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Judith Aissen

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JUDITH AISSEN

University of California, Santa Cruz

This article explores the idea that obviation systems like those found in the Algonquian languages are a less parochial solution to syntactic organization than is generally thought. Some simple constraints on obviation provide interesting analyses of key facts in Algonquian. Once certain language-particular differences are recognized, a number of syntactic problems in two unrelated languages, Tzotzil (Mayan) and Chamorro (Western Austronesian), yield easily to solutions based on obviation, despite the absence of obviative-based morphology in either language. Hierarchy alignment constraints play a central role in the analysis. The account is articulated within optimality theory, which provides an appropriate framework for representing the fact that these languages must select from their resources for expressing transitive propositions the optimal mode of expression for each such proposition.*

This article explores the relevance of obviation to the grammars of several genetically unrelated languages and language families: Algonquian, Tzotzil (Mayan), and Chamorro (Western Austronesian). I use the term OBVIATION in the sense of Algonquian linguistics, to refer to systems which obligatorily rank third person nominals according to a complex function which includes grammatical function, inherent semantic properties, and discourse salience. In Algonquian linguistics, the highest ranked third person is called the PROXIMATE; all other 3rd persons are OBVIATIVES. Obviation determines key aspects of both nominal and verbal morphology in these languages. The basic idea developed in this article is that obviation is far less parochial a solution to the problem of clausal organization than has generally been thought. I argue that abstract systems of obviation play a fundamental role in organizing the syntax of a variety of languages. These systems are abstract in the sense that the distinction between proximate and obviative is marked neither in the nominal nor the verbal morphology. This does not make sense if obviation is viewed as basically morphological, or if nominal obviation inflection is seen as a prerequisite to an obviation system. My position, however, is that obviation has a range of syntactic effects that are both interesting and important. This paper develops a set of syntactic probes for obviation so that its effects can be better appreciated.

In the material discussed here, the relevance of obviation is revealed primarily through phenomena that are driven by PARTICIPANT HIERARCHIES (Silverstein 1976), in languages where the relations of obviation figure in those hierarchies. The participant hierarchy plays a central role in determining the distribution of direct/inverse in some

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languages, and active/passive in others. The relations of obviation, which are at the center of this account, are not discourse relations per se, but are related in a complex way to discourse function, grammatical relations, and inherent semantic properties. Obviation makes possible a unified account of voice, one in which the same principles can operate both inside and outside the clause to induce voice alternations, and one in which the joint contributions of discourse salience and inherent semantic properties to the determination of voice can be recognized and properly apportioned.[1]

The analyses developed below are articulated within OPTIMALITY THEORY (Prince & Smolensky 1993). I should say at the outset that this article does not establish the superiority of this approach over others for the material under discussion. However, the appropriateness of optimality theory to the problem at hand can be appreciated if one takes the perspective of Cooreman (1987): transitive actives, passives, direct forms and inverse are all ways of expressing transitive propositions. In the sorts of languages under study here, however, these are not free options. Depending on discourse context and on the inherent semantic features of the nominals involved, one form or another often emerges as the only way of expressing the proposition. In the present approach, actives, passives, and inverses are candidates for the realization of an underlying transitive proposition, and the factors that govern the choice among them are expressed as constraints. The optimal candidate will be the one which best satisfies the constraints. I will argue that many of the constraints that form the core of these systems are appropriately viewed as constraints on HIERARCHY ALIGNMENT.

As a point of departure, §1 sketches how obviation works in Algonquian. A framework for conceptualizing the connection between relations of obviation and the rest of a syntactic representation is presented in §2. Section 3 returns to Algonquian and shows how some of the basic facts are explicated within these terms. In §§4 and 5, we turn to two unrelated languages in which the relevance of obviation has not previously been considered: Tzotzil and Chamorro. These sections document the fact that Tzotzil and Chamorro show several of the traits which we took to be obviation effects in Algonquian. The hypothesis that obviation is implicated in Tzotzil and Chamorro is thus unavoidable, despite the absence of obviative morphology. At the same time, there are salient differences among the three language types; recognition of these (§6) allows us to flesh out a theory of obviation for syntax.

1. OBVIATION AND INVERSE IN ALGONQUIAN.[2] Algonquian nominal morphology includes a distinction termed PROXIMATE VS. OBVIATIVE. This distinction is relevant only to third person nominals, and only in contexts containing nominals which refer to more than one third person participant. In such contexts, the participants are ranked (by the speaker) with respect to what is variously described as topicality, focus of interest, prominence, etc. Only those nominals that refer to the highest-ranked participant are proximate; all others are obviative. The proximate category is viewed analytically as the unmarked member of the opposition, since the proximate form of the noun occurs outside of obviation contexts, that is in contexts where there is only one third person

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[1] This article focuses on the syntax of obviation, and touches only in passing on how obviation is used to shape discourse. For discussions of the latter, see especially Goddard 1984, 1990, Whistler 1985, Cooreman 1987, and Dryer 1994.

[2] For the most part, Algonquianists seem to be in agreement about the basic workings of obviation, and this section attempts to summarize their view. I am glossing over language-particular differences within the family, without, I hope, serious misrepresentation. See Bloomfield 1962, Hockett 1966, Frantz 1966, Wolfart 1973, LeSourd 1976, Grafstein 1981, Goddard 1984, 1990, Rhodes 1990, Dahlstrom 1991, 1995.

participant. The examples in 1 are from Plains Cree (Wolfart 1973:17): 1a shows a third person *(atim)* in a context where it is the only third person, hence proximate. In 1b, there are two third persons; the subject is proximate and the object is obviative, indicated by the suffix *-a* (in italics). (Algonquianists generally gloss proximate nominals as 3, and obviatives as 3′).[3]

>   (1)   a.   Niwa·pama·w atim.   Plains Cree
>   see (1–3)   dog (3)
>   'I see the dog.'
>   b.   Pakamahwe·w na·pe·w atimw*a*.   Plains Cree
>   hit(3–3′)   man(3) dog(3′)
>   'The man hits the dog.'

In short, if there are two third person arguments within the relevant linguistic span, at least one will be forced into obviation. The span within which one third person is maintained as proximate and all others forced into obviation can be indefinitely large, including many sentences and paragraphs (see especially Goddard 1984, 1990). However, it cannot be indefinitely small. There are contexts in which obviation is obligatory, that is, in which at least one third person must be obviative.

The two commonly cited obligatory contexts are transitive clauses with two third person arguments, and nominals containing a possessed noun and third person (animate) possessor. In the first case, at least one of the two nominals must be obviative. Whether it is subject or object is determined in part by semantic factors and in part by factors external to the clause. In the second case, the possessor is proximate or obviative (depending on whether or not there is another, more prominent third person in the local context), but the possessed nominal is always obviative.

>   (2)   a.   ote·ma   Plains Cree
>   his(3) horse(3′)
>   b.   ote·miyiwa
>   his(3′) horse(3′)   [Wolfart 1973:31]

Roughly then, within clauses obviation is obligatory. Across sentences, proximate status can change, with a new participant brought in as proximate or a nominal previously assigned obviative now assigned proximate. (A more precise characterization is proposed below.)

Obviation is also relevant to several features of verbal morphology in Algonquian. Most relevant here is the choice between the DIRECT form of the verb and the INVERSE form. In Algonquian, a transitive verb generally agrees with both subject and object, but grammatical function is not identified by the form or position of agreement morphemes. What determines the linkage between agreement and grammatical function is the THEME SIGN, in particular, whether it is direct or inverse. The interpretation of the theme sign refers to the language-particular hierarchy in 3, which ranks nominal arguments (local = 1st or 2nd).[4]

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[3] In general, I do not provide morphological analyses of the Algonquian unless they were provided in the original sources. The abbreviations used in this article are A1(2, 3): Set A, 1st person (etc.) marker; AUX: auxiliary; B1(2): Set B, 1st person (etc.) marker; CL: clitic; CP: completive aspect; DIR: directional; ENC: enclitic; ICP: incompletive aspect; IO: ditransitive suffix; IRR: irrealis; L: linker; LOC: local case marker; NT: neutral aspect; OBL: oblique case marker; OBV: obviative; PF: perfect aspect; PLEXC: plural exclusive; PSV: passive; Q: interrogative particle; TA: transitive, animate (object); TI: transitive, inanimate (object); TOP: topic; UNM: unmarked case marker; WH: interrogative pronoun.

[4] The ranking between first and second person is not considered here. DeLancey (1981) argues that there is no fixed universal ranking, and further that there is evidence for both internal to Algonquian.

(3) local person > 3 proximate > 3 obviative

If the direct form is used, then the higher-ranked participant in 3 is linked to subject, and the lower-ranked to object. The inverse form indicates the reverse—that the higher-ranked participant is object, and the lower-ranked subject. This is seen clearly in the minimal pair in 4 (from Dahlstrom 1991:37–38) where the forms are identical, except for the theme sign (italicized below), and where this choice determines whether the first person is interpreted as subject or object. The pair in 5 (Dahlstrom 1991:45–46) shows that the direct/inverse distinction extends to third person pairs as well.

(4) a. ni-wa·pam-*a*·-na·n   Plains Cree
         1-see-DIRECT-1PL
            'we (excl.) see him'
     b. ni-wa·pam-*iko*-na·n   Plains Cree
         1-see-INVERSE-1PL
            'he sees us (excl.)'
(5) a. wa·pam-*e*·-w   Plains Cree
         see-DIRECT-3
            'he (prox) sees him (obv)'
     b. /wa·pam-*ekw*-w/ → wa·pamik   Plains Cree
         see-INVERSE-3
            'he (obv) sees him (prox)'

This discussion assumes an analysis of the Algonquian inverse which holds that inverse forms, like direct forms, are transitive, with the agent corresponding to subject and the patient to object. What distinguishes them is the way grammatical relations align to the hierarchy in 3.[5] Thus the relation between the direct and inverse forms is regarded as one of DIRECTION, not voice. The fact that both direct and inverse clauses are transitive reflects the fact that subject choice in languages like Fox and Plains Cree is determined by semantic role, and not by discourse prominence (see §6 below).

An important feature of the inverse system in Algonquian is that categories of person (1, 2, 3) and the relations of obviation (proximate, obviative) are treated on a par. This is not a universal feature of inverse systems: there are languages in which the hierarchy determining direct or inverse marking involves only person (e.g., Nocte, a Tibeto-Burman language discussed in DeLancey 1981); and languages in which inverse systems reference only the proximate/obviative distinction within the third person (e.g., Kutenai, discussed in Dryer 1992, and possibly several Athabaskan languages (Thompson 1989, 1994). In such languages, the hierarchy has the form in 6a or 6b.

(6) a. local person > 3 person
     b. proximate > obviative

The possibility of participant hierarchies with the form 6b will be further supported here (I will also discuss in §6 the possibility of replacing the complex hierarchy in 3 with the pair in 6.)

[5] LeSourd 1976, Perlmutter & Rhodes 1988, and Rhodes 1994 articulate an alternative view in which direct and inverse forms are relationally different. LeSourd argues that direct forms are active and inverse forms passive in Fox. Perlmutter and Rhodes analyze inverse forms in Ojibwe as involving a reversal of grammatical relations such that the earlier subject becomes direct object, and the earlier direct object becomes subject. In both analyses, the highest-ranking (surface) grammatical relation (subject > object > passive agent) is always linked to the higher position in 3. See also Arnold 1994. Dahlstrom (1991, 1995) argues for analyses of Plains Cree and Fox like that mentioned in the text and I will assume this analysis for Algonquian generally in what follows. However, the overall framework sketched in this paper is compatible with relation-changing analyses, as elaborated in §6.1.

The relevance of obviation to grammar is the subject of this paper. In order to think about how obviation functions, I will make more explicit some of the assumptions that underlie its treatment in Algonquian. I turn to this in the next section, drawing heavily on ideas in the literature, especially the conceptualization of Hockett 1966.

2. THE OBVIATION TIER. A basic idea developed here is that there is a dimension of linguistic representation called the OBVIATION TIER which is organized into OBVIATION SPANS. There is a small set of relations involved in the description of an obviation span. These relations have the names {Prox(imate), Obv(iative)$_1$, Obv(iative)$_2$, ...}. Each third person nominal in a sentence bears an obviation relation to an obviation span. I assume that an obviation span contains at most one proximate, one obviative$_1$, etc. This is consistent with descriptions in the literature which claim that within the relevant span there is only a single proximate third person, but possibly several obviatives (see the references of n. 2); I make the further assumption that the multiple obviatives correspond to distinct, ranked, relations (§3.5). Second, I assume the condition in 7, which restricts the relations of obviation to third person nominals, and requires that every third person nominal bear one such relation.

(7) OBVIATION: A nominal Nom$_n$ bears a relation (of obviation) to an obviation span if and only if Nom$_n$ is third person.

Obviation spans are represented in brackets, i.e. [Proximate Obviative$_1$ ...]. The linkage between nominals (labeled by grammatical relation) and relations in an obviation span is represented by lines, as in 8.

(8) [Proximate   Obviative]

         V   O   S
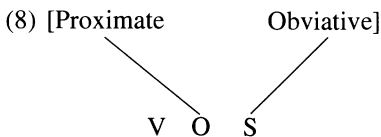
Following 7, the linkages in 8 are well-formed only if both nominals are third person.

Finally, there is a connection of fundamental importance between coreference and obviation: within an obviation span, nominals which are presupposed coreferential 'agree' in obviation,[6] that is they bear the same relation of obviation to the obviation span. This property of obviation systems makes them appropriate mechanisms for tracking discourse referents. Wolfart (1973:18) cites 9 from Plains Cree to illustrate this point.

(9)   Namoya kiske·yihtam a-say   e·h-kitamwa·yit oniskima.
      not   know (TI 3) already eat.up (3′–3′)   his(3)–goose(3′)
         'He$_i$ did not know that the other$_j$ had already eaten his$_i$ geese.'

The fact that the possessor of 'goose' is proximate, in agreement with the matrix subject, disambiguates this sentence in Plains Cree.
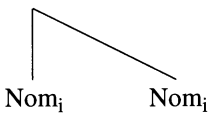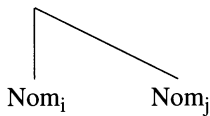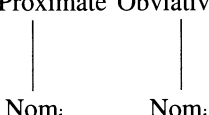
I propose that the relation between reference and obviation linkage is enforced by the condition in (10).[7]

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[6] The term AGREEMENT is used by Garvin (1958), who is explicit about this relation.

[7] Hockett (1966) in effect proposes half of 10, the half that requires nominals referring to distinct entities to bear distinct relations of obviation. He cites equatives as evidence that coreferents need not bear the same relation. In *that man is Bill's father,* the subject can be proximate and the predicative nominal obviative (because it is possessed by an animate). In this case, however, coreference is asserted, not presupposed. The restriction in 10 to PRESUPPOSED coreference is included to allow the biconditional.

(10) Co-LINKING: Distinct nominals, Nom_n, and Nom_m, bear the same relation in an obviation span if and only if Nom_n and Nom_m are presupposed coreferential.

Condition 10 allows the linkage in 11a, and rules out 11b,c.

