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# Defined and Neutral Categories in Lexicogrammatical Patterns: The Motivated Alignment Hypothesis\*

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1 STRONG SEMANTIC ALIGNMENT. Any general account of natural language syntax must deal with the interface of thematic structure and syntactic representation. One hypothesis regarding thematic-syntactic linking is the Strong Semantic Alignment Hypothesis, which holds that the information present in thematic structure is sufficient to determine syntactic representations or range of potential syntactic representations. The Universal Alignment Hypothesis of Relational Grammar (Perlmutter and Postal 1984) is a theory-specific statement of Strong Semantic Alignment. This paper examines the structure of lexical split predicate systems, where the relevant predicates of a language are divided into classes but where the relationship between the classes appears to be partially semantically predictable, but not wholly so. For this study, only binary splits are considered. Two much-studied distinctions are chosen: SPLIT INTRANSITIVE and INVERSION systems.<sup>1</sup> The systems I am concerned with are not fluid predicate systems (in the sense of Dixon 1979), and they are relatively heavily lexicalized, more so than the Korean agentive and experiential constructions examined in Chun and Zubin (this volume) for example.

It should be noted at the outset that what I am considering here is a LAST RESORT ANALYSIS, in the sense that whether one holds that partial predictability exists or whether one rejects this, there is no way to prove partial predictability, other than the absence of a more revealing account, and the only strategy by which one might hypothesize that a phenomenon is partially but not fully predictable is by trying plausible predictive principles derived from the investigation of similar systems and determining that they don't work. It can never be ruled out in principle that a more revealing and predictable account of the phenomenon will not be forthcoming in the future. However, the main point I want to make is that even if the existence of only partially predictable systems must ultimately be accepted, the investigation presented here suggests that the relation among the categories in such a system is still highly constrained.

2 CLASSICAL CATEGORY SYSTEMS. Strong Semantic Alignment defines only classical categories as discussed in Lakoff 1987, since it explicitly assumes that the principles of thematic-grammatical mapping are PREDICTIVE, in that they specify a set of necessary and sufficient conditions for the classification of any given individual predicate. Some lexical categories in split predicate systems may be defined by necessary and sufficient conditions. For example, Van Valin (to appear) provides a characterization of split intransitivity in Italian auxiliary selection where it is claimed that all verbs whose lexical semantics contain a stative predicate select the auxiliary *essere* 'to be', while all other verbs select *avere* 'to have'. Thus, the presence of a stative

predicate in the lexical semantics of a verb provides a necessary and sufficient condition for the selection of *essere*, and the complement category selects *avere*. Other analyses of split predicate systems which may be consistent with Strong Semantic Alignment in the sense of being predictive are Grimshaw's 1989 analysis of the *frighten* class of psych predicates in English, Durie's 1987 analysis of split intransitives in Acehnese, and other split predicate systems examined in Van Valin (to appear). These are the kinds of systems that Strong Semantic Alignment would lead one to expect. Now, I'll turn to an examination of some systems which seem to be crucially different from these.

### 3 DEFINED AND NEUTRAL CATEGORY SYSTEMS

3.1 DAKOTA SPLIT INTRANSITIVES. In the Dakota split intransitive system, there is a closed category of intransitive predicates which take pronouns parallel to those of the subjects of transitive predicates -- using the terminology of Merlan 1985, these are the subject-inflecting predicates. All predicates in this category necessarily select animate subjects. There is no evidence that volitionality, controllability, or aspect, all properties associated with subject-oriented (unergative) intransitives, are defining properties of this class. Boas and Deloria 1941 list about 90 predicates and two classes of predicates which are in the subject-inflecting category. Sample predicates are given in (1).

- 1) DAKOTA SPLIT INTRANSITIVES: SUBJECT-INFLECTING PREDICATES  
(first person singular: *wa-*; second person singular: *ya-*)  
*wačí* 'dance', *psíča* 'jump', *mani* 'walk', *slohã* 'crawl', *ʔũ*  
'be (animate)', *pšá* 'sneeze', *ní* 'live, be alive', *ksápa* 'be  
wise', *thí* 'to dwell', *čéya* 'to weep', *léža* 'to urinate', *šičá-*  
*howàya* 'to groan with misery', *kažó* 'have diarrhea', *ȝópa*  
'snore', *niyá* 'to breathe', *núni* 'to lose one's way', *blo-*  
*káska* 'to hiccough', *káya* 'to choke on something', all verbs  
of coming and going, all verbs ending in *-pha*

The other, much larger, intransitive predicate category takes pronouns parallel to those functioning as objects of transitive predicates; this category places no selectional restriction on its subject and contains predicates which select animate subjects, predicates which select inanimate subjects, and predicates which allow either. Sample predicates from this class are given in (2).

