Fluid intransitivity in Middle Welsh: Gradience, typology and 'unaccusativity’

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Abstract

Welsh philologists have long noted that non-finite clauses headed by a verbal noun display considerable variation in the marking of the notional subject of intransitive verbs. This argument is sometimes marked like a transitive agent, sometimes like a transitive object. This paper demonstrates that two systems of independent variables, the intrinsic denotational content of the intransitive subject NP and the aktionsart and control characteristics of the lexical verb, serve to constrain this variation to only a small residue. These variables are shown to be articulated one to another hierarchically, rather than paradigmatically. The resulting case-marking system is thus typologically a 'fluid' rather than 'split' intransitive system in the terminology of Dixon (1979). It is argued that the particular case-marking model employed ('the coding view') allows partially variable 'fluid' systems like the one described here to be compared extensionally (rather than intensionally) with other partially variable 'fluid' and categorical 'split' systems (including Tsonga-Tshu and Georgian, respectively). A particular approach to the theory and typology of grammatical variation in case-marking systems is advocated in terms of this model. It is further argued that the proposed typological distinction between 'split' and 'fluid' intransitivity is nothing other than a more general, orthogonal variable of 'categorical' versus 'partially variable' case-marking splits readily observable in other case-marking domains and not specific to intransitive subject case-marking.

1. Introduction

Welsh philologists have long noted that Middle Welsh has a method of marking notional subjects in non-finite verbal-nominal clauses that is peculiar from the standpoint of finite clause marking (which is nominative-accusative) in that it allows con-
siderable variation in the marking of intransitive subjects (Lewis, 1928: 183ff.; Morgan, 1938: 195ff.; Richards, 1949: 51–53; Williams, 1980). As these scholars point out, intransitive subjects (henceforth S) are sometimes marked like transitive subjects (A-marking), sometimes like transitive objects (O-marking). This pattern is found from the earliest texts (Evans and Bromwich, 1988: xxv) to the early modern Welsh period. Morgan (1938: 196) sees A-marking of S arguments as a secondary development within Welsh, Richards (1949: 52) correctly points out that there is no evidence for this ‘sweeping generalization’ in the texts we have. However, the specific formal pattern used in A-marking in Middle Welsh is innovative within Celtic, and is not found in Cornish (Lewis, 1946: 53–54), Breton (Hemon, 1975: 264–270) or Old Irish (Thurmeysen, 1961: 444–445; Williams, 1980). The distributional pattern appears to be stable until it is supplanted by an entirely different formal case-marking pattern. This study is based on a comprehensive survey of verbal nominal case-marking from nine representative Middle Welsh texts, supplemented by published examples.¹

Middle Welsh non-finite clauses therefore display a system of intransitive case-marking that has been called ‘fluid intransitivity’ (Dixon, 1979, 1994). In contrast to more common ‘split intransitivity’ systems, which select case-marking in intransitives based on a once-and-for-all invariable partition of verbs into two classes (Dixon, 1979, 1994: 71ff.), fluid intransitivity allows case-marking to be a variable category potentially capable of making independent semantic contribution (ibid.). Fluid case-marking patterns for intransitives are claimed to be rare typologically, relative to split intransitive patterns (Dixon, 1979: 80).²

In this paper I will show that the Middle Welsh fluid system displays a complex conditioning involving two independent variables: (1) denotation of the subject NP (±Human), and (2) aktionsart and agency characteristics of the verb. Moreover, the

¹ The pattern is found unchanged in the oldest Welsh prose (such as Kallwch ac Olwen (KO) c. 1050–1100 (Bromwich and Evans, 1988)) through the Middle Welsh (MW) period, including all the texts cited here, especially Y Seint Greal (SG (Williams, 1876)) of the end of the 14th century, from which most of the data cited here derives. The formal opposition is continued into the Modern Welsh period (on which see Morgan, 1938), but I do not necessarily claim that the same distribution holds there. The data given here are derived from the above mentioned works, as well as a number of other MW works I have also considered. These are (with abbreviations and editions used and approximate date of composition) Pedair Keinc y Mabinogi (PKM, c.1225 (Williams, 1930)), Kyfranc Llud a Lleuelys (CLLL, c. 1200–50 (Williams, 1910)), Bredwyd Ronaithwy (BR, c. 1220–25 (Richards, 1948)), Ystorya Bown de Hamtown (YBH, c. 1250–75 (Watkin, 1958)), Chwedlew Odo (ChO, c. 1350–1400 (Williams, 1958)), Chwedlew Sheith Doethon Rufenis (ChSDR, c. 1350 (Lewis, 1958)), as well as various texts collected in the Elucidarium, also known as the Llyfr Agkyr Llandewiwrer (LIA, which includes texts dating anywhere from 1300–1500 (Morris-Jones and Rhys, 1894)). The generalizations here hold for all of these texts. Some data which I derive from Richards (1949) comes originally from The White Book Mabinogion (WM (Evans, 1907)), Welsh Medieval Law (WML (Wade-Evans, 1909)). Dates given are from Evans (1976); for the editions used see the bibliography. Numbers following the abbreviation refer to the page and line of the standard edition. Some examples have been culled from various texts published over the years in the Bulletin of the Board of Celtic Studies (BBCS) and these are cited by volume, page and line.

² The remarks in this paper are primarily based on Dixon (1979), since his most recent work on the subject (Dixon, 1994) came to my attention after this article was completed.
two independent variables invoked in the case-marking rule are not simply crossed paradigmatically (simultaneous multivariate coding) but are articulated one to another in a stepwise fashion, giving the case-marking system a 'local nature' (as O'Connor (1992: 235) has found for Northern Pomo): the value of A-marking or O-marking is locally determined, so that A- or O-marking encodes a rather different set of categories in transitives than in intransitives and so on. Unlike many theories of split/fluid intransitivity, it is not assumed aprioristically that similar surface-markings (A/-O-marking) are directly diagnostic of any underlying similarity in syntactic representation (Perlmutter, 1978; Rosen, 1984) or semantic representation (Van Valin, 1990), between transitive and intransitive predicates or arguments, or among intransitives. Since formal case-marking is, in this model (Silverstein, 1993a,b), a methodological dependent variable, whose value is arrived at by the interaction of independent variables, namely phrasally autonomous grammatical categories (such as NP denotation, etc.), similarity of formal categories (case-marking, our dependent variable) by itself leads to no necessary inferences about the similarity of grammatical categories (our independent variables) encoded by them in any two arbitrarily chosen languages.

In transitive non-finite clauses, transitive subjects (A) are marked with the preposition o 'from' (henceforth, A-marking), and transitive objects (O) are marked as simple adnominal genitives (henceforth, O-marking). This marking is mechanical, irrespective of the variables of that affect marking of intransitive subjects (S). The case-marking of intransitive subjects (S) is a dependent variable conditioned by two independent variables. (1) NP denotation: All intransitive predicate types take O-marking if the S NP is [+Human]. (2) Predicate aktionsart: roughly, activities take A-marking, states take O-marking, and achievements are fluid (A- or O-marking). These three independent variables are articulated in a stepwise fashion, such that predicate aktionsart only has relevance if NP denotation is [+Human], and NP denotation only has relevance if the verb is intransitive.

