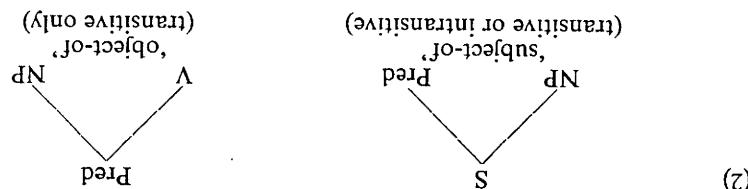


ergativity

My own features and

Michael Silverstein



0.2. Importante de la gramática teórica Grammatical theorists who distinguish between surface and underlying form have been particularly concerned with ergative systems because of the question of universality of some underlying level of syntactic-semantic representation for languages. For this reason, a certain importance has attached to the question of whether or not a language is accusative or ergative, at the underlying level of representation. Certainly, or grammatical theorists and the actual structures and the relative surface-base-marking, as shown in (1A).

In this paper, I want to bring out the fact that 'split' of case-marking is not random. At its most dramatic, it defines a hierarchy of what might be called 'inherent lexical content' of noun phrases, first and second person as well as third person. This hierarchy expresses the semantic naturalness for a lexically-specificed noun phrase to function as a agent of a true transitive verb, and in-versely the naturalness of a function as a patient of such. The noun phrases at the top of the hierarchy manifest nominative-accusative case-marking, while those at the bottom manifest oblique case-marking. Some times there is a middle ground which is a three-way system of O-A-S case-markings. We can define the hierarchy independent of the facts of split ergativity by our usual notions of surface-casehood.

All ergative systems seem to show such split case-marking systems, minimally one of the lexical content varieties, but more often additional splits in independent vs. subordinating clauses, as in Ngajima-Yintjipanji (Hale 1970, 772) or Tsimshian (Boas 1911b:404), splits in present (imperfective vs. past-perfective tense-aspect), as in Georgian or Pashto (Penzl 1955:98, 132-33), and so forth, in a non-random fashion. Some of these will merge from a consideration of two extended examples below.

The argument here, concentrating on lexical hierarchy but attempting to deal with several other aspects of the problem as well, proceeds from the discussion of marketness theory as applied to feature specification of noun phrases of all types, necessary to setting up some notion of inherent lexical properties of words. Using such notions as context independent of the case-marking systems. Using such notions as marketness relations and feature specification, we can then characterize the kinds of split ergative systems attested, in a formal typology based on the

Q3. Volume of Argument

For, as is well-known, without any restrictive formal control over the mechanisms, and ergativity. power of postulated transformational rules based on given surface data, we can transform an arbitrary proposition underlyingly structure into an attested surface form. It is equally plausible, in other words, that without such control systems at both levels, that of propositional semantics and that of discourse reference, in order to show what formal devices must be built into grammar. One such advocated here is the hierarchy in inherent lexical content of NPs and the generalization of rule schemata that can be accommodated with features. We should ask what are the functions at these two levels of incommensurable ergative case-marking systems, as stable linguistic surface types, which seem to have associated several recurrent properties (possessors and ergators or apperent agents) are frequently identified at the surface at least (Eskimo, Chinook, Totsl, Quiche); non-ergators (or apparent patients) are incorporated into verb-complexes in the same way, whether they are intransitive reflexives are identical in syntax and sometimes in form (Dyribal, or in intransitive structures (Tzotzil, Tsimshian, Wicchita); mediopassives or nominitive-dative schema for intransitive purposes (Dyribal, Georgian). I cite these to indicate that there occur certain transformations relations associated with ergative case-marking, and that these are evidence for a hunctional significance to the ergative case more than voice-case ergativity. The range of stable surface features is greater than those associated with a single split in the ergative case-schema, and that this must be encompassed by correlations, as discussed by Hale, and this is the case.

Dixon 1972:136-37) for a few of them), which I will not dwell on here. But Hale's schema (rightly) focuses upon the systematic nature of ergative and accusative case-marking schemata, trying to explain (alas, incorrectly) correlations between facts from several areas of grammar, for example, the relationship between voice and case system. It is important also that Hale is disturbed by the fact that pronominal systems in particular are not compatible with his hypothesis, both by the fact that they are at least partly accusative, with distinct dative case that looks just like his putative proto-acusative form, and by the fact that they are more morphologically ergragative only where there is extensive cross-referencing of noun phrases as the means of case-marking (1970:775-76), at the surface. In other words, what is most difficult to Hale's inherited approach becomes the focus of the discussion here. First, we must take the notion of surface subject, the keystone of his argument, as problemmatic rather than given. It will become apparent that surface-subject is not a ready unitary constant, but varies according to the interaction of (sequenital) reference-relations of *topic* NPs. (For all three of these levels, underly ing (propositional) case-relations of *adjunct* NPs and discourse-bound

This division of case-marking in the passive sentences of accusative languages matches that of (1A) for the minimal ergative schema. Hence we might say that apparently ergative languages are really accusative languages with obligatory passivization of transitive sentences.³ Kenneth Hale, in fact, has essentially proposed just such a schema, in keeping with the standard theory. His article, *The passive and ergative in language change: the Australian case* (1970) reassesses this old Schuchardt (1896)-Uhlandbeck (1901) theory, based principally on idealised typological data, rather than actual linguistic systems. He seems to claim that at least historical all ergative languages are accusative languages (his type B-1) remain as this, passive-ergative, type, where the ergative case is simply that of the agent of a passive, subject in that sentence (1970:764). Some languages (his type B-2, or passive-ergative) have no passivisation rules after readings of surface structures, but where underlying, nominative NPs are subjects in both deep and surface structures, so that the subject of a non-transitive sentence is the same as in the standard theory. Some languages (his type B-3, or active-ergative) remain as they are in the standard theory, so that the subject of a non-transitive sentence is the subject of the main verb.

(3) Passivisation:

This theory states that in accusative languages, after the passivisation transformation has applied, as in (3), the underlying object of the transitive appears in a surface case-form that looks like the subject of the transitive verb, and the underlying subject of the transitive winds up in some surface position, like the subject of an intransitive verb, and the underlying verb, which is the predicate of the transitive, appears as the predicate of the intransitive verb.

(3) *The ball was hit by the boy*

NP[The ball] pred[v[hit] NP[the boy]] =>
 NP[The boy] pred[v[hit] NP[the ball]] =>
 NP[The ball] pred[be[hit]] pred[by the boy]]
 cf. S[NP[The ball] pred[be[hit]] pred[roll]]

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This is a kind of theoretical maximum for systems with an exclusive distinction of *number* in lines a, and b, and a singular-dual-plural keyed to the standard names of the feature bundles. Thus, the columns are denoted by first person exclusive plural, is positively specified for the feature [ego]. This grammatical feature has a semantic interpretation (or is generated by) a rule imdexing and defining the speaker in a speech situation. It is negatively specified for the feature [tu], which means that it does not index and denote the hearer. These characteristics of the person categories of the noun phrase. We find also that it is positively specified for [plural], meaning that it denotes more than the speaker (but, as opposed to column B, the other individuals are not specified as he/she(s)). It is negatively specified that it denotes the further individuals are not specified as he/she(s)).

a. [+/-egō]	A	B	*	C	D	E	F	G	H	I	J	K
b. [+/-tu]	+ + + + + + - - - - - -	[+ + + + + + - - - - - -] [person]										
c. [+/-plural]	+ + + + + + - - - - - -	[+ + + + + + - - - - - -] [number]										
d. [+/-restricted]	+ - (+) + - (-) + - (+) + - (+) + - (+)											
A. first person inclusive dual	B. first person inclusive plural	C. first person exclusive dual	D. first person exclusive plural	E. first person singular	F. second person singular	G. second person plural	H. second person singular	I. third person dual	J. third person plural	K. third person singular	.	

basically only two personal pronoun types, traditionally categories of first and second persons. These, we should note, are 'shifters' or indexical signs that both denote and index (or presuppose/create) the participants in the speech act.⁵ The traditional, third person, of Indo-European morphology in some ways parallels these personal pronouns in form; however, it is syntactically different. Third person, noun phrases are basically nominal, that is, they basically lexical nouns, and in transformational terms we can say that languages have rules of several kinds for pronominalization, under certain conditions, giving rise to anaphoric (co-referencing) and appositional (cross-referencing) surface units that preserve, to different degrees, lexical properties of the underlying nominal expressions. In Benveniste's terms, the third person is a non-person, and the referent of the pronominalisation rules of syntax,⁶ and cross-cutting features, as in (4).

Dyribal, too, has two systems of alternations, one a lexical hierarchy in which nominalative-accusative vs. ergative-absolutive are distinguished, and another which alters in discourse, where non-initial clauses show a normal nominative determiner by the co-presence of an indirect object. Dyribal surface structure shows grammatical case inflection located on the very noun phrase which alters in discourse into a construction. Hence, at the discourse level, where there is also zero anaphora for co-reference, a system of switch-reference is found which employs antipassive forms of transitives, and special forms of intransitives, to signal split switch of underlying nominalical functions of the co-referring noun phrases, to signal split system to signal no switch. The special switch-reference forms show nominative-absolute case-marking (with the plain system noted above to ergative-nominative), while the transitivity-accusative ~ ergative-absolutive ~ nominative datative patterns of the two languages in fact point to the common nominative split of ergativity discourses as the basic one, the functional blamee of usage in system of case-marking as the basic one, the functional blamee of dative patterns of the two languages in fact point to the common nominative nominativeness among noun phrase types, and then illustrate the range of types of features expressing case-marking that can be characterised in terms of split systems of Chomsky and Dyribal (§ 3), drawing out conclusions at both the syntactic and semantic levels that are important for theory (§ 4).

11. Types of noun phrases

We attempt here to illustrate a kind of maximal syntactic feature analysis that noun phrase types, to impose structure on the inherent lexical content that emerges from the facts of reference. Under such an analysis, there are

Chinook shows transformational relations of plain and inverse, transitive infections, where the plain infection is accusative vs. ergative dependencies on a lexical split, and the inverse infection is dative-nominalive. As it turns out, the transformation of inverse into split ergative ~ accusative (plain) inflection is also triggered by a lexical hierarchy, so there are internal locking systems of alternations, both conditioned by lexical content. Chinookan surface structure is appositional, that is, every major constituent has cross-referencing pronominals showing the derived (but recoverable) grammatical function of any noun-phrase adjuncts. Hence at the discourse level only a system of co-reference anaphora by zero is necessary across propositions. But in complex sentences, for example, with embedded nominalisations, it turns out that anaphoric forms, with hominative-dative inflection, are regularly used. The anti-passive inflectional system is reminiscent of the inverse inflection of transitive, which provides the key to the underlying form.

Turning to the number categories, it should be noted that the dual category, including all columns of (4) with non-parenthesized positive specification for the third column, marked with an asterisk. Any noun phrase with double positive specification for features [ego] and [u] must be [+plural]. We can see what like those for the three-way person, distinctions shown in (6).⁹

(7) Person-number interaction:
 [+ego, +tu] \Leftarrow [+plural]

Thus there is a systematic interaction between the features of person^a, and b, and c, by rule (7), and d, in turn, d, by substituting features of number^c, for the normal variety. So again we have means of indicating higher ranking of the features, for the system at least: a. And b. are higher ranked than c. And these are all either ranked than d.

