THE OBVIATION HIERARCHY AND MORPHOSYNTACTIC MARKEDNESS*

Judith Aissen
University of California at Santa Cruz

ABSTRACT

Numerous languages of the Americas display special syntax and/or morphology in clauses containing two 3rd person core arguments (and no 1st or 2nd person argument). Because the principles underlying these systems share important properties with the obviation systems of Algonquian languages, it is assumed here that they are all organized in terms of (abstract) OBVIATION. This paper develops some aspects of a formal account of obviation within the framework of Optimality Theory (OT), and provides one answer to the question, what is the role of hierarchies in grammar? The answer suggested here is that hierarchies (scales) are not themselves part of grammar, but they provide the raw material from which grammatical constraints are generated. Various aspects of the morphology and syntax of obviation systems are described here in terms of constraint subhierarchies which are derived from the OBVIATION SCALE alone, or from the alignment of the obviation scale with other relevant scales.

1. INTRODUCTION

It is clear that hierarchies along various dimensions (e.g., person, animacy, definiteness) play an important role in linguistic typology (see for example Comrie 1989, Croft 1990). But there is no general consensus over their role in particular grammars. Hierarchies are frequently referenced in grammatical description, but aside from Silverstein's original work on the subject (Silverstein 1976), and the OT work that I will draw on below, it is fair to say that hierarchies have never been integrated into the formal fabric of grammatical theory.

The development of OT has significantly changed this landscape. Since typological generalizations and language-particular grammars derive from the same set of universal constraints, the relevance of hierarchies to typology entails that they must be reflected in grammars as well. In their original exposition of OT, Prince and Smolensky (Prince and Smolensky 1993) developed a conception of hierarchies which affords them a central role in linguistic theory, but without the consequence that hierarchies are part of individual grammars. In this conception, hierarchies are not themselves

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part of the constraint system (i.e., they are not constraints), but they provide the raw material from which constraints are generated.

OT work has emphasized the following three assumptions: (i) constraints are universal; (ii) constraints are violable; (iii) the main source of language-particular variation lies in the ranking of universal, violable constraints. In accounting for typological variation, the emphasis has rightly been on the possibility of constraint reranking. However, there are limits to typological variation, and some of them are expressed in the form of implicational universals. One of the important ways in which OT can express implicational universals is through *constraint subhierarchies*, sets of universal constraints whose ranking is *fixed* across languages. Cross-linguistic difference cannot arise through the reranking of constraints which form a subhierarchy, but only in the way that they are ranked with respect to other constraints in the grammar.

It is in connection with constraint subhierarchies, that hierarchies—in the sense of this workshop—enter the picture, for hierarchies (or *scales*, as I will call them) provide the raw material from which constraint subhierarchies are derived. The basic idea, sketched in (1), is that various operations take scales as iN Put and give as output constraint subhierarchies.

(1)   *Operation*

    Scale(s)   ⟶   Constraint subhierarchi(es)
    (w/ fixed ranking)   (w/ fixed ranking)
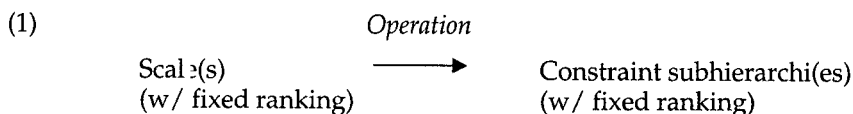
In this conception, the fixed ranking which characterizes a scale will determine the ranking in any constraint subhierarchy derived from that scale. In an OT approach to typology then, scales play a crucial role. But beyond that, the claim is that the constraints which are derived from scales are the *right kinds* of constraints for characterizing those phenomena in particular languages which reflect scales.

This conception was developed first in phonology, but its relevance has been explored in a number of morphosyntactic domains as well.[1] Here I focus on the role of scales (and subhierarchies) in the description of OBVIATION, a phenomenon which is richly attested in native languages of the Americas, and which is, at its core, hierarchy-driven. Since the subhierarchies derived from scales contain markedness constraints, the question for obviation is the extent to which its properties can be explicated in terms

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[1]   See for example Artstein 1999, Aissen 1999, Aissen 2000, Asudeh 2001, Dingare 2001, Sharma 2001.

of markedness. The markedness effects I discuss here are of two types: *syntactic* and *morphological*. I make a further distinction between *pure markedness* effects and *associational markedness* effects—the former are sensitive to obviation status alone, while the latter are sensitive to the association of obviation with some other dimension. Effects of both types are found in the syntax and in the morphology of obviation. Typological generalizations of all four types can be described by subhierarchies derived from the OBVIATION SCALE. The constraints which constitute these subhierarchies are themselves simple and binary, and provide satisfactory descriptions for the language-particular effects of hierarchies, effects which may be strictly categorical.

2. OBVIATION

OBVIATION refers to grammatical systems which exhibit a (grammaticized) sensitivity to the relative rank of 3rd persons within some domain like the sentence or the paragraph. In standard terminology, the term PROXIMATE refers to the highest ranked 3rd person, and the term OBVIATIVE refers to all lower ranked 3rd persons:

(2)　　　　　3rd person　　>　　3rd person

　　　　　　　Proximate　　　　　Obviative
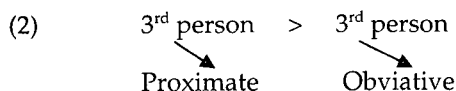
The best-known obviation systems are found in the Algonquian languages.[2] Goddard (1990) characterizes obviation this way:

> The contrast between proximate and obviative is a differentiation of the third person. The proximate is the unmarked third-person category; if there is only one third person in a context, it can only be proximate. Contrasting with the proximate is the obviative, which can be thought of as a subsidiary third person. (Goddard 1990, 317)

I make two starting assumptions here, both of which are fairly standard. The first is that within the relevant span (which I will refer to as an OBVIATION SPAN),[3] all third persons must be assigned an obviation status (I

2　There is a large literature on obviation in Algonquian. Work which deals specifically with the *syntax* of obviation includes Hockett 1966, Wolfart 1973, LeSourd 1976, Grafstein 1981, Goddard 1984, Perlmutter and Rhodes 1988, Grafstein 1989, Goddard 1990, Rhodes 1990, Dahlstrom 1991, Dryer 1992, Rhodes 1994, Dahlstrom 1995, Thomason 1995, Aissen 1997.

3　The question of how to characterize Obviation Spans is important, but one I cannot address here. Aissen (1997) suggests some general constraints. It is possible

will sometimes refer to these as *relations*). The second is that within this span, there must be one proximate, and there can only be one proximate. This is a fundamental asymmetry in obviation: an obviation span must contain a proximate, but need not contain an obviative.

The Fox excerpt cited in translation below from Goddard (1990) gives some sense of how obviation works. The excerpt involves references to three 3rd persons: Black Rainbow (a Fox hero), a deer, and a group of Sioux (the enemy). The first paragraph contains references to all three. References to Black Rainbow are proximate (P) throughout the paragraph (¶) while those to the deer and the Sioux are obviative (O).