These three sets of independent variables applied serially still leave a residue of 'fluid' marking. While Dixon's original typological formulation of 'split' versus 'fluid' intransitive case-marking presumed an idealized dichotomy between completely determinate 'split' systems and completely indeterminate 'fluid' systems (Dixon, 1979, 1994), it is clear that all fluid case-marking systems have at least some categorical distributions, and therefore the distinction is a gradient one. Such 'variability within limits' is symptomatic of many case-marking systems, not merely intransitive split marking, but in the case of 'split' versus 'fluid' intransitivity it has been elevated to a typological principle (Dixon, 1979, 1994). I will argue that presence of orderly variation within a case-marking system ('fluidity') is orthogonal to the presence of 'split' inflection in intransitives. However, I hope to show that by establishing an independently motivated 'etic grid' of independent variables of nominal and verbal denotation, we can not only make diverse split intransitive systems comparable to one another, but also that the domain of variation in fluid systems, located between and anchored by 'poles of invariance' (Van Coetsem and Buccini, 1990: 178), will also prove comparable.
2. Transitive verb inflection

Before we turn to the consideration of case-marking in non-finite intransitive clauses, we must briefly consider the formal case-marking inventory found in non-finite transitive clauses in Middle Welsh. to facilitate formal recognition of the patterns found. Non-finite predications headed by transitive verbal nouns in Middle Welsh feature a case-marking pattern rather different from finite clause inflection (Evans, 1976: 161ff.; Richards, 1949: 51–52). Subjects of transitives (A) are marked with the preposition o ‘of, from’ (A-marking), and transitive objects (O) are marked on the same pattern as adnominal genitives (O-marking).³

(1) Non-finite transitive inflection:

\[
\begin{array}{c|c|c}
  \text{VN} & \text{A} & \text{O} \\
  \text{kymyrt [o Arthur] [y daryn eureit | SG.359]}
\end{array}
\]

Take from A. the shield golden
‘Arthur took the golden shield.’

If the transitive subject (A) is pronominal, the preposition o ‘of, from’ assumes an inflected form based on a partially suppletive root (\(o \rightarrow ohon-\) (also ohan- (Evans, 1976: 58–59))), illustrated in this partial paradigm (ohonafti) ‘from me’, ohonat(i) ‘from you (sg.)’, ohonaw ‘from him’):

(2) llad ohonafi y llew ef SG.273

‘I killed his lion.’

(3) llad ohonat y llew ef SG.267

‘You killed his lion.’

(4) llad ohonaw vy llew SG.273

‘He killed my lion.’

If the transitive object (O) is pronominal, it may be realized either as a ‘genitive’ pronominal proclitic to the VN (e.g. y ‘his’), as in (5), or an independent pronoun following the VN (e.g. uinneu ‘I’), as in (6) (exponents of O pronouns are given in bold, the A-marked phrase is given in square brackets). The genitive proclitic may only be absent if the agent phrase (ohnaw ynteu ‘from him’) separates the following genitive pronoun (uinneu ‘I, me’) from the verbal noun, as in (6) (note that both

³ One text, YBH (Watkin, 1958), has an additional form of A-marking which uses the preposition y ‘to’ and which I have not considered here (however on this see in particular Watkin (1958: 151–152), Richards (1949: 52)). The identity of this form of marking as ‘A-marking’ is secured by minimal pairs such as the following, where y ‘to’ (example (a)) alternates with o ‘from’ in coding the transitive subject (example (b)), with the verb agori ‘to open’ (see below, note 9):

(i) ... agori y safyn yr llew YBH.1926

‘The lion opened its mouth.’

(ii) ... agori y porth ohonunt hwynteu YBH.1179

‘They opened the gate.’
following pronouns in (6) (ynteu ‘he, him’, minneu, uinneu ‘I, me’) are conjunctive in form, contrasting with normal form ef ‘he, him’, mi, ui, i ‘I, me’, as in (8) below (Evans, 1976: 49ff.).

(5) rac y lad [ohonaf] SG.261
   ‘Lest I should kill him.’
(6) rac llad [ohonaw ynteu] uinneu SG.261
   ‘Lest he should kill me.’

Both the genitive proclitic (-e ‘her’, vyy ‘my’) and the following independent pronoun (hi ‘she, her’, i ‘I, me’) may co-occur, regardless of whether the agent phrase intervenes, as in (7), or follows, as in (8).

(7) ae lywyaw [o Lud] hi WM.191
   ‘And Lludd ruled it.’
(8) vyy gorderchu i [ohonaw ef ] WM.134
   ‘He wooed me.’

Since these two case-marking patterns cannot co-occur at the same time with the same intransitive verb, I will simplify formal exposition below by placing the intransitive argument in bold, however it is marked.

3. Parameters of intransitive verb inflection

Subjects of non-finite intransitive verbs (henceforth, S (following Dixon, 1979)) in Middle Welsh vary between the two marking patterns described above (A-marking and O-marking). That is, in these clauses, intransitive subjects (S) may be marked either with the pattern characteristic of transitive subjects (A, hence, A-marking) or that characteristic of transitive objects (O, hence, O-marking). Furthermore, some verbs, but apparently not all, may be marked with either pattern. The system therefore displays a case-marking pattern that Dixon (1979, 1994) called ‘fluid intransitivity’. Thus, for some verbs, such as kychwyn ‘to set out’, both case-marking patterns, A-marking (9A) and O-marking (9B), are possible:

(9) Kychwyn ‘to set out’
   (A) A gwedy kychwyn o Galaath SG.37
       ‘And after Galaath set out.’
   (B) Gwedy kychwyn Bwrt SG.95
       ‘After Bwrt set out.’

Clausal case-marking typologies are anchored formally by the realizations of the marking of A versus O arguments (see section 2 above), but determined as to alignment type by the realizations of intransitive subjects (S) (see Dixon, 1979, 1994; Harris, 1990a; Silverstein, 1976). Thus, if intransitive subjects (S) are treated as
transitive subjects (A), the alignment is nominative-accusative; if they are treated as transitive objects (O), the alignment is ergative-absolutive. If, however, there is a further split within intransitives, however determined, the system falls generally under the rubric of ‘active’ (see Harris, 1990a,b; Klimov, 1973) or ‘split intransitive’ (Dixon, 1979). Since the label ‘active’ is somewhat tendentious, as it implies the nature of the variable conditioning the distributional split, I will use the label ‘split intransitive’ for this alignment. Should the split in intransitive inflection be variable, such that, for at least some verbs, there is a possibility of either marking pattern, as here, the system is called ‘fluid intransitive’ (Dixon, 1979, 1994).