- 2) DAKOTA SPLIT INTRANSITIVES: OBJECT-INFLECTING PREDICATES  
(first person singular: *ma-*; second person singular: *ni-*)  
*t'e* 'die', *c'ázé* 'be angry', *k<sup>h</sup>úža* 'to be ill', *bléza* 'to be sane',  
*č<sup>h</sup>epá* 'to be fat', *ilé* 'burn', *sut'ũ* 'bear fruit', *wášte* 'be

good', *sápa* 'to be black', *t<sup>h</sup>ãka* 'to be large', *smáha* 'to be deep (as a valley)', *ũká* 'to be in a horizontal position', etc.

In this system, animate subject selection is a property of all members of the subject-inflecting predicate category and thus is a necessary condition on category membership, but it fails as a sufficient condition, since the object-inflecting category of the system also contains predicates which select animate subjects.

3.2 CHOCTAW SPLIT INTRANSITIVES. A similar structure of split intransitives is found in Choctaw (Muskogean), as analyzed in Davies 1986. Davies claims that members of the object-inflecting class of intransitive predicates all refer to events in which the single participant is nonvolitional; there is no selection restriction for animate subjects (Davies, p.c.). A sample of these predicates is given in (3).

- 3) CHOCTAW OBJECT-INFLECTING INTRANSITIVES (Davies 1984, 35)  
*hohchafo* 'hungry', *cha:ha* 'tall', *abi:ka* 'sick', *kapassa* 'cold',  
*basha* 'cut', *sipokni* 'old', *kobafa* 'break', *hottopa* 'hurt',  
*iaksha* 'sweat', *albasha* 'suffer', *hohfaya* 'ashamed', *yoshoba*  
'lost'

Members of the subject-inflecting class may be volitional or nonvolitional; it includes volitional predicates such as *ĩpa* 'eat', *washoha* 'play', *hilha* 'dance', *toksali* 'work', as well as nonvolitional predicates such as *illi* 'die', *ata* 'be/exist', most other existential predicates, and 'posture verbs' like *binili* 'sit', *hikiya* 'stand', and *itola* 'lie', among others. Just as in Dakota split intransitives, then, one class is semantically characterized but the other is not its complement, so that the property of selecting a nonvolitional participant is a necessary but not sufficient condition for membership in the object-inflecting category. This is a typical pattern among the split intransitive systems investigated in Merlan (1985); other systems which seem to be of this type include Seneca (Iroquoian), Arikara (Caddoan), and Eastern Pomo (Hokan).

#### 4 INVERSION PREDICATES

4.1 SPANISH INVERSION PREDICATES. Examples parallel to these can be found in split transitive systems. A familiar example of this is so-called INVERSION predicates of Relational Grammar,<sup>2</sup> where a thematically salient noun phrase which is often characterized as an Experiencer is associated with a morphosyntax elsewhere associated with a Recipient in ditransitive clauses.<sup>3</sup> For example, Spanish has a class of predicates which encode experiencers with dative morphology in that they are manifested either as clitic pronouns from the dative series or as a noun phrase or tonic pronoun marked with the preposition *a* and crossreferenced by a dative clitic. A list of representative predicates from the inversion category in Spanish is given in (4).

## 4) SPANISH INVERSION PREDICATES

*gustar* 'to like', *parecer* 'to seem', *faltar* 'to be wanting, to lack', *hacer falta* 'to lack', *doler* 'to hurt', *encantar* 'to enchant, delight', *convenir* 'to agree, suit', *bastar* 'to be enough', *interesar* 'to interest', *ocurrir* 'to happen (to)', *importar* 'to be of concern', *impresionar* 'to impress, affect', *divertir* 'to entertain', *ofender* 'to offend', *sobrar* 'to have too much', *molestar* 'to bother', *disgustar* 'to disgust'

Spanish inversion predicates are restricted to expressions of physical or mental states; they can all be characterized as nonvolitional, and typically or exclusively selecting an animate subject in the role of Experiencer. However, we find predicates with the same semantic characterization in the class of predicates which do not have inversion morphosyntax. For example, many physical or mental states are expressed as statives with the copular verbs *ser* or *estar* and the Experiencer showing nominative morphosyntax and syntactic subject properties; some physical states are expressed with possessive morphosyntax using the verb *tener* 'to have', which again aligns the Experiencer with nominative morphosyntax and syntactic subject. Also, we find verbal predicates expressing physical or mental states with the Experiencer manifested as having nominative morphosyntax. These are illustrated in (5).