(7) Person-number interaction:
 $[+ego, +tu] \leftrightarrow [+plural]$

positive specification for features [ego] and [u] must be [+plural]. We can indicate this by a rule such as (7).

Turning to the number of categories, it should be noted that the dual category including all columns of (4) with non-parenthesized positive specification for line d, is a subcategory of plural. (I do not take up trial forms, the relation- ship of which to duals is not clear at present). This subcategory is expressed by having only one value of the [plural] feature further sub- categorized for the feature [restricted]. Thus, the feature possibilities are somewhat like those for the three-way [person] distinction shown in (6).⁹

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Some languages lack any surface paradigmatic distinction of columns A and B from columns C and D, and it is not clear that there are formalional relations which motivate the distinction as a necessary universal underling one. If there are none such, then clearly features in rows a are not independent, as in our maximal distinction, but the expansion of b, depends on the negative value of a, and the positive of a, entails (redundantly) positions the first two lines of (4), a three-way 'person' distinction being particularly widespread.

Let grammatical features [F] code semantic properties A. Then $[+F]$ means ~A, while $[-F]$ is interpreted as failure to specify A. In e., $[+F]$ means ~A, while $[-F]$ is interpreted as the negative of A.

(5) Rule of residual semantic interpretation (coding):
 As unique and innately enumerable rule, (5), that is standard in marketness theory (see Jakobson 1932, 1936), this is interpreted as (or codes) more than one other denotatum. The other columns are similarly to be read off.

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Now the heavy double vertical lines separating columns A through H from columns I through K are meant to indicate the distinction between personal and non-personal noun phrases. The last three bundles represent, then, those forms that arise by transforming mechanisms of aaphora. Non-phrases that index either speaker nor hearer (hence rows a and b) are negatively specified) are either nominal or pronominal, with the pronouns referring such features as a number by copying rules that are part of the transformational pronominalisation process. Note in particular that many other features of noun phrases are usually represented in pronominal forms of the third person, such as animacy, gender, countability (in a sense different from that of our [restricted] feature), semantic shape class, and so forth. These latter features depend on the lexical coding of nouns (or simple noun phrases, if you wish), different for each language, and, in the classical theory of pronouns which I formulate here, enter the pronominal system by the act that, third person, forms stand for regular lexical nouns. The formal parallelsisms of true personal pronouns of indices, and pronominal markers of anaphors, is seen at the surface level; frequently there is an extension of third person, features elsewhere in the paradigm, as we find commonly for third person, is underlined, semantically-relevant consideration, there are enclitics. But in an undifferentiated paradigm, as we find commonly for third person, features elsewhere in the paradigm, as we find commonly for third person, is underlined, semantically-relevant consideration, there are enclitics. But in an undifferentiated paradigm, as we find commonly for third person, is underlined, semantically-relevant consideration, there are enclitics.

Thus there is a systematic interaction between the features of person^a, and b, and c, by rule (7), and d, in turn, d, by substituting features of number^c, for the normal variety. So again we have means of indicating higher ranking of the features, for the system at least: a. And b. are higher ranked than c. And these are all either ranked than d.

(7) Person-number interaction:
 $[+ego, +tu] \leftrightarrow [+plural]$

Turning to the number categories, it should be noted that the dual category includes all columns of (4) with non-parenthesised positive specification for line d, is a subcategory of plural. (I do not take up trial forms, the relation- ship of which to duals is not clear at present.) This subcategorisation is expressed by having only one value of the [plural] feature further sub- categorised for the feature [restricted]. Thus, the feature possibilities are somewhat like those for the three-way [person] distinctions shown in (6).⁹

We need a rule to explain the hole in the pattern that occurs in chart (4) at the third column, marked with an asterisk. Any noun phrase with double positive specification for features [ego] and [u] must be [+plural]. We can indicate this by a rule such as (7).

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These three-way systems of person, in fact, have been analysed by using features [+/-participant], to capture the distinctive notion between participants in the speech situation, first and second persons, and the third person, a non-participant (by definition); not being speaker or hearer, but perhaps an audience at best.⁸ Then [+participant] is subdivided as [+/-ego], so that ultimately [+part, +ego] is first person, [+part, -ego] is second person, and [-part] is third person. I prefer to see [participant] as a derived notion, an abbreviation meaning either [+tu] or [-tu] (or both), that is, to include those categories with some positive specification for person, since others which distinguish first person, [+ego] forms from all the rest, some of which distinguish first person, [-ego] forms from all the rest, the person features, as will be raised by the facts of ergative systems, in addition, there is the question of which of [ego] or [tu] is the higher of that is how we must incorporate them into hierarchical rules.

(6) Person system with features a. and b. linked:

undoubtedly one; if there are more such, then clearly features in rows a, and b, are not independent, as in our maximal distinction, but the expansion of b, depends on the negative value of a, and the positive value of a, certifies in relative terms a system as in (6). This matches in relative positions the first two lines of (4), a three-way person distinction particularly widespread.

Some languages lack any surface paradigmatic distinction of columns A and B from columns C and D, and it is not clear that there are formalional relations which motivate the distinction as a necessary universal.

(5) Rule of residual semantic interpretation (coding):

As unique and infinite enumerable (see Jakobson 1932, 1936), that is standard in marketness theory (see Jakobson 1932, 1936), this is interpreted as (or codes) more than one other denotatum. The other columns are similarly to be read off.

Let grammatical feature $[F]$ code semantic property A. Then $[+F]$ means $\sim A$, while $[-F]$ is interpreted as failure to specify A, i.e., $[-F]$ means $\sim \sim A$. But, residually,

i.e., $[-F]$ can be interpreted as the negative of A.

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gender indicates that these features are not so widely distributed (in surface privileges of occurrence) as features of person. In rule (7) also we predict that number is not so widely distributed as person as a distinctive feature. Further, that for example Russian pronominal categories neutralise gender with respect to number, but never vice-versa, predicts that number is more widely distributed as a distinctive feature, and hierarchically prior.

On a cross-linguistic basis, now, we can give laws of implication that combine these two kinds of observations into general conditions on the elaboration of feature systems, just as in phonology. These are of two kinds. The first kind, as in (1), says that if a language uses distinctive feature [F], then it uses features as expressed by the features [plural] and [singular]. [plural] categorizes as expressed by the relationship of dual and singular, from [restrictive] other numbers, if a language distinguishes [restrictive] [F] and [F'], respectively. Thus, if a language distinguishes [restrictive] [F], then it uses features [F], an example of this is the relationship of dual and singular, from [singular] other numbers, if a language distinguishes [restrictive] [F], then it uses features [F'], says that if a language uses distinctive feature [F'], then it uses features as expressed by the features [plural] and [singular].

11) Universal of hierarchisation of features:
 Language L uses $[+/-F]$ \Rightarrow Language L uses $[+/-F]$.

12) Univeral of markendness hierarchisation of features:
 Language L uses $[+/-F]$ for $[Af]$ \Leftrightarrow Language L uses $[+/-F]$ for
 [-Af], where a is usually taken to be '+'.

The second kind of implicature is a combination of general markedness conditions (by the criteria outlined above) with feature hierarchy, the conventional then being of the form (12), that is a language-specific implementation of the feature [F], within the category defined by [αF], a being plus or minus, then in implementations [F], within the category defined by [αF], in general, a is taken to be being differentiated by [F], so that we have a general criterion that marked values will, in general, be less than unmarked ones, as is the case for person categories being differentiated by [F], gender. In some cases, as for example the 'number' distinction, this does not seem to be true. These apparent exceptions might mark a set of features, then there are claims about marked and unmarked values for a hierarchy of features, then the imprecise claims about marked and unmarked values of each of the features, and finally the imprecise claims about marked and unmarked features in general do show a relationship between surface morphologyical patterns and syntactic distributions on the one hand, semantic classes on the other hand. If our semantic representations are systematically related to, if not identical with, underlying forms, and these, in turn, are systematically related to surface patterns in general, then we have a relationship between surface and lexical-semantic relations. We would like to amalgam in that languages in general do simple referential specificity. We would like to amalgamate at the level of semantics making systematic associations at the level of surface level, is nevertheless making systematic associations that operate at the level of (4), on the basis of criteria n. 9).

At the same time, if the neutralisation of some feature with respect to all others is consistent and unidirectional as in (10), we define a hierarchy of features in terms of distribution, one feature always defining a subdivision of another. Thus note that taking together all our examples of neutralisation of

(10) Quidnuncio's neutralisation: [F_j] neutralised with respect to [F_j, F_k, . . .] \Rightarrow [F_j, F_k, . . .] never
neutralised with respect to [F_j, F_k, . . .] \Rightarrow [F_j] neutralised with respect to [F_j].

On a second basis of classification, as in (9), third person, forms, representing linguistic aphoristic pronominalisations of many kinds of surface noun phrases, usually of sentences and sentential nominalisations as well as of adjectival, are more widely distributed than first or second persons in the syntactic structure. This can be determined simply by counting up privileges of occurrence of formal types. These two criteria within a language give evidence for marked and unmarked values of surface-coded semantic distinctions represented in the pronominal system.

grammatical category	which takes pro-form:	JNP	[S]	[Adjs]
Person category	3rd	yes	yes	no
Derivation category	list	yes	yes	no
of grammatical categories				

(9) Distribution (of person categories) by syntactic type:

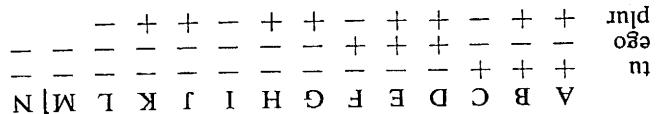
Observe in (8) that the third person, noun phrases, doubly negative in rows a. and b., in (4), show surface gender distinctions in many languages (for example, Chinoock, Russian, D'yakrial), while the personal forms do not. With respect to personal (first and second) vs. non-personal (third), then, features of gender are neutralised in the personal forms (third), then, specified, marked members.¹⁰ Some language (for example, Tunica) have gender distinctions overrlly in both second and third persons, but not in first. So, first person shows a neutralisation of features of gender by comparison with second, third persons.

Chinook	3rd	2nd	1st	Neutralisation (or <i>Enclitic</i>) by Person Category:
Russian	3rd	2nd	1st	Neutralisation distinguishes
Dyibulaq	no	yes	1st, 2nd person from 3rd	Neutralisation distinguishes
Tunica	no	no	yes	last person from 2nd, 3rd

Thus, the formal basis for a classification of noun phrases as shown in (4) becomes all the more interesting. Our notions of markedness values, reflected here by the assignment of pluses and minuses, as well as by the hierarchical ranking of features, are based upon language-specific criteria of distribution and neutralisation and parallel formal elaboration (along the columns of (4)), as well as upon general implicitational relationships that seem to hold univergally (along the rows of (4)).

