deletion possible in the second in discourse order (not the same as structural relation, recall!), and interpretation ranging over many English translation-equivalents, from 'relatives' to 'temporal adverbials'.

Among such "adjoined" finite clauses are the FINITE DATIVE4 HABITUAL/CONTINUATIVE constructions of sec. 3.1. shown in (9) in contrast to their derivative nominalized forms used with anaphoric binding. Also here are the ADJUNCTIVE PARTICIPIAL CLAUSES (sec. 2.3.) in q2-[]4-postp5-... illustrated in (8), again with the "pivot"-like target of reference-maintenance in the dative4 pronominal position. It is reasonable to take these constructions as more suggestive of our anaphorically bound English types when they lack initial Tense1 prefixes and have suffixal derivational markings of simultaneous or habitual value. In such cases, we are dealing with the "higher" mid-regions of CLAUSE-LINKAGE, translatable with restrictive relatives and purposives and the like, it should be noted and retaining less of the autonomous predicability of coded clauses with full verb forms.

We see here how "impersonals," though an ergative2-only pronominal category, are implicated in the overall system of REFERENCE-MAINTENANCE by occurring in a specific construction at a determinate DEGREE OF LINKAGE of clauses. We see, furthermore, the way MEDIOPASSIVE and ANTIPASSIVE VOICEs are also implicated in their own ways in this space, creating a complex series of categorial cooccurrences that constitute the matrix for the linguistic changes I wish to describe.

4. The analogical space of propagation of change. As in any linguistic change, there is a complex historical intersection of socio-indexical, textual (discourse-structural) and grammatical dimensions that jointly constitute the space in which a change arises and is propagated. To be sure, older work on grammatical change, culminating in Kurylowicz's "laws of analogy" (1945/49), emphasized the structural-grammatical space that generates certain directional forces on grammatical innovation and spread within the particular configuration of a system. And contemporarily, the socio-indexical dimensions of phonological innovation, as demonstrated by Labov (1972) and his associates, have figured prominently as a more general model of linguistic change as it emerges from the variation inherent in usage within a linguistic community (this focus culminating a few years ago in a new variationist-historical journal).

Crucial to this latter project, of course, is the concept of a structured "phonetic space" in which systemic readjustments of *phonological* systems take place. But in transferring the conceptualization of structural change to grammar, we must see that it is the space of (universal) grammatical-categorial intersections conforming in a particular system that provides that system's "space for analogy [=grammatical change]," i.e., "analogical space." We can see this very clearly in the particular way that "impersonals" in Kiksht of the generations born after ca. 1875 have entered the system of bound anaphora through a combination of sociolinguistic-textual and

grammatical-categorial factors. One factor is the borrowing, under an earlier Chinookan-Sahaptin bilingualism, of various Sahaptin enclitic postpositionals. A second is the analogical filling out of the otherwise "defective" paradigm of the impersonal q2- ergative, perhaps under increasing encroachment of English. And a third factor, the provision of a discursive site for the innovation, is the position of ADJUNCTIVE PARTICIPIALS and related constructions in the Kiksht-specific exemplar of the universal categorial space of CLAUSE-LINKAGE. Let us take these in turn.

4.1. Sahaptin-derived syntactic postpositions in Kiksht. As is diagrammed in (1) and exemplified in (2), (4), (6), etc., the complex morphology of Kiksht verbs provides a sequence of cross-referencing pronominal -[]4-followed by its "postpositional5" element of varied lexical content -- -gl5-'for;toward', -gm5- 'next to', -ghl5- 'out of;away from', etc. In the whole Chinookan family, in fact, it is this morphologized sequence that covers many of the adverbial-case-like locative and directional relations that are coded in adpositional phrases in more syntactically structured languages (both head- and dependent-marking, note). The Sahaptin languages, spoken by long-term neighbors of Chinookan speakers, especially those in the easterly riverine areas, appear to be the historical source for borrowed enclitic elements such as those shown in (12).

# (12) Klikitat (Sahaptin) Kiksht (Chinookan) #Enmi' 'with;[made] > #E`mni from, out-of' > #ba¹⁴ #pama' 'for;in order to' > #ba`ma etc.