## 5) SPANISH PREDICATES WITH NOMINATIVE MORPHOSYNTAX

*odiar* 'to hate, dislike', *sentir* 'to feel', *amar* 'to love', *querer* 'to like, want, love', *temer* 'to fear, be afraid of', *creer* 'to believe', *dudar* 'to doubt', *esperar* 'to hope', *entender* 'to understand', *sufrir* 'to suffer', *estar contento* 'to be happy', *estar triste* 'to be sad', *ser loco* 'to be crazy', *ser inteligente* 'to be intelligent', *tener hambre* 'to be hungry', *tener frío* 'to be cold', *tener sueño* 'to be sleepy', etc.

The category associated with nominative morphosyntax and typified by the active transitive construction thus contains members with the defining properties of the inversion class, as well as other members without those defining properties, such as volitional predicates (*comer* 'to eat', *cantar* 'to sing', *tocar* 'to play an instrument', *escribir* 'to write', *escuchar* 'to listen', *comprar* 'to buy', *traer*, 'to bring', etc.), predicates which typically select or allow inanimate participants (*ser viejo* 'to be old', *crecer* 'to grow',

*emitir* 'to emit', *destruir* 'to destroy', etc.). Thus, the properties of affectedness, nonvolition, and typical animacy of subject are necessary but not sufficient properties of the defined category of Spanish inversion predicates.

4.2 MALAYALAM INVERSION PREDICATES. There is also an inversion class of transitive predicates in Malayalam (Dravidian). It is characterized in Mohanan and Mohanan (to appear) as consisting of predicates with Experiencer subjects. A representative set of predicates from the inversion class is given in (6).

6) MALAYALAM INVERSION PREDICATES (Abrahams 1976)

*iṣṭapeṭuka* 'like', *eriyuka* 'experience hot taste', *kaaṭuka* 'experience itching sensation (throat)', *kaḷaykkuka* 'experience pain', *kuḷiruka* 'feel pain', *taḷaruka* 'be fatigued', *daahikkuka* 'experience thirst', *piṭikkuka* 'like', *boodhikkuka* 'approve', *rasikkuka* 'enjoy', *toorṇuka* 'feel', *naṣṭapeṭuka* 'lose', *nanassilaakkuka* 'understand', *labhikkuka* 'get', *okkuka* 'be able to', etc.

In their discussions of these predicates, however, Mohanan and Mohanan note that not all verbs having Experiencer subjects appear in the inversion class. Rather, a number of them appear in the category which has nominative morphosyntax and where the NP denoting the Experiencer shows subject properties. A few examples of such predicates are given in (7). This class also includes a range of other predicate-types, including predicates corresponding to 'serve', 'work', and 'give', along with other agentive predicates.

7) MALAYALAM AFFECTIVE PREDICATES IN ACTIVE TRANSITIVE CLASS (Mohanan and Mohanan, 25; Abrahams 1976, 122)

*ṭalarṇṇu* 'got tired', *saṅṭooṣiccu* 'was happy', *ḍukk<sup>h</sup>iccu* 'was sad', *b<sup>h</sup>ayappeṭṭu* 'feared/was afraid', *koopiccu* 'became angry', *ṇaṭunni* 'was shocked', *amparaṇṇu* 'perplexed'

Mohanan and Mohanan represent the difference between the predicates in (6) and those in (7) as a thematic structure difference, in that in the lexical representation of those in (6), the subject is Experiencer-Goal, while in (7), the subject is Experiencer-Theme. Given that both conceptualizations of the relation between an Experiencer and a state (state coming to Experiencer with Experiencer-Goal and Experiencer in state with Experiencer-Theme) are lexicalized in Malayalam, it isn't obvious that one can predict on the basis of the predicate itself which conceptualization will be lexicalized for which predicate. I would tentatively classify this predicate class system like the others examined here, in that it consists of a semantically specifiable class of predicates whose Experiencer subjects are associated with dative

morphosyntax and a neutral class of predicates whose subjects are associated with nominative morphosyntax. Other languages which appear to have a similar relation between a relatively small lexical category of semantically specifiable inversion predicates and a relatively large semantically heterogeneous category of predicates with nominative/accusative morphosyntax include Udi (Harris 1984a), and Choctaw (Davies 1986).