SYNTHETIC CATEGORICAL CATEGORIES IN AUSTRALIAN LANGUAGES

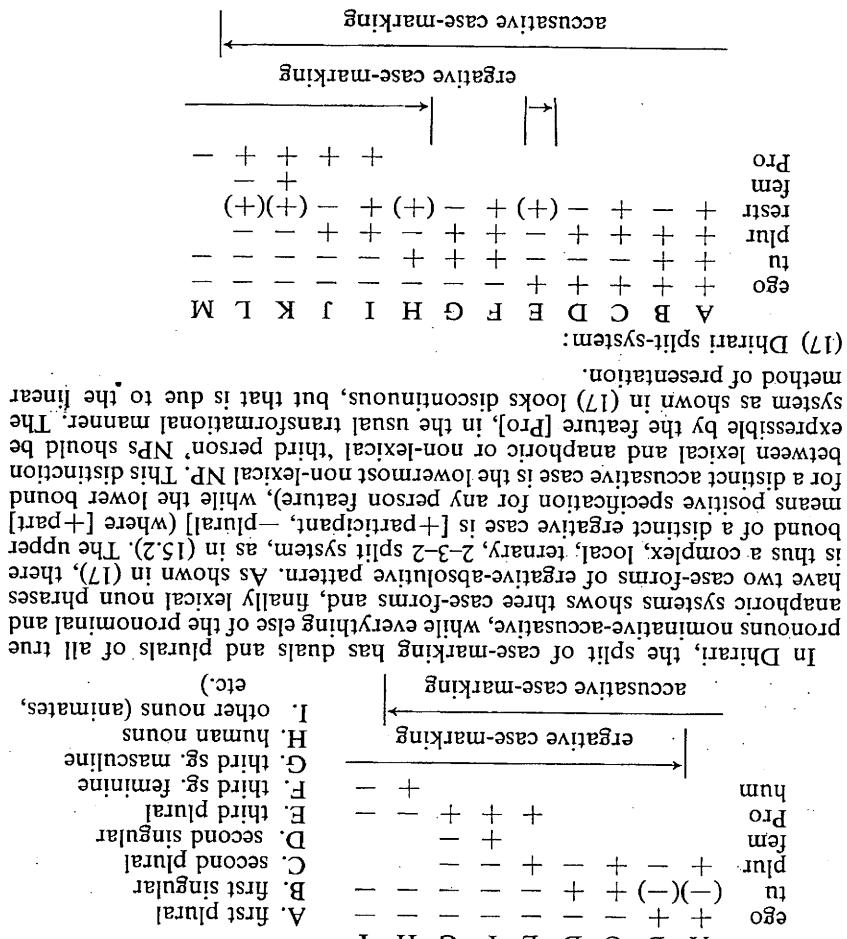
- A. inclusive dual
- B. inclusive plural
- C. exclusive dual
- D. exclusive plural
- E. first singular
- F. second dual
- G. second plural
- H. second singular
- I. third dual
- J. third plural
- K. third sg. feminine
- L. third sg. masculine
- M. lexical nouns



(18) Aranda split-systems

Aranda, according to Strehlow (1942-44 [1945]: 74-76; 91-93), shows a system of noun phrases which includes pronouns of three persons and numbers,¹² and nouns which are subcategorised as human, animate, inanimate at least. The pronominal forms show nominalive-accusative case distinctions, except for the first person singular, which has a three-way distinction. Apparently, this two-way accusative system goes part way through the nominal stems, the animates being partly so influenced; while the rest of these nominal stems, along with the inanimates, have an ergative-absolutive distinction. As shown in (18), there appear to be two split systems in Aranda, each one operating on a distinct functional basis. The first split system is a complex, local, binary, 2-3 case-marking system for the true first person singular indexex, as in (15), with the second split system involving the non-personal, noun phrases, of the third person. This is a complex, local, binary, 2-2 system, not in (15), with the anaphoric pronouns of the third person, used for some animates as well as humans, and the nouns of the third person, used for showing nominalive-accusative case-marking, then the anaphoric, demonstratives, which are used for the rest of the animates and the inanimates showing a two-way A-O. S case-marking system, and finally the inanimate nouns showing an ergative-absolutive system. The animate nouns must be subdivided further by some features which are unclear from Strehlow's description, as there is the distinction shown in (18) between those animates which pattern like human nouns with nomimative-accusative case-marking, and those which pattern like the demonstratives for inanimates, with a three-way case-marking scheme. The scheme is here in (18) at least provides a basis for seeking further information on this.

With three persons, two singular person, the plural system for [+ego, +plural] objects-a-gentive-subjective nouns, and a two-way ergative feature hierarchy rankin of the person and number case-marking (what appears as while the lower bound of accusus in the middle part) are the [+/-accusative] pairs of this system at [16], [ego] rather than [16] Bandjalan split-system.



With three persons, two numbers, and masculine and feminine gender, in the singular third person, the promoninal paradigm has a two-way accusative system for [+ego, plural] (the most highly marked pronoun), a three-way objective-ergative-subj ective in all the rest of the nouns, and all human nouns, and a two-way hierarchical ranking on all the rest of the nouns. Clearly a two-featural hierarchy is operative here with one feature from each case-marking what appears as agentivity in the middle part of the ergative case-marking the upper bound of accusative case-marking what appears as objectivity in the lower bound of accusative case-marking what appears as obsecrity in the middle part of the hierarchy), while the middle part are the [+human] lexical NPs. As shown in the display of this system at (16), [ego] ranks above [tu] in this system.

The plain, transitive verb has an ergative morphological order-class, followed by a nominative (or, absolute) and an optional dative (or, indirect object) following the following lexically-specific position. The intransitive verb has the second and third of these, and, in parallel fashion, the noun-nominate and optional enitive (or dative of possession). The parallel prexes, and an optional dative of possession), The parallelism is even more secure in syntactic terms, as will become apparent.

These more specific order-classes intersect with formal distinctions among cross-referencing pronominals. The forms of pronominals are displayed in (29), keyed by order-class. Where there are conditioned phonological variants, the morphophonemically basic alternant is listed first, separated by a slash, as also where there are syntactically significant alternants, separated by commas. There are basically three distinct forms for pronominals: the second, regularly nominative shape plus -a-, serving as genitive; the third, regularly nominative shape plus -k-, serving as ergative. The first personal serves only as ergative. The phonological alternants in the genitive, or possessive, of rows F and L are palatalisation variants (\sim).

Those of the nominative in row L are due to proclitic vowel truncation ($a+u \rightarrow u$), and that of the dative in row J is an enclitic, morphologically added to the nominative subject (S) and \sim -t-, used as transitive object-*sitr-*, *lik-*. Hence for these two noun phrase types, there seems to be a locally-conditioned three-way case-marking scheme for verbal cross-reference;

conditioned three-way case-marking forms dual and plural, show an alternation between the nominative forms person dual and plural, and the type of case-marking system. The two rows J and K, third imitate the nominative, or possessive, of rows F and L are palatalisation variants (\sim).

The other variations in forms, within order-classes, conditioned oddly, are due to proclitic vowel truncation ($a+u \rightarrow u$), and that of the dative in row J is an enclitic, morphologically added to the nominative subject (S) and \sim -t-, used as transitive object-*sitr-*, *lik-*. Hence for these two noun phrase types, there seems to be a locally-conditioned three-way case-marking scheme (S) and \sim -t-, used as transitive object-

(24) *n-sk'ula* I, Coyote; I am Coyote.

(25) *m̥-nadiidduñti* you, Indians; you are all Indians.

(26) *i-štiamx a-ia-kn̥im* the chief's canoe.

(27) *a-ia-kn̥im* his canoe.

In general then, we can see a parallelism in order classes in 'Plain' verb and noun, as shown in (28).

(28) Plain' morphological schema of Chinookan inflection:

- Verb: (Trans subj) {Intrans subj} {Trans obj}
- Non: (Pers-)numb-end (Possessive)
- Subjects (S) of intransitive verbs; in fact first and second person pronominal prefixes also occur with nouns, as in (24) and (25). In regular nouns, a second pronominal form cross-referencing the possessor, can occur in position after reflexes shown in (20)-(23). Thus (26) is a full possessive noun phrase, while (27) reflects anaphoric deletion of the possessor noun, the cross-referencing that shown in (20)-(23).

(29) Plain' morphological schema of Chinookan inflection:

- Verb: (Trans subj) {Intrans subj} {Trans obj} (Third. obj. + postpos)

(23) *gā-t-(a)š-l-a* /*ka* (i)š-šyʷa (i)š-šagilak, the water came flying over to the two women

(22) *gā-t-(a)š-l-a* /*tada i-kala* (i)š-šyʷa, the man threw the water

(21) *gā-t-(a)š-l-u* /*tada*, he threw it at the two of them

(20) *i-kala gā-t-(a)š-l-u* /*tada* (i)š-šyʷa (i)š-šagilak, the man threw the water at the two women

Chinookan shows a regular, or, plain, transitive vs. intransitive verb schema, parallelled by a regular nominal one. I discuss these first, giving the global ergative case system for distinct shapes of pronominals. Then I will complicate this description with global order-class relations, which feed into global shape assignments, defining an inverse nominative-dative transitive schema in verbs, and its equivalent in possessed nouns.

Summarising, then, the second singular shows no formal distinctions across order-classes, the first person singular has a special ergative form just where the object (*O*, *D*) is second person, and the second and first non-singulars, as well as the third persons, always have a distinct ergative form. For the first person non-singulars, this is regular for third person objects, and specific for second person objects, giving a kind of impersonal-agent construction. In other words, in form, as opposed to order-classes, we have a split-system of plain inflection, with GLOBAL assignment of shape, defining a hierarchy of 2 > 1 > 3, such that the most marked form that can figure in the schema, the second singular (*under C in (29) and (30)*) gives a one-way subsystem, the first singular (*under F in (29) and (30)*) gives a one-way absolute system, and the rest of the forms are two-way relative-absolutive. Thus we formulate (35) to express this regularity:

- (31) *ga-ik-m-n-u-ʌlxiama*, they told thee.
 (32) (a) ***ga-an-sk-m-n-u-ʌlxiama*
 (b) *ga-a-n-n-u-ʌlxana*, thou were told; we two told thee.
 (33) *ga-a-ɔ-ɔ-(a)m-t-k-ʌq̥it-i-mitia*, he made it (-s-) rain on you two.
 (34) (a) ***ga-a-n-s-(a)m-t-k-ʌq̥it-i-mitia*
 (b) *ga-a-s-(a)m-t-k-ʌq̥it-i-mitia*, I made it rain on you two.

in the ergative order-class occurs precisely in row C, the second person singular, and in rows F, G, H, the first person singular. There is no formal distinction whatsoever by order-class in the second person singular -m-, which appears as such in all verbal order-classes. In the ergative order-class, the first person singular also shows no formal distinction when the object is third person, and the exclusive dual and plural have ergative -k-. But the alternants -f- (sg), -g- (du, pl) occur just when the nominative or dative noun phrase adjoins in second person. Observe that the distinction of dual vs. plural is neutralised in the first person and impersonal form, row N. When distinction between the first person and impersonal ergative -g-, as indeed is the second person noun phrase adjoined in direct object is an indirect object (D), then gender distinctions in direct object are neutralised (to [—fem]); when the second person noun phrase adjoins in direct object it none other occurs (that is, for first singular agent (A), underlining φ). Thus the transitive form (31) with third plural ergative (A) and second singular absolute (O) corresponds not to (32a), formed by analogy from-class by form-class, but to the ambiguous (32b), which has the -g- ergative in place of the singular first person singular form (32b), with the -g- ergative in place of the singular first person singular form (34a), as we would expect, but to (34b), with zero ergative (A), third dual absolute (O), and second dual singular masculine collective (D).