3.1. Previous accounts: The ‘unaccusative hypothesis’

Splits within intransitive case-marking have attracted a considerable amount of attention, and the attendant models and nomenclature for the phenomena has been equally prolific. One early formulation, known as the ‘unaccusative hypothesis’ (Perlmutter, 1978), sought to capture formal similarities between one class of intransitive verbs (‘unaccusatives’) and transitive objects, and another class of intransitive verbs (‘unergatives’) and transitive subjects, by an intermediate (syntactic) construct, namely, that ‘unaccusatives’ should be represented as deep structure or equivalent objects, and unergatives as deep structure subjects. This was proposed initially as a universal, potentially semantically motivated, divide relevant therefore even to those languages that showed no formal differentiation along these lines. Since the hypothesis of absolute predictability of formal class membership on the basis of semantic identity of predicate (the ‘universal alignment hypothesis’) turns out to be false (Rosen, 1984), it becomes ever more important to motivate these constructs (sc. ‘unaccusatives’, ‘unergatives’) in terms of the number of separate, disparate, formal phenomena they can account for: if a given syntactic construct (viz. unergative versus unaccusative underlying representation) is otherwise (e.g. semantically) unmotivated, then it must be shown that a number of distinct formal behaviors fall out from invoking this one construct (cf. Rosen (1984) on the ‘little alignment hypothesis’), otherwise we are merely hypothesizing our mystification and deferring explanation by an unmotivated diacritic. Attempts of this sort have also generally failed (see Van Valin, 1990; Zaenen, 1988, 1993; but see Levin and Rappaport, 1989; Levin and Rappaport Hovav, 1995, and references there), since however similar the distributions of the many claimed ‘unaccusative diagnostics’ (so-called by Levin and Rappaport, 1989) have been, there remain so-called ‘unaccusative mismatches’ (Levin, 1986), which often turn out to correlate better with various specifiable semantic parameters of the clause (Dowty, 1991; Van Valin, 1990; Zaenen, 1988, 1993).

If hypotheses centered on ill-fated purported semantic or syntactic parallels (or underlying identity) between subclasses of intransitive subjects and transitive subjects or objects have not fared well in accounting for this phenomenon (such as the literature in thematic roles (see Dowty, 1991, and references there)), other accounts (such as Dowty, 1991; Van Valin, 1990; Zaenen, 1988, 1993) have improved on them considerably by viewing distribution of case markings in split intransitive systems as being motivated by the intersection of a number of independent variables of
denotation and predication. Split intransitivity becomes, from this perspective, a set of distinct but possibly related phenomena, the relation between which typologically, and possibilities for universal alignments in, becomes not so much a matter for stipulation as for empirical research.4

3.2. Coding view

This can be done systematically by approaching the phenomenon of split intransitivity from what has been called the 'coding view' of grammar (Silverstein, 1993b). Under this view, formal case-marking is taken as a methodological dependent variable whose conditioning is describable in terms of the specifiable interaction of a number of methodological independent variables of reference and predication. Such a view has at least three components, each of which must be specified independently of the others: (1) the specific formal categories (e.g. case-markings, the dependent variables) must be described in their formal behavior independently of whatever specific coding structures they may be invoked in; (2) the independent variables of substantive grammatico-semantic content (grammatical categories) must be specifiable independently of their invocation in this or that coding structure in this or that language, that is, they constitute, it is claimed, a typological universal; (3) the coding structure, which stipulates the specific conditioning of systems of dependent variables by systems of independent variables, must be specified, including, in multivariate coding (where more than one set of independent variables is invoked in a single case-marking rule) the relation of systems of independent variables one to another (Silverstein, 1993b: 324–325).

In the case at hand, the dependent variable is merely the alternation between A and O-marking. Typological studies of other case-marking systems, including split intransitive systems, give us warrant for postulating a number of independent variables of NP and verbal denotational content which have been shown to condition sundry case-marking splits in this or that language. Some of these are:

(i) NP Denotation: “The inherent referential content of noun phrases, coded ‘locally’ in noun phrase categories, and organized by criteria of both pragmatic and semantic markedness into a feature space of categories of referring.” (Silverstein, 1981: 229)

(ii) Categories of verbal denotation: these are several, including:

(a) valence patterns and associated case-relations, such as transitive versus intransitive verbs (Silverstein, 1981: 230);

(b) clausal tense-aspect, which divides here finite clauses from the non-finite clauses of interest (Silverstein, 1981: 231);

(c) aktionsart (inherent lexical aspect), a number of studies (e.g. Van Valin, 1990; Zaenen, 1988, 1993), have found this to be an independent variable in a number of split intransitive systems;

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4 Levin and Rappaport Hovav (1995) (which represents the most recent and up-to-date attempt to reconcile the semantic parameters of unaccusativity with autonomous syntactic representation) came to my attention after the completion of this article and is not fully taken into consideration here.
(d) agency or control, the manner in which the denotation of the verb (gradiently) regiments the possibility of attribution of control or agency, has been found to be relevant in a number of studies (Holisky, 1987; McLendon, 1978; Thompson, 1985; Van Valin, 1990; Zaenen, 1988, 1993).

As the above mentioned studies make clear, these variables of nominal and verbal denotation and predication are capable of being invoked independently one from another in this or that case-marking system, and a fortiori, insofar as these variables define extensional spaces of potentially intensionalizable distinctions, the cut-off point within such a space relevant for any given case-marking rule may vary in this or that language. However, the bounded regions defined by such cut-off points are extensionally comparable in terms of the universally characterized space or hierarchy (Silverstein, 1993a).

3.3. Typological considerations and variation

While the exact relative distribution of any formal variable will vary vis-à-vis the above independent variables, these variables generate ‘etic grids’ in terms of which seemingly radically different case-marking systems can be compared, if not intensionally, at least extensionally, and typological constraints and expectations can be developed that have a high degree of robustness (for ‘intension’ (type level) and ‘extension’ (token level), see Lyons (1977: 158–161), for their employment here, see Silverstein (1981: 236-12, 1986: 502–503)). Universal constraints can be formulated in terms of these sorts of independent variables (and others) such that

"[t]he relationship of each language with the universal constraint is one of compatibility in general, placement on a scale in particular, and freedom to vary in any way not dictated by formal functional constraint .... " (Silverstein, 1993a: 471: original emphasis)

Thus, in the case at hand, we expect all languages displaying split intransitivity to code agentic activity verbs as part of the A-marking class minimally (Dowty, 1991; Van Valin, 1990). Such verbs form the ‘focus’ which anchors at least one end of the split intransitive continuum, precisely because of the way in which they conflate the independent variables of agency and aletic action type. Any A-marking group of intransitive verbs must contain at least these verbs, whatever other verbs they may contain. Thus, we do not expect the split between A-marking and O-marking to occur in the same place in each language along the cline or grid defined by these variables, and while the specific intensionalization of different systems (in terms of primarily coding aspectual classes or ‘agency’) will vary (Van Valin, 1990; Dowty, 1991), the extension of each case-marking class is rendered comparable and capable of being placed on a scale, so that the constraint can be stated as an implicational universal.

The theoretical utility of variable ‘fluid’ systems is that the scalability of biases of preference in case-marking within the fluid class, as well as the location of the domain of variability itself between categorical endpoints, gives us further information and detail as to the nature of the organization as a scale of the independent variable, whereas a split system would only give us one cut-off point:
"[T]he exceptionalities of a particular language can be understood in grammatical-categorial terms only where we take a comparative, indeed, universalizing perspective. Here, typological variability across languages becomes a framework, once formalized into a grammatical-categorial hypothesis, for understanding the gradient exceptionality and gradation of formal-categorial structure in a particular language." (Silverstein, 1993b: 331)

The above observations can be stated concretely as the following set of testable hypotheses. The very same places in a grammatical categorial hierarchy at the plus-or-minus value of some feature which can be shown to condition a categorial split in case-marking in this or that language, that is, looking cross-linguistically (i.e., for NP denotation, [±Proper], [±Human], [±Animate], etc.), will be the very same places within a (language-particular) gradient or variable system where there is an observable, quantizable, increase or decrease in statistical bias for this or that case-marking. Furthermore, just as case-markings cover continuous regions of a given space of such variables defined at the plus-or-minus value of some one feature, so too will the over-all relative statistical bias of formal case-markings in a ‘fluid’ system preserve this relative relation. We can observe in the biases of a single variable case-marking system replicated the categorical cut-off points of a large number of split systems. Lastly, the very domain of such variation will be located in a regular way between domains of invariance which contain ‘focal’ categories (which define ‘endpoints’ in denotational spaces the same way that cardinal vowels organize vowel systems), domains of variation and invariance each defining continuous regions related one to another in regular ways (see Van Coetsem and Buccini, 1990: 178). By hypothesis, we expect the ‘focal’ anchoring categories (such as agentive activities here) to display categorical A-marking if anything does.