¶   5.1.   And then another time **Black Rainbow (P)** went hunting and killed *a deer (O)*.

  5.2.   *As* **he (P)** was butchering *it (O)*, *some Sioux (O)* rushed out at **him (P)**, *a lot of them (O)*

  5.3.   And **(P)** being surrounded, **he (P)** began to fight

  5.4.   And pretty soon, they say, *they (O)* kept away from **him (P)**

  5.5   but **he (P)** killed *a lot of them (O)*…

  …

  5.14. **Black Rainbow (P)** called for *someone who spoke Sioux (O)*

In the second paragraph which begins at line 5.15, a Sioux is introduced as proximate. This initiates a new obviation span. Since an obviation span can contain only one proximate, Black Rainbow is forced into obviative status:

¶   5.15   And then, it is said, **the Sioux (P)** began to give his report

  5.16   of what had been done to **them (P)** by *that (O) Black Rainbow*…

Relations like proximate and obviative have no inherent semantic or pragmatic content. They are structural relations which organize clause structure in a way reminiscent of grammatical functions like subject and object. But obviation is a dimension distinct from grammatical function. This is especially clear in a language like Fox, where the subject may be proximate (e.g., lines 5.1, 5.5) or obviative (second clause of line 5.2; line

that the 'size' of an obviation span is subject to language-particular or even genre-specific conditions. Dahlstrom (1995) proposes conditions for Fox; see also Thomason (1995) for discussion of the effects of genre in Fox.

5.4), and where likewise the object may be obviative (lines 5.1, 5.5) or proximate (second clause of line 5.2; line 5.4).[4]

In Fox, obviation is a salient morphological category, with proximate and obviative distinguished both by nominal and verbal morphology. The discussion that follows is primarily based on the excellent description of Dahlstrom (1995). In the nominal morphology, proximates and obviatives carry distinct suffixes which index their obviation status. (In the Fox excerpt, *Black Rainbow* in line 5.1 is marked with the proximate suffix and *deer* with the obviative suffix. In line 5.2, *Sioux* is marked with the obviative suffix.) In the verbal morphology, the category of DIRECTION, within which direct and inverse contrast, indexes the relative obviation status of subject and primary object (of transitive verbs). When the subject outranks the object (e.g., the subject is proximate and object is obviative) , the direct form of the verb is required; the reverse configuration requires the inverse form of the verb. In line 5.1, the verb *kill* is in the direct form; likewise the verb *butchered* in line 5.2. But the verbs in lines 5.2 and 5.4 *rushed out at him*, and *kept away from him* are inverse. The agreement system also indexes the obviation status of a cross-referenced 3rd person (an agreement controller). Intransitive verbs agree with their subjects in person, number, and obviation status (if 3rd person). In the case of transitive verbs with 3rd person subject and object, the agreement controller is determined not by grammatical function, but by obviation rank: either subject or (primary) object is cross-referenced, whichever is higher in obviation rank. Direct verbs thus agree with their subjects in person, number, and obviation status; inverse verbs agree with their objects. I use the term 'hierarchic agreement' to refer to such a system (the term is due, I believe, to Scott DeLancey). Beyond this, there is a separate, invariable, morpheme, *ni*, which indexes the obviative subject of an intransitive or direct transitive verb, and the obviative object of an inverse verb.[6]

The question of how the ranking of 3rd persons is determined has been widely discussed for Algonquian (see the references of fn. 2). The factors

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4 Dahlstrom (1995) gives convincing evidence for Fox that in a clause with agent and patient, the agent is always the subject, and the patient always the object. LeSourd (1976) argues for a different analysis of Fox.

5 Fox also distinguishes two obviation ranks, termed *nearer* and *further* obviative. A verb whose subject is a nearer obviative and whose object is further obviative will be in the direct form; the reverse situation requires the inverse verb.

6 Direct verbs with obviative subjects, and inverse verbs with obviative objects arise in the contexts described in the previous footnote.

listed in (3) are the relevant ones and are given in the order which seems to correspond to their priority:

(3)   Obviation factors in Algonquian:

> Animacy: Animates are preferred as proximates over inanimates
>
> Gen/Head: The genitive is preferred as proximate over its head
>
> Topicality: The topic is preferred as proximate over a non-topic
>
> Semantic role: The agent is preferred as proximate over the patient

The basic dynamic is to select as proximate a nominal which is highest in prominence on some other dimension or dimensions. In the absence of any factor, semantic role determines obviation status. As a result, the unmarked clause type is one in which the agent is proximate and the patient obviative.

In Fox, the restrictions on obviation rank which are linked to animacy give rise to a distribution of direct and inverse verbs which is characterized by complementary gaps.

Table 1: Fox

	Ag. Animate Pat. Animate	Ag. Animate Pat. Inanimate	Ag. Inanimate Pat. Animate	Ag. Inanimate Pat. Inanimate
Direct Verb	√	√	*	see fn. 7
Inverse Verb	√	*	√	

When a clause contains an agent and patient and both are animate, either the direct or inverse verb is possible. The reason is that either agent or patient can, in principle, be proximate, depending on discourse prominence. Which is proximate in any particular clause determines whether the direct or inverse verb occurs. But when only one of the two is animate, then there is only one possible verb form—either the direct verb or the inverse verb. This is because the preference for an animate proximate forces choice of the animate as proximate. If it is the agent, as it usually is, then the direct verb is required (the agent (subject) necessarily outranks the patient (object) in obviation status). If it is the patient, then the inverse verb is required (the patient or object necessarily outranks the agent or subject).

In determining whether a language has an obviation system I rely on two heuristics. The first is that there must be some morphological or syntactic process which is sensitive to the relative rank of multiple 3rd persons,

and which is thus operative only in contexts with multiple 3rd persons. The second is that relative rank be determined by dimensions like animacy, topicality, and semantic role. These heuristics suggest that all the languages listed in Table 2 have obviation systems. Except for Chamorro, these are all languages of the Americas. (See the appendix for the references on which Table 2 is based.)