5 THE ARCHITECTURE OF DEFINED/NEUTRAL SYSTEMS. What these examples seem to show is that there may be a number of cases where the members of one category in a split predicate system can be said to share some semantic property or to have one property or more out of a set of properties which recur in their association with this set cross-linguistically, such as animacy, non-volitionality, affectedness, etc. In these systems, it seems that one category is semantically coherent in the sense that all members have a property or properties which they share with other set members, but the other category has both members which have and members which lack the defining property or properties of what I will call the DEFINED CATEGORY, and thus the second category is not semantically coherent. I'll call this category the NEUTRAL CATEGORY. A comparison of the relations between categories in a classical system, which I'll refer to as a DETERMINED system, and categories in a defined system is shown in (8) and (9).

8) STRUCTURE OF DETERMINED CATEGORY SYSTEMS

DETERMINED CATEGORY	COMPLEMENT CATEGORY
Necessary and sufficient conditions stated in terms of a set of properties	Necessary and sufficient conditions stated in terms of the absence of the properties of the determined category

9) STRUCTURE OF DEFINED CATEGORY SYSTEMS

DEFINED CATEGORY	NEUTRAL CATEGORY
Necessary conditions stated in terms of a set of properties	Members with and without the properties of the defined (=sufficient condition: absence of properties of the defined category)

6 FLUID PREDICATES. Another phenomenon often associated with split predicate systems and which sometimes presents a problem to Strong Semantic Alignment is the existence of a subset of predicates which can appear with the diagnostic morphosyntax of either category, with a concomitant semantic contrast.

6.1 MALAYALAM INVERSION CONSTRUCTIONS. In the case of Malayalam, there is a class of fluid predicates which appear in both the inversion and neutral patterns, as illustrated in (10-12).

- 10) a *enikkə piṭiccu* 'I liked' (Abraham 1976, 133)  
 1-dat liked  
 b *naan piṭiccu* 'I held'  
 1-nom liked
- 11) a *enikkə coṟiñṅū* 'I itched' (Abraham 1976, 133)  
 1-dat exper. itching  
 b *naan coṟiñṅū* 'I scratched'  
 1-nom exper. itching
- 12) a *enikkə uraṅgaam* 'I have permission to sleep'  
 1-dat sleep-MODALITY<sup>4</sup> (Mohanan 1982, 541)  
 b *naan uraṅgaam* 'I promise to sleep'  
 1-nom sleep-MODALITY

The generalization proposed in Mohanan and Mohanan for a more restricted range of dative subject constructions<sup>5</sup> would seem to work predictively here, in that Experiencer-Goal is a plausible thematic characterization of the subject in the *a* sentences, while in the *b* sentences, some role other than Goal is associated with Experiencer, perhaps Effector. In Malayalam, then, the fluid predicates have an explicit semantic contrast while there is no contrast as such between the defined and neutral categories. The alignment between them is motivated: put simply, given the semantic contrast in fluid predicates of this type and given the semantics of the defined category, only one possible alignment between the semantically contrasting pairs of items and the polarity established by the defined category is consistent, as shown in (13).

13) MALAYALAM FLUID PREDICATE ALIGNMENT

category contrast:	Experiencer-Goal (DEFINED)	unspecified (NEUTRAL)
fluid predicate contrast:	Experiencer-Goal	Experiencer-Effector

6.2 CHOCTAW FLUID INTRANSITIVES. A fluid predicate pattern also exists in the split intransitive system of Choctaw, discussed above. Some predicates are fluid between subject-inflection and object-inflection, as illustrated by the examples in (14) and (15).