Borrowing of such elements through increasing asymmetric bilingualism -- Chinookan speakers learning fluent Sahaptin languages but not vice-versa -- that was intensified under reservation conditions from the third quarter of the 19th century, resulted in a completely alternative way of coding these adverbial relations, as Sapir already noted after his 1905 fieldwork (Sapir 1907:541-2 & nn.; Sapir 1911). These modes have continued to coexist up to the period of moribundity of the linguistic community, with mid-20th century "semi-speakers" (Dorian 1977; 1981:106-7) largely favoring the "analytic syntax" mode as opposed to the sometimes highly lexicalized and idiomatic morphological one. <sup>16</sup>

Peter McGuff, the fluent trilingual (Kiksht, Klikitat Sahaptin, English [learned or at least perfected at Chemawa boarding school]) whom Sapir engaged as "interpreter" for his 1905 fieldwork, was probably typical of the cohorts of speakers born in the last quarter of the 19th century; he was certainly typical of multilingual Kiksht speakers of whom we have linguistic records down through the last quarter of the 20th. Notice the following McGuff construction (from Sapir 1909:184.21) in (13) that employs the clitic #ba'ma with an absolute deverbative nominalization.

#### (13) $\underline{\text{shd}_3}$ - $\underline{\text{axhtau}}$ [[ $\underline{\text{lq}}$ - $\underline{\text{i5}}$ - $\underline{\text{lxhulh}}$ -]# $\underline{\text{bam}}$ +] $\underline{\text{ish}_3}$ - $\underline{\text{lxhlhx}}$

'(dual3)that [dipnet-fishing # for] (du3)staging'

(cf. wa3-lxhulh-at 'dipnet'; -a3-[]4+xh-l5-lxhulh- 'to fish with a dipnet; to dipnet')

Since the underlying verb theme, an "inverse" transitive, is inflected with dative 4 mediopassive 'Agent' cross-reference, the absolute form of deverbative nominalization preserves the morpheme sequence ... $\underline{xh}$ - $\underline{l_5}$ -... as  $\underline{l_q}$ - $\underline{i_5}$ -... and the absolute noun <u>qilxhulh</u> 'dipnet-fishing' is in construction with its clitic #ba'ma 'for' as a specifically and differentially "purposive" modifier of the nominal head here. the DUAL NUMBER-GENDER ishElxhlhx 'staging'. 17 So it is a staging "for dipnet-

fishing" or "for one to dipnet-fish from/with."

Observe the subtle distinction here between this kind of deverbative noun, whether ABSOLUTE or CONSTRUCT, i.e., "possessed" by its genitive4-inflected, anaphorically bound subject, and the finite-verbal ADJUNCTIVE PARTICIPIAL (sec. 2.3.) inflected with "impersonal" q2-[]4-..., with which various kinds of semantically-close "adjoined" purposives are made, as in Mrs Klickitat's example (8) above. In the Kiksht of speakers like Mr Simpson and Mrs Klickitat, only the possessed deverbative nominalization -- not the ABSOLUTE form in  $\underline{\mathbf{q}}$ ... or  $\underline{\mathbf{k}}$ ... illustrated in this purposive modifier -- is a structure with a potential syntactic pivot, a site of anaphoric binding by a higher-clause antecedent (see sec. 3.2.). And the initial q- of "impersonal" ergative, occurs only in the finite clause form of the merely adjoined participial construction. But note the remarkable formal and semantic convergence here in the Kiksht of Mr McGuff's generation, who extensively use the borrowed enclitics for marking specific and differential syntactic relations across clauses.

4.2. Filling out the "defective" IMPERSONAL paradigm. As we have remarked several times, the -q2- impersonal non-cross-referencing pronominal has a "defective" paradigm in that it occurs only in the ergative? order-class. I believe that this, too, changed around the time of Mr McGuff's linguistic socialization, probably under the influence of English as an increasingly present and formative verbal matrix for those who, like Mr McGuff, received a school education in it.

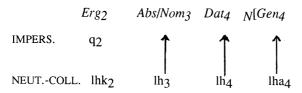
Observe that the impersonal in English and many other "SAE" languages is THIRD PLURAL, they/them/their. Certainly the subject of the impersonal passiveequivalent is formally they; similarly the "epicene" and "common gender" REFLEXIVE and ANAPHOR has for some centuries been formed on them- and theirin vernacular usage, despite efforts at prescriptive standardization to the structurally unmarked masculine singular (see Bodine 1975; Barron 1986:190-216; Newman 1992).