Table 2

	Obviation rank expressed through:				Factors known to be relevant to obviation rank:				
	Nominal Affix	Agreement/ Incorporated Pronoun	Voice(V) or Direction (D)	Hierarchic Agreement	Animacy	Genitive vs. Head	Topic	Semantic Role	Pronominality
Fox (Algonquian)	√	√	√ (D)	√	√	√	√	√	
Kutenai	√	√	√		√	√	√	√	
Olutec (Mixe)			√ (D)	√	√		√	√	
Nootkan	?		√ (D)				√	√	
Cherokee (Iroquoian)[7]				√	√	√	√	√	
Navajo (Athapaskan)		√ (*yi/bi*)			√	√	√	√	√
Takelma (?Penutian)		√			√	√	√	√	√
Upper Chehalis (Salish)		√			√				
Tzotzil (Mayan)			√ (V)		√	√	√	√	
Shuswap (Salish)			√ (V)		√	√		√	√
Chamorro (W Austronesian)			√ (V)		√	√	√	√	√

The left-hand side of Table 2 summarizes how obviation rank is morphologically expressed. As indicated earlier, Fox morphology shows sensitivity to obviation rank in a number of ways: the absolute rank of a 3rd person is indexed on the nominal itself, when overt, and is one of the catego-

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7 Agreement and direction are conflated.

ries in agreement. In transitive clauses, the choice of agreement controller and the choice between direct or inverse is determined by the *relative* obviation status of subject and object. Kutenai parallels Fox in many respects (Dryer 1992). It too draws a distinction between two categories of 3rd person, a distinction which depends on relative rank of multiple 3rd persons within the loca context. The nominal morphology distinguishes proximates (unmarked) from obviatives (suffixed with -*(i)s*). Kutenai indicates relative obviaticn status of subject and object through a direct/inverse distinction, and shows the same kinds of animacy-determined gaps in the distribution of those forms that Fox does. Kutenai verbs also index the obviation status of their subjects, both in intransitive and transitive clauses: verbs with obviative subjects carry the suffix -*(i)s*), the same suffix which occurs on obviative nominals.

None of the other languages listed in Table 2 mark obviation status on nominals, but all distinguish relative rank of 3rd persons in other ways. Olutec indexes relative status of 3rd person subject and object through a direction system (direct vs. inverse). Agreement is hierarchic in Olutec: the argument which is higher in obviation status controls agreement. Nootkan seems to likewise have a direction system which is sensitive to relative rank of subject and object when both are 3rd person. Cherokee also has hierarchic agreement, and the distinction between direct and inverse categories is expressed through the form of agreement.

In a number of other languages, 3rd person nominals are not themselves marked for obviation status, but the obviation status of the *object* is marked on the governing verb either by agreement morphology or incorporated pronouns. Navajo, Takelma, Upper Chehalis are all languages in which there are two possibilities for cross-referencing 3rd person objects *but only when the subject is also 3rd person*. The choice is determined by relative prominence of subject and object on dimensions like animacy. Among languages of this type, the facts of Navajo are probably best known. Objects may be marked in the verb by one of two morphemes, *bi* or *yi*.[8] Following Jelinek (Jelinek 1984, Jelinek 1997, Jelinek in press), I assume these are incorporated pronouns. In (Aissen 2000). I suggested that the distinction

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[8]   The literature on *yi* and *bi* in Navajo includes Frishberg 1972, Hale 1973, Creamer 1974, Witherspoon 1977, Perkins 1978, Platero 1978, Platero 1982, Thompson 1989, Jelinek 1990, Speas 1990, Uyechi 1991, Willie 1991, Jelinek 1997, Willie 1999, Saxon 2002.

between the two is one of obviation, per (4), namely, that *bi* is the proximate object pronoun and *yi*, the obviative.

(4)   *bi*: incorporated pronoun for proximate objects
         yi: incorporated pronoun for obviative objects

In Navajo, as in Algonquian, assignment of proximate status in contexts with multiple 3rd persons is sensitive to the relative animacy of those 3rd persons (Frishberg 1972, Hale 1973, Creamer 1974, Witherspoon 1977, Willie 1991). Although Navajo is sensitive to more distinctions than simply human, animate, and inanimate, the basic dynamic is the same. If one 3rd person outranks another in animacy, it is the preferred proximate. This preference yields a distribution of the object markers which parallels the distribution of direct and inverse in Fox:

Table 3: Navajo

	Ag. Animate Pat. Animate	Ag. Animate Pat. Inanimate	Ag. Inanimate Pat. Animate	Ag. Inanimate Pat. Inanimate
YI	√	√	*	√
BI	√	*	√	√

In yet other languages, the gaps characteristic of obviation systems are found in the distribution of active and passive voice (Aissen 1997 and, from a more general perspective, Givón 1994). In Tzotzil (likewise Chamorro), when agent and patient *are both 3rd person* and have the same degree of animacy, then either active or passive is possible, as shown in Table 4. But when the two differ in animacy, only one voice or the other is possible.[9]

Table 4: Tzotzil, Chamorro

	Ag. Animate Pat. Animate	Ag. Animate Pat. Inanimate	Ag. Inanimate Pat. Animate	Ag. Inanimate Pat. Inanimate
ACTIVE	√	√	*	√
PASSIVE	√	*	√	√

Two principles are at work in determining the gaps of Table 4. Tzotzil and Chamorro, like Navajo and Fox, prefer an animate as proximate over an inanimate. But in addition, obviation rank plays a role in SUBJECT CHOICE in Tzotzil and Chamorro in a way it does not in Fox or Navajo. In Fox and

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9   Tzotzil also has a direct/inverse distinction which is operative only in transitive clauses in which the agent is extracted Aissen (1999).

Navajo, semantic role determines subject choice: the agent is uniformly linked to subject and the patient to object. (Consequently, clauses with expressed agent and patient can only be expressed in active form; there is no passive alternative.) In Tzotzil and Chamorro, the preference for a *proximate subject* overrides the preference for an *agent subject*. Given the choice between a proximate subject and an obviative subject, the proximate is preferred. When agent and patient have the same degree of animacy, either agent or patient can be proximate, hence either can be subject. As a consequence, clauses with animate agent and patient (both 3rd person) can be expressed either in the active voice or in the passive. However, when agent and patient differ in animacy, obviation rank is predetermined, and this in turn forces either active or passive. When the agent is animate, but not the patient, the agent *must be* proximate, forcing the active; when the patient is animate, but not the agent, the patient *must be* proximate, forcing the passive.

Tables 1, 3, and 4 are largely parallel, a reflection of the role played by animacy in the determination of obviation rank in all these languages. Animacy is not the only relevant factor, though it is one that is both common and salient. The right-hand side of Table 2 shows other factors which figure in obviation rank. For the most part, the factors already identified as relevant in Fox are relevant in the other languages as well. Some have to do with information structure (topics are preferred as proximates over non-topics; genitives are preferred over their heads; and pronouns are preferred (in some languages) over lexical NPs; see below). Other factors have to do with agency (e.g., the preference for animate proximates over inanimate ones; the preference for agent proximates over patients).

3. UNIDIMENSIONAL MARKEDNESS: THE OBVIATION SCALE

With this much as background, I turn to an explicit account of obviation, and to the question of how much of the account can be derived from the Obviation Scale.

The most basic asymmetry in obviation systems is the fact that an obviation span must contain a proximate, but need not contain an obviative. This is neutralization in the morphosyntactic domain: in obviation spans containing a single 3rd person, the distinction between proximate and obviative is neutralized to the unmarked member of the opposition, the proximate. Formally, what is needed are constraints which penalize instances of obviative more strenuously than instances of proximate.