(11) a. [Proximate   Obviative]   b. *[Proximate Obviative]

         Nom_i Nom_i Nom_i Nom_j

    c. *[Proximate Obviative]

         Nom_i Nom_i

Several additional constraints will be proposed in later sections, in particular 24, which will force the subject and object in a single clause to bear relations to the same obviation span, likewise, a noun and its possessor. What determines which third person will be chosen as proximate at any given point in the discourse? As noted earlier, this choice is determined by a complex function that includes reference to inherent semantic features like animacy as well as to discourse salience. The latter notion remains unanalyzed here. Bloomfield (1962:38) described the proximate third person as 'the topic of discourse, the person nearest the speaker's point of view, or the person earlier spoken of and already known'. The ranking of referents according to discourse salience is a psychological or cognitive task, not a linguistic one, though some of our best information about this ranking may come from linguistic evidence.

Up to now, nothing has been said about *which* languages are subject to 7, the requirement that all third persons associate to the obviation tier. A priori, several positions are possible. One is that only languages with overt obviative morphology, like the Algonquian languages, are subject to 7.[8] I will present evidence that this quite concrete view is too restrictive, for the relevance of obviation can be seen in languages that do not manifest it morphologically. This still leaves the possibility that some languages are subject to 7 and others are not, say only those with an inverse category. I will argue that this also is too concrete a view. At the present state of understanding, it is possible to identify the ways in which obviation is relevant to some languages, but this is not possible for others. But it seems unwise to assume that obviation is relevant only where we can presently recognize it. Hence, I assume for now that all languages are subject to 7, and will try to make clearer in §6.2 where the difference between English, say, and the Algonquian languages might be located, given the assumption that both are subject to 7. In general, I leave open the question of exactly HOW the required association to the obviation tier is expressed in individual languages, regarding Algonquian languages as an extreme case in which the association is revealed both directly through nominal marking and indirectly through the direct/inverse distinction. In §3, I show how some basic facts of the Algonquian languages are accounted for in terms of the obviation tier.

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[8] Dryer 1992 may exemplify this position. This article distinguishes three aspects of obviation: its morphology, its syntax, and its use in discourse, and is critical of several earlier attempts to see obviation where it exists independent of nominal inflection.

3. Hierarchy alignment in Algonquian.

3.1. Alignment types. As stated earlier, the direct form of the verb is used in Algonquian when the subject outranks the object on the hierarchy in 3, repeated below as 12: when the object outranks the subject, the inverse form is used:

(12) Algonquian Part(icipant) Hier(archy): local person > proximate > obviative

What is involved here can be seen as the alignment of two hierarchies, the participant hierarchy, and the RELATIONAL HIERARCHY.[9] Assuming the relational hierarchy in 13,[10] then the direct form of the verb is used when direct alignment of the two hierarchies is satisfied. DIRECT ALIGN, a two-place relation between hierarchies, X, Y, is defined in 14. Its satisfaction requires that there be no two elements α, β such that α outranks β on X, but β outranks α on Y.

(13) REL(ATIONAL) HIER(ARCHY) [tentative]: subject > primary object

(14) DIRECT ALIGN (X, Y) iff $\neg \, \exists\alpha\exists\beta \mid \alpha > \beta$ on X and $\beta > \alpha$ on Y.

Consider a situation in which the subject is second person and the object third person. DIRECT ALIGN (REL HIER, PART HIER) is satisfied since the second person outranks the third both on the participant hierarchy and the relational hierarchy. Hence, the direct form of the verb is used. The same holds when the subject is (third person) proximate and the object (third person) obviative. On the other hand, the inverse form is used when INVERSE ALIGN is satisfied.

(15) INVERSE ALIGN (X, Y) iff $\exists\alpha\exists\beta \mid \alpha > \beta$ on X and $\beta > \alpha$ on Y.

INVERSE ALIGN requires two elements, α, β, each of which is ranked by the two aligned hierarchies X, Y, such that α outranks β on one hierarchy and β outranks α on the other. Consider a situation in which the subject is third person and the object second person. The third person outranks the second on the relational hierarchy, but the second person outranks the third on the participant hierarchy. This satisfies INVERSE ALIGN (REL HIER, PART HIER), and the inverse form of the verb is used. (Below, if the arguments to α-ALIGN are not named, reference is to alignment of the relational hierarchy and the participant hierarchy.)

The alignment constraints which involve the relational hierarchy (e.g. DIRECT ALIGN (REL HIER, PART HIER)) are interpreted here as constraints associated with particular morphological paradigms. (In some languages (see §6), they can be interpreted as constraints on the relational structure of clauses.) The role played by the obviation tier is indirect, but crucial. It provides information about the obviation status of third persons, information which is crucial to their ranking on the participant hierarchy.

3.2. Genitive constraints. As noted earlier, assignment of proximate status to third person (animates) is generally free at the clause level, with the choice of proximate determined by factors external to the clause. But there is one context in which this choice is not free in Algonquian: when both a possessed noun (POSSESSUM) and its possessor (GENITIVE) are third person (animate), the genitive must outrank the possessum

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[9] An antecedent is Perlmutter (1993), who proposed that some of the sorts of facts discussed here involved hierarchy alignment. Perlmutter argued that one of the aligned hierarchies would always be the relational hierarchy. This article gives the central role instead to the participant hierarchy.

[10] In ditransitive clauses, there are two nonsubject arguments, with sharply different morphosyntactic behavior (Dahlstrom 1995). The argument corresponding to recipient, benefactive, and so forth is the one that patterns with the sole object in monotransitive clauses. PRIMARY OBJECT refers to this object. Dahlstrom provides evidence that properties of the primary object, but not the secondary object, are relevant to the distribution of direct and inverse in Fox.

on the participant hierarchy (see references in n. 2). In this situation, the possessum can never be proximate. In discourses involving only two third persons, the possessum will be obviative and the genitive proximate, as in 16a below from Fox (Dahlstrom 1995:38). Ungrammaticality results if the genitive is obviative and the possessum proximate (16b), or if both are proximate (16c):

(16) a. neniwa okwisani   b. *neniwani okwisa
         man (3) his.son (3')   man (3') his.son (3)
         'the man (prox)'s son (obv)'   'the man (obv)'s son (prox)'
     c. *neniwa okwisa
         man (3) his.son (3)
         'the man (prox)'s son (prox)'

This constraint on the assignment of proximate can be seen as an alignment constraint if we assume a nominal hierarchy of the form genitive > possessum. Then Algonquian requires direct alignment of the nominal hierarchy with the participant hierarchy. I will refer to this constraint, 18, as GEN > HEAD.

(17) NOM(INAL) REL(ATIONAL) HIER(ARCHY): genitive > possessum
(18) DIRECT ALIGN (NOM REL HIER, PART HIER) GEN > HEAD
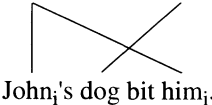
(Since the possessum can only be third person, while the genitive can be any person, structures with first and second person genitives always satisfy GEN > HEAD. The effect of 18 then is really to constrain the assignment of proximate and obviative when both possessum and genitive are third person.

We are now in a position to explain two important gaps in the direct/inverse paradigm in Algonquian, gaps having to do with genitives. These gaps are particularly significant in view of the fact that it is generally possible for transitive propositions involving third person participants to be equivalently expressed in Algonquian using either the direct or the inverse form, with the choice dependent on those factors that determine choice of proximate. However, in the cases we are about to discuss, there is only one way to express the proposition.

The first case involves transitive structures in which the subject has a third person genitive coreferential with the object. In these cases, only the inverse is possible. The configuration in which 'a possessed noun acts on its possessor' is cited by Wolfart (1973:25) as one in which choice of direction (i.e. direct vs. inverse) is predetermined (see also Frantz 1966, Rhodes 1993).

(19) Ca·n   ote·ma   ki·-ma·kwamik.   Plains Cree
     John(3) his(3)dog(3') bite (TA 3'–3)
     'John's dog bit him (sc. John).'

The verb form in 19 is inverse. While Wolfart does not cite the corresponding direct form, he implies clearly that it is ungrammatical with the meaning of 19. The representation of 19 on the obviation tier explains why the inverse is required and the direct form excluded.

(20) a. [Proximate   Obviative]   b. *[Proximate   Obviative]

         John$_i$'s dog bit him$_i$.   John$_i$'s dog bit him$_i$.

The representation in 20a is well-formed, and forced by two constraints posited earlier. GEN > HEAD requires that 'John' outrank 'dog', as shown. Further, the co-linking condition (10) forces proximate status on the object since it is coreferential with the

genitive. The result is that the object ('him') outranks the subject ('John's dog') on the participant hierarchy, a configuration that satisfies INVERSE ALIGN and licenses the inverse verb form. The representation in 20b, which would satisfy DIRECT ALIGN and license the direct form, violates GEN > HEAD and is thus ill-formed.

Our assumptions predict a complementary gap when the genitive of the OBJECT is coreferential with the subject. In these cases, only the direct form of the verb is predicted possible. This too is correct (A. Dahlstrom, R. Rhodes, p.c., Rhodes 1993).[11] Rhodes (1993) cites the examples in 21 from Ojibwe. Each is multiply ambiguous as to reference, but the inverse form cannot mean 'he$_i$ sees his$_i$ son' (thanks to Rich Rhodes for providing the glosses):

(21) a. /o-waabam-aa-an   o-gwis-an/ → Wwaabmaan wgwisan.
       3-see(TA)-DIRECT-OBV 3-son-OBV
         'He$_i$ sees his$_{i/j}$ son.' *also* His$_i$ son sees him$_{j/*i}$.'

   b. /o-waabam-igo-a   o-gwis-an/ → Wwaabmigoon wgwisan.
       3-see(TA)-INVERSE-OBV 3-son-OBV
         'He$_i$ sees his$_{j/*i}$ son.' *also* 'His$_i$ son sees him$_{i/j}$.

Again, representation on the obviation tier makes clear why inverse is excluded here:

(22) a. [Proximate Obviative]   b. *[Proximate Obviative]

        He$_i$ saw his$_i$ son.   He$_i$ saw his$_i$ son.

Within the object, GEN > HEAD forces the genitive to outrank the possessum, as in 22a. The co-linking condition then forces proximate status on the subject since it is coreferential with the genitive. The combined result is that the subject necessarily outranks the object on the participant hierarchy, satisfying DIRECT ALIGN, but not INVERSE ALIGN. The alternate linkage in 22b, which would satisfy INVERSE ALIGN, violates GEN > HEAD, and is thus ill-formed.

The success of the accounts just offered depends crucially on the assumption that all nominals involved, the subject, the genitive of the subject, the object, and the genitive of the object, associate to the SAME obviation span. If they could associate to distinct obviation spans, as in 23, then DIRECT ALIGN would be satisfied in 19, and we would have no way to exclude the direct form of the verb.

(23) [Proximate Obviative][Proximate]

      John$_i$'s   dog   bit   him$_i$.

The issue raised here is fundamental: At what points in the syntactic structure is it possible to switch to a new obviation span? The Algonquianist literature suggests that an obviation span can be indefinitely long, covering many sentences. If so, no upper bound should be set. On the other hand, there are lower bounds, for it seems impossible to initiate a new obviation span within a clause, for example it is not possible for the subject and object of the same verb, or a possessum and its genitive to associate to

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[11] Rhodes (1990:112) cites an apparent counterexample from Bloomfield's account of Eastern Ojibwe (1958:158): *the snake$_i$ bit* INVERSE *his$_i$ friend,* but the original context of this example makes clear that there is no coreference between the subject and the genitive: *He saw the snake, but his friend did not. That snake bit his friend.*

different obviation spans. The minimal span condition (24) is intended as an initial (i.e. tentative) constraint on the minimal size of an obviation span; it raises a number of analytical issues that can only be resolved by further research (e.g. is it correct to distinguish arguments from adjuncts, as intended here?).

>   (24) MINIMAL SPAN: Let A be a set consisting of a head and its arguments. Then, for each pair α, β in A, if α bears a relation to B, B an obviation span, and β bears a relation to C, C an obviation span, then B = C.

Since all and only third person nominals associate to obviation spans, the domain of 24 is restricted to such pairs. Crucially, 24 forces association to the same obviation span in the case of subject and object (third person nominal) coarguments; also in the case of a nominal head and its genitive argument (both third person). By transitivity, if a third person nominal argument α has a third person nominal coargument β, and β has a third person argument of its own (e.g. a genitive) γ, then α and γ associate to the same obviation span. Thus, the minimal span condition forces association to the same obviation span of the three nominals in each of 19 and 21. With this in place, the two genitive-related gaps in the distribution of direct and inverse forms receive straightforward accounts in terms of obviation. These gaps are diagnostics which can be used to probe for the relevance of obviation in a language. We will see these gaps replicated in several other languages below.

3.3. ANIMACY: PARADIGMATIC GAPS. Nouns are classified into two genders in Algonquian, usually termed ANIMATE and INANIMATE. The classification appears to be in part semantically based, and in part grammatical (see Dahlstrom 1995:25ff. for discussion). All nouns denoting humans and animals belong to the animate gender, but so do some nouns denoting objects and abstractions. Unless otherwise stated, I use the term ANIMATE to refer to grammatical animacy when talking about Algonquian.

There is a further set of paradigmatic gaps in the distribution of the direct and inverse forms that relates to animacy. These gaps are central to the morphology of the Algonquian languages and are well documented. Algonquian verb stems are classified according to the animacy of the subject in the case of intransitive verbs, and according to the animacy of the object in the case of transitives. This yields four classes: AI, intransitive animate; II, intransitive inanimate; TA, transitive animate; and TI, transitive inanimate. Only the two classes of transitive stems are relevant here; of interest in this discussion is the fact that direct and inverse forms are not available for all combinations of subject/object pairs, crossed for animacy. It is possible to account for the observed patterns in terms of hierarchy alignment if we assume an animacy hierarchy as in 25, and a direct alignment condition with the participant hierarchy, ANIM > INAN.

>   (25) ANIM(ACY) HIER(ARCHY): animate > inanimate
>   (26) DIRECT ALIGN (ANIM HIER, PART HIER) ANIM > INAN

The direct align condition (26) requires that if a nominal α outranks another β on the animacy hierarchy, that β not outrank α on the participant hierarchy. When both arguments are equally ranked (i.e. are 'balanced') on the animacy hierarchy, 26 has no effect. The interesting cases are those in which the two arguments are unbalanced, in which case 26 requires that the inanimate not outrank the animate in obviation status. Thus, in a context with only two third persons, unbalanced for animacy, the animate must be proximate and the inanimate obviative. With this in mind, we consider the various paradigms, starting with the TA paradigm.

By definition, the object of a TA verb is animate. When the subject is also animate and both are third person, both direct and inverse forms exist, distributed according to

the obviation status of the two arguments, this determined by discourse prominence. A doublet of this sort was cited in 5a, b.

It is possible, however, for the subject of a TA verb to be inanimate. In this case, the various Algonquian languages vary somewhat in the form of the verb, but common to all of them is the absence of a direct form. The form which is used is either the inverse form or a form clearly derived from the inverse form. In Fox, for example, TA verbs with inanimate subjects (glossed below as *0.subj*) use the theme sign *-ekwi-* 'which is clearly related to the inverse theme sign *-ekw-* used with animate subjects ranked lower than the object' (Dahlstrom 1995:98).[12]

    (27) wa·pam-ekwi-w-a   Fox
            look.at-0.SUBJ-3-SG
            'It looks at him.'

The absence of the direct form follows immediately from the assumptions already in place, as seen in the representations in 28.

    (28) a. *[Proximate Obviative]   b. [Proximate Obviative]

              It looks at him.   It looks at him.