The Chinookan family of languages has, by contrast, two grammatical categories that, in some sense, are equivalent to the "SAE" THIRD PERSON PLURAL (see Silverstein 1976:131-4; 1977 for description). There is an individuated or at least potentially enumerable THIRD PERSON PLURAL, with pronominal sign (i)t-, cross-referencing "plurals" of nouns designating persons, large animals, etc. (though there are many seemingly "arbitrary" assignments of plural category in these languages with grammaticalized NUMBER-GENDER). Thus: <u>i</u><sub>3</sub>-/<u>a</u><sub>3</sub>-<u>kiutan</u> 'horse [m./f.]' pluralizes as it3-kiudan-yu+ksh 'horses', with individuated plural

suffixes in fact. By contrast, there is a THIRD NEUTER-COLLECTIVE, with pronominal sign (i)lh-, that is used for a wide variety of non-individuable multiplicities, for neutralizing the THIRD (SINGULAR) MASCULINE/FEMININE distinction, and for certain other "genericizing" effects on denotation.

Of the two, it is clearly the NEUTER-COLLECTIVE that is implicatively the most similar to IMPERSONAL -q2-, and over the generations has in effect become something of a more paradigmatically integrated substitute for it. Indeed, if one compares Mr Simpson's (born ca. 1830) prose material in Kiksht with that of Charles Cultee (also born ca. 1830) in both Shoalwater (Lower Chinook) and Kathlamet (Upper Chinookan) dictated to Franz Boas circa 1890-1894, the use of -q2- IMPERSONAL in finite verb forms is quite comparable (as illustrated in (4) above). Mr McGuff's material already shows a difference even in this kind of inflectional usage. By the time of my own fieldwork with several of Mr McGuff's slightly younger consociates, I noticed a decided preponderance of -lh- NEUTER-COLLECTIVES in the very grammatical functions to which -q2- had been the exclusive earlier norm. In many people's usage, -q2- more or less did not occur by the 1960s, and always -<u>lh+k2</u>- occurred with non-cross-referencing "impersonal" value in the expected contexts. 18 The important point of this spread of -lh- forms into grammaticosemantic functions of -92- is that the NEUTER-COLLECTIVE has no order-class restrictions on occurrence as a cross-referencing pronominal, and hence the NEUTER-COLLECTIVE has a "full" and completely regular, predictable, and compositional case-form and order-class paradigm, as shown in (14).

#### (14) Forms of IMPERSONAL and NEUTER-COLLECTIVE codings:



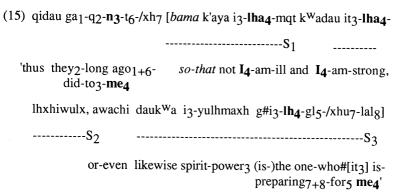
As is seen,  $-\underline{lh}_{3/4}$ - is the basic form;  $-\underline{lh}_{+\underline{k}}$ - the ergative<sub>2</sub>;  $-\underline{lh}_{+\underline{a}}$ - the genitive<sub>4</sub>. As the vertical lines indicate, these forms penetrate into the respective functions indicated by the cells of the table.

**4.3.** The CLAUSE-LINKAGE dimension of the analogical space. It is precisely this penetration of the historical NEUTER-COLLECTIVE as bound anaphor under particular conditions of CLAUSE-LINKAGE that is the most revealing of the reality of grammatical categories in the life and growth of languages.

For if we look back at chart (11), we see that there is a scale of degrees of tightness of LINKAGE in which only the uppermost three construction-types are characterized by such "pivoted," LOCAL reference-maintenance that uses bound anaphora at the dative4 cross-referencing pronominal. If such a type of construction were to spread by grammatical innovation, the organization of this grammatical category space predicts that the spread should work itself out from closer to more remote LINKAGE DEGREE, that is, the space provides the vectorial dimensionality for grammatical change.

The change in question consists of the innovative use of NEUTER-COLLECTIVE pronominal forms as bound anaphoric markers of LOCAL referencemaintenance in all constructions on (11) down to 'Purposive' complements, now specifically and differentially indicated by a clause-derivative in construction with bama 'for; in order to'. As we have seen in (8), the inherited ADJUNCTIVE PARTICIPIAL construction, without special LINKAGE-TYPE marking, could serve in an "adjoined" relative or even purposive/instrumental reading; and the form contains the inherited q2- impersonal in initial position, a cross-referencing -[]4- dative4, and is otherwise formed analogously to the actual habitual agentive/actorial forms of the bound anaphoric syntactic type in the uppermost region of the chart (11). What has apparently occurred is the "analogical" spread down the LINKAGE cline (11) of actual bound anaphoric status of the dative4 pronominal position in these forms, now explicitly marked with bama as purposive constructions. And the form of the anaphoric element has been generalized over the paradigm of inherited IMPERSONALs, as suggested in (14), by using the inherited NEUTER-COLLECTIVE form, with 'Impersonal' reading, as the bound anaphoric element.