The Obviation Scale (5a) is itself essentially a markedness scale, and the requisite constraint subhierarchy can be derived straightforwardly by inverting that scale and interpreting the elements as avoid constraints. This yields the constraint subhierarchy in (5b) which penalizes obviatives before proximates, a pure markedness subhierarchy.

(5)　　a.　　Obviation Scale: Proximate > Obviative
　　　　b.　　Pure Markedness Subhierarchy: *Obviative » *Proximate

To see how this works consider Tableau 1, which has an iNPut with a single 3rd person. There are two candidates to consider, candidate (a) in which the 3rd person is Proximate, and candidate (b) in which it is Obviative (candidates in which 3rd persons have no obviation status will be considered below).

Tableau 1

INPut: x = 3rd person	*Obviative	*Proximate
(a)　☞　P_x		*
(b)　　　O_x	*!	

The obviative candidate (b) is excluded by the high-ranked constraint, leaving a single 3rd person as proximate. This accounts for the fact that in an obviation span with a single 3rd person, that 3rd person will be proximate, not obviative.

What about an obviation span with two 3rd persons? Tableau 2 shows that with just these two constraints, the winner would be a candidate with no obviative, namely one with two proximates (the symbol ☹ indicates the (wrong) winner).

Tableau 2

INPut: <x, y> x, y = 3rd pers.	*Obviative	*Proximate
(a)　☹　$P_x\ P_y$		**
(b)　　　$O_x\ O_y$	*!*	
(c)　　　$P_x\ O_y$	*!	

Candidate (a) wins because it is the only candidate with no violation of the highest-ranked constraint. But this is incorrect. At most one 3rd person in an obviation span can be proximate. We can limit the number of proximates in an obviation span to one (1) without appealing to any radically new constraints if we allow *Proximate to conjoin with itself, and then rank

the result above *Obviative. The constraint, *Proximate Uniqueness*, is defined in (6).[10]

(6)   Proximate Uniqueness (self-conjunction of *Proximate)
           *Proximate $\&_{OS}$ *Proximate

Tableau 3 incorporates Proximate Uniqueness. Again, the iNPut contains two 3rd persons, with the same three candidates as in Tableau 2.

Tableau 3

INPut: $<x, y>$ x, y = 3rd pers.	Prox Uniqueness	*Obviative	*Proximate
(a) P_x P_y	*!		**
(b) O_x O_y		*!*	
(c) ☞ P_x C_y		*	*

Candidate (a), with two proximates, now violates Proximate Uniqueness; candidate (b) violates *Obviative twice. This leaves as winner candidate (c), the candidate which satisfies the highest constraint, and has only a single violatior of *Obviative. This set of ranked constraints enforces avoidance of obviatives, up to a point. An obviative can be entirely avoided when there is only one 3rd person. But as soon as there are two, Proximate Uniqueness becomes relevant, and an obviative is forced in order to avoid two proximates.

Of course, Proximate Uniqueness is relevant only if it is ranked over *Obviative. The opposite ranking will still yield systems in which there are only proximates, and no obviatives. This seems problematic, but perhaps it can be used to solve another problem, namely, how to distinguish languages with obviation systems from languages without. There are two approaches to the problem, depending on what it means for a language not to have an obviation system. If it means that 3rd persons are associated with no obviation status, then there must be candidates containing such 3rd persons. But this raises the following problem: such candidates would satisfy *all* the constraints discussed so far (for they all penalize proximates and obviatives), and would prevail over the candidates considered above. A lan-

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[10] The local conjunction of C_1 and C_2 in domain D, C_1 & C_2, is violated when there is some domain of type D in which both C_1 and C_2 are violated Smolensky (1995). The relevant domain here is the obviation span (OS).

guage with an obviation system would then be underivable. The solution would be to include obviation status in iNPuts for 3rd person nominals, and to assume a faithfulness constraint which penalizes 3rd persons with no obviation status. The relevant constraint could be something like the Max constraint, defined as in (7).[11]

(7)   Max Obviation

>   Violated by a candidate which is 3rd person and lacks a value for the feature OBVIATION.

Ranking Max Obviation above *Obviative will yield a language which contrasts proximates and obviatives, i.e., a language with an obviation system. This is illustrated in Tableau 4. Tableau 4 contains the same three candidates as Tableau 3, plus a fourth in which the 3rd persons have no obviation status. In this particular evaluation, both 3rd persons are specified in the iNPut as proximates, but as the reader can determine, this is irrelevant to the outcome.4

<center>Tableau 4 = Max:Obv » *Obviative</center>

INPut: <x, y> x = 3rd pers, Prox y = 3rd pers, Prox	Prox Uniqueness	Max Obv	*Obviative	*Proximate
(a) P_x P_y	*!			**
(b) O_x O_y			*!*	
(c) ☞ P_x O_y			*	*
(d) x y		*!*		

Regardless of how Max Obviation is ranked with Proximate Uniqueness, candidates (a) and (d) will be excluded. Candidate (b) violates *Obviative twice, leaving candidate (c) as winner. This is the candidate with a proximate and an obviative. Thus, high ranking of Max Obviation guarantees a contrast between proximate and obviative.

The consequence of ranking Max Obviation below *Obviative (and keeping Proximate Uniqueness high) is shown in Tableau 5.

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11 Max constraints penalize deletion, requiring that elements in the iNPut are 'maximally' expressed in the output.

Tableau 5 *Obviative » Max: Obv

INPut: <x, y> x = 3rd pers, Prox y = 3rd pers, Prox	Prox Uniqueness	*Obviative	*Proximate	Max: Obv
(a) P_x I_y	*!		**	
(b) O_x O_y		*!*		
(c) P_x O_y		*!	*	
(d) ☞ x y				**

This ranking guarantees that no proximates or obviatives will surface. A language with no obviation system would then be one then in which Max Obviation is ranked below the markedness constraints which penalize obviatives, and Proximate Uniqueness is ranked high.

But there is another way to conceive what it means for a language not to have an obviation system: namely, that it maintains no contrast between proximate and obviative. On this conception, it is possible to distinguish languages with and without obviation systems without appeal to Max Obviation. The relative ranking of Proximate Uniqueness and *Obviative is sufficient, but *only if all 3rd persons are associated by GEN with an obviation status*, i.e., only if there are no candidates in which 3rd persons lack an obviation status. Tableau 3 already shows that in the absence of such candidates, the ranking *Proximate Uniqueness » *Obviative guarantees a distinction between proximate and obviative. The opposite ranking (*Obviative » *Proximate Uniqueness) will eliminate all candidates containing obviatives, and all 3rd persons in the optimal candidate will be proximates. In languages with this ranking, there can be no distinction between proximate and obviative, hence no ranking of 3rd persons in obviation status. While all 3rd persons are assigned the status PROXIMATE, this status is indistinguishable from that of 3RD PERSON, and is thus inert. This approach then, in which GEN associates all 3rd persons with an obviation status, requires no constraint like Max Obviation, it resolves the question whether Proximate Uniqueness and *Obviative can rerank in the positive, and exploits the possibility of reranking to distinguish languages with and without obviation systems. These are all positive features. I will assume then that the category OBVIATION is an obligatory one for 3rd persons, though not a distinctive one in all languages.