Therefore, the central lessons of (variable) ‘fluid’ case-marking systems are much the same as (categorical) split systems. Both are describable in terms of the same extensional space of potential intensionalizations (‘etic grid’), but in different ways. ‘Split’ systems are more easily described, because their ‘emic’ (language internal) intensionalization corresponds exactly to (cross-linguistically) identifiable cut-off point in such an extensional ‘etic’ space. The intensional specification of ‘fluid’ systems is much more vexing, since we must decide whether to describe them in categorial terms (thus potentially missing fairly robust generalizations, which nevertheless are only tendencies (Mathesius, 1911)), or in sub-categorial terms, in which case we must decide how to specify extensional tendencies in intensional terms, and to what level of ‘delicacy’ this can be profitably carried out (Halliday, 1961: 258–259). If ‘fluid’ systems are to be described in categorial terms, it is generally as a mere overlap between two categorial distributions, and the resulting intensionalization is based either on the ‘core’ extension (that extension which does not overlap with some other distribution, using some notion of a ‘prototype’-plus probabilistic fadeout intensional structure” (Silverstein, 1986: 503)) or the ‘peripheral’ extension (the entire extension, overlapping and non-overlapping).

As we increase the delicacy of our generalizations, we move from easily intensionalized generalizations of the ‘either/or’ variety to more intractable ones of the ‘more/less’ variety, and begin to speak of ‘preferences’, ‘markedness’, and so forth, until we finally reach the extensional bedrock of absolute statistical biases (Halliday,
1961: 258). My purpose here is not to determine once and for all the best possible solution to this much vexed problem, as to whether extensional biases have any relevance to an intensional ‘grammar’, and if so, to what precise degree. Rather, all that matters here is that the sub-categorical biases, whether stated as ‘more or less’ preferences or fine-grained statistical regularities, maintain the same relative disposition in the same universal ‘space’ of grammatical categories. The hypothesis is one of relative scalability, not absolute enumerability; of typological extensional comparability, not language internal intensionalizability. For our purposes, it is equally revealing that fluid marking is nestled between categorical poles of split marking in such an etic space, as it is that sub-categorical biases within the fluid marking itself are scalable in terms of the same etic space (for a diachronic application of this approach to a rather different set of data, see Manning, forthcoming). The problem for split and fluid intransitivity in this regard is that we have not fully specified the dimensions of the space of possibilities in which these can vary. To this I now turn.

3.4. NP Denotation

The intrinsic denotational content of NPs, coded lexically in the head (N), has been found generally to be implicated as an independent variable in a number of case-marking splits (Silverstein, 1976. 1993a,b), having been found relevant to case-marking splits in the core arguments (‘split ergativity’ (Silverstein, 1976), splits in objective marking (Comrie, 1979)) and the peripheral ‘locative’ arguments as well (Manning, 1994). While the majority of all analyses of ‘split intransitivity’ (from Perlmutter (1978) and Dixon (1979) on) assume that splits in intransitive inflection (whether to be considered universal or parochial) are determined primarily by aspects of predicate semantics (either aktionsart properties or ‘control’ (Van Valin, 1990)), O’Connor (1992: 197ff.) has found a certain relevance for NP denotation in Split intransitivity in Pomo, such that the primary ‘fluid’ alternations are limited to [+Human] NPs, and none at all essentially for [−Animate] ones. We find a similar situation in Middle Welsh, where we find that NP subjects of intransitives denoting non-humans can only take O-marking, and ‘fluid’ alternations are limited to NPs denoting humans. This leads us to our first concrete generalization:

[−Human] Subjects of intransitive verbal nouns (S) are O-marked.

This condition applies only to intransitive subjects (S), and not transitive subjects (A), which are A-marked regardless of inherent lexical content of the A NP. Compare the following transitive VN clauses: regardless of inherent denotational content, A NPs are always A-marked ([pp o ___]), whether [+Human] (10) or [±Human] (11):

(10) Iad o Dauyd y kawr Lia 27.24
    ‘David killed the giant.’
(11) Ilad o Iwdyn y llall WML 108.18
    ‘(An) animal killed the other (one)’
Therefore, NP denotation only has relevance for S arguments (subjects of intransitives), and not for A arguments (subjects of transitives). Within the class of intransitives, anticipating further results, we find a number of subclasses depending on their case-marking possibilities with [+Human] S NPs. Verbs within each subclass behave in the same manner with respect to the independent variable of NP denotation: all [+Human] subjects of intransitives are O-marked, regardless of how [+Human] subjects can be marked with the same verbs.5

(1) The first class are those verbs, such as ymlad ‘to fight’ and ymchoelut ‘to (re)turn’, which are found uniformly A-marked with [+Human] subjects, and these uniformly show O-marking with [+Human] subjects. The A examples have [+Human] subjects and are A-marked, the B examples are [+Human] subjects and are O-marked:

(12) Ymlad ‘to fight’

(A) ymlad ohonafi dros vym baryf SG.254
   ‘I fought for my beard.’
(B) achan eu ymlad ChSDR.149
   ‘While they (two animals) fought’

(13) Ymchoelut ‘to (re)turn’

(A) ymchoelut ohonafi drachefyn SG.254
   ‘I turned back.’
(B) ymchoelut y crut a’e wyneb y waeret ChSDR.150
   ‘The crib turned upside down.’

(2) The second class is a class of verbs which may have either A-or-O-marking with [+Human] subjects, but once again shows only O-marking with [+Human] subjects. This class includes a large number of teic intransitives, such as pellau ‘to draw away’, syrthynw ‘to fall’, kyoedi ‘to rise’, kyuaruo ‘to meet, encounter’, as well as mynet ‘to go’ and dyuo ‘to come’. The ‘A’ examples have [+Human] subjects and either A (A) or O (A’) marking, while the ‘B’ examples once again are [+Human] and have only O-marking:

(14) Pellau ‘to go far’

(A) a gwed dyauell ohonunt SG. 95
   ‘And when they had gone far.’

5 The single exception is that the verb dyguor ‘to rise up, surge, muster’ takes A-marking both with human subjects ((a) below) and with non-human subjects ((b) below). The example I have found ((b)), however, is in a NP denoting a meteorological phenomena (gynt ‘wind’, glaw ‘rain’). Such subjects tend to behave agentively with verbs denoting cognate phenomena in a number of such systems although they are inanimate (Merlan, 1985: 350ff.).

(i) a dyguor o lu mawr BR.6.9
   ‘And a great host surged.’
(ii) nachaf dyguor o wynt a glaw BR.3.7
   ‘Behold wind and rain surged.’
(A’) eisysoes kynn y bellau ef SG.151
‘Yet before his going far.’
(B) kynn pellau y llong SG.428
‘Before the ship had gone far.’