Given ANIM > INAN, only 28b is possible. But under this linkage, the object outranks the subject on the participant hierarchy. This then is an instance of inverse alignment between the relational hierarchy and the participant hierarchy, and only the inverse form is licensed. ANIM > INAN then directly explains the absence of a direct form in the TA paradigm when the subject is inanimate and the object animate.

The TI paradigm shows a complementary gap when the subject is animate: there is a direct form but no inverse form (see the paradigm tables for Plains Cree in Wolfart 1973:43, or for Fox in Dahlstrom 1995, Appendix). The object in this case is (by definition) inanimate; the verb inflects only for features of the subject.

    (29) wa·pahtam   Plains Cree
            see (TI 3)
            'He sees it.' [Wolfart 1973:38]

Again, a representation of 29 including linkage to the obviation tier explains the absence of the inverse form.

    (30) a. [Proximate Obviative]   b. *[Proximate Obviative]

              He sees it.   He sees it.

The linkage in 30a satisfies Anim > Inan, while that of 30b does not. Moreover, 30a is only compatible with DIRECT ALIGN, hence the direct form of the verb.[13]

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[12] According to Dahlstrom: "the morpheme *-ekwi-* is a Fox innovation (Goddard 1967); other Algonquian languages use the regular form of the inverse theme sign for inanimate subject forms" (1995:98).

[13] It is possible, however, for the subject of a TI verb to be inanimate. The apparatus set up so far would predict the possibility of both a direct and an inverse form in such cases, depending on which of the two arguments was selected as proximate. This expectation appears not to be realized, as there seems to be only one form, probably to be identified with the direct form. In some languages (e.g. Menominee (Bloomfield 1962:145), Fox (Dahlstrom 1995:92)), a special suffix must be added, indicating that the subject is inanimate, rather than animate. This suffix (Men. *-makat,* Fox *-:mikat*) also occurs in AI forms when the subject is inanimate. According to Wolfart (1973), the normal TI (direct) form can be used in this situation in Plains Cree.

	DIRECT	INVERSE
anim subj/anim obj (TA)	√	√
inan subj/anim obj (TA)	*	√
anim subj/inan obj (TI)	√	*
inan subj/inan obj (TI)	see fn. 13	

TABLE 1.   Animacy-based gaps in Algonquian.

Table 1 summarizes the gaps based on animacy.

In Algonquian, it is clear that animacy and obviation are linked. The pattern of gaps summarized in Table 1 for Algonquian is found in both Tzotzil and Chamorro, modulo some language-particular differences, and I will argue that in those languages too, animacy restrictions are mediated by obviation.

3.4. GENITIVES AND ANIMACY. Given the two constraints established above (GEN > HEAD, ANIM > INAN), we are now in a position to consider an interesting analytic question: When the two constraints conflict, how is the conflict resolved? The crucial examples involve an inanimate genitive and an animate head, as schematized in 31.

(31) its N_{anim}
       GEN > HEAD
       INAN < ANIM

By virtue of being genitive, the possessor should outrank the possessum on the participant hierarchy; but by virtue of being animate, the possessum should outrank the possessor.

Relevant examples occur rarely, if at all (Ives Goddard, p.c., Rich Rhodes, p.c.), and are not routinely discussed in the Algonquian literature; however, the following two passages appear to bear on the question. Hockett (1966:64) writes in connection with Potawatomi:

> If the possessed noun is animate but the possessor inanimate, then the prefix /w-/ appears BUT THE OBVIATIVE SUFFIX IS NOT NEEDED [emphasis added]. Thus /wnukwiknun/ is *his (a bird's) wing* (bird's wings happen to be animate entities in Potawatomi, at least when named by this noun), with the possessed noun obviated; while /wnukwikun/ might occur meaning *its wing*.

My interpretation of this passage is that the obviative suffix is not needed because the possessum need not be obviative; it can be proximate. In this case, presumably, the genitive is obviative and the possessum proximate, a violation of GEN > HEAD, but consistent with ANIM > INAN.[14] Bloomfield (1962:42) reports the same in Menominee.

> The noun inflection for a third person possessor does not in principle distinguish gender: *ohka·t* 'his leg' (of a person, animal, or kettle) is used also of an inanimate possessor, 'its leg' (as, of a stove, chair, or table). However, if the possessed noun is animate, it is always in obviative inflection with an animate third person possessor: *osɛ·hpɛhkon* 'his backbone' contrasts with *osɛ·hpɛh* 'its roof beam' (of a house), since the stem *-sɛhpɛhkw-* is animate.

The point here is that while the animacy of the genitive is not marked directly through agreement on the possessum, it can be deduced from the obviation status of the pos-

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[14] Under this analysis, the possessum could be obviative if there were some other third person in the local context (not the genitive) which was proximate. This is consistent with the passage from Hockett, which implies that the possessum can be obviative.

sessum. As in Potawatomi, if an animate noun is possessed by an animate genitive, then the possessum must be obviative, as expected, given GEN > HEAD; however, if it is possessed by an inanimate genitive, it apparently need not be obviative, and may thus be proximate. In sum, in both languages, when an animate noun is possessed by an inanimate possessor, it appears that the possessum can be proximate and the genitive obviative, in violation of GEN > HEAD. Intuitively, ANIM > INAN takes precedence over GEN > HEAD.[15]

Up to now, I have regarded all constraints as inviolable. But the situation just discussed is explicable only if constraints are violable and ranked. These are two of the central ideas of optimality theory, which thus provides a suitable theoretical framework for conceptualizing the relation among constraints in this domain. In optimality theory, (all?) constraints are provided by universal grammar, and the grammar of a particular language is a ranking of those constraints. Inputs are associated by universal grammar with a set of candidate outputs, and this set is evaluated by the ranked constraints that define the grammar of the language. That outcome (or set of outcomes) is selected as optimal which best satisfies the set of ranked constraints, that is which satisfies the highest-ranking constraint on which candidates disagree. In this conception, constraints will routinely be violated, when such violation is necessary to ensure satisfaction of a higher-ranked constraint.

The situation at hand can be modelled by ranking ANIM > INAN over GEN > HEAD in Potawatomi and Menominee. Consider first the case of animate possessum and genitive. The evaluation is shown in the tableau in 32. Each candidate corresponds to a row in the tableau, and the effect of each constraint to a column. Ranking of constraints is represented by their left-to-right order along the top. Violation of a constraint is represented by *, and satisfaction by a blank cell. The sign ! indicates which violation is 'fatal', that is, the one responsible for the removal of the candidate from further consideration. Subsequent cells in that row are shaded, indicating the irrelevance of the constraint in question to the outcome. The sign ☞ indicates the optimal candidate. In this case, the candidate set consists of the nominal 'his backbone', with all possible assignments to the obviation tier consistent with the principles proposed earlier, the co-linking condition (10) and the minimal span condition (24).

(32)

	ANIM > INAM	GEN > HEAD
his$_{anim}$ backbone$_{anim}$ ☞ P O		
O P		*!

The first candidate satisfies both constraints, while the second violates GEN > HEAD. This violation is indicated by *! because it is fatal. Hence, the first candidate is optimal

[15] Both Ives Goddard and Rich Rhodes have pointed out a possible alternative analysis of these forms, where the examples cited by Hockett and Bloomfield would involve an obligatorily possessed noun stem used without a genitive. One treatment of such forms in a number of Algonquian languages, including some cases in Menominee, involves the third person possessive prefix which, however, does not cross-reference a genitive. Under this interpretation, the form cited by Bloomfield would be more akin to a noun compound, i.e. 'house-backbone'. See Bloomfield 1962:128ff, Goddard 1995:126. If this alternative analysis is correct, then the citations from Bloomfield and Hockett may not shed any light on the interaction of ANIM > INAN and GEN > HEAD in Algonquian.

(therefore marked by ☞): it satisfies the highest ranked constraint (GEN > HEAD) on which the candidates disagree.

When the possessum is animate and the genitive inanimate, no candidate can satisfy all constraints.

(33)

	ANIM > INAN	GEN > HEAD
its$_{inam}$ roofbeam$_{anim}$ P O	*!	▨
☞ O P		*

In this case, the second candidate is optimal, since it satisfies the highest ranked constraint on which the two candidates disagree, namely ANIM > INAN.

This example provides initial motivation for a constraint-ranking approach to the hierarchy alignment constraints in this domain. In optimality theory, a grammar is a ranking of constraints. Whether the particular ranking of the two constraints required for Potawatomi and Menominee is arbitrary or motivated is unclear. If it is arbitrary, the expectation is that there are languages with the opposite ordering. Whether this is the case remains to be seen.[16]

3.5. RANKED OBVIATIVES. In obviation spans involving more than two third persons, only one third person can be proximate, the others must be obviative. Given the way hierarchy ranking organizes the morphosyntax in these languages, one would expect multiple obviatives within a span to be ranked, and there is some evidence from Algonquian that this is the case. Consider, for example, a proposition like 'that young man said to Scarface's brother-in-law' (from Frantz 1966), with three third person participants. If the verb is in the direct form, satisfaction of both DIRECT ALIGN and GEN > HEAD requires the linkage in 34, where obviative$_1$ > obviative$_2$.

(34)   [Proximate   Obviative$_1$ Obviative$_2$]

       young.man   said to Scarface's brother-in-law
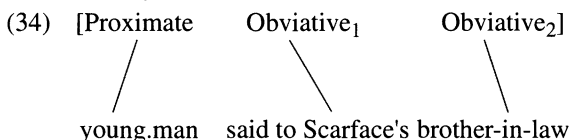
In fact, Blackfoot provides visible evidence that the two obviative relations in 34 are distinct, for they are marked by different morphology (Frantz 1966). In the Algonquian literature, Obviative$_2$ is generally called the FURTHER OBVIATIVE.[17]

A further expectation is that the two participants in a transitive proposition can both be obviative (the proximate being some other participant in the local discourse), and the verb either direct or inverse, depending on which obviative is subject and which object. This is realized, for example, in Fox (Dahlstrom 1995:ch. 3), and in Plains Cree (Dahlstrom 1991:98). Importantly, LeSourd (1976:489–91) argues that textual examples are consistent with the position that the subject obviative is more discourse

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[16] Several descriptions of Algonquian languages suggest that contrasts of the sort documented above are not found throughout the family. Both Wolfart (1973:28) on Plains Cree and Dahlstrom (1995:38) on Fox say that the possessum can never be proximate with a third person genitive, but neither discussion explicitly brings animacy into the picture, or discusses the particular cases in question, so it is unclear whether Plains Cree and Fox are actually different from Potawatomi and Menominee in this respect.

[17] Other languages that make this distinction morphologically are Potawatomi (Hockett 1948:72) and Plains Cree (Dahlstrom 1995:47). My understanding is that further obviative is marked only in genitive constructions (i.e. on the possessum when the possessor is obviative).

prominent than the object obviative when the direct verb is used, while the reverse is true with the inverse verb. Consistency requires that ranked obviatives be assumed, and it would be nice to see this confirmed in a language that marks different degrees of obviative on nominals. While ranked obviatives will not be discussed further in this article, their existence is assumed as part of the overall framework proposed here.

3.6. CONCLUSIONS. The participant hierarchy figures as an argument in four alignment constraints discussed so far, testimony to its central role in Algonquian.

    (35) a. DIRECT ALIGN (REL HIER, PART HIER)
        b. INVERSE ALIGN (REL HIER, PART HIER)
        c. DIRECT ALIGN (NOM REL HIER, PART HIER)
        d. DIRECT ALIGN (ANIM HIER, PART HIER)

The first two constraints are paired, and govern the distribution of direct and inverse verbs. There is no evidence here that they are ever violated. The second two are independent, and evidence has been presented that 35c may be violable, and ranked below 35d. The ingredients of this analysis and its basic insights are not new, and can be found in the Algonquian literature. The particular implementation I have proposed has some novel aspects, in particular, the interpretation of these constraints as alignment conditions whose interaction is governed by optimality theory, and the particular conceptualization of the obviation tier and associated constraints.

4. TZOTZIL. It has not been suggested before that obviation might be relevant to languages of the Mayan family. In general, these languages have nothing corresponding to obviative morphology in the nominal system, nor anything directly corresponding to the inverse of Algonquian. Nonetheless, I will argue in this section that one Mayan language, Tzotzil, shows striking parallels with the Algonquian languages; these can be explained if we assume that obviation plays a central role in Tzotzil syntax, and that the language is characterized by alignment constraints involving an (appropriately defined, language-particular) participant hierarchy. At the same time, significant differences between Tzotzil and the Algonquian languages are responsible for obscuring the similarities. These differences too must be expressed. Some of the phenomena discussed here are found in other Mayan languages, but the extent to which the conclusions reached here for Tzotzil hold more generally is unknown at present.

4.1. GENITIVE EFFECTS AND THE TZOTZIL PARTICIPANT HIERARCHY. Tzotzil is subject to genitive effects much like those of Algonquian: in particular, it is not possible in Tzotzil for the third person lexical possessor of the subject to be interpreted as coreferential with the object in an (active) transitive clause.[18]

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[18] The status of examples with pronominal genitives is unclear at present; speakers SPORADICALLY accept such sentences. Although this might suggest a binding theory account, there are various problems with such an account (see Appendix).

  Examples 36a,b have another fully grammatical reading in which *pro* is not object, but genitive within the object: 36a means 'Manuel$_i$ is looking for his$_i$ wife'; 36b means 'The boy$_i$ ate his$_i$ dog'. A referee suggested that the disjoint reference effects in 36 might be due to the existence of this competing reading. This seems unlikely since disjoint reference persists when the coreferential nominal is realized lexically as object. Haviland (1981:289) cites (i) (with the double asterisks).

    (i) ** I-s-mil   Xun$_i$ [li y-ajnil-e   *pro$_i$*].
           CP-A3-kill Juan the A3-wife-ENC
           'His$_i$ wife killed Juan$_i$.'

By virtue of the word order, (i) has no alternative reading except one in which someone else's wife killed Juan, a reading requiring contextual support. Analogous effects are found in the related VSO language, Jakaltek (Craig 1977) where, because of the word order, blocked examples have no competing interpretations.
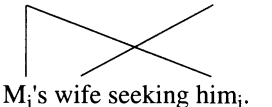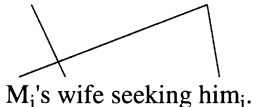
(36) a. *Ta s-sa' pro_i y-ajnil li   Manvel-e$_i$.
         ICP A3-seek A3-wife   the Manuel-ENC
         'Manuel$_i$'s wife is looking for him$_i$.'
     b. *I-s-ti' pro_i s-tz'i' li   krem-e$_i$.
         CP-A3-bite A3-dog   the boy-ENC
         'The boy$_i$'s dog bit him$_i$.'

Tzotzil is a head-initial, head-marking language, with VOS the basic order in clauses, and head-genitive the basic order within nominals. The verb agrees with both the subject and object in a system organized along ergative lines. One set of affixes (Set A) cross-references transitive subjects, while a distinct set (Set B) cross-references transitive objects and intransitive subjects. Genitives are cross-referenced on the possessum by means of the same Set A affixes that mark agreement with transitive subjects. Personal pronouns are generally null. With all this in mind, 36a has the relational structure indicated in 37.

(37) *Ta ssa' pro_i [y-ajnil li Manvele$_i$]
     seeking him his-wife Manuel
           V   O   S

The ungrammaticality of 36 follows directly from the assumptions already made if (i) GEN > HEAD is operative in Tzotzil (i.e. genitives must outrank their heads on the participant hierarchy), and (ii) active transitive verbs are subject to DIRECT ALIGN (REL HIER, PART HIER), where the relational hierarchy includes at least subject > primary object, and where the participant hierarchy includes at least proximate > obviative (both issues are discussed further below). In keeping with the earlier discussion, I assume that all third person nominals in all languages associate to the obviation tier. Possible representations of 36a are given in 38.