This raises the question whether obviation status is part of iNPuts. As far as I can tell, it makes no difference whether it is or not. We can assume, in line with Richness of the Base, that there are iNPuts in which 3rd persons are assigned an obviation status, as well as ones in which they are not.

4. MULTIDIMENSIONAL MARKEDNESS: HARMONIC ALIGNMENT

The constraints discussed so far do not fix obviation status when there is more than one 3rd person. To see that this is so, consider Tableau 6, which is like Tableau 4, but adds one further candidate that was omitted earlier. This is candidate (d) below, which is like (c), except that obviation status is switched on the two 3rd persons. The constraints tie on candidates (c) and (d).

Tableau 6

INPut: <x, y> x = 3rd pers, Prox y = 3rd pers, Prox	Prox Uniqueness	*Obviative	*Proximate
(a) $P_x\ P_y$	*!		**
(b) $O_x\ O_y$		*!*	
(c) ☞ $P_x\ O_y$		*	*
(d) ☞ $O_x\ P_y$		*	*

We can reject the idea that faithfulness to obviation status in the iNPut determines obviation status in the output. For one thing, we have assumed that 3rd persons need not be specified in iNPuts for obviation status. But even if they were so specified, the iNPut status would not always correspond to that of the output (as in Tableau 6, for example). Finally, in general, there are differences in prominence between the two 3rd persons which determine obviation rank, and this factor should figure in the evaluation process. In Aissen (1997, 2000), I argued that basic dynamic here involves the alignment of prominence scales, and I will continue to pursue that approach.

Consider animacy first. The preference for an animate proximate is widely attested in obviation systems, as Table 1 shows. This means that in clauses with one animate 3rd person and one inanimate one, their obviation statuses are fixed, as shown in (8). The animate must be proximate and the inanimate obviative.

(8)   Animate   Inanimate
           | |
           | |
        Proximate   Obviative
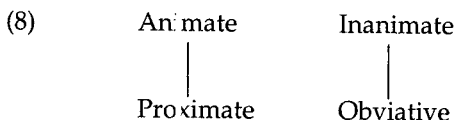
On the other hand, when the two 3rd persons are balanced in animacy (e.g., both are human, or both are inanimate), obviation status cannot be determined by animacy, and must be determined by some other factor like topicality or semantic role.

The preference for an animate proximate and for an inanimate obviative can be seen as the alignment of the two scales in (9), the Obviation Scale and the Animacy Scale.

(9)   Obviation Scale: Proximate > Obviative
      Animacy Scale: Human > Animate > Inanimate

The unmarked situation is for the highest element on the Animacy Scale to align with the highest element on the Obviation Scale, and for the lowest element on the Animacy Scale to align with the lowest element on the Obviation Scale. Here we are dealing with *associational* markedness in the sense that it involves the markedness of associations on multiple dimensions.

Clearly, a formal characterization of associational markedness must be based on multiple scales, for example, the Obviation Scale and the Animacy Scale. In their account of syllable structure, Prince and Smolensky (1993, Ch. 8) define an operation, *harmonic alignment,* which aligns scales to produce subhierarchies which characterize multidimensional markedness. Harmonic alignment takes a pair of scales as iNPut, one of which must be binary, and gives as output pairs of constraint subhierarchies. In the case of syllable structure, one of the scales involved was a binary scale on structural positions (Peak > Margin); the other was a (non-binary) scale on sonority. Here we apply harmonic alignment to a pair of morphosyntactic scales: one is the Obviation Scale, also a binary scale on a structural dimension; the other is the Animacy Scale, a (non-binary) scale on a substantive dimension. The usual situation in scale alignment is for a prominent structural position or relation (e.g., syllable peak, proximate status) to be filled by an element which is prominent on some substantive dimension (e.g., sonority, animacy) (though we will see an example below where two structural dimensions align).

Harmonic alignment produces first the two markedness hierarchies in (10), one on proximates and one on obviatives.[12]

(10)   Markedness Hierarchies
   a.   Proximate/Human ≻ Proximate/Animate ≻ Proximate/Inanimate
   b.   Obviative/Inanimate ≻ Obviative/Animate ≻ Obviative/Human

The hierarchy on proximates is formed by associating Proximate, the high-ranked element on the (binary) Obviation Scale, with each element on Animacy Scale, from *left to right*. The result (10a) says that human proximates are less marked than animate proximates, which are in turn less marked than inanimate proximates (read x ≻ y as 'x is less marked than' or 'more harmonic than y').

The markedness hierarchy on obviatives is associating Obviative, which is the low ranked element on the binary scale, with each element on the Animacy Scale *right to left*. The result (10b) says that inanimate obviatives are the least marked and human obviatives the most marked. The markedness hierarchies of (10) are turned into constraint subhierarchies by inverting them and interpreting each element as an avoid constraint:

(11)   Constraint Subhierarchies

   a.   *Proximate/Inanimate* ≻ *Proximate/Animate ≻ *Proximate/Human
   b.   *Obviative/Human* ≻ *Obviative/Animate ≻ *Obviative/Inanimate

The two top constraints (italicized) penalize proximate inanimates and human obviatives, the most marked associations involving animacy with obviation. Thus these will be most strenuously avoided. Each of these constraints sets is a *subhierarchy*—the ranking of the constraints is fixed, and predetermined by the ranking of the two initial scales, the Obviation Scale and the Animacy scale.

Tableau 7 shows how this plays out in an evaluation with two 3rd persons, unbalanced in animacy. The iNPut contains a human agent and an inanimate patient. It doesn't matter whether we use the subhierarchy on proximates or the one on obviatives. I use the one on proximates. There are four candidates, representing the four possible assignments of proximate and obviative.

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12 Christianson (2001) makes similar use of harmonic alignment in his account of variation in proximate choice in Odawa.

Tableau 7

INPut: <x, y> x=man y=mountain	Prox Unique	*Obv	*Prox	*Prox/ Inan	*Prox/ An	*Prox/ Human
(a) ☞ P_x = man O_y = mountain		*	*			*
(b) O_x = man P_y = mountain		*	*	*!		
(c) O_x = man O_y = mountain		*!*				
(d) P_x = man P_y = mountain	*!		**	*		*

Since languages of the type under discussion maintain a contrast between proximate and obviative, Proximate Uniqueness is ranked above *Obviative. Candidates (c) and (d), are eliminated by the top two constraints. Candidates (a) and (b) are distinguished by *Prox/Inan, which eliminates (b), leaving candidate (a) as winner. Proximate status is assigned, correctly, to that 3rd person which is highest in animacy.