(29) Wasco-Wishram Chinookan pronominals: Morphology: Ergative Nominalive Dative Genitive

A	incl du	imcl Pl	imcl sg	C	sec sg	sec sg	E	sec Pl	sec du	G	excl sg	H	excl Pl	I	third du	J	th col-neut	K	third sg fem	L	third sg masc	M	impersonal	N		
B	-lx-a-	-lx-k-	-lx-	C	-n-i-	-n-	E	-n- <i>k</i> -	-n- <i>t</i> -	G	-n- <i>k</i> -	H	-n- <i>s-k</i> -	I	-n- <i>s-k</i> , -d	J	-t- <i>k</i> -	K	-t- <i>k</i> -	L	-k-	M	third sg masc	N		
C	-lx-a-	-lx-k-	-lx-	D	-n-i-	-n-	E	-n- <i>k</i> -	-n- <i>t</i> -	F	-n- <i>k</i> -	G	-n- <i>s-k</i> -	H	-n- <i>s-k</i> , -d	I	-t- <i>k</i> -	J	-t- <i>k</i> -	K	-t- <i>k</i> -	L	-k-	M	third sg fem	N
D	-n-i-	-n-	-n-	E	-n- <i>k</i> -	-n- <i>t</i> -	F	-n- <i>k</i> -	-n- <i>t</i> -	G	-n- <i>k</i> -	H	-n- <i>s-k</i> -	I	-n- <i>s-k</i> , -d	J	-t- <i>k</i> -	K	-t- <i>k</i> -	L	-k-	M	third sg masc	N		
E	-n- <i>t</i> -	-n-	-n-	F	-n- <i>t</i> -	-n-	G	-n- <i>t</i> -	-n-	H	-n- <i>t</i> -	I	-n- <i>s-k</i> -	J	-n- <i>s-k</i> , -d	K	-t- <i>k</i> -	L	-t- <i>k</i> -	M	-k-	N	third sg masc			
F	-n- <i>t</i> -	-n-	-n-	G	-n- <i>t</i> -	-n-	H	-n- <i>t</i> -	-n-	I	-n- <i>t</i> -	J	-n- <i>s-k</i> -	K	-n- <i>s-k</i> , -d	L	-t- <i>k</i> -	M	-t- <i>k</i> -	N	-k-		third sg fem			
G	-n- <i>s-k</i> -	-n- <i>t</i> -	-n-	H	-n- <i>s-k</i> -	-n- <i>t</i> -	I	-n- <i>s-k</i> -	-n- <i>t</i> -	J	-n- <i>s-k</i> -	K	-n- <i>s-k</i> , -d	L	-t- <i>k</i> -	M	-t- <i>k</i> -	N	-k-		third sg masc					
H	-n- <i>s-k</i> , -d	-n- <i>s-k</i> -	-n-	I	-n- <i>s-k</i> , -d	-n- <i>t</i> -	J	-n- <i>s-k</i> -	-n- <i>t</i> -	K	-n- <i>s-k</i> -	L	-n- <i>s-k</i> , -d	M	-t- <i>k</i> -	N	-t- <i>k</i> -		-k-		third sg masc					
I	-t- <i>k</i> -	-t- <i>k</i> -	-n-	J	-t- <i>k</i> -	-t- <i>k</i> -	K	-t- <i>k</i> -	-t- <i>k</i> -	L	-t- <i>k</i> -	M	-t- <i>k</i> -	N	-t- <i>k</i> -		-t- <i>k</i> -		-k-		third sg fem					
J	-t- <i>k</i> -	-t- <i>k</i> -	-n-	K	-t- <i>k</i> -	-t- <i>k</i> -	L	-t- <i>k</i> -	-t- <i>k</i> -	M	-t- <i>k</i> -	N	-t- <i>k</i> -		-t- <i>k</i> -		-t- <i>k</i> -		-k-		third sg masc					
K	-t- <i>k</i> -	-t- <i>k</i> -	-n-	L	-t- <i>k</i> -	-t- <i>k</i> -	M	-t- <i>k</i> -	-t- <i>k</i> -	N	-t- <i>k</i> -		-t- <i>k</i> -		-t- <i>k</i> -		-t- <i>k</i> -		-k-		third sg masc					
L	-k-	-k-	-n-	M	-k-	-k-	N	-k-	-k-		-k-		-k-		-k-		-k-		-k-		-k-		third sg fem			
M	-k-	-k-	-n-	N	-k-	-k-		-k-	-k-		-k-		-k-		-k-		-k-		-k-		-k-		third sg masc			
N	-k-	-k-	-n-		-k-	-k-		-k-	-k-		-k-		-k-		-k-		-k-		-k-		-k-		third sg masc			

Returning to our formal display (29), we see that the unexpected forms

(30) <i>Reactive specification of protocol interactions.</i>	a. definitive	A B C D E F G H I j K L M N
	b. <i>tu</i>	+ + + + + + + + + + + -
	c. <i>ego</i>	+ + - - + + - - - - - -
	d. <i>sge</i> (1, 2)	- - + - - + - - - - - -
	e. <i>restic</i>	+ - (+) + - (+) + - + - -
	f. <i>perm</i>	- + - - + + + + + + + +

The Chinoonian noun phrase types include types of personal noun phrases, first and third persons. There is a regular distinction of singular, dual, and plural number, and within personal noun phrases, for inclusive, second, first, impersonal, and personal noun specifications for persons. All persons, and the third person, have a number, and the first person, has a gender, the last strongly interrogating mass noun phrase types is set out, with the columns corresponding to the rows in (29). It should be noted that the first feature is [u], so that immediately after the inclusives, the second person forms are displayed. Also, within the number distinctions, it should be observed that for first and second person forms, the singular is given as the most highly-marked term ([+sg, +rest]), while for third persons, it is the dual ([+pl, +rest]). In other words, there is a distinction of markeness polarity in the feature [pl ~ singular] for the participants (+sg) and non-participants ([+pl]), reflecting the distinction between indexical (pragmatic) categories and non-indexical (see fn. 9). It is interesting that in some languages the distinction between pragmatics and semantics is markedness should be as directly expressed in syntactic phenomena as in Chinookan. For the duals and plurals of inclusive, second, and first person markeness, the duals and plurals of inclusive, second, and first person markeness should be as directly expressed in behavior than the singulars.

the ranked set in (30) in the order given. If F , does not satisfy the conditions for the change, then we look at F^{+} . Functionally, the global case-marking rule is to formulate for the singular, with an overly of politeness marking in dual and plural exclusive.

(35) 'Plain' infection case-marking:

$$\begin{aligned} (c) \quad & \left[-\frac{F_i}{D}, O, D \right] \quad (i=2) \Leftarrow \text{Nom} \\ (b) \quad & A, S \left[-F_i, O, D \right] \quad (i=1, 2) \\ & \left[\langle -\rangle \alpha F_3^2, \langle -\rangle \alpha F_3^3 \right] \Rightarrow \text{Erg} \end{aligned}$$

$$(6) \quad [F_i] \quad [F_i] \quad [F_i] \quad (i = 1, 2, 3) \Leftarrow \text{Erg } O$$

$$(i=2) \in \text{Nom} \quad \left[\begin{smallmatrix} -F_i^{i+1} \\ -F_i^i \end{smallmatrix} \right]$$

(e) $X \Leftarrow \text{Absol}$

2.2. Global order-class restrictions

Chinook, like many languages, has a restriction on surface forms which prohibits first or second person direct objects (O) from co-occurring in the same verb with indirect objects (D).¹⁹ So, in forms with three pronouns in order classes, the absolute (O) cannot be first or second if there is a dative (D). Hence, for all three-syllable verbs, there are systematic gaps for other direct objects (D). Hence, third person direct objects (O) of transitive verbs occur with indirect objects (D). Hence there is no way to say with a single Chinookan verb form such as (36), 'He is taking me for her', a foreigner such as an inquiring linguist very well produce such a form.

2.2. Global order-class restrictions

(37) *ga-n̩s-i-ŋl-u-√ya*, we (exccl pl) went toward him,
 (38) *ga-l-a-i-ŋl-u-√ya*, she went toward him,
 (39) *ga-l-i-m-ŋl-u-√ya*, he went toward thee,
 (40) (a) **g-a-n̩t-i-n̩s-i-m-ŋl-u-√ya*
 (b) *g-a-q-(a)m-ŋl-u-√ya*, we (exccl du or pl) went
 (41)
$$[-F_i] [+F_i] \leftrightarrow [-F_i] [+F_i] \quad (i = 1, 2)$$

$$\begin{matrix} S & D & A & O \\ | & | & | & | \end{matrix}$$

(39) With third singular masculine interrogative subject (S) and second singular indirect object (D), interestingly, as shown in (40a), when there is first person interrogative subject (I), it is more natural to have a rule (41) which precedes that case-marking rule.

The results encapsulated in the table permit us to make certain observations about case-marking in Chinese. Taking the similar rows together, the shape-order configurations define several subsystems by lexical classes of nouns (singulars). Rows A, B (inclusive non-singulars), and D, E (second person) form one pattern; both being [$+tu$, $-sg$]. In rows G, H (exclusive non-singulars), the pattern is the same just with additional adjuncts of third person (rows G₂, H₂), never with second adjuncts. This pattern normally distinguishes A function from S function in the initial position, and distinguishes A function from S function in the final position (rows G₂, H₂), never with third adjuncts. The pattern is the same for all cases except the first, which is different. The first pattern (singulars), the pattern alike, both being [$+tu$, $-sg$] in rows G, H (exclusive non-singulars), the pattern is the same just with additional adjuncts of third person (rows G₂, H₂), never with second adjuncts. This pattern normally distinguishes A function from S function in the initial position, and distinguishes A function from S function in the final position (rows G₂, H₂), never with third adjuncts. This pattern is the same for all cases except the first, which is different. The first pattern (singulars) is the same as the second, but with a different final position. The first pattern (singulars) is the same as the second, but with a different final position.

In initial order-classes, the shape $-tx-$ as second of two pronominals can represent either direct transitive object (O), inverse transitive agent (D_1) or intransitive indirect object (D_2). As third of three pronominals, $-tx-$ can represent only the transitive indirect object (D_2). The inclusive dual does not occur as second of three pronominals. In the other rows, the data are to be read off similarly. So in row G, the exclusive dual, the shape $-q-$ in first position represents function A, or D_1 , when there is another adjunct that is second otherwise in initial position shape $-nr-$ represents intransitive subject (S). In non-initial positions, shape $-nr-$ represents transitive object (O) or indirect object (D_2) in second position of two, and it represents indirect object of third position of three. It does not occur in second position of transitive (D_2), in second position of two, and it represents indirect object of non-initial positions (S).

HIERARCHY OF FEATURES AND ERGATIVITY

Thus, for the inclusive dual of row A, the shape $(x\text{-}k)$ in initial order class uniquely represents the direct transitive agent, A, while the shape $-tx$.