(38) a. *[Proximate   Obviative]   b. *[Proximate   Obviative]

         M$_i$'s wife seeking him$_i$.   M$_i$'s wife seeking him$_i$.

The representation in 38b violates GEN > HEAD; 38a, on the other hand, is consistent with GEN > HEAD. However, the alignment between grammatical relations and the participant hierarchy is incompatible with the active verb, that is 38a violates DIRECT ALIGN (REL HIER, PART HIER).

  Before turning to how these propositions are expressed in Tzotzil, let us consider the effect of person. When the co-linked genitive/object is third person, as in 36, Tzotzil and Algonquian are alike in that the proposition cannot be expressed through an active (in Algonquian, a direct) verb. But when the genitive/object is a local person (first or second person), the two language types diverge. In Algonquian, these require inverse, as one would expect since the subject is necessarily third person and the object local. This is illustrated by 39, a Fox example from Dahlstrom 1995:283; note *-ekw-*, the inverse theme sign.

(39) neça·ki = meko -mi·nekwa   ni·hka·na oname·hkwa·nemi. Fox
     all = emph   -give (TA 3-1) my.friend his.glue
         'My friend gave me all his glue.'

Analogous examples in Tzotzil induce no such effect, and they are expressed using active verbs.[19]

    (40) a. Ch-tal   s-vula'an-on j-tzeb   li ok'ob-e.
           ICP-come A3-visit-B1SG A1-daughter the morrow-ENC
           'My daughter is coming to visit me tomorrow.'
       b. Ch-a-s-sa'   l-av-ajnil-e.
           ICP-B2-A3-seek the-A2-wife-ENC
           'Your wife is looking for you.'

Thus, even if direct alignment is violated in 36, apparently it is not in 40.

  This difference between Algonquian and Tzotzil can be precisely located in the participant hierarchy. The participant hierarchy in Algonquian imposes a ranking on all persons, as well as on proximate and obviative within the third person. In Tzotzil, however, all evidence converges on the conclusion that the participant hierarchy only ranks proximate and obviative within the third person, with the local persons not mentioned.

    (41) Tzotzil PART(ICIPANT) HIER(ARCHY): proximate > obviative

This means that participant hierarchy effects in Tzotzil are limited to clauses with two third person arguments.

  The short participant hierarchy posited for Tzotzil in 41 is reflected in another related difference between Algonquian and Tzotzil: the absence in Tzotzil of person-based gaps in the active paradigm, i.e. the same active paradigm is used regardless of the person of subject and object. The examples in 42 show third person subjects with local person objects.

    (42) a. L-i-s-k'el.
           CP-B1-A3-watch
           'S/he watched me.'
       b. L-a-s-k'el.
           CP-B2-A3-watch
           'S/he watched you.'

The analogues of 42 require inverse in Algonquian, but in Tzotzil, the active stem is used in both. The examples in 42 are fully parallel to those in 40; they all show that clauses with third person subject and local object require no special verb form. This follows directly from the short participant hierarchy in Tzotzil. Since DIRECT ALIGN is satisfied as long as there is no crossed alignment, direct alignment with the participant hierarchy will always be trivially satisfied when only one (or no) argument is ranked by the participant hierarchy. With the short participant hierarchy in 41, this will always be the case if one of the two arguments is local.

    (43) a. [Proximate Obviative]   b. [Proximate Obviative]

         S/he watched me.   I watched him/her.

One consequence of the short participant hierarchy in Tzotzil then is that active verbs in Tzotzil have a significantly wider distribution than do direct verbs in Algonquian.

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[19] Also possible is the passive; (i) corresponds to 40b.

  (i) Ch-a-sa'-at   yu'un av-ajnil.
      ICP-B2-seek-PSV by   A2-wife
        'You're being sought by your wife.'

A further question is whether the different participant hierarchies in Algonquian and Tzotzil can be rationalized. I postpone the answer to this question to §6, and turn now to another difference between Algonquian and Tzotzil: the absence of a verb form in Tzotzil which is compatible with INVERSE ALIGN. In a way I will clarify below, the function of the inverse in Algonquian is carried by the passive in Tzotzil.

4.2. TZOTZIL PASSIVES. The propositions that are unsuccessfully expressed in 36a,b are expressed instead through passive.

(44) a. Ta sa'-at   yu'un y-ajnil   li   Manvel-e.
      ICP seek-PSV by   A3-wife the Manvele-ENC
      'Manuel$_i$ was sought by his$_i$ wife.'

   b. I-ti'-e   yu'un s-tz'i'   li   krem-e.
      CP-bite-PSV by   A3-dog the boy-ENC
      'The boy$_i$ was bitten by his$_i$ dog.'

Several features of Tzotzil passive (Haviland 1981, Aissen 1987), are illustrated by 44. There are two passive suffixes in Tzotzil: -e which occurs only with monosyllabic stems, as in 44b, and -at which is not restricted, 44a. Passive verbs are intransitive, thus their subjects inflect via set B markers (ø in 44). If the agent is expressed, there are two options: it can function as possessor of the noun stem -u'un, as above, or it can function as object of the preposition ta. The first option is usual if the agent is definite and human; the second option is more common if the agent is indefinite or nonhuman.

Within an optimality theoretic approach, the use of passive to express propositions that cannot be expressed through active voice suggests that active/passive pairs might belong to the same candidate set. This would be consistent with the assumption that all members of a candidate set must be propositionally equivalent (Grimshaw 1997). It is also consistent with the stronger assumption that all members of a candidate set must be related by 'lexical equivalence', that is, the idea that something stronger than logical equivalence might be required. Candidates may differ in the presence/absence of functional material (prepositions, case markers, dummy verbs), but their predicates must belong to the same lexical paradigm, and their arguments expressed through the same lexical material. This implies a clear definition of lexical paradigm, which I will not attempt to provide here. But in a language with a fully productive, inflectionally derived passive, it is certainly plausible that an active verb and its corresponding passive will belong to the same lexical paradigm. I assume that this is so in Tzotzil, and explore the consequences of such an approach. The tableau in 45 represents the evaluation of 36a and 44a. The candidate set contains four candidates, arrived at by considering both actives and passives, each with two possible associations to the obviation tier. (Forms are cited in translation for the sake of simplicity.)

(45)

	DIRECT ALIGN (RH, PH)	GEN > HEAD
M$_i$'s wife sought him$_i$. (a) P O P	*!	
(b) O P O		*!
M$_i$ sought by his$_i$ wife. (c)☞P P O		
(d) O O P	*!	*

The first constraint stars those representations in which the subject is outranked on the participant hierarchy, (a) and (d). This still leaves (b) and (c), but (b) violates GEN > HEAD. Candidate (c), the passive, satisfies all constraints and is thus optimal. Intuitively, (c) is the best way to frame the proposition, for it is the only one in which both the subject and the genitive outrank their coarguments. Passive is required to yield this structure, and this line of reasoning presupposes that the passive candidate (c) satisfies DIRECT ALIGN (REL HIER, PART HIER), that is, DIRECT ALIGN constrains both active AND passive verbs in Tzotzil.

The earlier discussion of Algonquian identified a second gap related to genitives and coreference: namely, the fact that propositions like *Sam$_i$ visited his$_i$ brother,* with coreference between the subject and the genitive of the object, are apparently expressed only in the direct form. Since this gap was derived from fairly basic assumptions, an analogous gap is predicted for Tzotzil, namely, such propositions should be expressible only in active voice, not passive. The tableau in 46 shows why.

(46)

	DIRECT ALIGN (RH, PH)	GEN > HEAD
Juan$_i$ saw his$_i$ father. (a) ☞ P P O		
(b) O O P	*!	▓▓*▓▓
J$_i$'s father seen by him$_i$. (c) P O P	*!	▓▓▓▓
(d) O P O		*!

DIRECT ALIGN eliminates those candidates in which the subject is outranked on the participant hierarchy, (b) and (c). GEN > HEAD eliminates (d), in which the possessum outranks the genitive on the participant hierarchy. The active candidate (a) emerges as optimal. This prediction is correct, as there is no passive form for this proposition. Ex. 47b is ungrammatical, and no reordering of the words changes that.[20]

(47) a.   I-y-il   s-tot   *pro* li Xun-e.
            CP-A3-see A3-father   the Juan-ENC
            'Juan$_i$ saw his$_{i/*j}$ father.'
     b. *I-'il-at/e   yu'un Xun li   s-tot-e.
           CP-see-PSV by   Juan the A3-father-ENC
           'His$_{i/j}$ father was seen by Juan$_i$.'

The earlier conclusion that passive clauses are subject to DIRECT ALIGN (REL HIER, PART HIER) raises a number of important issues. First, it permits some clarification of the relation between passive in Tzotzil and inverse in Algonquian. Both allow expression of a transitive proposition with an obviative agent/proximate patient, inexpressible in active/direct form. In this sense, the two are functionally equivalent (see Cooreman 1987, Givón 1994, and Thompson 1989 for important elaboration of this perspective), but the two constructions are clearly different with regard to their relational structure.

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[20] The active (47a) is unambiguous, having only a reading on which the subject is coreferential with the genitive within the object. The noncoreferential reading requires possessor raising in Tzotzil, whereby the possessor functions as primary object in a ditransitive clause (Haviland 1981:279ff, Aissen 1987: ch. 8). Since the suffix *-be* always occurs on ditransitive verbs, its absence eliminates the noncoreferential reading. The same holds for the passive (47b) which is ungrammatical because neither the coreferential or the noncoreferential interpretation is possible.

The inverse is active and licenses a proximate patient as direct object. It is thus associated with INVERSE ALIGN. The passive licenses a proximate patient only via promotion of that patient to subject, thereby falling under DIRECT ALIGN. That is, Tzotzil passive and Algonquian inverse are (partially) functionally equivalent, but are formally different, this difference reflected in difference of alignment type. The second issue is the form of the relational hierarchy in Tzotzil, and whether the passive agent is ranked by it. Example 47 and the associated tableau (46) suggest that it is, since passive candidate 46c is excluded only under this assumption. This implies the relational hierarchy in 48.[21] Inclusion of passive agent in 48 is further confirmed below.

(48) RELATIONAL HIERARCHY [final]: subject > primary object > passive agent

This replaces the earlier version (13), and is proposed as universal (compare Croft 1990:101ff). The inclusion of passive agent is innocuous for languages like Fox and Plains Cree, where passive agents are never expressed syntactically (n. 39).

4.3. ANIMACY EFFECTS. Although animacy is not a grammatical category in Tzotzil, the natural classification of nominals into animate-referring and inanimate-referring plays a role in Tzotzil voice which is similar to the role of grammatical animacy in Algonquian. The observed gaps, however, involve active and passive, rather than direct and inverse.

Propositions involving animate agent, animate patient and a particular choice of predicate can be expressed in (at least) two ways: active and passive (ex. 49 is from Haviland 1981:255).

(49) a. I-s-mil   Xun li   Petul-e.
        CP-A3-kill Juan the Pedro-ENC
        'Pedro killed Juan.'
   b. I-mil-e   yu'un Petul li Xun-e.
        CP-kill-PSV by   Pedro the Juan-ENC
        'Juan was killed by Pedro.'

Under present assumptions, both 49a and b emerge as optimal candidates from a single evaluation.

(50)		DIRECT ALIGN (RH, PH)	ANIM > INAN
Pedro killed Juan. (a) ☞ P O			
(b) O P		*!	███████
Juan killed by Pedro. (c) ☞ P O			
(d) O P		*!	███████

DIRECT ALIGN (REL HIER, PART HIER) excludes the two candidates in which the subject is outranked by a co-argument. Since both arguments are balanced in terms of animacy, ANIM > INAN has no effect, and the evaluation yields two optimal candidates, one

active and one passive. While candidates (a) and (c) are equally optimal, they differ in obviation status, and thus are not equally likely within the same contexts: the active (a) will occur when the agent has higher discourse salience, and the passive (c) when the patient does.[22]

While both active and passive are possible when the two arguments are balanced in animacy, gaps occur when they are unbalanced. Consider first the situation with inanimate subjects and animate objects. Restrictions on inanimate ergatives have been noted in Mayan, and there are restrictions in Tzotzil as well. Examples 51–54 suggest that transitive clauses with inanimate subjects are ungrammatical in Tzotzil.[23]

(51) *Li pok'-e, lek ta s-mak li anima-e.
the cloth-ENC well ICP A3-cover the deceased-ENC
'The cloth covers the deceased well.'

(52) ??Li choy-e i-y-ipajes li j-malal-e.
the fish-ENC CP-A3-make.sick the A1-husband-ENC
'The fish made my husband sick.'

(53) *I-s-mil Xun li ton-e.
CP-A3-kill Juan the rock-ENC
'The rock killed Juan.'

(54) *I-x-poxta Xun li pox-e.
CP-A3-cure Juan the medicine-ENC
'The medicine cured Juan.'

In the Mayan literature, such facts have generally been attributed to a blanket ban on inanimate ergatives (e.g. Craig 1977:73ff on Jakaltek, Berinstein 1985:124ff on K'ekchi), but such an approach is clearly problematic for Tzotzil. Note first that corresponding examples with first and second person objects are completely grammatical in Tzotzil.[24]

(55) Li choy-e l-i-y-ipajes.
the fish-ENC CP-B1-A3-make.sick
'The fish made me sick.'

(56) L-i-s-mil li ton-e.
CP-B1-A3-kill the rock-ENC
'The stone killed me.'

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[22] Adequate documentation of this claim would require a study of Tzotzil genre and discourse structure, which cannot be undertaken here, but the following observation may give an intuitive idea of one sort of evidence. In the genre of folktale, there is often a main character, the hero, who interacts with a succession of other individuals in a series of adventures. In Tzotzil, when these interactions are expressed as transitive propositions involving the hero and another individual, there is always a choice to be made as to voice: active or passive. In almost all cases, the choice is determined by the role of the hero: if hero is agent, the proposition is expressed as an active; if she/he is patient, the proposition is expressed as passive. This is true, for example, in Tale 6 ('The Adventures of Peter'), and Tale 164 ('The Bear's Son') from Laughlin 1977. In both cases, the hero is named in the title of the story. In the present framework, it is tempting to view this as a consequence of obviation, i.e. the hero maintains proximate status throughout the entire text, with all other third persons introduced as obviatives. This would lead directly to the voice facts just mentioned.

[23] Exx. 51 and 52 involve topicalization of the inanimate ergative. For some speakers, but not all, such topicalization yields a substantially improved judgment.

[24] Jakaltek and Tzotzil may work differently. Craig (1977) does not mention any differences between the way this constraint treats local and nonlocal objects in Jakaltek, and she cites one example with an inanimate subject and first person object (p. 74, ex. 73b) as ungrammatical.

(57) Mi l-a-x-poxta   li   pox-e?
     Q CP-B2-A3-cure the medicine-ENC
        'Did the medicine cure you?'

The contrast between 51–54 and 55–57 makes it clear that the constraint in question cannot simply involve animacy and grammatical relations; it must, in some way, take person into account as well.