The ranking of *Prox/Inan below *Obviative is motivated by the following: consider the evaluation in Tableau 8 which involves a single inanimate 3rd person. The available evidence suggests that in languages with active obviation systems, such 3rd persons are proximate.[13] To guarantee this, *Prox/Inan must be ranked below *Obviative. Otherwise, such 3rd persons would surface as obviative.

Tableau 8

INPut: <x> x: inanimate	Prox Unique	*Obv	*Prox	*Prox/ Inan	*Prox/ An	*Prox/ Human
(a) ☞ P_x			*	*		
(b) O_x		*!				

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[13] In Kutenai, for example, where all obviatives are identified morphologically (by a distinctive suffix), a single inanimate is not thus identified.

The opposite ranking (i.e., *Prox/Inan above *Obviative) would be motivated by a language in which proximate status is limited to 3rd persons with particular properties, e.g., animate-reference. Whether such languages exist, I do not know. The more common situation is one in which the subhierarchy in (11a) is dominated by *Obviative (and hence by all the constraints which dominate it).

Tableau 9 represents clauses in which the agent is inanimate and the patient is animate. In this case, candidate (a) associates proximate with an inanimate, and obviative with an animate.

Tableau 9

INPut: <x, y> x=water y=sheep	Prox Unique	*Obv	*Prox	*Prox/ Inan	*Prox/ An	*Prox/ Human
(a) P_x= water O_y= sheep		*	*	*!		
(b) ☞ O_x= water P_y = sheep		*	*		*	
(c) O_x= water O_y = sheep		*!*				
(d) P_x= water P_y = sheep	*!		**	*	*	

Candidates (c) and (d) are eliminated as in Tableau 7. Candidate (a) violates the high-ranking constraint, leaving candidate (b) as winner. Again, proximate status is correctly assigned to that 3rd person which is highest in animacy.

Finally, consider the evaluation in Tableau 10 with two 3rd persons, balanced in animacy. Again, the two bottom candidates are eliminated by the top constraints. But in this case, the constraints developed so far cannot distinguish the remaining two candidates, (a) and (b). They violate exactly the same constraints, so proximate status must be fixed by some other factor.

<div align="center">Tableau 10</div>

INPut: $<x, y>$ x=horse y=mule	Prox Unique	*Obv	*Prox	*Prox/ Inan	*Prox/ An	*Prox/ Human
(a) ☞ P_x = horse O_y = mule		*	*		*	
(b) ☞ O_x = horse P_y = mule		*	*		*	
(c) O_x = horse O_y = mule		*!*				
(d) P_x = horse P_y = mule	*!		**		**	

Constraints to be developed below will distinguish candidates (a) and (b), but for now, we can see the possibility of two outcomes as a consequence of the fact that the two candidates tie on all animacy-related constraints.

For each dimension which plays a role in determining obviation status, the strategy then is to construct a scale for that dimension (D_1) and harmonically align it with the Obviation Scale. The result will be a pair of constraint subhierarchies, one on proximates, which favors an association with the high end of D_1, and one on obviatives, which favors an association with the low end. Relevant scales include those listed in (12):

(12)   a.   Scale on nominal relations: Genitive > Head
      b.   Scale on topicality: Topic > Non-Topic
      c.   Scale on roles: Proto-Agent > Proto-Patient

Harmonic Alignment yields the constraint subhierarchy pairs in (13).

(13)   a.   *Prox/Head » *Prox/Genitive
             *Obv/Genitive » *Obv/Head

      b.   *Prox/NonTopic » *Prox/Topic
             *Obv/Topic » *Obv/NonTopic

      c.   *Prox/P-Patient » *Prox/P-Agent
             *Obv/P-Agent » *Obv/P-Patient

In each case, the ranking within the subhierarchy is fixed. But crucially, constraints from different subhierarchies can be reranked with respect to one another. Where only one of these factors is relevant, it alone deter-

mines proximate choice. Where more than one is relevant, the relative ranking of constraints from different subhierarchies will determine which 3rd person among several is proximate.

The interesting cases will be ones in which there is conflict. Given the subhierarchies in (13c), a conflict will always arise when the patient is higher in prominence on some dimension (other than role) than the agent. In an iNPut with an inanimate agent and an animate patient, for example, the ranking *Prox/Inan » *Prox/P-Patient will yield a proximate patient; the reverse ranking will yield a proximate agent. In a number of languages, there are interesting conflicts between animacy and pronominality. Chamorro and Navajo prefer that the proximate be animate, but they also prefer that it be pronominal, rather than lexical. The latter preference results in gaps like those which involve animacy. When both agent and patient are pronominal, or when both are lexical, then there are two possible modes of expression (*yi* and *bi* in Navajo, active and passive in Chamorro). But when one is pronominal and the other is lexical, then one of the two options is eliminated. In Navajo, for example, a clause like (14) *he kicked the boy* can only be expressed in the *yi* form:

(14)   He kicked the boy.
          [Díí 'ashkii] yi-ztał/*bi-ztał
          'this boy YI-kicked/BI-kicked'   (Willie 1991, 74)

This is an immediate consequence of the fact that the subject (pronoun) is selected as proximate over the object (non-lexical). The object, being obviative, takes the pronominal form *yi*. Clauses like (15) are the reverse: the object (pronoun) is predetermined as proximate, with the consequence that its pronominal form must be *bi*:

(15)   This boy kicked him.
          [Díí 'ashkii] bi-ztał/*yi-ztał
          this boy BI-kicked/YI-kicked'   (Willie 1991, 75)

The preference for a pronominal proximate can be expressed by harmonically aligning the Obviation Scale with a scale on Lexical Content like (16a). The result is the subhierarchy in (16b), which penalizes a lexical proximate before a pronominal proximate.

(16)   a.   Lexical Content Scale: Pronoun > Nominal
       b.   Avoid a lexical proximate: *Prox/Nominal » *Prox/Pronoun

The ranking *Prox/Nominal » *Prox/P-Patient will force proximate status on the subject in (14), and on the object in (15), resulting in the observed pronominal forms.

Consider now how proximate status is assigned in a clause like 'the boy picked them', cases discussed in (Willie 1991, 61-62), where the object pronoun refers to an inanimate object (e.g., berries). The principles we have already identified are in conflict: the preference for an animate proximate favors the subject as proximate; but the preference for a pronominal proximate favors the object. The question is how this conflict is resolved. According to (Willie 1991, 61-62), the only pronominal form possible for the object is yi:

(17)   'ashkii yiyííbįį.
            boy I.picked.round.objects
            'the boy (P) picked them (O) (round objects)'

This means that the object must be obviative, and we are forced to the conclusion that animacy is the decisive factor: an animate lexical NP is selected as proximate over an inanimate pronoun. This state of affairs can be modelled through constraint ranking: the constraint which penalizes proximate inanimates outranks the one which penalizes lexical (nonpronominal) proximates. Tableau 11 shows the relevant part of the evaluation for (17).