- 14) CHOCTAW FLUID PREDICATES (Davies 1984, 36)
- a *sa - ttola - tok* 'I fell'  
 1ACC fall PAST
- b *ittola - li - tok* 'I fell (on purpose)'  
 fall 1NOM PAST

- 15) a *sa - habishko - h* 'I sneezed'  
 1ACC sneeze PRED  
 b *habishko - li - h* 'I sneezed (on purpose)'  
 sneeze 1NOM PRED

Here, the contrast is again between volitional and nonvolitional participation on the part of the subject. This is a more specific semantics than that of the defined and neutral categories, because although all members of the defined category of object-inflecting predicates share the property of selecting a nonvolitional subject, the neutral category is not uniquely characterized as selecting a volitional subject. Once more, however, in spite of the discorrelation between the category system architecture and the contrastive use of its associated morphosyntax, the relation between the categories and the fluid cases is motivated, in that the only consistent alignment would be that represented in (16).<sup>6</sup>

16) **CHOCTAW FLUID PREDICATE ALIGNMENT**

lexical category contrast:	volitional (DEFINED)	unspecified (NEUTRAL)
fluid predicate contrast:	volitional	nonvolitional

7 DAKOTA SECONDARY CATEGORY SYSTEMS. Dakota has no set of nonderived fluid predicates in its split intransitive system. However, there are forms derived by reduplication from a subset of the stems in the object-inflecting category (the neutral category in the Dakota system). These can take either the stress pattern typical of reduplicated object-inflecting verbs (second-duplicate stress) or of reduplicated subject-inflecting verbs (first-duplicate stress). Boas and Deloria 1941 list 18 pairs of this type; some representative examples of this are given in (17).

16) **NEUTRAL CATEGORY STRESS**

- a xopxópa  
 'to be goodlooking'  
 b pispíza  
 'ability to whistle or squeal'  
 c snasná  
 'possess a metallic, tinkling  
 quality'  
 d snísní  
 'to be cold to the touch'

**DEFINED CATEGORY STRESS**

- xópxopa  
 'to pose, try to appear at one's  
 best'  
 píspiza  
 'he whistles or squeals'  
 snásna  
 'give off a metallic, tinkling  
 sound'  
 snísní iyáya  
 'he turns cold'

e	snisníʒa	sníʒnís
	'to be in a collapsed state'	'gradually collapsing'
f	šnišniʒa	šnišniš áyapi
	'to be in a faded, wilted cond.'	'they are getting faded'

Merlan discusses this set of contrasts and claims that the derived forms show a volitional distinction, apparently on the basis of examples like (16)a and b. However, a closer examination of the set of forms given in Boas and Deloria show that many of the derived forms with the stress pattern typical of derivation from the defined category allow or select inanimate subjects, indicating that the contrast is actually between a state and a process (e.g. ability to squeal vs. emitting a squeal, being collapsed vs. becoming collapsed, etc.).

Pronominal prefixes of the Dakota possessive paradigm used for inalienable possession are also taken from the object-inflecting verbal paradigm (the neutral category), so that the second person possessive pronoun is invariably *ni-*. However, the body part lexicon divides into two classes with respect to the selection of the first person singular pronoun. The larger class (by a ratio of about 2:1) takes the first person object-inflecting form *ma-*, while the smaller class takes the prefix *mi-* which is not found in the verbal paradigm. Boas and Deloria (1941, 127) claim that the *mi-* prefix is used with body parts which are conceived of as 'particularly subject to willpower'. On this basis Merlan 1985 claims that the split in the body part lexicon is based on potential possessor control, with *mi-* used for body parts subject to control and *ma-* for all others. Thus, for example, *mit'áč'ă* 'my body' can be quite naturally viewed as controllable relative to *mahúhu* 'my bone' or *mawé* 'my blood'. However, if this system is viewed as a determined system, there are a number of apparent anomalies, as can be seen from the sample list in (17).

17) DAKOTA INALIENABLE POSSESSION (Boas and Deloria 1941, 128)

a	místo	mač'éca
	'my arm'	'my leg'
b	minápe	mašášte
	'my hand'	'my little finger'
c	minūye	map'ásu
	'my ear'	'my nose'
d	mič'áte	map'é
	'my heart'	'my liver'

We would have to assume that this categorization is heavily culture-specific so that, for example, some sensory organs such as 'ear' are viewed as more

controllable and others such as 'nose' are less so, that some internal organs such as 'heart' are viewed as more controllable and some such as 'liver' are less so, that 'arms' are more controllable than 'legs', that 'hands' are more controllable than 'fingers', etc. I don't deny the legitimacy of culture-specific criteria for category membership, but I think such an account would overstate the role of culture in this particular category system. I would claim, rather, that the only category whose membership needs to be accounted for is the *mi*-prefixing category and that the defining property is high perceived controllability. On the other hand, the *ma*- prefixing category needs no semantic or cultural explanation -- if it is viewed as a neutral category. Three body part terms are listed under both the *ma*- and the *mi*- prefixes. These are *mifte* 'my facial expression' vs. *maite* 'my face', *misí/masí* 'my foot', and *mihó/mahó* 'my voice'; only the first of these is given a translation which clearly indicates the semantic distinction, but from the description, I will assume that the same kind of contrast is present in all three, and that that contrast is controllability vs. noncontrollability. The alignment between the lexical category system of Dakota split predicates, the semantic contrast of the derived fluid predicates, the body part possessives and the fluid body parts is given in (18).