(15) *Syrthyaw* ‘to fall’
(A) syrthyaw ohonat ymywn pechawt arall SG.30
‘You fell into another sin.’
(A’) eu syrthyaw ymywn pechodeu marwawl SG.12
‘They fell into deadly sins.’
(B) syrthyaw yholl perued yr llawr LIA.111
‘All its entrails fell to the floor.’

(16) *Kyvarvot* ‘to meet, encounter’
(A) kyfaruot o Walchmei ... a’r seith mroder SG.33
‘Gwalchmei met the seven brothers’
(A’) gyuaruot ac ef Aristor SG.407
‘Aristor might meet with him.’
(B) a gwedy y gyfaruot ag ef ynteu SG.18
‘And after it (a deer) met with him’

(17) *Kyuo* ‘to rise, get up’
(A) kyuo onadunt vnteu KO.510
‘They got up.’
(A’) kyuo yna Kei KO.384
‘Then Kei got up.’
(B) kyuo yr heul yny dwyrein LIA.33
‘The sun rises in the east.’

(18) *My* ‘to go’
(A) rac mynet ohonat y ar dy ford SG.85
‘Lest you should go from your way.’
(A’) kyn dy vynet odyma SG.269
‘Before you go from here.’
(B) uynet y nywl ymdeith or lle WM.451.1
‘The mist went away from the place.’

(19) *Dyu* ‘to come’
(A) dyuot ohonat ym castell i y lettyu heno SG.25
‘You came to my castle to lodge tonight.’
(A’) dy dyuot titheu y lettyu heno ygyt ami SG.255
‘You came to lodge tonight with me.’
(B) rac dyuot bwystuilot or fforest SG.214
‘Lest beasts come from the forest.’

(3) The third class contains only one verb that is attested with a non-human subject, the verb *bort* ‘to be’. This class confounds the variables in question, since case-marking with [+Human] S NPs is invariably O-marking in this class, so there is no difference between treatment of [+Human] and [−Human] S NPs here: Both are O-marking.
(20) *Bot* ‘to be’
   (A) *vot* Arthur yngaerllion SG.190
       ‘Arthur was in Caerleon.’
   (B) *bot* seint greal yno SG.154
       ‘The Holy Grail was there.’

3.5. Predicate Aktionsart and agency: Intransitive verb classes

A great deal of the recent literature on independent variables conditioning split
intransitivity has concentrated on independently specifiable aspects of verbal
semantics, including both inherent lexical aspect (aktionsart) and the way in which
verbal denotation regiments the attributability of control or agency (see Van
Valin, 1990, for a survey of these). These represent a considerable advance on the
rather crude thematic role ‘agent’/‘patient’ dichotomy which ultimately depend on
some ‘invariance’ theory of case-marking, such that O-marking would code the
same relation in transitive and intransitive inflection, for instance (see Van Valin,
1990: 253). As we will see, the Middle Welsh data are organized according to
three broad lexical classes of intransitive verbs, which are defined in the first
instance by their case-marking possibilities with [+Human] subjects. While these
classes have strong tendencies to correlate in semantic and notional characteristics,
initially I will define them formally, by the way in which they influence case-
marking:

In non-finite intransitive clauses with a [+Human] S NP,
   Class 1 verbs are A-marking,
   Class 2 verbs are fluid (A-or-O-marking),
   Class 3 verbs are O-marking.

   (1) Class 1 contains, as we will see, mostly active intransitives (activities), includ-
ing a large subclass of derived intransitive reflexive/reciprocals (in *ym-*) which are
typically activities. I will give examples of the best attested verbs in each class, but
some of them (such as *ymlad* ‘to fight’ and *ymchoelut* ‘to (re)turn’) have been dis-
cussed above:

(21) *Marchogaeth* ‘to ride’
   (A) marchogaeth o Galaath SG.16
       ‘Galaath rode.’

(22) *Kerdet* ‘to walk, travel’
   (A) A gwedy kerdet ohonunt SG.40
       ‘And after they walked.’

   (2) Class 2 contains mostly potentially agentive telic intransitives, as well as some
non-agentive activities. Numerous examples from this class have been given above
(*kychwyn* ‘to set out’, *pellau* ‘to draw away’, *syrthyaw* ‘to fall’, *kywidi* ‘to get up’,
*kyuarwot* ‘to meet’, as well as *mynet* ‘to go’ and *dyuot* ‘to come’).
(23) Ymwahanu ‘to separate, part ways’
   (A) gwedy ymwahanu or keisyeit SG.16
       ‘After the questers parted ways.’
   (B) gwedy ymwahanu Gwalchmai SG.34
       ‘After Gwalchmai parted ways ...’

(24) Trigyaw ‘to stay, remain.’
   (A) trigyaw ohonaw ef yno SG.412
       ‘He stayed there.’
   (B) trigyaw Joseph yn y castell SG.432
       ‘Joseph stayed in the Castle.’

(25) Diodef ‘to suffer’
   (A) kynn diodef o Grist SG.172
       ‘Before Christ suffered.’
   (B) kynn diodef Crist SG.36
       ‘Before Christ suffered.’

Class (3) This class is small and consists mostly of states (cf. bot ‘to be’ above) and telics of problematic control. All are exceptionlessly O-marking.

(26) Marw ‘to die’
    A gwedy marw vyngwrr i SG.53
    ‘My husband died.’

(27) Diangk ‘to escape’
    diangk eneit y gwrdn SG.77
    ‘The goodman’s soul escaped.’

(28) Hanuot ‘to be from’
    eu hanuot o llys Arthur SG.137
    ‘They were from the court of Arthur.’

3.6. Semantic parameters of verb classification: Aktionsart and agency

Having established these classes on formal grounds based on the best attested verbs of each type, I wish to try to give some substantive account of these lexical classes of intransitive verbs by broadening the focus to take account of the membership of each class. I have already suggested some rough-and-ready classifications, and I have no intention here of going into great detail. The classes seem to be based primarily on the basis of aktionsart characteristics, such that class 1 consists primarily of activities (active intransitives), class 2 primarily of telic intransitives (achievements), and class 3 of states. There are, however, exceptions to this generalization which justify examining the contents of each class. The lists of verbs in each class are tentative and provisional, since many are very sparsely attested, but the overall class membership is consistent across all texts I have encountered.
Class 1: A-marking intransitive verbs

atelic (activities):

<table>
<thead>
<tr>
<th>Marchogaeth</th>
<th>‘ride’</th>
<th>Pregethu</th>
<th>‘preach’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerdet</td>
<td>‘walk’</td>
<td>Bwytu</td>
<td>‘eat’</td>
</tr>
<tr>
<td>Redec</td>
<td>‘run’</td>
<td>Studyaw</td>
<td>‘study’</td>
</tr>
<tr>
<td>Crwydyrau</td>
<td>‘wander’</td>
<td>Gwylyaw</td>
<td>‘watch’</td>
</tr>
<tr>
<td>Ilauryrau</td>
<td>‘labor’</td>
<td>Ryedu</td>
<td>‘wonder’</td>
</tr>
<tr>
<td>Buchedockau</td>
<td>‘live a life’</td>
<td>Gwedyaw</td>
<td>‘pray’</td>
</tr>
<tr>
<td>Ymlad</td>
<td>‘fight’</td>
<td>Ymgueiraw</td>
<td>‘prepare self’</td>
</tr>
<tr>
<td>Ymgwuot</td>
<td>‘fight’</td>
<td>Ymbaratoi</td>
<td>‘prepare self’</td>
</tr>
<tr>
<td>Ymwan</td>
<td>‘joust’</td>
<td>Ymwasgu</td>
<td>‘embrace e. other’</td>
</tr>
<tr>
<td>Ymdidan</td>
<td>‘converse’</td>
<td>Ymrodi</td>
<td>‘devote self’</td>
</tr>
</tbody>
</table>

telic

<table>
<thead>
<tr>
<th>Pechu</th>
<th>‘sin’</th>
<th>Ymchoelut</th>
<th>‘return’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ymgroessi</td>
<td>‘cross self’</td>
<td>Esgynnu</td>
<td>‘mount’</td>
</tr>
</tbody>
</table>