Tableau 11 *Prox/Inan » *Prox/Nominal

picked' <x,y> x=the boy y=them (round objects)	*Prox/ Inan	*Prox/ Nominal	*Prox/ Pronoun	*Prox/ An
(a) ☞ P_x = the boy O_y = them (round objects)		*		*
(b) O_x = the boy P_y = them (round objects)	*!		*	

Candidate (a) wins on the highest constraint. In (a), the object is obviative, accounting for why only the yi version is available.

This discussion has focused entirely on the dimensions which determine obviation rank. Thus, harmonic alignment has taken the Obviation Scale as the binary, structural scale, aligning with it various n-ary scales on semantic and pragmatic properties. But recall that obviation rank itself enters into subject choice in languages like Tzotzil. This can be characterized by taking a scale on grammatical functions (e.g., Subject > Object) as the binary, structural scale and aligning the Obviation Scale with it. The result is the pair of subhierarchies in (18), one on subjects and one on objects:

(18) a. *Su/Obv » *Su/Prox
     b. *Oj/Prox » *Oj/Obj

If a constraint like *Su/Obv is ranked above one which penalizes subject patients (e.g., *Su/Pat), it will force passive when the patient is proximate and the agent is obviative (Aissen 1997). Such a ranking is found in languages like Tzotzil, and distinguishes them from languages like Fox and Navajo, which have the opposite ranking. These constraints also figure in the morphology of obviation, discussed below.

5. MORPHOLOGICAL MARKEDNESS

The markedness effects discussed so far are *syntactic* in the sense that they involve assignment of the (abstract) relations Proximate and Obviative to 3rd persons. The syntactic effects of markedness involve asymmetries in the way Proximate and Obviative are distributed, asymmetries which are enforced by the constraints developed in sections 3 and 4. In many languages, obviation is also a salient *morphological* category. That is, many languages have nominal morphology which indexes the obviation status of 3rd persons. A cross-linguistic study of obviation morphology has yet to be undertaken,[14] but judging from the language sample of Table 2, there is a fair amount of variation in the way it is realized. One parameter concerns the mode of realization. Obviation morphology may attach to the nominal whose status is indexed, as in the Algonquian languages and Kutenai. Or it may attach to the head which governs the nominal in question, as in Navajo and Takelma. (This parallels the distinction between 'dependent' and 'head' marking (Nichols 1986).) The other parameter, more relevant here, concerns *which* 3rd persons are indexed for obviation status. Many languages distribute obviation morphology asymmetrically, with some 3rd persons being indexed but not others. However, the following implicational universal appears to hold:

(19)   If the obviation status of a 3rd person α in a language L is indexed by some morphosyntactic process P, then P also indexes the obviation status of any 3rd person in L which is more marked than α in obviation status (except when P is 'hierarchic' agreement).

If true, the syntax and the morphology of obviation reflect the same markedness relations: what is expressed in the syntax through avoidance is

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14 But see Dryer (1992) for an enlightening comparison of Kutenai and Algonquian.

visibly expressed in the morphology through overt marking. Hierarchic agreement is excepted here because when an agreement controller is selected by virtue of its higher rank, the proximate will be selected over the obviative.

I drew a distinction in earlier sections between two kinds of markedness effects in the syntax of obviation, *pure* effects which are characterized in terms of the Obviation Scale alone, and *associational* ones which are characterized through alignment of the Obviation Scale with a variety of other scales. Both kinds of markedness are reflected in the morphology of obviation. Applying the universal in (19) to the Obviation Scale, repeated below as (20a), yields the prediction in (20b):

(20)   a.   Proximate > Obviative

     b.   There may be languages which mark the obviation status of obviatives (through nominal affixation), but not proximates. But there are no languages which mark the obviation status of proximates (through nominal affixation) but not obviatives.

Kutenai is a language which instantiates the predicted type: it marks obviation status on obviatives, but not on proximates (Dryer 1992). I do not know of a language of the reverse type; the languages of Table 1 which mark proximates for obviation status also mark obviatives (e.g., Fox). The morphological asymmetry in (20b) involves obviation status alone—it is a *pure* effect in the morphology of obviation.

There are also asymmetries in obviation marking which are determined by a combination of obviation status and some other factor, and these reflect the abstract markedness relations established earlier through harmonic alignment. Fox illustrates the relevance of animacy *cum* obviation status. In Fox, all proximates are marked for obviation status, but only some obviatives. Animacy determines which obviatives are marked: *animate obviatives* are marked, *inanimate obviatives* are not. That the asymmetry should run in this direction, rather than the other, is predicted by the markedness hierarchy from (10b), repeated below as (21a):

(21)   a.   Obv/Inan ≻ Obv/Anim ≻ Obv/Human

     b.   There may be languages which mark animate (including human) obviatives (through nominal affixation), but not inanimate ones. But there are no languages which mark inanimate obviatives (through nominal affixation), but not animate (including human) ones.

Markedness in the association of obviation status and grammatical function is expressed morphologically in Takelma. In that language, only objects are marked for obviation status, but not all objects: *proximate objects* are marked, but obviative objects are not (Culy 2000). The markedness hierarchy in (18b), repeated below as (22a), predicts that the asymmetry will take this form, and not the reverse.

(22) a.   Obj/Obviative ≻ Obj/Proximate

     b.   There may be languages which mark obviation status of object proximates (through object agreement), but not object obviatives. But there are no languages which mark obviation status on object obviatives (through object agreement), but not object proximates.

The relative markedness which is relevant in each case is already expressed formally by constraints derived through harmonic alignment, as summarized below.

(23) a.   Obviatives are more marked than proximates

       *Obviative » *Proximate

     b.   Animate obviatives are more marked than inanimate obviatives

       *Obv/Anim » *Obv/Inan

     c.   Object proximates are more marked than object obviatives

       *Oj/Prox » *Oj/Obv

Clearly, we want to use these constraints in developing a formal account which predicts the forms that asymmetric obviation marking can take. The question is how to relate them to morphological marking. I have suggested in other work and will do so again here that we can derive the relevant constraints by conjoining a morphological constraint which penalizes zero-marking of some category (here: obviation status, indicated by the subscript 'OBV') with each of the subhierarchies in (23) (Aissen 1999, Aissen 2000). Crucially, the relative ranking of iNPut subhierarchies is preserved under local conjunction.

(24) a.   *Obviative & $*\emptyset_{OBV}$ » *Proximate & $*\emptyset_{OBV}$
     b.   *Obv/Anim & $*\emptyset_{OBV}$ » *Obv/Inan & $*\emptyset_{OBV}$
     c.   *Oj/Prox & $*\emptyset_{OBV}$ » *Oj/Obv & $*\emptyset_{OBV}$

The new constraint subhierarchy in (24a) penalizes most strenuously a nominal which is obviative but whose obviation status is not marked, and least strenuously one which is proximate and not marked. Likewise the

subhierarchy in (24b) penalizes most strenuously an obviative animate which is unmarked, and least strenuously an inanimate obviative, etc.