Thus note the complex sentence in a text (Sapir 1909:190.7-9) from Peter McGuff reproduced in (15).



It will be seen that the 'Purposive' marker  $\underline{\text{bama}}$ , which I have italicized in (15), introduces a three-clause, doubly-layered disjunction ( $\underline{\text{awachi}}$  'or'), the first two clauses of which are in turn conjoined by 'and' ( $\underline{\text{k}}\underline{\text{w}}\underline{\text{adau}}$ ). I have bold-faced the chain of reference-maintenance markers, which all go back to the antecedent  $\underline{\text{n}}\underline{\text{n}}$  in the "impersonal" construction that opens the sentence as the highest clause. Observe that in each of the lower clauses ( $S_{1,2,3}$ ) the dative4-position reference-maintenance marker, obviously "bound" to a FIRST PERSON SINGULAR antecedent with 'ego'-focused referential value, is a formal NEUTER-COLLECTIVE that has no other value than to be the bound anaphoric "pivot" maintaining reference to the antecedent.

It does not matter to our point that there might be "external" pressure of a sort derived from the obvious increasing multilingualism of the Kiksht-speaking linguistic community at the period when this change takes place. This is merely a matter of the source of the local, "lexical" (in Bloomfield's sense) form of the new anaphoric element, the historical Kiksht NEUTER-COLLECTIVE, which, probably

not coincidentally, is the nearest translation equivalent of the English "impersonal"

they/them/their.

The critical point is that both the input and outcome of this linguistic change are in conformity with the Kiksht avatar of a *universal* organization of possible clause-linkage types and reference-maintenance distributions across it, that alone makes a determinate prediction of what system-internal changes of various kinds are possible and, here, actualized by the workings of grammatical "analogy." Grammatical-categorial analysis, and *only* grammatical-categorial analysis, I maintain, shows what is "law"-like about so-called "analogy," a.k.a. morphosyntactic change. It is therefore an actual linguistic theory with historical consequentiality, unlike much in the literature that claims to be explaining linguistic change by either structure-independent ("functional") reductionism or ("formal") conjuring with mental-organic (re-)settings of distributional parameters.

<sup>1</sup>All of this was unproblematic in both European and American linguistics down to and including L. Bloomfield. A great transformation took place in the theoretical writings of Zellig Harris and Charles Hockett, who in a way have served as the precursors (or "thesis") to Noam Chomsky's apotheosis (or "antithesis"). For the field was derailed into the (hopeless) trajectory of searching for a complete and consistent "meaning"-less, or formal-categorially "autonomous," approach to linguistic structure as both a methodological and ultimately a theoretical commitment. While this is not the place for a detailed and documented history of science (or history of whatever kind of field linguistics has become), the nature of the intellectual era we live in as linguists should surely become a focus for etiological diagnosis when we contemplate the burgeoning free-market in "formalisms" that now constitutes the fin-de-siecle condition. Formalism is precisely the correct bottom-to-top structural approach, we should hasten to add, within an overall framework of studying grammatical categories, as of course was the point of Saussure's *Cours*, or of Bloomfield's *Language*, as charter texts of our field.

<sup>2</sup>English does not have a specific TRIAL or PAUCAL grammatical category within its general grammatical category of NUMBER, but we can use the measure phrases [three [N...]] and [four or five [N...]] to denote sets of these precise cardinalities. Hopi does not have a grammatical category of TENSE, of which English has two specific exemplars, the PAST and the non-PAST (called "present" in nonstructural accounts based in denotational intuitions), but Hopi uses the combination of a rich set of AKTIONSARTEN (lexical aspect-like categories) and ASPECTS crossed by EPISTEMOLOGICAL STATUS (Whorf's "assertion") deictics to effect, partly by implicature, distinctions equivalent to the more directly-coded English TENSEs. I am, moreover, aware of the controversial nature of Whorf's (1956:57-64;113-5;213;216-7) original contrastive claim about Hopi and English, particularly as it has been misunderstood to be a claim about whether or not Hopi-speaking people are able to extend chronological time points and intervals, or even to perceive duration in chronological temporal terms. Having looked carefully at the mounted counterevidence (see Malotki 1983, for example -- reviewed favorably by Shaul 1985 -- that concentrates on showing that denotationally calendric and clocktemporal lexical phrases have penetrated into contemporary Hopi discursive usage), I see that Whorf's actual claim about multiple grammatical-categorial routes to