Class 2: ‘Fluid’ A-or-O-marking intransitive verbs

atelic

| Diodef        | ‘suffer’      | Kyscu      | ‘sleep’     |

<table>
<thead>
<tr>
<th>Kychwyn</th>
<th>‘set out, depart’</th>
<th>Trygyaw</th>
<th>‘stay, remain’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eisted</td>
<td>‘sit down’</td>
<td>Syrthyaw</td>
<td>‘fall down’</td>
</tr>
<tr>
<td>Kyuodi</td>
<td>‘get up’</td>
<td>Ymwahanu</td>
<td>‘part ways’</td>
</tr>
<tr>
<td>Kyuaruot</td>
<td>‘meet, encounter’</td>
<td>Pellau</td>
<td>‘draw away’</td>
</tr>
<tr>
<td>Ffo</td>
<td>‘flee’</td>
<td>Disgynnu</td>
<td>‘dismount’</td>
</tr>
</tbody>
</table>

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As Van Valin (1990: 236ff.) notes, certain verbs of motion like those above are activity verbs when used without a goal adverbial, and when they occur with such a goal adverbial, they become (telic) accomplishments. In those split intransitive systems that are driven by a telic/atelic split, this should produce A-marking for the atelic activity, and O-marking for the telic accomplishment. Since I have found no examples of goal phrases being used within the same clause as an activity verb (and in fact it seems to be systematically avoided, see also Levin and Rappaport Hovav, 1995: 182ff.), I cannot comment as to the relevance of this parameter for activity verbs.
bliwaw  ‘get tired’  medwi  ‘get drunk’
llidyaw  ‘get angry’

Come/Go

dyuot  ‘come’  mynet  ‘go’

There are very few atelic verbs in class 2. The vast majority of all verbs in class 2 are telic, and involve an action that is at least potentially subject to control. The atelic verbs of this class are activities, but are not agentive. Although many accounts of the state/activity split in atelics seek to reduce it to a simple [±Agentive] split (e.g. Dowty, 1979: 110ff.), it is clear that the activity verb class includes a number of basic predicates with neither human subjects nor agentive control, such as verbs denoting iterative phenomena of sound, light and motion (Holisky, 1981; Merlan, 1985: 350). A more recent account (Binnick, 1991: 183–184), has located three substantive properties by which states differ from activities: states are (1) homogeneous throughout their duration, (2) persistent, in that they continue without being actively maintained, and (3) related to this is state’s lack of potentiality for agency. The first two criteria are in fact sufficient: while many activities are in fact agentive, the activities considered here are not. However, they do lack the properties of homogeneity and persistence. I have separated out the come/go verbs for separate treatment, because, although telic, they select A-marking considerably less than the other verbs (see below on this).

Class 3: O-marking intransitive verbs

Atelic (states)
bot  ‘be’  hanuot  ‘be from’

Telic
marw  ‘die’  diangk  ‘escape’
llithrawn  ‘slip’  dygywad  ‘fall down’

Among atelic states, the third class contains the verb bot ‘to be’, and by extension, all stative predications involving adjectives, which can be treated as analytic hyponyms of bot. It also includes the stative hanuot ‘to be from’, also a transparent hyponym. Among telics, the best attested are those which are generally uncontrolled (marw ‘to die’) or difficult to control (diangk ‘to escape’). Both of these groups share a lack of potentiality for agency or control (see Binnick (1991: 183) on the intrinsic non-agentivity of states).

The three classes are thus generally semantically coherent: (1) class 1 centers on agentive activity verbs, as we would expect typologically, but includes some agentive telics (Dowty, 1991; Van Valin, 1990); (2) class 2 centers on telics, especially potentially agentive ones, but includes some non-agentive activities; (3) class 3 centers on states, but also includes non-agentive telics. Given the nature of the sample, there are a number of verbs that are left unclassified, and there is a possibility that class 2 is broader than my data would suggest, but the core members of each class
suggest that there are three distinct verb classes with a coherent semantic content based primarily on aktionsart characteristics, sometimes confounded with agency and control characteristics.

For expository purposes, I will simplify and treat the somewhat nebulous way in which verbal denotation regiments the pragmatics of attribution of agency as a simple binary feature of \([\pm \text{Control}]\), where \([+\text{Control}]\) indicates that the action is amenable to agentive interpretation, and \([-\text{Control}]\) indicates that it is not (though the comparative evidence strongly suggests that the feature is itself gradient, see below). Atelics will be divided into activities (which may be, following Binnick, \([\pm \text{Control}]\)) and states (which are stipulatively \([-\text{Control}]\)). If we idealize our classifications slightly for expository purposes, factoring out outlying members (such as the ‘exceptional’ Class 1 telics *pechu* ‘sin’, *ymhoeolit* ‘return’, *ymgroessi* ‘cross oneself’, *esgynn* ‘mount, ascend’), we find the following picture of distribution, where telics are in general skewed towards O-marking, and activities are biased towards A-marking.

**Case-marking of predicates by agency and aktionsart**

<table>
<thead>
<tr>
<th>Marking class:</th>
<th>Atelic Activities</th>
<th>Telic Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-marking</td>
<td>([+ \text{Control}])</td>
<td>([-\text{Control}])</td>
</tr>
<tr>
<td>Fluid-marking</td>
<td>([-\text{Control}])</td>
<td>([+\text{Control}]) telics</td>
</tr>
<tr>
<td>O-marking</td>
<td>States</td>
<td>([-\text{Control}]) telics</td>
</tr>
</tbody>
</table>

The split appears to be governed neither by simple aktionsart nor agency, the two most frequently cited variables, but rather by an interaction of the two. The orientation of both aktionsart classes is the same: \([+\text{Control}]\) verbs of each class always A-mark more than their \([-\text{Control}]\) siblings, and \([-\text{Control}]\) verbs O-mark more.