In fact, the appropriate sensitivity to person can be achieved if we assume the short participant hierarchy (41) for Tzotzil, as well as the constraint ANIM > INAN, i.e. DIRECT ALIGN (ANIM HIER, PART HIER), where the animacy hierarchy in Tzotzil references natural animacy rather than grammatical animacy. These assumptions predict the ungrammaticality of 51–54 (assuming for the moment that ANIM > INAN is inviolable).

(58) a. *[Proximate   Obviative]   b. *[Proximate   Obviative]

     The cloth covered the deceased.   The cloth covered the deceased.

The linkage in 58a is ill-formed because it violates ANIM > INAN. The one in 58b satisfies ANIM > INAN, but is incompatible with an active verb, that is, it violates DIRECT ALIGN (PART HIER, REL HIER). In general, this system will rule out for Tzotzil any transitive, active clause with an inanimate third person subject and an animate third person object.

Given the short participant hierarchy, a very different prediction is made for clauses with inanimate subjects but first or second person object. Since such objects do not figure on the participant hierarchy, there can be no violation of DIRECT ALIGN.

(59) [Proximate   Obviative]
           |
     The medicine cured me.

Thus active verbs should be fully grammatical in such cases, as they are, 55–57.

This set of assumptions also predicts that inanimate ergatives should be grammatical in clauses with inanimate objects. Since the two arguments are balanced in animacy, there can be no violation of ANIM > INAN. As long as the subject can link to proximate and the object to obviative, such examples should be grammatical with active verbs, which is correct. Example 60 is a minimal pair with *51 above, differing only in that the object is inanimate; 61 is from *The Great Tzotzil Dictionary* (Laughlin 1975:63), and confirmed with other speakers.[25]

(60) Li pok'-e   lek ta s-mak   li   ventana-e.
     the cloth-ENC well ICP A3-cover the window-ENC
        'The cloth covers the window well.'
(61) I-y-ixtalan ik'   li   j-chob-e.
     CP-A3-ruin wind the A1-cornfield-ENC
        'The wind ruined my cornfield.'

The fact that inanimate ergatives are ungrammatical only when the object is animate highlights an important property of this domain of fact. What is critical is not the absolute status of any argument with respect to grammatical function or animacy, but rather its status relative to other coarguments: in Silverstein's (1976) terms, these are

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[25] Ex. 61 has VSO order because the object, but not the subject, is marked for definiteness (with the article). Definite-marked nominals always follow unmarked ones, regardless of grammatical function.

GLOBAL constraints, not LOCAL ones. This in turn supports a role for hierarchy alignment, for if there were a simple ban on inanimate unergatives, hierarchy alignment would play no role. The fact that inanimate ergatives are ungrammatical only when the object is animate AND third person provides an argument for the relevance of obviation in Tzotzil grammar. If inanimate ergatives were ungrammatical in the presence of any animate object, we could describe the situation without reference to obviation. The restriction of animacy effects to third person coarguments argues that these effects are due to obviation and not to some other form of prominence. First and second person are often taken to outrank third by virtue of inherent topicality (Payne 1994:316) or for reasons having to do with point of view (DeLancey 1981) or the related notion empathy (Kuno 1976, Kuno & Kaburaki 1977). If one of these factors were driving passive in examples like 51–54, it should equally drive it in 55–57. The fact that it does not strengthens the case for obviation in Tzotzil

4.4. ANIMACY AND VOICE. Let us combine the assumption that ANIM > INAN is operative in Tzotzil, with the assumption that an active and its corresponding passive (under various associations to the obviation tier) form a candidate set. Roughly, the expectation is that active and passive might be in partial complementary distribution depending on the relative animacy of the two arguments, an expectation that is realized, if we assume, per 48, that passive agents are ranked on the relational hierarchy in Tzotzil.

Consider first the case of inanimate agents and animate patients, which we saw in the previous section could not be expressed through active, transitive clauses. Not surprisingly, these propositions can be expressed through the corresponding passive, though these are often not the most common paraphrases.[26] Thus, 62 and 63 are the grammatical passive versions of *53 and *54 above.

(62) I-mil-e   ta ton li Xun-e.
     CP-kill-PSV by rock the Juan-ENC
     'Juan was killed by the rock.'

(63) Ipoxta-at ta pox   li Xun-e.
     cure-PSV by medicine the Juan-ENC
     'Juan was cured by the medicine.'

Selection of the passive over the active follows from earlier assumptions, as illustrated by 64.

(64)

		DIRECT ALIGN (RH, PH)	ANIM > INAN
The medicine cured Juan.			
(a) P O			*!
(b) O P		*!	▓▓▓▓▓▓▓▓
Juan was cured by the medicine.			
(c) ☞ P O			
(d) O P		*!	▓▓▓▓▓▓▓

DIRECT ALIGN eliminates those candidates (b, d) in which the subject is outranked on

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[26] The most common paraphrases involve different lexical choices, generally base intransitive verbs. Why such paraphrases are preferred to passive is an interesting question, but not one I explore here. What is crucial is that passive clauses like 62 and 63 are grammatical, while the corresponding actives (53 and 54) are not.

the participant hierarchy by a co-argument, and ANIM > INAN eliminates (a), where an animate is outranked by an inanimate. There is only one candidate that satisfies both constraints, and it is passive.

When the agent is animate and the patient inanimate, roughly the opposite situation obtains. When both argument are expressed, the active occurs almost all the time, and is judged fully grammatical by speakers. Speakers generally judge such passives to be ungrammatical or degraded.[27]

(65) a.   I-s-vok'   p'in li   Maruch-e.
             CP-A3-break pot the Maria-ENC
             'Maria broke a/the pot.'
     b.   *I-vok'-e   yu'un Maruch li p'in-e.
             CP-break-PSV by   Maria the pot-ENC
             'The pot was broken by Maria.'
(66) a.   I-s-man   nukul li   Xun-e.
             CP-A3-buy skin the Juan-ENC
             'Juan bought the skin.'
     b.   ??I-man-at   yu'un Xun li   nukul-e.
             CP-buy-PSV by   Juan the skin-ENC
             'The skin was bought by Juan.'
(67) a.   I-s-baj   tenel te' li j-tot-e.
             CP-A3-nail board   the A1-father-ENC
             'My father nailed the board.'
     b.   ??I-baj-e   yu'un j-tot   li tenel te'-e
             CP-nail-PSV by   A1-father the board-ENC
             'The board was nailed by my father.'

The tableau in 68 evaluates the examples in 67. DIRECT ALIGN eliminates candidates (b) and (d), in which the (surface) subject is outranked by its coargument on the participant hierarchy; candidate (c) is excluded by ANIM > INAN. Active candidate (a) satisfies both constraints, emerging as optimal.

(68)

	DIRECT ALIGN (RH, PH)	ANIM > INAN
My father nailed the board. (a) ☞ P O		
(b) O P	*!	
The board was nailed by my father. (c) P O		*!
(d) O P	*!	

In choosing between (a) and (c), it is crucial that the passive agent be ranked by the relational hierarchy; if it were not, (c) would satisfy ANIM > INAN and there would be no way to distinguish it from (a).

There is interesting confirmation that what is at issue here is not the absolute status of an argument with respect to animacy and grammatical function, but the relative

status of coarguments. In particular, it would be a mistake to conclude from *65b, *66b, and *67b that inanimates cannot be passive subjects. Suppression of the passive agent in these examples completely vitiates the problem, yielding the fully grammatical 69 and 70.

(69) I-man-at   li   nukul-e.
    CP-buy-PSV the skin-ENC
      'The skin was bought (by s.o.).'

(70) I-baj-e   li   tenel te'-e.
    CP-nail-PSV the board-ENC
      'The board was nailed (by s.o.).'

Further, inanimate passive subjects are compatible with overt agents when those agents are also inanimate.

(71) I-vok'-at   ta ton li   ventana-e.
    CP-break-PSV by rock the window-ENC
      'The window was broken by a stone.'

(72) I-lomes-at ta ik'   li   te'etik-e.
    CP-fell-PSV by wind the trees-ENC
      'The trees were felled by the wind.'

The ungrammaticality of Tzotzil passive clauses with inanimate subjects/animate agents underscores the close relation in Tzotzil between actives and passives. It is not simply that passive clauses provide a way to express propositions that cannot be expressed by actives. Rather, the two voices compete as alternative means for expressing all transitive propositions, and are subject to many of the same constraints. In the case of transitive propositions with two third person arguments, the relation between the two voices is one of complementary distribution.

If we compare the distribution of active and passive in Tzotzil, with the distribution of direct and inverse forms in Algonquian, with respect to the animacy of agent and patient, the functional equivalence between active and direct, passive and inverse is patent (Table 2).

	Algonquian		Tzotzil	
	DIRECT	INVERSE	ACTIVE	PASSIVE
anim agt/anim pat	√	√	√	√
inan agt/anim pat	*	√	*	√
anim agt/inan pat	√	*	√	??
inan agt/inan pat	see fn. 13		√	√

TABLE 2. Animacy-based gaps in Algonquian and Tzotzil.

Their functional equivalence should not obscure the fact that passive and inverse are grammatically different: inverse clauses are transitive with agentive subjects, while passive clauses are intransitive with patientive subjects. I will discuss the difference further in §6.

4.5. ANIMACY AND GENITIVES. The parallelism established so far between Tzotzil and Algonquian is striking and specific: the two alignment constraints that predetermine obviation status, ANIM > INAN and GEN > HEAD, are found in both language groups.

Here we consider whether this parallelism extends to the ranking of the two. As documented in §3.4, these constraints conflict in Algonquian, with their resolution suggesting that ANIM > INAN outranks GEN > HEAD (in at least some Algonquian languages). The two constraints also conflict in Tzotzil nominals like 73, where the genitive is inanimate and the possessum animate.

(73) Head$_{anim}$ Genitive$_{inan}$
      y-ajval   li   ixtalal-e.
      A3-master the ring-ENC
         'the owner of the ring'

GEN > HEAD dictates that *li ixtalale* 'the ring' should outrank *yajval* 'its owner', while ANIM > INAN dictates the opposite. Because obviation status is not marked on Tzotzil nouns, 73 provides no clue as to how the conflict is resolved; we cannot know which is proximate and which obviative. One strategy for resolving the question is to look at analogues to 36a, considered earlier and given in schematic form below as 74, in which the genitive is coreferential with the direct object.
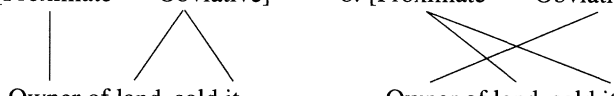
(74) [Proximate   Obviative]

      Manuel$_i$'s wife looking for him$_i$.

Recall that 36a was ungrammatical because proximate status of the genitive forces both proximate status on the (coreferential) direct object and obviative status on the (noncoreferential and possessed) subject. The result is a clause with an obviative subject and proximate object, a configuration incompatible with an active verb in Tzotzil; the passive is used instead (see the tableau in 45). What is crucial then to the account of 36a is that the genitive outranks the possessum in obviation status. Accordingly, structures like those of 36 provide a probe as to the relative status of genitive and possessum, a probe that may help establish the relative status of genitive and possessum when the two are unbalanced for animacy.

   In fact, analogues to 36 but with inanimate genitive/animate possessum are grammatical in Tzotzil.

(75) a. I-y-ich'   tal *pro$_i$* y-ajval   li   ixtalal-e$_i$.
         CP-A3-carry DIR   A3-owner the ring-ENC
            'The owner of the ring brought it here.'
      b. Ta = x-chon la *pro$_i$* y-ajval   li   osil-e$_i$.
         ICP-A3-sell CL   A3-owner the land-ENC
            'The owner of the land is going to sell it (they say).'

Since the only difference between the grammatical 75 and the ungrammatical 36 lies in the animacy of the genitive, this appears to be the determining factor. A priori, there are two possible linkages to the obviation tier for examples like 75a, shown in 76a,b. Assuming that DIRECT ALIGN is satisfied, 76a must be the right structure.

(76) a. [Proximate   Obviative]   b. [Proximate   Obviative]

      Owner of land$_i$ sold it$_j$.   Owner of land$_i$ sold it$_j$.

Structure 76a satisfies ANIM > INAN, but violates GEN > HEAD, suggesting that the former constraint outranks the latter in Tzotzil, as in the two Algonquian languages cited earlier. However, this ranking predicts ungrammaticality for passive versions of 75, which is incorrect. These are also grammatical:

(77) a. I-'ich-'e   tal yu'un y-ajval   li   ixtalal-e.
　　　　CP-carry-PSV DIR by   A3-owner the ring-ENC
　　　　'The ring was brought here by its owner.'
　　b. Ta = x-chon-at la yu'un y-ajval   li   osil-e.
　　　　ICP-sell-PSV   CL by   A3-owner the land-ENC
　　　　'The land is going to be sold by its owner.'

The two possible linkages to the obviation tier for 77b are shown in 78a,b. Of these, only 78a is compatible with DIRECT ALIGN, but this linkage satisfies GEN > HEAD, while violating ANIM > INAN.

(78) a. [Proximate   Obviative]   b. [Proximate   Obviative]

　　　　The land$_i$ was sold by its$_i$ owner.　　　　The land$_i$was sold by its$_i$ owner.
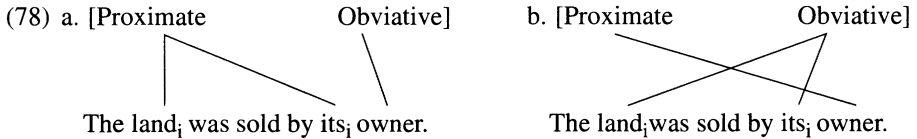
We seem to have arrived then at a paradox: active 75a and b require that ANIM > INAN outrank GEN > HEAD, while passive 77a and b require the reverse. A possible resolution is to assume that the two constraints are equally ranked, with a violation of one constraint cancelling out a violation of the other. Basically, this means that while animates and genitives have priority to proximate status (over inanimates and possessa, respectively), neither property has priority over the other. The choice between the active and passive in these cases is presumably made on other grounds, for example topicality. Equal ranking of the two constraints yields an evaluation like that of 79, where the dotted vertical line indicates the absence of ranking.

(79)

		DIRECT ALIGN (RH, PH)	ANIM > INAN	GEN > HEAD
Land$_i$'s owner sold it$_i$. (a)　　P　　O　　P		*!	*	
(b)　☞　O　　P　　O				*
Land$_i$ bought by its$_i$ owner. (c)　☞　P　　　　P　　O			*	
(d)　　O　　　　O　P		*!		*

The first and last candidates are excluded because they violate DIRECT ALIGN: the subject is outranked by a coargument. Each of the remaining two candidates (b, c) violates one constraint, but because there is no ranking between these constraints, the two candidates emerge as (equally) optimal.

　　The parallelism observed earlier between Algonquian and Tzotzil thus has limits: while there is evidence in both for GEN > HEAD and ANIM > INAN, conflicts between the two constraints are adjudicated differently. Algonquian appears to rank these two constraints (with the caveat of n. 15), while Tzotzil does not. Although the Tzotzil situation does not motivate constraint ranking, optimality theory provides the means to understand why an otherwise robust constraint can be violated exactly when its satisfaction precludes satisfaction of some other constraint.

　　4.6. COMPLEMENT OBJECTS. Before leaving Tzotzil, I want to introduce one further set of facts which I believe fits into the overall picture I have developed. These facts do not follow entirely from the minimal set of assumptions made so far, and in that sense, they are less integrated into the overall account than the other facts. Nonetheless, there is reason to suspect that they are part and parcel of obviation-based systems.