Pronominal	Initial	Second of 2	Second of 3	Third of 3
A. incl du	$(x)kA$	txS	txQ, D	txD^2
B. incl pl	$(x)kA$	lxS	lxQ, D	lxD^2
C. sec sg	mxA	mxS	mxQ, D	mxD^2
D. sec du	mxA	muS	muQ, D	muD^2
E. sec pl	mxA	msS	msQ, D	msD^2
F. first sg	$\phi A, S, D_1$	nA, S, D_1	nQ, D	nD^2
G. first du	qA, S, D_1	mkA	—	—
H. first pl	qA, S, D_1	mkA	muQ, D	muD^2
I. third du	$nskA$	nsS	nsQ, D	nsD^2
J. third pl	$skAkS$	gO	gQ, D	gD^2
K. the col-n.	tkA	lQ	lQ, D	lwD^2
L. the sge f	lSA	lS, O	lQ, D	lD^2
M. the sge m	$!SA$	$(a)S, O$	$(a)Q$	$(a)D^2$
N. impers	$!SA$	$!S, O$	$!Q, D$	$!D^2$

(54), showing the resulting system of marking case-relations. Up to now, I have been using the terms ergative, nominative, and dative (genitive) both for order-classes and for pronominal shapes, trying to distinguish between the two. Having examined the basic paradigmatic relations of these, however, we can speak in terms of *initial* and *non-initial* order-classes of the inflectional configuration, and assign pronominal shapes to these according to the underlying syntactic functions they represent, after the operation of the various restucturing rules. In (54), the pronominal shapes are labelled with the underlyings functional descriptions they can represent in the order-class in which they appear, so that we are plotting surface shape in possible surface situations against their original shapes, to duplicate essentially the information about similar shapes, drawn about the information of (29).

($K-M$) and a
Except for
by local crite-
But for the fil-
ageent as well
dependent on
hierarchy.

Having made these observations on the groupings by rows which patterns according to lexical content, we can make observations about the columns of (54). We observe that for all rows, the last two or three columns exclude a and S functions, these being confined to the initial order-class. Hence all coding of A and S in Chinookan is in the initial column. Hence all coding marking developments upon an examination of the initial order-class. If we group same groups emerge as did by row. So we can say that the properties of the first order-class are the defining properties for the splits of case system, and develop hierarchy (55). In this hierarchy, the pragmatically most marked form, the second singular (C) is fully and unconditionally accusative, the first person, the second singular (G) being conditionally accusative, as also the first person (excusive) nonsingulars (F, H). Whereas the first singular alternates between two distinct accusative systems (F, vs. H), the first nonsingular alternatives between a three-way subsystem (G_1 , vs. G_2 , H, vs. H₂). The third group shows a three-way subsystem, excluding O from initial position, while the next subgrouping (I and J) shows a three-way subsystem permitting O in initial position. Finally, there are true ergatives (K-M) and a defective ergative (N).

Except for the first person especially (though the rule would cover third person as well), we must formulate the split of case-marking in global terms, agent as well). But for the first person phrase in question, the system splits by local criteria of inherent lexical content of the noun phrase in question, the system splits by local criteria of inherent lexicality of the first person, the system splits by local criteria of inherent lexicality of the first person, the system splits by local criteria of inherent lexicality of the first person.

(55) Hierarchy for split case-marking:

C	F ₂	F ₁	G ₁	H ₁	A	B	D	E	G ₂	H ₂	I	J	K	L	M	N	
fully accusative form					three-way AOS case-form						3		fully ergative				
no O in initial position													O initially				
Accusative form-order marking for O function																	
Ergative form-order marking for A function																	
[+tu] [+sg]	[+ego] [+sg]	[+tu] on	[+ego] [+tu] [-ego]		[+F _i] [-sg]				[−F _i] [+pl]			[−F _i] [−pl]		[−def]			A

Now in comparing the treatment of underlying adjunccts in these derived nominals, we can see that both the underlying S and A pronominals emerge as dative (D_p) possessors (the latter thematised in some combinations to ergative), while the underlying Q merges as first-slot Q number-endere, or second slot Q in thematised forms equivalent morphologically to the verbal arrangement. That is to say, in passing from simple syntactic status, so that verbal D_1 , becomes adnominal D_1 ($=G$). It is thus also seen to be a form, the underlying transivives have simply changed syntactic status, so that emerges. This is to say, in passing from simple syntactic status, so that emerges. That is to say, in passing from simple syntactic status, so that emerges.

(65) *é-n-a-xi-kí-i-g^waug^wau-mai*, I (who) beat time for him^r, I, his time-beater^r

(64) *ii-ka-xi-k-i-pččá-lal*, she (who) sews them', the sewer (i.) of them', ver.
sewing

nature of these nouns:

Inverse transistives, it is demonstrated, as in (c), commutes

For transitive verbs, derived nominals are formed from antipassive constructions, and the possessor of the derived noun is the underly ing transitive agent (A). The first, obligatory form-class in nouns, however, is the underly ing transitive patient (O), which, it will be recalled from (57), (60), appears nowhere in the predicative form of the antipassive. Compare forms (63) and (64), also derived from (56) and (59) respectively. It should be observed here that Postpositions such as that in (64) all have special reflexive mediaform forms in derived nominals, regularly referring to the verbal forms. Also, where the derived noun violates permitted pronominal arrangements for other forms in derived nominals, regularity returning with the verbal forms. Also, constructions such as in (65) combine the unexcepted

61) *g-a-t-u-*/*g*-*a-lal*, they (coll.) were flying about
 62) *i-ta-ga-la!* ..hey (who) fly about', the flies-about, they always fly
 about' (pre-jacitative)

2.5. Nominalisation The justification for seeing the antipassive as having derived D_i, infection emerges from a consideration of derived nominalisations, which express habitual or inherent capacity for agency. These inalienably possessed nouns have a derived stem which consists of everything but the directional mor-phemes, built generally from a combination of repetitive verb form. From them, the unergative subject (S) becomes the Possessor in intranisitives, the derived noun (61) we get derived noun (62). Observe that for such an intransitive such as (61), we derive the first oblique order-class (O) is (D_i, or, G) of the derived noun, and the first, oblique order-class (O) is filled by the unmarked masculine singular dummy pronominal, i-.

inference. Those pronominal shapes which are distinctive in regular, 'plain' inference for S and O functions (in chart (54), rows I, J), and for O and D functions (row J), indicate that the single pronomial of the antipassivised such as (59) showing inverse transitive infection. With the evidence of forms like D_i or derived dative see this as specifically the D_i, we should probably see

In both kinds of anti-passives, then, those from two-adjunct direct predicates, and those from three-adjunct ones, there is a single overt cross-cats, and those from three-adjunct ones, there is a single overt cross-

(60) *g-al-a-xl-k'i-ʌpčča-la!* she was sewing (sthg) for (someone)

(58) *ga-k-t-i-gi-n-ʌ-pcx-a-i-n* she was sewing them to him
(59) *ga-d-a-xl-n-ʌ-pcx-a-lai* she was sewing them for herself

phonogram representation underlying transitive arguments

When a direct transitive construction includes an indirect object there is an accompanying postpositional morpheme, or a set of even or eight, such as *medopassivitatis* (D_2)—distinct from *O*, or *S*—is formally expressed by morpho-*object* (D_2). The elimination of an indirect example above, for example, (20)–(21). The elimination of an indirect *medopassivitatis* *-x*. This is the element used for direct object reflexivisation with preceding *-x*. This is the postpositional element of the postpositional morpho-*object* (D_2)—*medopassivitatis* (D_2)—with preceding *-x*. This is the element used for direct object reflexivisation with preceding *-x*. Such reflexives it combines with the lexical position morphologically, *medopassivitatis*, appearing after the nominal, though for indirect *medopassivitatis*, since the form of the third plural morpheme, underlyingly *-t*—voiced *-d*, is uniquely transitive object (O) of row 5 of (54). Furthermore, where such inverse transitives violate the permissible sequence constraints, they are thematised, just as we would expect. So the transitive agent in such indirect reflexives (*medopassivitatis*) takes the *D₁*, form-order position, ousting any reflexives (*medopassivitatis*) with the elimination of the object, preserving only a single *medopassivitatis* (D_2), indirect object. And the antipassivised form corresponding to (58) is (60), with the elimination of the object, a single *medopassivitatis* (D_2), indirect object.

The formal expression of the anti-passive is with a prefix -*k-i*- that regulates epplaces the directional morpheme -*u*- in expected direct transitive constructions. Thus a direct transitive such as (56) is related to anti-passivised forms (57). It would seem that the transitive subject expressed by the ergative of (56) appears as a surface intransitive subject in nominalitive (or absolute) case-form, and that the object is eliminated. Boas (1911a: 59) in fact calls the anti-passive morphology 'multiple' which, needless digression towards an object, is true that the element involved in the construction must be incorporated in forms such as (57), two lines of reasoning lead us to a reconstruction of what must be the antipassive construction of transitive objects and subjects; (1) the behaviour of lexical indirect objects under antipassivation, and (2) the formation of

(66) *ga-č-i-u-*/iina-x/, he customarily killed them^m; (plur verb stem)
(67) *gəl-i-k'i-či-a-*/iina-x/, he customarily killed (many); 'he was a hunter'

cultatively in some oblique, adverbial case-marking. Some languages, such as Dytibal, to be discussed below, permit expression of the transitive object, while others, like Chmookan, do not regularly permit expression of the object in predeictive forms. The verb is an active intransitive, expressing agency but not indicating an object.

(68) Case-marking in general:
 (a) $= (67a)$
 (b) $(A/S, [A/S, [$,
 where formally $[+sg]$ or $[-pl]$ gets normal O form, otherwise

It is easy to see that the plain and inverse regular intonational systems, as in (54)-(55), can be derived from the system of (66), including such restrictions as that on first and second person [direct] objects with [indirect] objects as in (54), can be derived from the system of (66), including such restrictions as that on indirect object is permissible or indirect object is an object (O) in second position in the antipassive form, then no further derivation is needed. This demonstrates what was asked in the question of antipassive forms characterized by case-marking rules (67), we can further specify (68b) that all A and S pronouns are coded in the first position, the S being identical with the A or S form still found in second position, where the form is denotative, except in the singular of all persons, where the form is antipassive, in the anti-passive, unless already specified by the theme-tation (so the parts of (68) are ordered). The inverse transitives, it will be noted, undergo a transformation with the O form, unless already specified by the theme-tation (so the parts of (68a) but not (68b), in other words, behave like antipassives of regular intonatives).

67) Derived nominal case-marking:

Let (O, A_i, S) represent propositional functions,
 $[X, Y]$ represent order-classes.
 $(a) (+F_i, -F_i) \Rightarrow [-F_i, +F_i]$ ($i = 1, 2, 3$)
 (b) otherwise,
 $(x, y) \Leftarrow [X, Y]$

Thus, we have a basic split ergative system in derived nominalizations, where the split, reected in thematized possessed forms, is triggered by $A + F_1$, ($i = 1, 2, 3$) underlining O as adjunct, and results in preposing the A-pronominal. Otherwise the system is hominative-accusative, where the accusative, is representing A and S , found in the dative order-classes, and the nominative, is represented by order-classes arranging genitives in this fashion three potential order-classes, as shown at the bottom of (66), to be identified with the three middle potential order-classes of the independent predicate presented in § 2.1 and § 2.2. The three middle potential order-classes is unified by underlying distribution, but split for surface relative position by complementarity distribution over person features for the two anti-passive nominalization system. In terms of pronominal suffixes for the two anti-passive order-classes, we have contrast in first position for the two anti-passive order-classes, for the two anti-passive nominalization system as (67).