**3.7. Typological comparisons**

Typologically, the distribution of intransitive verb types among case-marking types correlates well with what we have come to expect from other split intransitive systems. The core or focus of ‘A-marking’ is agentive activities, whatever other types of verbs the class may spread to implicationally, and however the semantics of the opposition is ultimately to be intensionalized. This approach differs from previous ones, such as that of Rosen (1984), in that instead of comparing *individual* verbs, such as ‘DIE’, cross-linguistically, we look instead to the way that case-marking rules make varying cut-off points in an etic grid, or space of possibilities, established by invoking observed typological regularities and anchored in terms of independent variables of the denotational semantics of aktionsart and agency of *classes* of verbs. The system here is thus made comparable to split intransitive systems like that of Georgian (Holisky, 1981; Harris, 1982, 1985, 1990b), where essentially only agentive activities are A-marking; or Laz (Harris, 1985: 401; Holisky, 1991: 447–449), where activities that require a \([-\text{Animate}]\) or \([-\text{Control}]\) S NP (‘blow’ (of wind), ‘shake’, ‘flutter’, ‘sleep’) pattern with telics (O-marking), and other activities requir-
ing a [+Animate] S NP (‘sing’, ‘bleat’ (of sheep), ‘bark’, ‘yell’, ‘play’, ‘stagger’, ‘work’) take A-marking. The system is also made comparable to other fluid systems such as Tsow-Tush (Holisky, 1987). Here we find 3 broad classes of Case-marking (comparable to the Welsh case before us): Ergative-marking (=A-marking here), Nominative-marking (=O-marking) and variable-marking (=fluid A-or-O-marking). Within the variable marking class are three subclasses based on specific biases and markedness relations of the case-marking patterns in question (at a greater degree of delicacy).

(i) The O-marking class in Tsow-Tush contains verbs that “represent either undesirable situations (be confused, freeze) or those unlikely to be initiated or controlled (be ripe, be remembered)” (Holisky, 1987: 113–114). In terms of the aktionsart variable, “this class contains stative verbs (‘be afraid’, ‘be cold’) and changes of state (‘freeze’, ‘get old’)” (ibid.: 110).

(ii) The A-marking only class contains verbs which “represent activities and accomplishments (e.g. running, praying, and playing) normally under conscious control of the major participant” (ibid.: 114).

(iii) The fluid class is clearly a cline between these two poles: (a) the O-marking preferred class contains telic verbs very similar in semantics of agency to the O-marking class (‘die’, ‘burn’, ‘become poor’, ‘get tired’), while (b) the A-marking preferred class and the A-marking only class also both represent normally agentive activities. The residue of the fluid class are varied, including many potentially agentive telics. Note that the over-all orientation in the space generated by the independent variables of aktionsart and agency is the same in all these systems: the A-marking class (that class which has the same marking pattern as transitive subjects) will always include agentive activities, whatever else it may spread to implicationally, and whatever the semantic value of the contrast will be (i.e. primarily agentive/non-agentive or primarily atelic/telic), and, in this case, the over-all distribution of classes vis-à-vis O-marking is also similar (‘O-marking only’ or ‘preferred’ both include states and [−control] telics).

4. Conclusions

Summing up, we have found three separate systems of independent variables which condition the distribution of A-marking and O-marking in non-finite verbal nominal clauses:

**Independent Variables:**
- Valence: Transitive (A, O) versus Intransitive (S)
- NP Denotation: [±Human]
- Verb Denotational Classes: Aktionsart and Agency
  - Class 1: primarily (agentive) activities
  - Class 2: primarily (agentive) telics
  - Class 3: Statives and (nonagentive) telics
These three systems of independent variables are necessary and sufficient to determine to a high degree of specificity the distribution of a two-term system of dependent formal variables:

**Dependent (Formal) variables:**
- **A-marking** `[pp o ____ ___]`
- **O-marking** `[VN ____ ___]`
  [GENITIVE]

The independent variables are not merely crossed paradigmatically (simultaneous, or cross-wise, multivariate conditioning), but rather are articulated one to another in a stepwise fashion (what we might call stepwise, or hierarchical, multivariate conditioning). That is, NP denotation has relevance only if the verb is intransitive and non-finite, and verbal denotational class only has relevance if NP denotation is [+Human]. The interaction of the independent variables in conditioning case-marking can be represented as follows:

**Fluid intransitive system of Middle Welsh: Stepwise multivariate coding**

<table>
<thead>
<tr>
<th>Transitivity</th>
<th>S NP denotation</th>
<th>V aktionsart class</th>
<th>S marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive</td>
<td></td>
<td></td>
<td>Example (1)</td>
</tr>
<tr>
<td>Intransitive</td>
<td>– Human S NP</td>
<td>Activity V</td>
<td>A-marking</td>
</tr>
<tr>
<td></td>
<td>+ Human S NP</td>
<td>Achievement V</td>
<td>Fluid marking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stative V</td>
<td>O-marking</td>
</tr>
</tbody>
</table>

However, even after the serial application of three separate systems of independent variables, our analysis still leaves a residue of variable (‗fluid‘) marking, a space of indeterminacy nested within a determinate superstructure.\(^7\) The initial formulation of the (typological) distinction between ‘split’ and ‘fluid’ intransitivity (Dixon, 1979: 84–85; 1994: 71ff.) was based on an *in principle* dichotomous oppo-

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\(^7\) Note that the variables of complexity of coding structure (multivariate versus univariate, stepwise (hierarchical) versus crosswise (paradigmatic)) are orthogonal to the variable of (categorical) split marking versus (variable) fluid marking. It is easily possible to imagine a completely determinate multivariate ‘split’ marking system, just as a univariate ‘fluid’ system is possible (for instance, categorial ‘squishes’ are examples of this sort of thing (Ross, 1973)). Note also that I am making no diachronic arguments here about the relation of split and fluid marking (but see Manning, forthcoming). I am only claiming that orderly variation in marking systems can be captured and rendered comparable in the same basic ways that fully rigid marking systems can. The approach advocated here seeks to maximize the potential utility of typologically established universal parameters in organizing subcategorical variation independently of the status of that variation as part of an intensional ‘grammar’ of some particular language, and thus is similar to a position originally articulated by Kiparsky (1971: 645), but, unlike that approach, does not preclude the possibility of variation having some intensional significance (cf. Anshen, 1975: 6; Berdan, 1975: 11–12).
sition between totally (lexically) determinate case-marking versus totally (gram-
matically) free case-marking, it seems clear that the distinction is a gradient one,
since no paradigm exemplar of totally free ‘fluid’ intransitivity has been located to
date. Holisky’s treatment of Tsova-Tush maintains that ultimately the opposition
and classification is “pragmatic, based on a speaker’s view of the world” (Holisky,
1987: 114), and therefore fully ‘fluid’. Nevertheless she is able to find three broad
verb classes (A-marking only, variable-marking, and O-marking), and, at a greater
degree of delicacy (in the sense of Halliday, 1961), is able to capture marking
biases within the variable marking class by invoking markedness, which allows her
to again subdivide this class by three (A-unmarked, no marking preference, O-
unmarked), giving us a gradience cline divided into quanta between effectively
invariant poles.