Since Huang 1984 (see also Huang 1989), it has been known that in some languages an object within an object complement cannot be coreferential with the subject of the main clause. Thus, while there is no problem with English, *Max$_i$ wondered whether Susan loved him$_i$*, there are languages in which such propositions cannot be expressed with active, transitive complements. Chinese is such a language as are European Portuguese (Raposo 1986), Brazilian Portuguese (Farrell 1990), and Chamorro (Chung 1984).

Huang (1984) hypothesized that the languages exhibiting this restriction would be a subset of languages permitting object *pro*. Tzotzil is another language in which the object of a complement cannot be coreferential with the subject of the matrix predicate. To see this, first consider 80, where the complement, by itself, is potentially ambiguous: the verb is transitive (note the Set A marker), it has both third person subject and object, and the verb is followed by a single, overt nominal. In isolation, the complement clause is ambiguous, and can mean either 'He/she saw Pedro at the fiesta' or 'Pedro saw it/him/her/them at the fiesta'. However, there is one interpretation of the complement clause which is completely blocked, that in which the object is coreferential with the matrix subject.[28]

> (80) L-i-y-al-be   li Maruch-e [ti te   i-y-il   ta k'in li
>   CP-B1-A3-tell-IO the Maria-ENC that there CP-A3-see at fiesta the
>   Petul-e].
>   Pedro-ENC
>   'Maria told me that she saw Pedro at the fiesta.'
>   *Not:* 'Maria$_i$ told me that Pedro saw her$_i$ at the fiesta.'

The impossibility of the blocked reading is very strong. This blockage extends to other sorts of complements, in particular, embedded questions. The covert pronoun in 81 can be interpreted as complement subject, or as object, as long as it is not anteceded by the main clause subject.

> (81) Li Maruch-e s-jak' [k'usi ora i-y-il   li Petul-e].
>   the Maria-ENC A3-ask what time CP-A3-see the Pedro-ENC
>   'Maria$_i$ asked when she$_i$ had seen Pedro.'
>   *or* 'Maria$_i$ asked when Pedro saw it/him/her$_j$.
>   *Not:* 'Maria$_i$ asked when Pedro saw her$_i$.'

The blocked readings can be expressed, but not with active transitive verbs. The blocked reading of 80, for example, can be expressed by passivizing the complement, as in 82.

> (82) A   li Maruch-e l-i-y-al-be   [ti i-'il-e   ta k'in yu'un
>   TOP the Maria-ENC CP-B1-A3-tell-IO that CP-see-PSV at fiesta by
>   li Petul-e.]
>   the Pedro-ENC
>
>   'Maria$_i$ told me that Pedro saw her$_i$ at the fiesta. (lit.: '. . .that she was
>   seen by Pedro at the fiesta').

Two further examples are shown below, 83, an embedded declarative, and 84, an embedded interrogative.

> (83) Li Maruch-e i-ch'ay x-[y]-a'i   [ti   ch-ba ox s-vula'an li   Petu'e.]
>   the Maria-ENC CP-lost NT-A3-feel that ICP-go CL A3-visit the Petrona-ENC
>   'Maria$_i$ forgot that she$_i$ was going to visit Petrona.'
>   *Not:* 'Maria$_i$ forgot that Petrona was going to visit her$_i$.'

---

[28] CP complements generally extrapose in Tzotzil, yielding apparent VSO order (Aissen 1992).

(84) Mu s-na'   li tzeb-e [much'u ay y-ik'   ech'el].
    NEG A3-know the girl-ENC who   went A3-take away
         'The girl$_i$ didn't know who she$_i$ had gone to take away.'
      Not: 'The girl$_i$ didn't know who had gone to take her$_i$ away.'

Huang (1984) gives a binding-theory account of the ungrammaticality of examples like 80, etc. in Chinese. Problems with extending this account to Tzotzil are considered in the Appendix; here I turn directly to an obviation-based account.

That obviation might be involved is suggested by the fact that coreference between object *pro* and a matrix subject is blocked only when both the complement subject and object are third person. Coreference is unproblematic when the complement subject is first or second person (compare discussion of Chamorro in Chung 1984). This is true both in declarative complements (85, 86) and interrogative complements (87).

(85) Li Xun-e   ta s-k'an [ak'u j-toj-be   li abtel-e].
    the Juan-ENC ICP A3-want let A1-pay-IO the work-ENC
        'Juan$_i$ wants me to pay him$_i$ for the work.'

(86) Li j-tot-e,   s-na'-oj   [ti ch-k'ot j-k'opon-e].
    the A1-father-ENC A3-know-PF that ICP-arrive A1-address-ENC
        'My father knows that I'm going to arrive to speak with him$_i$.'

(87) I-s-jak'   li Maruch-e [k'u ora av-il].
    CP-A3-ask the Maria-ENC what time A2-see
        'Maria$_i$ asked what time you saw her$_i$.'

Coreference between matrix subject and complement object is also unproblematic when the nominal in question is first or second person.

(88) I-j-jak'-be   li Petul-e   [much'u ay s-sa'-on].
    CP-A1-ask-IO the Pedro-ENC who   went A3-search-B1SG
        'I asked Pedro who came to look for me.'

(89) Mu j-k'an [x-i-s-maj   li j-tot-e].
    NEG A1-want NT-B1-A3-hit the A1-father-ENC
        'I don't want my father to hit me.'

(90) Mu j-k'an x-tal   a-tek'-ik-on.
    NEG A1-want NT-come A2-step-PL-B1-SG
        'I don't want you to come stepping on me.' (Laughlin 1977:145)

The limitation of these effects to transitive clauses with two third person arguments recalls analogous limitations in animacy and genitive effects, suggesting an account in terms of obviation.[29] The basic strategy for such an account is very straightforward: if proximate status is forced on the complement object by virtue of its coreference with the matrix subject, then examples like 80 with active complements will violate DIRECT ALIGN, as shown in 91.

(91) [Proximate Obviative]

      V S$_i$ [V   O$_i$ S]

---
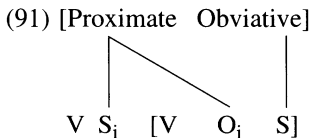
[29] This limitation argues against a functional approach, suggested by one referee, which would attribute the forced passive in 82 to a deeper functional principle that calls for passivization when the patient is highly topical. If the patients in 80–81 and 83–84 are highly topical by virtue of coreference with the matrix subject, then so must the patients in 85–90 be highly topical. But passive is not obligatory in these cases. The person of agent and patient are crucial here, and the obviation account draws the correct distinction (see below).

Linking the embedded object to proximate forces the embedded subject to link to obviative, and the complement verb, which is active, will violate DIRECT ALIGN. Making the complement passive brings the proximate patient into subject position, thereby satisfying DIRECT ALIGN.

It is now possible to explain the fact that these effects completely disappear when either a first or second person argument is involved. Suppose the complement subject is local (as in 85–87). In that case, only the complement object figures in the participant hierarchy, and DIRECT ALIGN is trivially satisfied in the complement, 92a.

(92) a. [Proximate Obviative]   b. [Proximate Obviative]

    V S_i [V O_i S]   V S_i [V O_i S]
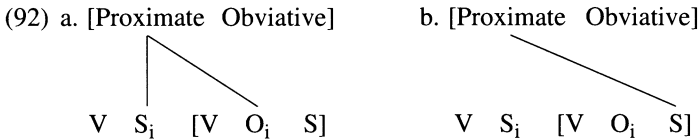
The same is true, 92b, if the main subject/complement object is a local person, as in 88–90. These facts thus further confirm the exclusion of local person from the participant hierarchy in Tzotzil.

To sustain this analysis, two things must be guaranteed: first, both clauses must associate to the same obviation span. Otherwise, an analysis like 93 would be possible.

(93) [Proximate Obviative][Proximate Obviative]

    V S_i [V O_i S]

The configuration in 93 would (wrongly) license an active transitive verb in the complement. The minimal span condition (24) proposed earlier does not force an argument in a matrix clause and one in a com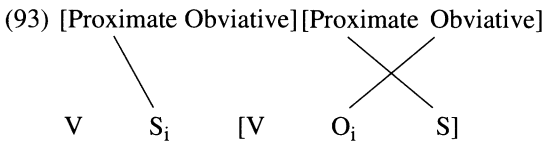plement clause to associate to the same obviation span, nor was it intended to do so, for there is evidence from other languages that such a condition would be too strong.[30] What seems to be involved here is that the coreference between a matrix argument and a complement argument forces a tighter connection between the two clauses than would otherwise be observed.[31] The very coreference in question forces association to the same obviation span. We can make this precise via the notion MAXIMAL FUNCTIONAL COMPLEX and the condition in 95.

(94) Let MFC (γ) = the Maximal Functional Complex headed by γ.
     If α is an argument of γ, then $\alpha \in$ MFC(γ), and
     if $\alpha \in$ MFC(γ) and β is an argument of α, then $\beta \in$ MFC(γ).

(95) CONTROL: If $\alpha \in$ MFC(γ) and $\beta \in$ MFC(γ), and α and β are coreferent and third person, then α and β associate to the same obviation span.

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[30] Dahlstrom (1995) argues that in Fox, arguments in a main clause and complement clause can belong to distinct obviation domains. Grafstein (1981, 1989) and Rhodes (1990) both cite examples from Ojibwe which involve reassignment of proximate within a complement. Dahlstrom (1991:101) cites an example from Plains Cree. Some languages, however, may require that all third person arguments within main and complement clauses associate to the same obviation span, as suggested by Dryer (1992) for Kutenai.

In its capacity to register (non)coreference across clauses, obviation has some functional overlap with switch-reference. But the two mechanisms are quite different. For one thing, obviation is limited to third persons, while switch-reference is not. See Jacobsen 1983:153 for further discussion.

[31] Argument-sharing between the two clauses appears to be a sufficient condition for subsuming them in the same obviation span. Semantic aspects of the relation, such as those which determine mood and finiteness in complements in various languages, appear to be irrelevant here. The definition of MFC (95) is stated so as NOT to force a main clause and an adjunct into the same obviation span, even when coreferential nominals occur in the two clauses. Comparison of adjuncts with complements is beyond the scope of this paper.

Together, 94 and 95 require that all three arguments in examples like 80 associate to the same obviation span.

We also need to guarantee that the subject in the matrix clause links to proximate, and not to obviative. Otherwise, the representation in 96 might be possible, where the linkage in the complement clause would (wrongly) license an active, transitive verb.

(96) *[Proximate Obviative]

$$V\ S_i\ [V\quad O_i\quad S]$$
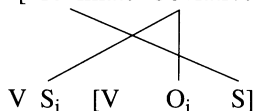
Clearly, it will generally be the case that the subject of a complement-taking predicate will be more central, more topical than the subject of the complement. However, Dryer (1997) shows that in Kutenai, the subject of a complement-taking predicate can be outranked by the complement subject. Hence, no universal constraint should ban 96. There appears to be an interesting difference then between Kutenai and Tzotzil, for to my knowledge, the effects observed in 80–81 and 83–84 cannot be overridden in Tzotzil. The source of this difference must await further research. Although there are still issues to be sorted out, I will assume that the blocked readings in 80 and like sentences are due to obviation. If so, the following gaps in voice/direction can be associated with obviation-based systems; (a–c) were documented in Tzotzil, (a–b) in Algonquian.

(97) a. Animacy-based gaps (§3.3–3.4; §4.3–4.5)
     b. Coreference-based gaps, involving genitives and objects (§3.2, §4.1, §4.5)
     c. Coreference-based gaps involving matrix subjects and complement objects (§4.6)

There are also significant differences between Algonquian and Tzotzil that make obviation more salient in the former. Most obviously, the proximate/obviative distinction is overtly marked both in nominal and verbal morphology in Algonquian, but not in Tzotzil. In addition, Algonquian has a verb form devoted to marking inverse configurations (the inverse), while passive verbs in Tzotzil are more diffuse in their functions (e.g. passive is possible with first or second person patient). Nonetheless, I suggest that obviation has clear syntactic effects in Tzotzil, parallel in key cases to effects in Algonquian. An analogy with grammatical relations is appropriate here: the subject relation can make its relevance felt through both syntactic and morphological effects, but the absence in a language of subject case marking or subject-verb agreement does not by itself argue against the relevance of the subject relation. The relations of obviation have, I would argue, the same status.

5. OBVIATION MORE WIDELY ATTESTED.

5.1. DIAGNOSTICS. The effects listed in 97 can serve as diagnostics for the relevance of obviation in particular languages. Indeed, the same clustering of properties that provides evidence for the relevance of obviation in Tzotzil has been documented in a number of other languages. Gardiner (1993), for example, documents for Shuswap (Salish) the existence of animacy-based gaps in transitive clauses, and the absence of coreferential readings for object pronouns in both of the contexts discussed earlier (when the antecedent is genitive of the subject, and when the antecedent is subject of a governing, matrix clause). Under Gardiner's account, these two sets of phenomena (animacy, disjoint reference effects) are not linked, but I suggest that they could be under an obviation-based account. Like Tzotzil, Shuswap lacks obviative morphology

in the nominal system and its verbal system is organized by voice, not direction. Some of the diagnostics in 97 have also been noted in Navajo (Athapaskan). A number of studies, starting with Hale 1973, have documented animacy-based gaps, and Navajo also has coreferential blockages involving object *pro* with genitive antecedent (Platero 1982; Hale et al. 1977). The clustering of these properties suggests the relevance of obviation, a proposal made for somewhat different reasons by Thompson (1989, 1994). All the languages so far mentioned are North American, but the same effects are found elsewhere. In the next section, I briefly survey the evidence for these effects in Chamorro (Western Austronesian).

5.2. CHAMORRO.[32] Like Tzotzil, Chamorro has nothing in its nominal morphology that marks obviation, nor any verb form with the same syntactic properties as the Algonquian inverse. Yet, Chamorro shows all the features we attributed in Algonquian and Tzotzil to obviation, suggesting its relevance to Chamorro. Also like Tzotzil, obviation effects are realized through voice, not through direction, further evidence that obviation is not typologically restricted to languages with inverse systems.

To start with, I propose that the participant hierarchy in Chamorro has the form in 98.[33]

(98) Chamorro participant hierarchy: 2 person > proximate > obviative

In terms of the elements ranked on the participant hierarchy, Chamorro falls between Tzotzil, which ranks no local persons, and Algonquian, which ranks both. If correct, 98 emphasizes the language-particular character of participant hierarchies and motivates accounts of different languages which locate (some of) their differences therein. I focus first on the evidence for ranking within the third person, and then turn to the local persons. I also assume that the following two constraints are active in Chamorro, that is, their effects are not overridden by higher-ranked constraints. Both, already familiar, constrain relative obviation status in clauses with third person coarguments.

(99) DIRECT ALIGN (ANIM HIER, PART HIER)   ANIM > INAN
    DIRECT ALIGN (NOM REL HIER, PART HIER) GEN > HEAD

These constraints are made visible through interaction with voice. I assume that Chamorro active transitive and passive verbs, like those of Tzotzil, require direct alignment of the relational hierarchy and the participant hierarchy.

5.2.1. ANIMACY.[34] There are significant constraints in Chamorro involving animacy. One is that an inanimate cannot function as subject in an active transitive clause if the object is third person animate.

(100) a. *Ha-na'kati   i   manenghing i   neni.
           3SG-make.cry the cold   the baby
              'The cold made the baby cry.'

---

[32] This section is based on the work of Sandra Chung and Ann Cooreman. Glossing of examples has been changed in some places for the sake of uniformity.