18) DAKOTA CATEGORY ALIGNMENT

category distinction:	selects animate subject (DEFINED)	no subject selection restriction (NEUTRAL)
fluid predicate contrast:	process	state
inalienable possession:	controllable	no implication of control
fluid body parts:	controllable	noncontrollable

The semantic connection between the necessary property of the split intransitive defined category and the other secondary contrasts is somewhat less direct than in the cases of Choctaw and Malayalam examined above. Nonetheless, there is still a very natural relationship, if one assumes a typical connection between animacy and potential control and between potential control and process initiation. I don't think that any linguist would fail a matching test if asked to align the split predicate category system with the other systems. It is not surprising that the alignment relationship may be less direct in such a case, because the morphosyntactic relationship is also less direct, mediated either by derivational processes in the case of the fluid derived intransitives or by the contrasts of a distinct bound pronominal paradigm with only a partial form correspondence to markers of the split intransitive paradigm.

9 MOTIVATED ALIGNMENT. To summarize, while there may be some split predicate systems which are compatible with Strong Semantic Alignment, there seems to be a significant set of others which are not, but which nonetheless show a specifiable architecture. We can still impose strong and plausible conditions on category systems, stated in terms of the architecture of DEFINED/NEUTRAL systems as represented in (9). Although the systems explored here have been essentially binary, and the properties of the defined categories have been semantic, I will state Motivated Lexical Category Alignment somewhat more generally, as in (19).<sup>7</sup> (20) states a condition on the relationship between a lexical category system and its associated fluid system.

19) MOTIVATED LEXICAL CATEGORY ALIGNMENT

For a set of categories, all but one is defined. Defined categories are motivated in the sense that they are defined by a set of properties such that all members necessarily share one or more of those properties.

20) MOTIVATED FLUID ALIGNMENT

The relationship between defined and neutral categories in a lexical category system and the semantic contrast(s) in a corresponding fluid system is motivated.

If fluid elements are considered ambicategorical rather than members of an independent, unrestricted category, then the structural relation between the lexical category architecture and the fluid elements follows directly from the assumption that fluid elements, being ambicategorical, are members of the defined category and therefore share the necessary properties of that category. This provides a strong limiting condition on the relationship between lexical category systems and fluid predicate systems in that it anchors the fluid predicate contrast to the semantics of the defined category and leaves the contrasting category free to assume the complement value (though there is no reason that it must do so -- I leave this issue open). The Dakota secondary contrasts based on the split intransitives do not violate this, since they represent separate and more distantly related systems. The relationship, then, between the DEFINED/NEUTRAL lexical system and its corresponding fluid systems seems to be that the fluid systems more closely approximate the structure of a DETERMINED/COMPLEMENT system.

I hope to have shown here that there is a significant and highly constrained external architecture to the categories in lexical category systems which are not determined systems. This aspect of the category architecture of the lexicon is not autonomous but can only be fully understood when an account of this architecture is integrated into a more comprehensive account of the use to which these category distinctions are put in the expression of meaning. An examination of fluid elements and secondary contrast systems gives insight into how these categories function as a support structure for semantic contrast.

## NOTES

\*I am grateful to Bill Davies for clarifying aspects of his analysis of Choctaw for me and to K.P. Mohanan for an enlightening discussion of Malayalam and the nature of predictability; all interpretations are my own. I want to thank Marshall Lewis, whose careful reading of a draft of this paper and helpful discussions on this topic have led to significant improvements.

<sup>1</sup> I won't be concerned with the internal structure of categories, although I will make the assumption that categories do have significant internal structure of the type examined by George Lakoff (1987) and others.

<sup>2</sup> I don't attempt here to distinguish between systems where the inverted NP has significant subject properties and where it does not.

<sup>3</sup> Inversion predicates cross-linguistically belong to one or more related semantic types (Harris 1984b, Sridhar 1976), including physical states: be cold, be tired, be thirsty, etc.; mental states: be amused, like, hate, understand, believe, etc.; modality: necessity, potential, etc., possession, and existence.