<i>Dative</i>	<i>Nominative</i>	<i>Initial order-class</i>	<i>Second order-class</i>	<i>Ergative</i>
A.	$i(x)kA$	$i\dot{x}aO, A, S$	$i\dot{x}aO, A, S$	$i(x)kA$
B.	$i(x)kA$	$i\dot{x}aO, A, S$	$i\dot{x}aO, A, S$	inA
C.	inA	inA	inA	inA
D.	$inlkA$	$inlaO, A, S$	$inlaO, A, S$	$inlkA$
E.	$inlkA$	$inlaO, A, S$	$inlaO, A, S$	$(i(a))A$
F.	$inlkA$	$inlaO, A, S$	$inlaO, A, S$	$inlkA$
G.	$inlkA$	$inlaO, A, S$	$inlaO, A, S$	$inlkA$
H.	$inlkA$	$inlaO, A, S$	$inlaO, A, S$	$inlkA$
I.	skA	$si\dot{ta}A, S$	$si\dot{ta}A, S$	skA
J.	ikA	ikA, S	ikA, S	ikA
K.	ikA	ikA, S	ikA, S	ikA
L.	ka	kaA, S	kaA, S	ka
M.	ka	kaA, S	kaA, S	ka
N.	a	taA, S	taA, S	a

(66) Derived nominal system of case-marking:
 I have so far been speaking of the various noun phrases from the perspective of the predication form of the anti-passive that no morphological construction. The anti-passive nouns show the underlying form of the syntactic object (*O*) is regularly expressed, as Kurylowicz's conditional universal provides. The anti-passive nouns show the underlying form of the syntactic object (*O*) is derived, where *A* and *S* are treated alike, while *O* is treated derivatively. Within, as shown in (66), we have a system where *A* and *S* are treated alike, while *O* is treated derivatively. In the themeatised forms, there is a derived *A* (ergative) form-order inflection; in the themeatised forms, there is a derived *O* (nominalative) inflection, while underlining *O* is treated distincitly in the derived *O* (nominalative) inflection. Thus, as shown in (66), we have a system where *A* and *S* are treated alike, while *O* is treated derivatively.

every language shows certain special, derived forms of subordinate clauses, which serve as sentential objects, indirect discourse, etc., the anaphorically deleted verbs as sentential nouns in which bear specific functional relationships to some nominal adjuncts of which co-referent noun phrases in the independent clause. Thus, in English, complete co-referent noun phrases to a class of verbs including *want* are derived ininitively clauses to such classes as conditions of co-reflexive with the subject of the higher clause. The derived surface nominative (derived, subject) of such clauses is deleted under conditions of co-reflexive with the subject of the higher clause. Comparing examples (69) and (70), we can see that co-reflexive vs. non-co-reflexive clauses differ in the entire noun phrase.

Adding (71) and (72) to our consideration shows that where the co-reference holds between two noun phrases in subject-(underlying), object, relative-co-reference clause is passivised so that the derived surface co-reference changes as subjects (derived) subjects. We can say that deletion with no voice apprears as subject-(derived) subjects. We can say that deletion with no voice appears in complement clause subjects underlining object subjects under-
co-reference, while deletion with complement clause subjects underlining object subjects under-
lying subject-underspecifies object co-reference. Infinitive clauses with and without anaphoric deletion of noun phrases (as distinct from overt pronounisation), with and without passivisation, thus serves what has aply been termed the function of *switch reference* (Jacobsen, 1967) in addition to *co-reference*. That is, these constructions serve to signal if a noun phrase *co-referent* with another in some specific surface configuration has the same or different underlying functional relationship in its own clauses as the noun phrase with which it is co-referent has in its own respective clauses.

Thus, cross-clause reference-maintaining signals can operate at two levels, the one being co-reference relations for certain derived positions of noun phrases, the other being same or different with respect to noun positions of underlying propositional functions of these noun phrases. The criteria for given under-lying propositional functions of these noun phrases, the criteria for same or different here in terms of underlying propositional functions set up classes at the discourse level that are precisely analogous to the kinds of classes set by case-marking systems at the propositional level of clauses. The classes set up at these two levels define marketable relations, so that the switch-reflexive same class has the same status as nominalative in accusative systems, absolute in ergative systems. In the case of English infinite complements, same is defined with respect to S, A, different with complement (73), same is defined with respect to S, A, different with respect to the residual functions of a set of possibilities for the second noun phrase, here O and D. So inter-clause reference is isomorphic to a nominative-

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SCOURSE

In terms of surface case-markings, there are six types of sentences to be distinguished, as shown in chart (83a). We can show surface case-markings in each of four transitive possibilities of undereplying propositions (adjusted second and third person noun phrases (represented as '+', and '—'), the underlying adjustment type, (A, O) = (+, —), (—, +), etc., etc.), of which a part of rows I through IV), and according to the surface case-marking which characterizes the adjunct (columns with desinence-type). Similarly, the last two rows show the desinential distributions of S-adjustments in intransitive one-adjunct) propositions. The order of listing is not random, as can be observed, but the non-randomness emerges only when we investigate the relationship between inherent lexical content of the noun phrases and the sentence final possibilites in sentences.

For example, the chart codes the fact of complementary distribution of

switch-reference: A : O/[S]			
		(a) 'plain'	
		(b) 'normal'	
I.	1/2->3 (+,-)	erg nom abs acc (O) A O	case-markings: case-matrices:
II.	3->3 (-,-)	A O	
III.	2/1->1/2 (+,+)	A O	
IV.	3->1/2 (-,+)	A O	
V.	1/2 (-+)	S	
VI.	3 (-)	S	
		S [S]	(b) 'normal'
		S [S]	(a) 'plain'
		S	
		A	
		O	
		S	
		S [S]	

⁸⁵) Infectious schema of Dyirbal:

In (80) we saw that third person noun phrases in absolute case illustrate the case form for the transitive agent (A) of a transitive, and the ergative case-form for the transitive object *babyi yaya*, 'man', is in the absolute case, and the transitive agent *babyi yaya*, 'woman', is in the ergative case. Here the transitive object *babyi yaya*, 'man', is in the absolute case, and the transitive agent *babyi yaya*, 'woman', is in the ergative case. The verb *buran* ends in transitive agent inflection -n, on stem *buran-*, rather than the verb inflection -nyu on stem *nyiyanday-*.²⁹ Notice that in the intermediate stage in (81), the verb *buran* is looking at man, while the verb *buran* ends in transitive agent inflection -n, on stem *buran-*, rather than the verb inflection -nyu on stem *nyiyanday-*. In (82), notice that the verb *buran* ends in transitive agent inflection -n, on stem *buran-*, rather than the verb inflection -nyu on stem *nyiyanday-*. In (83), the verb *buran* looks at me.

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(87) Dyirbal case-marking: Let (+) represent adsyntactic with [$+F_i]$, for $i = 1, 2$;

Dyadic case-marking:
 Let (+) represent adjunct with
 Let (-) represent others.
 Then: for schema (O, A), (S),
 functions case-marking
 $(x, y) \Rightarrow [acc, y]$
 $(+, -) \Rightarrow [x, erg]$
 $(+, +) \Rightarrow [nou/abs]$

3.2. 'Normal' imperative with -nay- verbs

3.2. 'Normal' imitation with -gāy- verbs

Each *plain*, transitive clause seems to be associated with an alternative form called the *-nay- form*, by Dixon (1972: 65–67), from the characteristic voice-like suffix on the verb stem. For sentences with third person agent (rows II and IV of (52a)), the *-nay-* alternant seems to be an anti-passive form, and no noun phrase occurring with absolute case-marking, the patient noun phrase, if it occurs overtly, appearing in dative case. However, just as in plain spoken English, there is a principle of mutual exclusion between a lexical dative phrase, if it occurs overtly, and the absolute case-marking.

grammatical dative that results from anti-passivisation has grammatical dative case. This alternative is a lexical indirect object coded in eragative case-marking when there is a lexically indirect object from the dative case. This alternative of dative to ergative is otherwise optional. Thus (88) is the anti-passive form of (1), with ergative case ultimate *bargu* yataqaynus. The verb *bargu* expresses the undeniability of the patient (*O*) adjunct. The verb *bargu* has suffix -*ay* on the transitive stem and intransitive inection -*uyu* (cf. Miyadanyu in (80)). For transitive sentences with first or second person agent, which in the plain forms (rows I and III of (5a)) have nominative case-marking on agent, but the patient appears in which the agent still appears in nominative case, but the patient appears in dative case, with alternative to ergative it third person, under the given conditions. Thus for example we have (89) as the -*aya*- form of (83).

(88) *balan d'ulugmabi bagut yatagu (~bulaygul yatagu) bulalisanju*, woman is looking at man

(89) *uyadjia/mindia yimiaungu/maygungu bulalisanju, I/thou look(es) at thee/me'*

SO two principles seem to operate in these -*ya*- forms, which indicate that the antipassive formation for third person agent is part of a larger system. First, all agents appear in these -*ya*- forms in nominative (or absolute) case, and all patients appear at least in regular formation in dative case. Second, the alternation of dative to ergative for third person patients is demonstrative of mutual exclusion of [grammatical] and lexical dative. The rule we can write for this alternation, (90), has a form that is very much similar to the Chinookan rule for the 'inversion' of inverse verbs (as in (45) above). The parallelism of the 'inverse' and antipassive of Chinookan is repeated, with significant differences, in Dyirbal.

A	B	C	D	E	F	G	H	I	e.go	tu	Pl	testr
+ + - - - - - -	- + + + - - -	- - + + + - -	- - - + + + -	- - - - + + +	- - - - - + +	- - - - - - +	- - - - - - - +	- - - - - - - -	B.	C.	D.	E.
A. first dual	B. first plural	C. first singular	D. second dual	E. second plural	F. second singular	G. third dual	H. third plural	I. third singular	testr	tu	Pl	A.

(86) Dyirbal pronouns and nouns:

patient, displaced, to accusative case. So the case-marking system here seems to express a notion of the *naturalness*, or unmarked character of the various noun phrases in different situations for first or second person to act on third, least *natural* for third to act on first or second person to act on third, least hierarchies, it is natural for third person to function as agent (A), but not vice-versa. The marked cases, pragmatically accusative, formally express the violations of these principles. So using a chart of split case-marking makes to those above, we can see that the Dyirbal system of split case-marking makes a neat distinction, into two disjoint sets, those that have accusative case- marking in *Quantication*, and those that have ergative case-marking in *Afunction*. This is accomplished by a set of ordered rules such as (87). In any rule of (87), the form depends on the two possible adverbs, only one of which is expressed by a single feature at a time, or marking alone, to be distinguished from the complex and global ones of Chomskyan (see (35), (67)-(68)). Further, the boundary of accusative case-marking tuple, to be marked along the series of noun phrase types in (86) is exactly the same as that of ergative case-marking, making the split binary and uniformly two-way.

nominalive and absolute-markings over feature content of noun phrases, first and second person showing nominative but never absolute, third person vice-versa. In particular, these two case-forms appear in rows VI to be conditioned only by the nature of the noun phrase, the prop-ositional function remaining the same. So we can see that they are main-taining their original function form of noun phrases. The other two cases, ergative and accusative, contrast always in two respects, in the two cases, unmarked citation form of noun phrases. The other two cases, ergative and accusative, contrast always in two respects, in the two cases, unmarked citation form of noun phrases. Thus, for the transitives, we can read the lines as showing progressiv-ity more elaborately marked propositions. I, first or second person acting on third, is coded with both absolute and nominative case forms, nominative for agent, absolute for patient. II, third person acting on third has agent, dis-placee, as it were to ergative case. III, participant acting on participant has the patient displaced to accusative case. IV, finally, third person acting on first or second has both the agent displaced to ergative case and the