If nothing more is said, the obviation status of all proximates and obviatives will necessarily be marked, which is incorrect. But we can appeal to an economy condition which penalizes structure to turn off obviation marking at some point.

(25)   *OBV$_M$
            Violated by a morpheme indexing obviation status.

In each case, interpolating *OBV$_M$ between the two constraints of the subhierarchies in (24) will describe systems in which the more marked element is morphologically marked, but the less marked one is not. Given these constraints, and assuming that ones contravening these do not exist, this is the only form that asymmetric obviative marking can take.

Formally, the extent of obviation marking is determined by the schema in (26), where X and Y exhaust the set of constraints which enforce obviation marking. Third persons indexed by constraints in X will be marked for obviation status, while those indexed by constraints in Y will not be.

(26)   X » *OBV$_M$ » Y

If X is null, there will be no obviation marking at all; promotion of constraints from Y to X results in increased domains of obviation marking. Thus, while the total number of constraints involved is large, what is crucial is the point at which *OBV$_M$ is interpolated, i.e., exactly which constraints are subsumed by X. A few examples will be helpful. Below, I use the cover symbol *O to refer to the pure subhierarchy on obviation marking (*Obviative & *ø$_{OBV}$ » *Proximate & *ø$_{OBV}$) and the symbol *O/A to refer to any constraint which is part of a subhierarchy derived by harmonic alignment of two scales, one of which is the Obviation Scale. Finally, I refer to *OBV$_M$ as the pivotal constraint.

[a] Consider first a language like Tzotzil or Chamorro, in which there is no obviation marking. In such languages, the pivotal constraint outranks all constraints which govern obviation marking:

(27)   *OBV$_M$ » *O, *O/A

Promotion of constraints from *O or *O/A yields languages with varying degrees of obviation marking.

[b] In Kutenai, all obviatives and no proximates are marked for obviation status. The high-ranking constraint from *O is promoted above the pivotal constraint:

(28) $*$Obviative & $*\emptyset_{OBV}$ » $*$OBV$_M$ » $*$Proximate & $*\emptyset_{OBV}$, $*$O/A
          ①   ②   ③

Constraints ① and ③ make up a subhierarchy with fixed ranking, and this ranking is preserved in (28).

[c] Fox marks the obviation status of all proximates and of those obviatives which are animate. Here the pivotal constraint is interpolated among constraints from $*$O/A , namely among the subhierarchies in (29), which assess the relative markedness of obviation marking for particular associations of obviation status with animacy:

(29) a. $*$Obv/Anim & $*\emptyset_{OBV}$ » $*$Obv/Inan & $*\emptyset_{OBV}$
           ①   ②

      b. $*$Prox/Inan & $*\emptyset_{OBV}$ » $*$Prox/Anim & $*\emptyset_{OBV}$
           ③   ④

The pivotal constraint must be dominated by ①, ③, and ④, forcing obviation marking for the nominals referenced in those constraints (i.e., all proximates and animate obviatives) but not those referenced by ② (inanimate obviatives).

(30) Fox: ①, ③ » ④ » $*$OBV$_M$ » ②, $*$O, $*$O/A

The ranking within each of the subhierarchies from (29) is preserved. (Note that the ranking of ① with constraints ③ and ④ is not fixed and, since these constraints do not interact, their relative ranking is underdetermined.)

[d] Takelma marks objects for obviation status, but not subjects. Among objects, it marks proximates, but not obviatives. Since obviative objects are unmarked relative to proximate objects, the asymmetry runs in the expected direction. Here, the pivotal constraint is interpolated in the subhierarchy in (31), with the result in (32).

(31) $*$Oj/Prox & $*\emptyset_{OBV}$ » $*$Oj/Obv & $*\emptyset_{OBV}$
          ①   ②

(32)   Takelma: ① » $*$OBV$_M$ » ②, $*$O, $*$O/A

This ranking forces morphological marking for object proximates, but not for subjects or object obviatives.

Conclusion: the pure and associational markedness constraints derived earlier for syntactic purposes provide the right basis for constraints on morphological marking. The subhierarchies on morphological marking of obviation status (derived by local conjunction with $*\emptyset_{OBV}$) make what ap-

pear to be correct typological predictions and, at the same time, provide appropriate constraints for characterizing the facts of particular languages. Under this account, there is nothing accidental about the fact those configurations which are more likely to be morphologically marked are exactly the configurations which are more likely to be avoided. The same basic constraints are involved in characterizing both.

6. CONCLUSION

The goal of the present paper has been to illustrate from the domain of obviation what can be achieved within a theory like OT that assumes the existence of universal scales, and includes general operations which derive constraints from them. Several types of subhierarchies have been derived here from the Obviation Scale: a pure markedness subhierarchy which penalize obviatives; a set of associational markedness subhierarchies which penalize marked associations of the relations of obviation with other dimensions; and a set of subhierarchies derived from these which enforce the morphological marking of marked configurations. The result is an overall unified account of the morphosyntax of obviation.

OT is well-suited for the description of obviation for another reason. The basic design of OT entails that the surface expressions of a language are determined through competition: the expressions of the language are not in general *perfect*, but each is *optimal* with respect to a set of competitors. Such an assumption seems crucial in characterizing obviation, in particular, that aspect of obviation which involves proximate choice. In many languages, the best proximate is animate (human, in fact), but in the absence of an animate candidate, an inanimate will do. Inviolable constraints which require animate proximates, or prohibit inanimate ones, will not work; similarly for other dimensions which determine obviation rank. Thus, the analysis presented here emerges from basic architectural assumptions of OT, combined with more specific assumptions about the possibility of deriving constraints from scales.

7. APPENDIX: REFERENCES FOR TABLE 2

Fox (Algonquian):	(Lesourd 1976, Goddard 1984, Goddard 1990, Dalhstrom 1995, Thomason 1995)
Kutenai:	(Dryer 1992, Dryer 1994, Dryer 1996)
Navajo (Athapaspan):	(Hale 1973, Jelinek 1997, Perkins 1978, Platero 1982, Willie 1991); also (Aissen 2000)
Takelma (Penutian?):	(Culy 2000)
Upper Chehalis (Salish):	(Kinkade 1989)
Cherokee (Iroquoian):	(Scancarelli 1987)
Nootkan:	(Whistler 1985)
Tzotzil (Mayan):	(Aissen 1997, Aissen 1999)
Olutec (Mixe):	(Zavala 2000)
Shuswap (Salish):	(Gardiner 1993)
Chamorro (Western Austronesian):	(Chung 1981, Chung 1984, Chung 1989, Chung 1998); also (Aissen 1997)

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