potentially same or equivalent extensional differentiations -- nothing more than Boas' or Sapir's or Bloomfield's point about differences of linguistic structure in their (and our) coding-conceptualization of language -- stands exactly as before: Hopi is a "TENSE-less" language.

<sup>3</sup>Here we may note the so-called "accessibility hierarchy" of Keenan & Comrie (1977; cf. Maxwell 1979; Comrie & Keenan 1979) which, as stated, focuses on cross-linguistic conformities of accessibility to pivothood in the space of intersection of [a] LOCAL REFERENCE-MAINTENANCE systems of various formally-codable argument-roles under [b] specific and differential CLAUSE LINKAGE-TYPE/DEGREE of "restrictive relativization." At the unfavored extremes of intersection of these variables, e.g., restrictive relativization on the head of an adverbial clause, the coding forms, if at all occurring in a language, are very complex; at the favored extremes, e.g., subject of simple-predicate clause, the construction may be formally merged with even tighter linkages like participial adjectives. In the middle range, we have specific and differential robustness of coding.

Observe that Romaine's study of Scots English restrictive relativization (1980; 1982) illustrates the relevance of such clines to sociolinguistic (stylistic) and historical outcomes.

<sup>4</sup>It should be no surprise, then, that our greatest theorists of grammatical categories were ultimately interested in explanation at a diachronic, or historical, plane, as for example Saussure, Bloomfield, Kurylowicz, for all of whom 'analogy' was a synchronic structure of relationships that constitute a determinate force-field of possibilities for a linguistic system diagnosable through statistical fluctuations and ultimately change of possible forms.

<sup>5</sup>For a basic Boasian exposition of Chinookan grammar, see Boas 1911; for an early treatment specifically of Kiksht, see Dyk 1933; for a basic treatment of inflectional categories, outline of inflectional syntax, and the nature of the lexical strata that are subject to inflection, see Silverstein 1976, 1977, 1984.

<sup>6</sup>I have adapted normal English-language font in expected combinations to express segment-types of Kiksht for which special Americanist symbols are generally used. For example,  $\underline{sh}$  expresses the hushing fricative,  $\underline{lh}$  the voiceless lateral fricative,  $\underline{xh}$  the uvular (or "back") as opposed to the velar (or "front") voiceless fricative,  $\underline{gh}$  the voiced uvular stop.

<sup>7</sup>Note that in such text-sentence-forms as <u>The murderer of Smith will soon be sought</u>, the utterance presupposes that there is an individual who murdered Smith (by implicature on the unmarked singular that this is a single individual) and its utterance as a statement provides a characterization of the entity. Observe that it provides a grammatically formed descriptor, <u>murderer of Smith</u>, backing any possible reference in subject position which may provide, or may not, information to characterize any actual individual.

<sup>8</sup>In English, etc., where PASSIVE [: ACTIVE] 'Voice' is a well-developed category, the discourse-contextual conditions differ somewhat in terms of "paragraph"-level coreference conditions, bipartite (no expression of 'Agent') vs. tripartite phrasal construction of the clause, etc. And the impersonal usage is in a different register, relative to cultural regularities of genre of discourse, from the passive construction, with a characteristic textual distribution, as Labov and his students have decriptively approached with their numerical text-frequency methods (cf. Weiner & Labov

1983, developed from Labov & Weiner 1977; note also Lavandera 1978; Labov 1978; Romaine 1981).

<sup>9</sup> The relation of  $-\underline{it}_{10}$  to Kiksht morphological causative formations is only an apparent violation of this, since the suffix combination of ...- $\underline{m}(\underline{a})8$ -...( $-\underline{it}_{10}$ ) appears to code CAUSATIVE where no other aspectual material appears in the derivational base from which the causative formation apparently comes. Observe that such a causative will have the pronominal inflectional schema -[]2-[]3-...- $\underline{m}(\underline{a})8$ -...- $\underline{it}_{10}$ , as though a full, direct transitive formation derived from a resultative-passive-like form \*-[]3-...- $\underline{it}_{10}$ . Where other suffixes are present that already contribute the telic or resultative sense to a non-transitive derivational base, only the - $\underline{m}(\underline{a})8$ - morpheme appears in the transitive causative formation.