Similarly, (3) is made up of two basically conjunctive clauses of sequential value, showing co-referent underlyings adjoined clauses which switch function from S to A. The verb of the second clause (or conjunctive sentence) has -nya-. and hence appears in normal form as (93). The agent is normal-nominal, and hence appears on the verb. Note for example (94), with first clause which would imprecise plain inflection on the noun phrases, and in not taking further tense in relation, and differs from -nya-, the historical anti-passive voice suffix, both enclosed in parentheses). This suffix has another, probably historically prior optionality, though such suffixes usually deleted (indicated in (94) by brackets plain inflection and verbal suffix -nya-, the co-referring noun phrase being clauses to S or O in the second, the second clause appears in surface form with remaining cases, where co-referent noun phrases switch from A in the first or O to A, we have -nya- in the second clause, and normal inflection. In the occurs in both, let us recall. Where co-referring noun phrase switches from S to A, the verb undergoes inflection on the second clause, and no voice change across clauses, then the plain inflection and no voice change switch function across clauses, where co-referring noun phrase did not structure, with verbal suffix -nya-.² Where co-referring noun phrase is shown by Dixon's other, topic chain, con-

(A) of the second clause ("I") is co-referential with the underlined patient (O) of the first clause. Only the first token of the co-referent noun phrase actually occurs, in accusative case-form (of plain inflection), and the co-referent second example is deleted. The deletion, obligatory for -ya-, constructions is indicated in (91) by brackets around the underlined agent of the sub-clause. The verb of the second clause signals the sequential switch from immediate clause. The verb of the first clause is underlined with the suffix -ya.

(91) *nyayguna bagayul yataqnu munudan* [*nyayguna*] *bagayul minianjgu babil-nya* +*gu*
 man took me (for) [me] to scrape black beans

(92) (a) *nyayguna bayti yataqnu munudan*
 (b) *nyayguna bagayul minianjgu babilnya*

(93) *balañ dñigumbil yanu* [*balañ dñigumbil*] *bagayul minianjgu babilnya*

92(a) [nom] [dat]
 92(b) [dat] [nom]

(94) *woman went/and [woman] scraped beans*

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The *-aya*-forms, together with the intermediate forms that cannot have this suffix, thus form a system of infection distinct from the plain forms of (85a). I have indicated the patterning of these normal forms in (85b), normal alluding to the parallelism of standardised form of equations, etc., which respect to orthogonals of fixed points of reference. Indeed, all of the adjuncs line up in columnar fashion in (85b), as distinct from the scattered individual possiblities of (85a). And the system of infection, using nominative/absolutive and native case-markings, is typologically an accusative one, where A and S unifications are coded by the first case-form, and O function is coded by the second, subject to the relative alteration of (90).

(30) **Diagrammatical notation:** case-markings: erg nom dat_1 dat_2
 $\Rightarrow \text{SD}: \begin{bmatrix} -F_{i,j} \\ X \end{bmatrix} \quad \begin{bmatrix} -F_{i,j} \\ Y \end{bmatrix} \quad \begin{bmatrix} Y \\ V+yy \end{bmatrix} \quad (i,j = 1,2)$
 $\Rightarrow \text{SC}: \begin{bmatrix} -F_{i,j} \\ X \end{bmatrix} \quad \begin{bmatrix} Y \\ V+yy \end{bmatrix} \quad \begin{bmatrix} V \\ V+yy \end{bmatrix} \quad (i,j = 1,2)$
 obligatory when $Y \neq \phi$, optional otherwise.

In this use the -nya- is not functioning as part of a switch reference system, since it tells us nothing about the relations of 'same' or 'different' of underlyng case-relatives of two co-referent noun phrases. Rather, it is indicating that A, as opposed to S, O, etc., is co-referent with the head noun. Relative clauses being limited to derived nominative/absolute case-forms of the clauses embedded co-referring noun phrase, only configurations which can be so

(103) *balan distinguabil* [bagutu nifalangagau distiwatal-ia-nu] *bagutu yarayangun* *butan man saw woman* [who kicked child].

(104) *balan distinguabil* *bagutu yarayangun* [bagutu nifalangagau distiwatal-ia-nu] *balan man* [who kicked child] saw woman

When the relative clause agrees with the relative clause in the sentence of which it is co-referent with the head noun, the relative clause appears in normal form with the verb stem. So examples (103) and (104) both contain relative clauses in which the head noun, *market*-*ya*, is suffixed to the verb stem. In examples (103) and (104) both contain relative clauses in which the head noun, *ballan*-*ya*, is suffixed to the verb stem *diflwd*, preceding the relative clauses in which *ya* is suffixed to the verb stem *diffy*. The oblique case-argument of the relative clause is the object of the verb *diflwd*, and the morpheme for case-agreement with the relative clause head is the suffix *-gu*.

(100) *nyadisia balan disinguambil butan*, I am watching woman
 (101) *balan disinguambil waynsidin*, woman is going up hill
 (102) *balala yugu bangayl yatayangu nudin*, man felled tree

(97) *balan dñigumwibl [yadásia bura-nu] nifinanánu*, the woman [whom I am watching] is sitting down.

(98) *baby yaya balyagun dñigumwibl [wanyñidhi-nu+] [ru buran* [as she was going uphill] woman saw man.

(99) *yadásia nifinanánu ydgunguagá [yarayangu nudi-nu+] [ra*, I am sitting on the tree [that the man fell off].

verb can be in derived nominative case. The co-referent noun phrase is deleted from the embedded clause, along with the finite verb inflection, and suffix *-nyu* is added to the verb. The case-function of the noun phrase is modified by the relative clause (the head noun) ranges over every possibility except allative and ablative. Some examples appear in (97) through (99).

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The Dyirbal system of mainland Australia refers to the two kinds of systems in these two languages. In Chinookan, the function of the noun phrase in the matrix clause, or the first noun phrase, was unrestricted, so that the construction of the noun types with antipassives, namely the habitual relatives, restricted the construction of the noun phrases with possibilities, D, O, A, S which could appear with co-referential deletion in the second clause, allowing from this set of underlying functions only A and S. In Dyirbal, on the other hand, the switch-reference system involved in clauses specifies the relative function of the two noun phrases involved in look very much like the Chinookan one in relative clauses, where the NP functions that can enter into co-reference relations are restricted to what-

(96) Switch-referencing constructions of Dyirbal:	reference relations features of infection	A-A	co-referring clauses 1 clause 2	normal + -ay-; co-ref NP deleted	{ -ay- } normal + -ay-; co-ref NP deleted	co-referring A-S/O	normal + -ay- + -ay- + -ay-; (optionally)	plain (plain)+-ay; normal+-ay;	co-referring S-O-A	normal + -ay- + -ay- + -ay-; (optionally)	plain (plain)+-ay; normal+-ay;	co-referring S-O/S-O	normal + -ay- + -ay- + -ay-; (optionally)	plain plain	no clause conjunction with deletion
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The markers *-uya*, and *-wra*, are discursive markers that show the switch of underlying function of co-referential noun phrases. So we can develop a table such as (96) for Dyirbal, analogous to (78) for the Chitnookan forms that incorporate an antipassive. Observe that the *-wra* suffix indicates switch from A function to S/O, the *-uya*-suffix switch from S/O to A, and no verbal suffix indicates no switch. (For cross-clause co-reference of A with A noun phrase, both clauses can appear in *-ya*-normal form, with the second noun phrase of the pair deleted. Alternatively, the *-ya*-normal derived form of the second clause, with co-referent NP in derived nominative absolute form, can be further suffixed with *-wra*—the implications of this are discussed below.)

(94) *nyādīśa bala yugn mādāan/[nyādīśa]wayāndīśīmūra* I threw stick and I went up hill.
 (95) *nyādīśa bagñ yugn mādālānyānsū* [nom] [dat]

the intrinsically discursive purposes functions like a normal-dative (O). With the strictly accusative case-marking system of the normal-dative (O), which for discursive purposes functions like a normal-nominative (S), the intrinsitively case-marking system of the normal-nominative A to normal nominative S or normal dative O, the marker is used on the second clause.

4.1. Lexical splits and ergative structure

From the two extended examples presented here, it can be seen that the typology of lexical splits such as those in § 1-3-1.4 is a fact of the surface case-marking structure. This typology can be given a first approximation to grammatical systematicity by formalizing the rules for case-marking in the basic, active declarative forms. The case-marking rule of Chimoookan (35) assigns each order-class and form to cross-referencing pronouns, and on this basis there were two kinds of splits. One was, complex and local, in the sense that third person nonisingulars (two features here) have a distinctive and a distinctive accusative case-form. The other was, complex and global, in the sense that in the singular there is a special ergative case-infection.

We can assemble the set of language-specific along the scale of person features from the exact place where it is true that the feature hierarchical sequence of noun phrase types generated by the feature hierarchy, at which any given language splits its accusative-agentitive-ergative subsystems, is not fixed by the machinery proposed here, the form of the splits (is determined. The more highly marked noun phrases (in the sense of feature specification) will always show an accusative case-marking (less highly-marked ones do, as defined by one or more features jointly simple), is not fixed by the machine proposed here, the form of the subsystems, is not fixed by the machine proposed here, the form of the splits (is determined. The more highly marked noun phrases (in the sense of feature specification) will always show an accusative case-marking (less highly-marked ones do, as defined by one or more features jointly simple), vs., complex, conditionning). Inversely, the more highly marked noun phrases have ergative case-marking if the more highly marked noun phrases have ergative case-marking if the more highly marked noun phrases do. There is a reversal of the system lies. The appearance of a distinct S case is, it can be seen, a reversal of the dual phenomenon.

Among the languages we have examined to different degrees, there seem to be examples of splits at almost every point along the sequence of case-marking structures presented here, it can be seen that the surface case-marking splits presented here, it can be seen that the surface case-marking splits such as those in § 1-3-1.4 is a fact of the surface case-marking structure. This typology can be given a first approximation to grammatical systematicity by formalizing the rules for case-marking in the basic, active declarative forms. The case-marking rule of Chimoookan (35) assigns each order-class and form to cross-referencing pronouns, and on this basis there were two kinds of splits. One was, complex and local, in the sense that third person nonisingulars (two features here) have a distinctively and a distinctively accusative case-form. The other was, complex and global, in the sense that in the singular there is a special ergative case-infection.

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4.1. Lexical splits and ergative structure

(107) *nyadja guda-bila*, I have a dog^g; I, (being) with dog^g

(108) *nyayguna bagayyl yaraygu* [guda-bila+] [gu balagan, man [with dog] hit me]

But in these relative circumstances, with true transitive A possessor and O possessed, given the relativisation hypothesis, namely that it be A, agent-like, first seems to be a commitative, collective used, as in (107) and (108). The first constitutes a full sentence, contrasting with (105a), while (108) shows ergative base-inference on noun and adjective both. Notice that the *bila-* possessive relation is not formally relativised with -*nu*, since it is adjectival. The possessive relation seems to be at the semantic core of this construction (Dixon, 1972; T1, 108), with various unclear entitaments of actual accompaniment expressed apparently by the disjunctive sequence incorporating such phrases (cf. Dixon, 1972:222–23 and paper 18 in this volume).