[33] Ex. 98 draws on earlier proposals. Chung (1981) argued for the relevance of a participant hierarchy to Chamorro grammar, and both Cooreman (1987:97)and Chung (to appear:ch.2) propose that second person outranks third in Chamorro. Cooreman has also developed to a high degree of specificity the idea that relative topicality of agent and patient plays an important role in the language. The relations of obviation correspond roughly to Cooreman's degrees of topicality.

[34] Chung (1981) is the first to identify grammatical restrictions on inanimates. Cooreman (1987:esp. 89–92) deals at length with the relation of animacy in Chamorro to transitivity and topicality.

    b. *Ha-ispanta   i   ekspiriensia-nñiha i   palao'an.
        3SG-frighten the experience-3PL   the woman
            'Their experience frightened the woman.'   (Chung to appear:ch.2)

The ungrammaticality of 100 suggests that ANIM > INAN might be active in Chamorro syntax. These propositions are expressed instead through the -in- passive construction (Chung, p.c.), one of two passives in Chamorro. The -in- passive is used when the agent is singular, the ma- passive when it is plural or nonspecific.

   (101) a. Ni-na'kati   i   neni ni   manenghing.
           PSV-make.cry the baby OBL cold.
              'The cold made the baby cry.' (lit: the baby was made to cry by the cold).
       b. In-ispanta   i   palao'an ni   ekspiriensia-nñiha.
           PSV-frighten the woman   OBL experience-3PL
              'Their experience frightened the woman.' (lit: the woman was frightened by their experience.)

Taken together, the direct alignment condition on active and passive verbs and ANIM > INAN predict that these propositions can only be realized through passive clauses. The active examples in 100 cannot satisfy both constraints: in 100a, for example, *baby* should be proximate and *cold* obviative (ANIM > INAN). But this violates DIRECT ALIGN since the object outranks the subject in obviation status. The corresponding passives satisfy both constraints, since the subject, *baby,* is proximate. In the absence of any higher-ranked constraint favoring the inanimate as subject, passive will be forced in this configuration.

   The two constraints together make a number of other predictions. The first is that only the active should be possible in the case of an animate agent and inanimate patient, for the active satisfies both ANIM > INAN and DIRECT ALIGN, while the passive violates either one or the other. This prediction is correct: 'Chamorro normally does not permit verbs to passivize if their external argument is animate singular and their internal argument is inanimate' (Chung 1989:159).[35]

   (102) *Pära u-ni-na'gasgas i   täpbla ni chi'lu-hu.
        IRR   3SG-PSV-clean the floor OBL sibling-1SG
        'The floor is going to be cleaned by my sister.'

Here, *my sister* should be proximate and *floor* obviative (by ANIM > INAN), but then 102 violates DIRECT ALIGN since the proximate is NOT subject.

   Where agent and patient are balanced for animacy, ANIM > INAN can play no role, and both active and passive should be possible, depending on which argument is proximate. Example 103 illustrates this possibility for animate coarguments, 104 for inanimate coarguments:

   (103) a. Pära u-kuentusi   i   haga-nñiha si   Jose.
           IRR   3SG-speak.to the daughter-3PL UNM Jose.
              'Their daughter is going to speak to José.'
       b. Pära u-ku-in-entusi   si   Jose ni   haga-nñiha.
           IRR   3SG-PSV-speak.to UNM Jose OBL daughter-3PL
             'José is going to be spoken to by their daughter.' (Chung 1981: 316)

---

[35] The existence of other higher-ranked constraints in Chamorro means that this constraint is not always surface-true, see Chung 1989.

(104) a. Ha-ottu   i   petta i   patas-su.
         3SG-bang the door the foot-1SG
            'The door banged my foot.'   (Chung to appear:Ch.2)
      b. P-in-a:nak i   patas John ni   petta.
         PSV-hit   the foot John OBL door
            'The door hit John's foot.' (lit: John's foot was hit by the door.)
                                                                (Chung, p.c.)

Cooreman (1987) argues at length that with third person coarguments, the choice of
active vs. passive in Chamorro is governed by the relative topicality of the two argu-
ments, with active used with topical agent, and passive with topical patient. Her conclu-
sions are based on the topicality measures introduced in Givón 1983. To the extent
that this notion of topic coincides with what I call proximate, Cooreman's results support
the present analysis.

5.2.2. GENITIVE EFFECTS. As in Tzotzil, active voice is excluded in Chamorro when
the genitive of the subject is coreferential with the object.

(105) Ha-bisita [si   nana-ña   *pro*] si   Juan.
        3SG-visit UNM mother-3SG   UNM Juan
           'His$_i$ mother visited Juan$_{j/*i}$.'   (Chung to appear:Ch.3)

The only interpretation of 105 is one in which the object and the genitive of the subject
are noncoreferential.[36] The coreferential interpretation is expressed through the *-in-*
passive.

(106) B-in-isita si   Juan$_i$ as   [nana-ña   *pro$_i$*].
        PSV-visit UNM Juan OBL   mother-3SG
           'Juan$_i$ was visited by his$_i$ mother.'   (Chung 1989:163)

My account of the contrast between 105 and 106 parallels the account of the correspond-
ing Tzotzil facts (see the tableau in 45).[37]

5.2.3. COMPLEMENT OBJECTS. It was suggested above that one effect associated with
obviation systems was the impossibility of an active transitive complement when the
complement object is coreferential with the main clause subject. The relation between
voice and coreference in complement structures is discussed by both Chung (1984)
and Cooreman (1987:111ff). Chung shows that ungrammaticality results when the
complement object is third person, coreferential with matrix subject, and the intervening
complement subject is third person.

(107)   *Ilek-ña si   Antonio$_i$ [na ti   ha-tattiyi si   Juan *pro$_i$* guätu gi
           said-3SG UNM Antonio   that not 3SG-follow UNM Juan   there LOC
           kareta].
           car.
           'Antonio$_i$ said that Juan didn't follow him$_i$ to the car.'
                                                                (Chung 1984:120)

---

[36] According to the structure given in 105, the object is lexicalized as *si Juan,* and the genitive of the
subject is covert. The same linear string would result if the genitive were lexicalized, and the object covert.
This version is ungrammatical under any reading for independent reasons (Chung 1989). The order of 105
is VSO. Under the alternate VOS order, the coreferential reading is still absent (cf. n. 18).

   (i)   * Ha-bisita [si Juan$_i$] [si nana-ña *pro$_i$*].
            'His$_i$ mother visited Juan$_i$.' [Chung 1989:163]

[37] Apparently we cannot determine the relative ranking of GEN > HEAD and ANIM > INAN in Chamorro
because nominals with inanimate reference do not function as genitives in Chamorro (Chung, p.c.).

The ungrammaticality of 107 parallels that of Tzotzil 80–81 and 83–84, and has, I suggest, the same source: the complement involves an inverse configuration, excluding the active transitive verb (cf. 91). To express the blocked reading of 107, it is necessary to passivize the complement (Cooreman 1987:111). The result is exemplified by 108 (from Cooreman), not a minimal pair with 107, but with the relevant structure. The alignment in the complement (and the main clause) is direct (see 109), predicting the observed well-formedness.[38]

> (108) Ha-agang i   taotao para u-t-in-attiyi   gue'.
>   3SG-call   the man   IRR   3SG-PSV-follow him
>   'He called the man to follow him.' (lit: so that he be followed by him
>   [= the man]).

> (109) [Proximate   Obviative]
>
>   V S$_i$ O$_j$ [V   S$_i$ Agent$_j$]
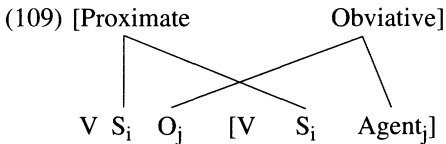
Chamorro looks very much like Tzotzil then with respect to all three classes of fact that motivated the obviation account. Further, these effects are limited, as in Tzotzil, to clauses with third person agent and patient. Examples 110, 111, and 112 are analogous to the blocked actives 100, 105, and 107, respectively, but replace one of the third person arguments with a first person.

> (110) Ha-na'ma'a'não yo' i   estoria.
>   3SG-frighten   me the story
>   'The story frightened me.'   (Cooreman 1987:101)
> (111) Ha-patmada yu' si   tata-hu.
>   3SG-slap   me UNM father-1SG
>   'My father slapped me.'   (Chung, p.c.)
> (112) Ha-hähassu   ha'   si   Maria [na in-bisita *pro* gi   espitát].
>   3SG-remember emph. UNM Maria that 1PL-visit   LOC hospital
>   'Maria$_i$ remembers that we visited her$_i$ at the hospital.'
>   (Chung 1984:121)

The full grammaticality of these actives shows that an account of the forced passives of 100–101, 105–106, and 107–108 must take person into account and cannot be attributed to any inherent topicality of animates, genitives or the subjects of complement-taking predicates (qua animates, genitives, etc.). As in Tzotzil, obviation successfully limits the effects documented above to third person argument pairs.

There is one significant difference between Chamorro and Tzotzil which concerns the second person: Chamorro has a preference for second person subjects over third. Hence in clauses with third person agent, second person patient, speakers prefer the passive. Cooreman (1987:101) cites the pair in 113, noting that the passive is preferred; Chung (to appear:ch.2) stars the example in 114.

> (113) a.

---

[38] Chung (1984) argues that examples like 107 are ungrammatical because they violate an independent constraint in Chamorro which excludes clauses with lexical subjects and pronominal objects. The blockage, however, seems to extend to cases in which the complement subject is a third person pronoun, as predicted by the obviation-based account. Note that the complement in 107, cited by Cooreman as involving obligatory passive, would not violate the constraint on lexical subject/pronoun object pairs if left active.

           Ha-galuti hao i   taotao.
           3sg-hit   you the man
             'The man hit you.'
     b.   G-in-aluti hao ni   taotao. [preferred]
           psv-hit   you obl man
             'You were hit by the man.'
  (114)   *Pära u-faisin hao si   Juan otru na kuestiona.
           irr   3sg-ask you unm Juan other l   question
             'Juan is going to ask you another question.'

The preference for second person subjects does not extend to the first person. In fact, not only do first persons occur as objects in transitive clauses with third person subjects (115a, also 110, 111), most speakers do not permit them as subjects of passives (Cooreman 1987:100; Chung 1989:160).

  (115) a.   Ha-na'i yo' mansana i   patgon.
           3sg-give me apple   the child
             'The child gave me an apple.'
      b. *Ni-na'i yo' mansana ni   patgon.
           psv-give me apple   obl child
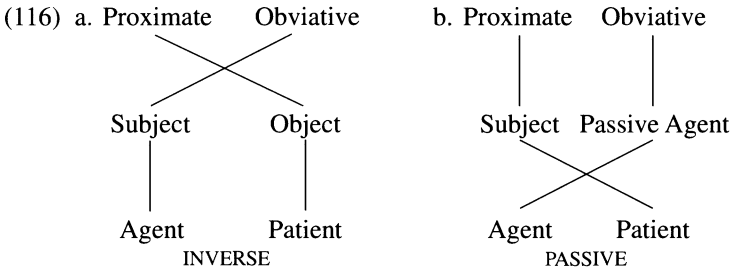   'I was given an apple by the child.'   (Cooreman 1987:100)

The Chamorro participant hierarchy (98) penalizes an active structure in which the third person outranks second in grammatical function, thereby forcing passive in the case of a third person agent/second person patient (113, 114). The exclusion of the first person from the hierarchy permits surface clauses with third person subject/first person object (115a): Direct Align is trivially satisfied in this case because the first person is unranked by the participant hierarchy. However, the ill-formedness of the corresponding passive does not follow from 98 for Direct Align is likewise satisfied in 115b. The status of -*in* passives with first person subjects has not received a satisfactory explanation in the Chamorro literature; I leave it unresolved here as well.

    I conclude then that obviation plays much the same role in Chamorro that it plays in Tzotzil: through alignment constraints, obviation predetermines voice on the basis of various syntactic and semantic properties of agent and patient. The most striking feature of the effects discussed here is, aside from the special case of second person in Chamorro, their limitation in Tzotzil and Chamorro to clauses with third person coarguments. This is a direct consequence of the pivotal role played by obviation, which is relevant only to third persons.

    6. Typological differences among obviation-sensitive languages. The points of similarity among Algonquian, Tzotzil, and Chamorro are striking, but there are also significant differences. One concerns basic clausal organization and whether it is structured by voice or by direction. The other has to do with how person interacts with voice/direction. In Algonquian, person rank is treated on a par with obviation rank in the inverse/direct alternation, while in Tzotzil, it is not. Chamorro occupies a middle position, with second person but not first implicated in voice alternations. The following sections deal with these two sets of differences, suggesting ways that they might be expressed. The discussion is informal; a more formal treatment of the issues is presented in Aissen 1997.

    6.1. Subject choice. While the difference between a voice system and a direction system seems like an important difference, it is not necessarily a deep one. The existence of a number of works arguing that what was earlier analyzed as passive should be

analyzed rather as inverse (e.g. Whistler 1985, Klaiman 1993), or that what was earlier analyzed as inverse should be analyzed rather as passive (e.g. LeSourd 1976) suggests at the very least that differences between the two analyses are not always obvious. In cases where the distribution of passive and inverse is determined by obviation, the two configurations have significant parallels.

(116) a. Proximate   Obviative   b. Proximate   Obviative

```
       Proximate      Obviative             Proximate   Obviative
             \        /                         |           |
              \      /                          |           |
               \    /                           |           |
                \  /                            |           |
                 \/                             |           |
                 /\                             |           |
        Subject    Object              Subject    Passive Agent
           |          |                    \          /
           |          |                     \        /
           |          |                      \      /
                                              \    /
                                               \  /
                                               /\
        Agent       Patient             Agent       Patient
            INVERSE                          PASSIVE
```

In both, the patient outranks the agent in obviation status; the difference is in the mediating syntax. In the inverse case, the agent is subject and the patient object; in the passive case, the patient is subject, the agent a passive agent. Both cases involve 'crossed' alignment, but at different levels of representation. Distinguishing between passive and inverse analyses then requires clear diagnostics for subjecthood, diagnostics that may or may not be present. In the languages under discussion here, it seems clear that Tzotzil and Chamorro are exemplars of the passive case, and Fox and Plains Cree of the inverse.

I proposed above that active and passive verbs in Tzotzil and Chamorro are restricted to direct alignment configurations. But there is a more direct way to view this situation, namely that in both languages, clauses themselves are subject to direct alignment of relational rank and participant rank. Under this interpretation of DIRECT ALIGN, passive is forced in clauses where the patient outranks the agent in obviation status, restructuring a potential inverse configuration into a direct one. While it would still be true that active and passive verbs are licensed only in configurations of direct alignment, this would be epiphenomenal: since all clauses are direct, the verbs which head those clauses must be direct.

Pursuing this reasoning, the difference between direction languages and voice languages can then reduce to the principles that determine subject choice. In direction languages like Fox and Plains Cree, the nominal with the highest-ranked semantic role (typically agent) is the preferred subject. The agent is thus selected as syntactic subject over the patient, regardless of person, obviation status, or discourse prominence. This effectively eliminates the possibility of passive clauses when both arguments are syntactically realized,[39] and leaves these languages the space to mark morphologically the distinction between two types of active clause: direct and inverse. In Tzotzil and Chamorro, the proximate is selected as subject over the obviative, regardless of semantic role. This has two consequences: first, Tzotzil and Chamorro have passive clauses whenever the patient is proximate and the agent obviative. Second, it eliminates the possibility of an inverse verb, as there simply are no clauses in which the object outranks the subject in obviative status.