<sup>10</sup>It can also be seen that this particular transitive verb is inflected with "impersonal" 'Agent'ive subject - $\underline{q}_2$ - in this very polite imperative substitute, a finite FUTURE TENSE form with  $\underline{a}_1$ -...- $\underline{a}_{11}$  circumfix and IMPERSONAL 'Agent' coding.

<sup>11</sup>In a more elaborate and theoretically oriented analysis, it could be argued that the surface form is derived from the word-initial, hence "absolute" form of what we encountered earlier in 2.2. as -xh-, the MEDIOPASSIVE/REFLEXIVE marker normally found postposed to an explicit pronominal morpheme. We still find the phonological alternation of #q- with -xh- and of #k- with -x- in the absolutive vs. possessed forms of derived nominalizations from apparently mediopassivized verb forms used as descriptors of habitual agency/action, as described below in 3. <sup>12</sup>Thus note once again that useful typological predictions apply across such purely (self-styled) "formalist" divisions as 'configurational' and 'non-configurational' syntactic types, as of course they must to be empirically non-vacuous. Also, note that no consistent purely "formal" typology (i.e., no strictly Saussurean-distributionalist, or "algebraic" one in Jakobson & Halle's [1956:15] terminology) will in principle be able to capture these predictive regularities. Wherever they might seem to, they are actually bringing grammatical-categorial considerations -- or even semantic ones tout court -- into the picture.

<sup>13</sup>Among the many complex and at least partly morphologized formal alternations of the Postpositional5 elements, one involves the (finite) verbal vs. nominal status of the theme of which it forms a part. Here, for example, verbal Postpostion5 -15- 'to, in, for' occurs in corresponding nominal themes as -i5- following common, though morphologically conditioned alternations between 1,n and i in this set of morphological elements. The nominal form xhi- in this nominal-stem-initial position (marked with | preceding the stem) is, furthermore, the CONSTRUCT ("dependent" or "possessed") STEM marker, the ABSOLUTE (non-"possessed") STEM marker being corresponding qi-: thus the ABSOLUTE noun of 'habitual action', i-lqik'ipchxalal 'sewing'.

<sup>14</sup>Observe that all the Chinookan dialects in both Lower Chinook (Shoalwater, Clatsop) and Upper Chinookan (Kathlamet, Kiksht) have a verb root -/<u>ba</u>7 'go out' used also as a subsidiary motion root in ninth position class, e.g., -/<u>lhxhi</u>7- -/<u>ba</u>9-'crawl out'; its antonym is -/<u>pq</u>7 [Lower Chinook -/<u>p'</u>7] 'go in'. Whatever the possibility of remoter connection, the enclitic #<u>ba</u> in Kiksht seems to be of independent historical origin in borrowing at the time horizon with which we are here concerned.

<sup>15</sup>In both discussions, Sapir specifically notes and illustrates the use of these postpositionals as clause subordinators occurring as enclitics to morphological verbs while coding specific LINKAGE-types.

<sup>16</sup>The fieldwork of Robert E. Moore -- see, for example, a preliminary report in Moore 1988 -- on contemporary linguistic culture among people of Kiksht heritage language has also been confirming this trend, obvioius in my own fieldnotes from 1966-1974 research on Yakima Reservation (Washington) and Warm Springs Reservation (Oregon). Among contemporary people, to be sure, English has been a pervasive factor of their languagescape throughout their lives.

<sup>17</sup>This is a platform on which to stand over rapids, built by cantilevering out from

the discourse of Mr Simpson's niece (brother's daughter) that I recorded in the

late 1960s and early 1970s, the Kiksht forms built on -lh- THIRD NEUTER-COLLECTIVE are especially regular in elicitation protocols when she offers translation equivalents for English somebody, going from Kiksht to English or from English to Kiksht. Several examples are offered at Silverstein 1978:248-9 of her and others' using -lh+k2- and -lh3- "IMPERSONAL" paraphrases in Kiksht of EVIDENTIAL PASSIVE forms, illustrating this kind of usage and its equivalence to -q2- forms.

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