<sup>4</sup> Note that in (14) it is not the predicate meaning 'sleep' which is fluid; rather, it is the modality suffix *-aam* which is the fluid predicate, and it is the contrastive modalities expressed by the English glosses 'permission' and 'promise' which show the semantic pattern of contrast.

<sup>5</sup> K.P. Mohanan has informed me (p.c.) that a more comprehensive account of dative constructions based on the preliminary semantic analysis of Mohanan and Mohanan (to appear) is in their future research program.

<sup>6</sup> In at least some split predicate systems, the specific semantics of the fluid predicate contrast may also be motivated in part by the internal structure of the neutral category. In all cases that I know of which involve split transitive systems with inversion, the neutral category contains predicates denoting all or most prototypical transitive event types (along the lines specified in Hopper and Thompson 1980, for example). Under the assumption that the prototypical transitive event type involves a volitional actor, it isn't surprising to find an alignment between the neutral category and volitionality.

<sup>7</sup> A preliminary exploration of a wider range of lexical categories in predicate systems as well as a wider range of structures in the languages examined here seems to indicate that the more general statement referring to category systems more complex than binary systems is warranted. The assumption that form similarity is one of the principles of internal category organization justifies the lack of restriction to semantically defined properties.

## REFERENCES

- Abrahams, P.T. 1976. Pseudo-datives in Malayalam. In *Dravidian Case System*, S. Agesthalingom and K. Kushalappa Gowda, eds., 121-136. Annamalaingar: Annamalai University.

- Boas, Franz and E. Deloria. 1941. *Dakota Grammar*. Memoirs of the National Academy of Sciences, Vol. 23, Second Memoir. Washington, D.C.
- Chun, Soon Ae, and David A. Zubin. This Volume. Experiential vs. agentive constructions in Korean narrative.
- Davies, William. 1986. *Choctaw Verb Agreement and Universal Grammar*. Dordrecht: D. Reidel.
- Dixon, R.M.W. 1979. Ergativity. *Language* 55:59-138.
- Durie, Mark. 1987. Grammatical relations in Acehnese. *Studies in Language* 11:365-399.
- Grimshaw, Jane. 1989. *Argument Structure*. Brandeis University ms.
- Harris, Alice. 1984a. Case marking, verb agreement, and inversion in Udi. In Perlmutter and Rosen, eds., pp. 243-258.
- \_\_\_\_\_. 1984b. Inversion as a rule of universal grammar: Georgian evidence. In Perlmutter and Rosen, eds., pp. 259-291.
- Hopper, P. and S. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56:251-299.
- Lakoff, George. 1987. *Women, Fire and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
- Merlan, Francesca. 1985. Split intransitivity. In J. Nichols and A. Woodbury, eds., *Grammar Inside and Outside the Clause*, pp. 324-362. Cambridge: Cambridge University Press.
- Mohanan, K.P. 1982. Grammatical relations and clause structure in Malayalam. In Joan Bresnan and R. Kaplan, eds., *The Mental Representation of Grammatical Relations*, pp. 504-589. Cambridge, Mass.: The MIT Press.
- \_\_\_\_\_. and Tara Mohanan. To appear. Dative subjects in Malayalam: Semantic information in syntax. In K.P. Mohanan and M. Verma, eds., *Experiencer Subject in South Asian Languages*, CSLI.
- Perlmutter, David and Paul Postal. 1984. The 1-advancement exclusiveness law. In Perlmutter and Rosen, eds., pp. 81-125.
- \_\_\_\_\_. and Carol Rosen, eds. 1984. *Studies in Relational Grammar 2*. Chicago: University of Chicago Press.
- Rosen, Carol. 1984. The interface between semantic roles and initial grammatical relations. In Perlmutter and Rosen, eds., pp. 38-77.
- Schwartz, Linda. To appear. On the syntactic and semantic alignment of attributive and identificational constructions. In *Advances in Role and Reference Grammar*, R. Van Valin, Jr., ed. Amsterdam: John Benjamins.
- Sridhar, S.N. 1976. Dative subjects. In *Papers from the Twelfth Regional Meeting of the Chicago Linguistic Society*, 582-593. Chicago: University of Chicago Press.
- Van Valin, Jr., Robert. To appear. Semantic parameters in split intransitivity. *Language*.