The cases Dixon (1979, 1994) discusses, as well as the Middle Welsh case before
us, show a similar cline. The most important observation is the fact that variable, or
fluid marking, is always located distributionally between categorical case-marking
poles. However, we can also see in Middle Welsh sub-categorical biases similar to
those in Tsova-Tush. Since the data we have for even the best-attested fluid-marking
verbs is slim, my remarks must remain tentative. If we restrict our remarks to the
best attested fluid-class verbs, we see very suggestive biases towards one or another
form of marking. If these cannot be stated in terms of specific statistical likelihood
with any great confidence, they can at least be stated in terms more delicate than a
categorical ‘either/or’ grammar would allow us. It is clear that within the fluid class
some verbs show a clear bias towards O-marking (counts include all texts except
YBH),

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gloss</th>
<th>Total</th>
<th>O-marking</th>
<th>A-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>mynet</td>
<td>‘go’</td>
<td>94</td>
<td>87 (93%)</td>
<td>7 (7%)</td>
</tr>
<tr>
<td>dyuot</td>
<td>‘come’</td>
<td>31</td>
<td>24 (77%)</td>
<td>7 (23%)</td>
</tr>
<tr>
<td>kyuaruot</td>
<td>‘meet’</td>
<td>5</td>
<td>4 (80%)</td>
<td>1 (20%)</td>
</tr>
</tbody>
</table>

others show a somewhat less certain bias towards towards A-marking,

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gloss</th>
<th>Total</th>
<th>O-marking</th>
<th>A-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>eisted</td>
<td>‘sit down’</td>
<td>5</td>
<td>1 (20%)</td>
<td>4 (80%)</td>
</tr>
<tr>
<td>ymwahanu</td>
<td>‘part ways’</td>
<td>5</td>
<td>1 (20%)</td>
<td>4 (80%)</td>
</tr>
</tbody>
</table>

and still others show no clear preference,

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gloss</th>
<th>Total</th>
<th>O-marking</th>
<th>A-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>diodef</td>
<td>‘suffer’</td>
<td>7</td>
<td>3 (43%)</td>
<td>4 (57%)</td>
</tr>
<tr>
<td>kyscu</td>
<td>‘sleep’</td>
<td>6</td>
<td>2 (33.3%)</td>
<td>4 (66.6%)</td>
</tr>
<tr>
<td>kychwyn</td>
<td>‘start out’</td>
<td>4</td>
<td>2 (50%)</td>
<td>2 (50%).</td>
</tr>
</tbody>
</table>
The first class (‘O-marking preferred’) is the only one with items attested with non-human subjects.\textsuperscript{8} This class seems to differ from the ‘A-marking preferred’ class primarily along a gradient dimension of presuppositional agency of effectuation, or ‘control’, the former class not presupposing this as forcefully as the latter.\textsuperscript{9} The above data, while only suggestive, are nevertheless scalable in terms of the same gradient control characteristics that Holisky (1987) found organized the Tsowa-Tush data at both the categorical and sub-categorical levels. Note that we have already invoked such ‘control’ characteristics in categorical terms for the Middle Welsh data (separating categorically non-controllable telics (e.g. marw ‘to die’) from potentially controllable ones (e.g. eisted ‘sit down’)).

Such a system can be viewed intensionally as a mere overlap between two independent case-marking rules, in case one does not wish to countenance biases that operate with less than categorical regularity (such an approach, ‘duplicate categorization’, involving a difference in syntactic or semantic diacritic in underlying representation, is found in Levin and Rappaport Hovav, 1995: 205ff., pace Dowty, 1991: 608n41). Alternately, one can claim that apparent ‘categorical’ environments within fluid systems are the result of denotationally-driven overdetermination of an in-principle free alternation (Holisky, 1987; Dixon, 1994: 79). Note that the account of variation offered here makes no specific claims about how such a system is to be intensionalized ultimately. Rather, the problem addressed here is the presence of a free, potentially semanticizable, system of oppositions anchored between poles of fixed distributions without possibility of semantic opposition, but nevertheless displaying certain stable sub-categorical biases that cannot necessarily be reduced to extralinguistic variables and which show no particular disposition to change historically. However such orderly variation at the extensional level is to be articulated in language-specific intensional terms (and as I have pointed out above, there are many options), it remains the case that its orderliness can be accounted for in universal terms, precisely by invoking extensional spaces of potential intensionalizes (‘etic

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
Verb & Gloss & Total & O-marking & A-marking \\ \hline
\textit{mynet} & ‘go’ & 6 & 5 (80\%) & 1 (20\%) \\ \hline
\textit{dyuot} & ‘come’ & 17 & 15 (88\%) & 2 (12\%) \\ \hline
\textit{kyaaruo} & ‘meet’ & 3 & 3 (100\%) & 0 (0\%) \\ \hline
\end{tabular}
\caption{Verb distribution for O/A-marking}
\end{table}

\textsuperscript{8} For these verbs, in the text SG, we have 3 non-human subject attestations for \textit{mynet} ‘go’, 7 for \textit{dyuot} ‘come’, and 2 for \textit{kyaaruo} ‘meet, encounter’.

\textsuperscript{9} The text counts above do not include the text YBH, which has two different formal realizations for A-marking, either with o ‘from’ or with y ‘to’ (see above, note 3). The fact that these two marking patterns at least overlap in sense in intransitives is also secured by minimal pairs with A-marking telics (like \textit{ysgynnu, esgynnu} ‘mount, ascend’). Example (a) shows y ‘to’, example (b) shows o ‘from’:

(i) \textit{ysgynnu} \textit{bown} ar \textit{y} march. YBH.557

‘Bown mounted (on) his horse.’

(ii) \textit{ysgynnu} \textit{obonaw} ar \textit{y} march YBH.1347

‘He mounted (on) his horse.’

If, on the basis of this evidence, we lump these subpatterns of A-marking together and oppose them to O-marking, the resulting patterns echo, or at least are compatible with, what we see for other texts in terms of relative frequency (for at least the best-attested verbs of the O-marking preferred class):
grids’), whose relevance has already been established for description and typological comparison of more concrete ‘split’ case-marking systems.

What we have here is a case of indeterminacy (‘fluidity’ or variable marking) enclosed within determinate limits, or orderly variation between poles of invariance, what Mathesius (1911) called ‘static [synchronic] oscillation’. The variation we have here is orderly and stable, remaining essentially unchanged from our earliest prose texts until the demise of this case-marking pattern as a whole. Such ‘variability within limits’ is symptomatic of many case-marking systems, not merely fluid intransitivity. For instance, to take a well-known example, split objective marking (‘personal a’) in Spanish operates as a potentially semanticizable gradient opposition between categorical endpoints, determined by overlaid interacting but independent variables of NP denotation (namely N denotation (‘animacy’) and phrasal properties of NPs (‘determinacy’) (see, for example, Pottier (1968), Roegiest (1980) and references there). Similar examples (of both split and fluid marking) from just this domain of case-marking could be multiplied ad libitum (see, for example, Comrie (1979), and the articles collected in Plank (1984) and references there).

Although such variability is endemic to case-marking systems generally, only in the case of ‘split’ and ‘fluid’ intransitivity has it been elevated to a typological principle (Dixon, 1979). I would argue that the presence of orderly variation within a case-marking system (‘fluidity’) is orthogonal to the presence of ‘split’ inflection in intransitives. Only by specifying the limits of this orderly variation in terms of independently coded variables of reference and predication can we escape the conundrum presented by Rosen (1984): one observes a tantalizing over-all similarity between these case-marking systems at an impressionistic level, but finds that on closer inspection, no one to one mapping of predicates to case-markings is possible. We can escape this dilemma only by improving our typological hypothesis from a crude one-to-one mapping to an ‘etic grid’ generated by independently specifiable semantic variables. The specific formal markings are ‘anchored’ and given substantive labels (A-marking, O-marking) on the basis of ‘foci’ or endpoints of such a grid, just as cardinal vowels anchor a vowel space. The cut-off point (whether categorical (‘split’) or a domain of variation between categorical poles (‘fluid’)) between distributions of case-markings may vary from one language to the next in terms of such a system, but the over-all disposition of case-markings relative to one another in both split and fluid intransitive systems is rendered comparable.

References