(105) (a) *nyaygu bālan guda*, the dog is mine; it is my dog^g; my dog [abs case]
 (b) *bālan dīygu nūl bāyan yāyau* it is the man's dog^g; the man's dog [abs case]

(106) *bālan dīygu nūl bāyan gudañgū* [bāyan-dīyin+du] [yāyau-nūl-ndisin[du]
 Under the hypothesis that possessives and relative clauses are similar, we want to ask what is the configuration of adjunct functions that underlie such phrases. Clearly, there has been deletion of a noun phrase co-referent with the possessor, the head of the dominating noun phrase. Since there is no marker in the possessive phrase, in the underlying possessive relation many^g—marked as some other kind of adjunct. On the basis of several lines of reasoning, I would conclude that the possessor is in underlying or normal form for adnominal dative, just as the surface accusative case is the special grammatical dative case relation, and the surface genitive case is the special form of two-place schema of underlying relations exactly as we found in Chinookan. In Chinookan we discovered possessives had an inverse^g transitive relations, the distinction between the two systems being in the case shown in the surface configuration of (105).

There is an alternative possibility for the underlying function of the schema of O-D^g, configuration; here it would seem the schema is S-D^g, as in the surface configuration of (105).

4.2. 'Normal' forms with nominative-dative inflection

discourse, as in Chmookan. It is an interesting open question as to the existence of the inverse phenomena, the answer to which will take us vastly further in understanding ergativity.

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noun phrase types. But surface case-marking typologies such as those of § 1.4 must be carefully related to the rules of the grammatical system, lest the true nature of the split systems be missed. For Bandjadjaling in (16) and Dhirari in (17), for example, there are splits which distinguish the lowest-ranking noun phrase types, and all lexical nouns, respectively, as having ergative-absolutive syntax. Thus person pronouns, the anaphoric co-reference markers, seem to pattern with higher-ranked noun phrases. But we must examine the rules of anaphora to determine the status of the third person pronomial forms. In several other examples of the Western Desert, Guugu-Yimidhirr where pronouns—inc luding anaphoric markers—are reported with one case-marking system and nouns with another, it turns out that only human proper nouns or their like are represented by overt pronouns, the other noun phrases being simply deleted under conditions of co-reference. In turn, such restrictions can depend on syntactic conditions in Chinookan on O occurring with lexical D), so that the whole surface ergative pattern, while fitting neatly into the expected hierarchy, is a kind of amalgamation.

In terms of the split ergative systems we see here, as we move up this hierarchy it becomes more and more the case that a language will suspend the lexical hierarchy for split ergative, use anti-passivised forms of transitives in nominative-accusative, normal forms, and nominalise with a possessive or equative schema. Where, along the hierarchy, a language makes its syntactic distinction between embedding as it were, and discourse, is not specified.

(110) Logical relations of clauses (with co-referent NPs):	Possessive habitational actor habitual agent relative clause (making definite reference) purposive complement desire complement immediate discourse complement realisational adverbial clause it-disjunction countinuation clausal sequence (sequitur) non-clausal sequence (non-sequitur)	Ergeative languages markedness of connexion degree of formal distinctness probability of nominalisation normal forms suspension of agent hierarchy	probability of antipassivisation probability of nominative-dative
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Chimookan, *habituall* relative clauses, Dyribal relative clauses (see §§ 2.6, 3.4). In Chimookan, all other kinds of clauses are conjoined at the surface, extrapolated so that they are in sequence and so that they appear in full finite imflectional form. As I characterised the structure in § 2.6, Chimookan assimilates most logival subordination of various kinds to sequental discourse, co-reference being marked by deletion of noun phrases. Dyribal, however, has a switch-reference system that operates over stretches of other-wise simple conjoined clauses, depending on co-reference relations. Besides the relative constructions in nominalised form, there are now nominalised purposive constructions (as in (91)) and various other clause types which are nominalised, formally embedded at the surface, and marked with case-endings, agreeing with some undetached co-referent noun phrase. To a much greater extent, Dyribal assimilates much of discourse to the forms of sub-ordinative clauses, especially nominalised constructions at the surface.

The point here is that by looking at the mechanisms for surface expression of co-referentiality in clauses, we have an implicit hierarchy of form (110), proposed on the basis of generalisation from many languages, including these eritative ones. If a language uses a special form for co-reference relations over a logical connection at a certain point, it will use at least that mechanism for everyting above, and possibly even more elaborate formal distinctions for everyting below.

6. HIERARCHY OF FEATURES AND ERGAVITY

primarily. The normal systems of nominative-dative inflection thus give a window on the primitives of syntactic structure.

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expressing transitive sentences passively), as really lacking the grammatical process of primary topicalisation. (1986:58), that is, of sublexicalisation, which begs the issue of just what such an Anglo-concentric, sublexicalisation, which begs the issue of just what such an Anglo-concentric

that discourses and proposals that review some of the main characteristics in

4. It would be necessary to give an extensive theoretical discussion of ergative language, not that the two ideas are identical.

5. This formulation follows the pragmatics analysis of C. S. Pierce, and of Mar�andamess unimediately derivative.

6. Postela's (1996) analysis of all English surface forms as categories, and cultural description, to appear in *Meaning in Cultural Anthropology*, ed. by K. Basso and H. Selby (1975b).

Appositive constructions in underly ing form, partially criti cised by Delorme and Dou ge her y (1972) on syntactic grounds, does much violence to the distinction between indexical personal pronouns and anaphoric devices. So also do attempts at a performative or 'hypopresent' analysis of the deep structures of sentences that contrastive patterns of surface anaphoric discourse bound (and non-anaphoric speech situation bound) pronomial forms. Though perhaps to the present discussion, it is an interesting illustration of the fact that we can easily refuse to benefit from a great deal of previous work because it is couched in terms we can dismiss on the basis of current theoretical concerns.

7. This displays details only with person and number, the categories help ings always represented in the short pronominal NPs. Clearly, for those systems which also represent gender, and other lexical features of ana- phoric, third person, forms, there is a continuation of feature marking below the general germaine to this section. Chinook and Dyirbal, treated below, show just such further NP features.

8. These pragmatic facts must be treated from the social anthropological point of view, and I gloss over the problems in this formulation. Much interesting material on the interaction of linguistic categories and cultural pragmatics can be given on this subject, moreover.

9. It is obvious that while the generic form of asymmetric, subdivided categories to help these generate trilateral schemes, the case of

category is common to both these approaches, a feature which are indexicals, [person] features, which are indexicals, shows the relatively unmarked form further subcategorised by the [+ - tu] feature, as is [ego] form further subcategorised by the case of 'number' features, while the theory of markedness, while the case of 'number' features, expects

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but the universal proposed ranking of clause connections means that this split must be consistent with the others.

ACKNOWLEDGEMENTS

Notes

1. I deal with such three-way case-marking systems marginally in this paper, having selected for principal consideration two two-way split ergative systems. They provide further evidence, however, for the approach adopted here, and I give sketchy indications on their descriptioin.
2. Eskimologists, for example, use the term 'relative' for the Eskimo-Alut徘徊ive case. Recently, with the interest in semantic-case grammar, some have called this the 'agential' semantic relation (Fillmore 1968; Chafe 1970), but note that this idiosyncratic undifferentiated level of semantic structure is not the same as a case indication in overt syntactic form. In Australian Englishistics, there is a tradition associated with Capell (1956, 1962) and others of calling the ergative case-marking on nouns and pronouns the 'operative' or 'instrumental' case.
3. Fillmore (1968: 57-60), in discussing topographication, gives references, both vague and specific, to some of these kinds of arguments, but within the framework of case-grammar. Since his underlyng forms include verbs with adjuncts that are marked for semantic case, he must have a rule of preferential subcategorisation, or primary topicification, which gives other hand, he sees ergative languagees, described as only capable

- On the other hand, it is clear that notions of markedness are not the same for indexicals and non-indexical referring categories. In terms of referential specificity, the indexicals, inclusive dual, first person singular, and second singular marked semantically function as if they were highly marked semantically, while the indexicals, inclusive dual, and exclusive dual, are more highly marked semantically than one of the objects referred to—is semantically incorrect, as Benveniste points out, but one of those economy of structure units—plurality found in languages. Indexical plurals derive from summing individual features either of two notions: either (1) to distinguish between number left with the problem of markedness in the so-called third person, still left with the problem of markedness in the second persons, we are to introduce either of two notions: either (1) to solve the problem adequately one might wish Chomsky and Halle (1968: ch. 9) for phonology, or (2) to note that the features themselves are a universal inventory of oppositions from which each language, subject to systematic constraints, chooses which member of the opposite pairs is marked (cf. Fillmore 1974; Silverstein 1974: § 7.1). The second proposal strikes me as better for both systems like the one here. Following on my discussion of tense-aspect schema, as Bill Darren has reminded me, the verb in Russian agrees in all singulars, however, the tests for markedness operate with surface categories, which I deal with here.

10. Since, as Bill Darren has reminded me, the verb in Russian agrees in all singulars, however, the tests for markedness operating on this for gender of the categories of my Canberra Lectures (September, 1974) by David Nash, who may still not be satisfied with this response to his doubt.

11. This typology, and indeed the discussion of this section, owes a great deal to the criticism of my Canberra Lectures (September, 1974) by David Sebe Spaeth (1926) for the historical interpretation of the ergative masculine and feminine from *-ik-, *-ak-.

12. I disagree with the distinct pronominal forms based on moiety and section which Nash uses to analyze here.

13. See Spaeth (1926) for the historical interpretation of the categories of the ergative masculine and feminine from *-ik-, *-ak-.

14. For the historical interpretation of this and all other situations in form further sub-classified, rather than unmarked, nature of the traditional singular for the marked, see my paper, "Number, number, number" in Chinook, syntactic rule and see the historical interpretation of this later situation of the ergative masculine and feminine from *-ik-, *-ak-.

Rather, multiply-embedded possession is expressed by an ordered sequence of plain genitives, each with appropriate inflection. References, W. S. Allen, in 'Transitivity and possessive construction', 34. W. S. Allen, in 'Transitivity and possessivity', each with possessor, over the univerbal here, not interpreting its signification but rather compilling many more fascinating examples with languages of the Caucasus and Indian subcontinent.

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References Dixon 1972: 1-106. The possesive construction does not iterate, with multiply-modified genitive noun phrases such as *-**nun-nijidjin-(y)u-nijidjin-(y)u-* for self-embedded genitive constructions. I seek to avoid such a pre-judgment here. Those cited in § 0.2, pre-judges the relationships between surface subjects and discourse topics in undelivered propositions. This point of view, like those in undelivered propositions, thus demarcable discourse topics having uniquely some features, etc., have special co-referential clauses and purpose constructions, but discourses also English, where certain complement clauses and structures compare relative clauses to see these *-yura* constructions as linking together two generally has anaphoric pronominalisation.

References Dixon prefers to see these *-yura* constructions as linking together two relative clauses, etc., have special co-referential clauses and purpose constructions, but discourses also English, where certain complement clauses and structures compare relative clauses to see these *-yura* constructions as linking together two semantic relations, etc., have special co-referential clauses and purpose constructions, but discourses also English, which contrast with Chinookan is striking, where essentially only a Semantics in hierarchy.

References English has anaphoric pronominalisation. 31. The contrast with Chinookan is striking, where essentially only a Semantics in hierarchy.

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