Let us, for the moment, refer to these two principles for subject choice as PROXIMATE/

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[39] There is an 'unspecified agent' construction in many Algonquian languages; see, for example, Dahlstrom 1991:65, 1995:366ff, Rhodes 1994, Bloomfield 1962:45–46. Dahlstrom (1995:366ff) argues that it is syntactically passive in some languages, e.g. Plains Cree, but not in others, e.g. Fox.

SUBJECT and AGENT/SUBJECT, bearing in mind that these are really hierarchy alignment constraints. From the perspective of optimality theory, both constraints figure in the grammars of all languages, hence in the grammars of all the languages under discussion here. These constraints have different effects in the two types of languages because they are ranked differently (Legendre et al. 1993). In direction languages, AGENT/SUBJECT must outrank PROXIMATE/SUBJECT, while in the voice languages of the Tzotzil/Chamorro type, PROXIMATE/SUBJECT must outrank AGENT/SUBJECT. In direction languages, effects of the lower-ranked constraint, PROXIMATE/SUBJECT, are obscured since AGENT/SUBJECT accounts for subject choice in all clauses. But in languages like Tzotzil, the lower-ranked constraint, AGENT/SUBJECT, does make its presence felt: since PROXIMATE/SUBJECT is relevant only in clauses with third person agent and patient, subject choice must be determined by other principles in clauses with local arguments. While it may not be the only such principle, AGENT/SUBJECT is the default principle for subject choice in Tzotzil, determining subject choice in neutral contexts where obviation is not relevant.

If constraint reranking can characterize the difference between unrelated direction and voice languages, it can do the same for related languages. As noted in n. 5, several analyses of so-called inverse morphology have been proposed in the Algonquian literature. Aside from the inverse analysis that Dahlstrom motivates for Fox and Plains Cree, there is another set of analyses that have in common the assumption that the nominal in the clause which ranks highest on the participant hierarchy also ranks highest in relational status, i.e. it is the subject. These are the passive and reversal analyses. While the issue has sometimes been framed in terms which suggest that either the inverse analysis or one of the advancement analyses must be true of the language family as a whole, Dahlstrom (1995:ch. 9) suggests that both analyses may be valid, but for different languages within the family. If so, it is further support for the idea that the difference between inverse and passive languages need not be a deep one. In present terms, the difference amounts to the ranking of AGENT/SUBJECT relative to other principles of subject choice based on participant rank.

6.2. PARTICIPANT HIERARCHIES. The other salient difference presented by the languages discussed here concerns the form of the participant hierarchy, which stipulates for each language the elements subject to hierarchy effects and their relative rank. The first question is whether it is possible to rationalize the inventories presented by each language. Is there, for example, some reason why the local persons figure on the participant hierarchy in Algonquian, but not in Tzotzil?

The answer lies partly, I believe, in Nichols' (1986) observation that hierarchy-driven voice and direction systems are limited to head-marking languages, and with her suggestion that such systems exist to clarify or disambiguate the 'core actants' in the clause (see also Klaiman 1991, 1992, 1993). In languages with dependent marking or rigid word order, the interpretation of each nominal argument can be fixed independently and without reference to semantics or pragmatics. Though there may be pockets of ambiguity, determining the grammatical function of an argument can generally proceed without examination of other arguments. Head-marking languages, however, face in a pervasive way the problem of fixing the grammatical function of nominals. Not only are nominals not marked for grammatical function themselves, such languages are generally associated both with fairly free word order and with *pro* drop. The function of hierarchy-driven voice and direction systems in such languages is clear; by grammaticizing the tendency for, say, animate definite nominals to be subjects over inanimate

or indefinite ones, such systems leave no ambiguity as to grammatical function when the core arguments are unbalanced. Even in the case of third persons that are otherwise balanced, a difference in discourse salience, coded through the proximate/obviative distinction, provides the cue to grammatical function in languages which include the relations on obviation on the participant hierarchy. It is not accidental then that the languages discussed here—the Algonquian languages, Tzotzil, Chamorro, Shuswap and Navajo—are all head-marking.[40]

Recall that in Algonquian, the verb generally agrees with both subject and (primary) object, but that the form and position of agreement affixes do not differentiate the two: a first person is inflected by exactly the same affix in exactly the same position, whether it is subject or object (see ex. 4). It is the theme sign—direct or inverse—which clarifies whether the first person functions as subject or as object. In Algonquian then, the use of direct/inverse morphology to register the alignment of person rank (as well as obviation rank) with grammatical function is motivated by the need to distinguish subject from object (agent from patient). In Tzotzil, as in most Mayan languages, transitive verbs also agree with both subject and object. However, because the agreement systems of these languages are ergative, the form of the agreement affixes (as well as their positions) are sufficient to distinguish grammatical function. It is only when both subject and object are third person that there is any possibility of confusion as to grammatical function. If disambiguation of core grammatical function is seen as a basic motivation for hierarchy-sensitive systems, Tzotzil can afford to ignore the alignment of grammatical function with person because agreement fully disambiguates grammatical function whenever one or more of the arguments is local.[41]

Chamorro makes clear, however, that disambiguation of core grammatical function is not the only motivation for hierarchy-driven voice and direction systems. While passive is preferred for second person patients, there is little possibility of confusion as to grammatical function except when both arguments are third person. Cooreman (1987:102) suggests that culture-specific rules based on modesty or politeness may be responsible for the special status of the second person.[42]

It seems inescapable then that languages vary in the elements that are subject to hierarchy effects. At the same time, there is reason to be dissatisfied with language-particular participant hierarchies, for it is generally agreed that linguistic theory should distinguish what is universal in the grammars of particular languages from what is particular. But when we examine the three language-particular participant hierarchies assumed above, it is clear that while the elements ranked on the hierarchy vary, most of the rankings are universal: in all three, proximate outranks obviative, and where

[40] Work in psycholinguistics suggests that a version of ANIM > INAN plays a role in early language comprehension in many languages (MacWhinney & Bates 1989), but that it attenuates in languages that use other grammatical devices to fix the interpretation of nominals in transitive clauses, for example dependent (case) marking, as in Hungarian (Pléh 1989), or fixed word order, as in English (MacWhinney 1982). Anim > Inan is implementable by very young children because the classification of entities into animate or inanimate begins very early (Mandler 1992), but once children acquire case-marking or fixed word order, ANIM > INAN serves little function.

[41] Kutenai also restricts hierarchy effects to the third person (Dryer 1992). Like Tzotzil, the grammatical function of first and second person arguments is distinguished by the form and position of subject and object affixes/clitics.

[42] An analogous situation is found in those dialects of K'ichee' (Mayan) which distinguish second person familiar and second person formal. The second person formal cannot be direct object in a transitive clause with a third person subject; passive is one way to avoid this configuration (Mondloch 1981:139ff).

local persons are ranked, local persons outrank third. This suggests that we should consider replacing the language-particular hierarchies assumed so far with the universal hierarchies listed in 117 and 118. I assume that the PERSON HIERARCHY licenses the two subhierarchies, 117a, b.

    (117) PERSON HIERARCHY: local > 3
                       a. 1 > 3
                       b. 2 > 3
    (118) OBVIATION HIERARCHY: proximate > obviative

Both 117 and 118 would figure prominently in Algonquian; 117b and 118 in Chamorro, and only 118 in Tzotzil. An important feature of 117 and 118 is that they are consistent with what must be a desideratum for theories that include hierarchies: that elements ranked by a hierarchy be alike. This is not a feature of the hierarchies assumed earlier for Algonquian and Chamorro (12 and 98), both of which mix the categories of person and obviation.

What does it mean for a universal hierarchy to 'figure prominently' in a particular language? In optimality theory, this can be given a clear interpretation: direct alignment constraints involving each of the hierarchies in 117 and 118 with the relational hierarchy would be universal constraints, present in the grammar of each language. They would be ranked in language-particular ways, however, in Tzotzil, for example, direct alignment with the obviation hierarchy would be a high-ranking constraint (above, e.g. AGENT/SUBJECT), while direct alignment with the person hierarchies would be relatively low-ranking (below AGENT/SUBJECT, for example). This ranking forces passive in clauses with a proximate patient (and obviative agent), but not in the case of local person patient. In Chamorro, direct alignment with both 117b and 118 would rank high (above AGENT/SUBJECT), while direct alignment with 117a would rank low.

While person and coreference have some effect on English passive (see especially Kuno 1976, 1987), the effects are not grammaticized as in the languages discussed here. In English, direct alignment involving the hierarchies in 117 and 118 would all be ranked below AGENT/SUBJECT, expressing the absence of hierarchy effects in subject choice in English.[43] In view of the earlier discussion about the function of hierarchy-driven voice and direction systems, this is what one would expect since grammatical function is completely disambiguated in English through word order.

7. CONCLUSION. Two seemingly unrelated phenomena recur in a number of different languages: animacy-based restrictions on voice/direction, and disjoint reference effects involving objects. The former have been discussed principally in the functionalist literature; the latter mostly by formalists, and in terms of the binding theory (see Appendix). They have not, to my knowledge, been seen as related. This article has argued that both phenomena tend to be found in languages where obviation plays a central role in organizing the syntax. Obviation makes it possible to see these phenomena as related, and to express what appear to be strong similarities among a number of unrelated languages. Among these are languages in which obviation is not a morphological category, suggesting the need to distinguish the morphological effects of obviation from its syntactic effects. There are also salient differences among these languages, some of which are discussed in §6, where it is suggested that the range of attested difference

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[43] A constraint expressing the preference for discourse-prominent nominals as surface subject also exists and must be ranked above. AGENT/SUBJECT in English to allow for passive at all (Legendre et al. 1993, Tomlin 1985). The same constraint may allow for passives with local person patients in Tzotzil.

may be describable through constraint reranking. Whether obviation is relevant in other domains (e.g. noun phrase coding, agreement, or, as suggested in Givón 1994, word order) remains to be seen. The framework sketched here will hopefully be useful in identifying other domains in which obviation might play a role.

<center>APPENDIX</center>

Two problems that are resolved here through obviation have been treated in other work as effects of the binding theory. Although neither case involves a straightforward violation of the binding conditions, these analyses make other assumptions which bring the phenomena in question under binding theory. The first case involves configurations like *Sam$_i$'s sister visited him$_i$*, where coreference is blocked in a number of languages. The second case involves configurations like *Sam$_i$ thought that Sandy loved him$_i$* where, in the same languages, coreference is blocked. Here, I sketch the accounts that have been proposed and note some problems.

1. DISJOINT REFERENCE WITH GENITIVE ANTECEDENT. Both Woolford (1991) and Trechsel (1995) propose that analogues of 36a,b are ungrammatical in Jakaltek, a Mayan language fairly closely related to Tzotzil, because they violate condition C of the binding theory.[44] 36a is repeated below as 119:

(119)   *Ta s-sa'   pro$_i$ y-ajnil   li   Manvel-e$_i$.
        ICP A3-seek   A3-wife the Manuel-ENC
        'Manuel$_i$'s wife is looking for him$_i$.'

Although this account was intended for Jakaltek, not Tzotzil, it makes sense to consider its plausibility for the Tzotzil data.[45] As both authors note, there is no violation (in Jakaltek analogues of 119) under standard assumptions, since c-command fails to hold in either direction between the null pronominal object and the lexical genitive within the subject. Accordingly, both Woolford and Trechsel interpret the blockage as evidence for a nonconventional structure, namely one in which the absolutive *pro* in 119 c-commands the ergative (*yajnil li Manvele* 'Manuel's wife'). Extrapolating to Tzotzil, (119) would then violate condition C, since *Manvel* would be A-bound by the coindexed absolutive pronoun. Woolford assumes a flat structure in which the subject and object c-command each other, while Trechsel argues for a structure in which the absolutive (for him, the subject), asymmetrically c-commands the ergative (for him, the object).

These accounts predict that lexicalizing 119 as 120 should yield grammaticality, since *Manvel* would, by assumption, be A-free.

(120)   *Ta s-sa'   Manvel$_i$ li   y-ajnil-e   pro$_i$.
        ICP A3-seek Manuel the A3-wife-ENC
        'His$_i$ wife is looking for Manuel$_i$.'

But this is incorrect, as 120 has the same status as (i) cited in n. 18. Another problem is that the ungrammaticality of examples like 119 disappears when the genitive is inanimate (recall 75a, b). It is surely wrong to suppose that basic phrase structure is sensitive to animacy, and the animacy of the genitive should have no effect on the binding conditions. These facts suggest that the problem with 119 is not related to the phrase-structural relation of pronoun and antecedent.

Another class of problems involves more standard binding effects in other constructions, effects that indicate that the ergative asymmetrically binds the absolutive in transitive clauses. While the Mayan reflexive is not fully understood (Ayres 1980, 1996), it does seem clear that if binding is involved, as understood in the binding theory, then it must be the ergative which binds the absolutive, and not vice versa. Reflexives are transitive and involve a possessed reflexive noun, much like nonstandard English *my-self, his-self.* The reflexive nominal is clearly the absolutive, since it uniformly controls third person absolutive agreement (ø, glossed 'B3' below), even when its antecedent is not third person, as in 121b (see Aissen 1987:ch. 5).

(121)   a.   I-ø-s-mak   la s-ba-ik   ta na.
             CP-B3-A3-close CL A3-self-3PL in house
             'They shut themselves up inside.'   (Laughlin 1977:59)
        b.   Ta ø-j-mak   j-ba-tikotik.
             ICP B3-A1-close A1-self-1PLEXC

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[44] Condition C: An R-expression is A-free.

[45] Woolford and Trechsel might not agree, for both link their account of the coreference blockage to the fact that Jakaltek is VSO, and Tzotzil is not VSO. The blockage that their accounts are devised to account for is not, however, restricted to VSO languages.

'We're going to shut ourselves up.'

Thus, the reflexive occupies the same structural position as other absolutives. If the reflexive nominal (or its genitive) is bound, then the ergative c-commands the reflexive at the point the binding conditions hold. But this is incompatible with Trechsel's proposal that the absolutive c-commands the ergative, and it raises the question for Woolford why, if ergative and absolutive involve symmetric c-command, there is an asymmetry in binding possibilities for reflexives.

Further, in Tzotzil, when the ergative is an operator, it can bind the possessor of the absolutive:

(122) a. Laj x-ch'ay-ik [y-ixtol-ik *pro*$_i$] ju-jun li k'oxetik-e$_i$.
         AUX A3-lose-3PL A3-toy-3PL   each-1 the children-ENC
         'Each child$_i$ lost his$_i$/her$_i$ toy.'

   b. Buch'u junukal antz$_i$ i-x-chi'in   [s-malal   *pro*$_i$]
      which   one   woman   CP-A3-accompany   A3-husband
      ta chobtik?
      to field
      'Which woman$_i$ accompanied her$_i$ husband to the field?'

Again, if binding requires c-command, then the ergative must c-command the absolutive. In sum, unconventional structures must be assumed in order to subsume genitive effects under the binding theory. But these unconventional structures are inconsistent with the binding of anaphors and variables, and do not explain the suspension of binding conditions with inanimates, or the ungrammaticality of examples like 120. Further, these accounts do not extend to disjoint reference involving objects in complement clauses (§4.6 above, and §2 below).

2. DISJOINT REFERENCE WITH MATRIX SUBJECT ANTECEDENT. Huang (1984) gives a binding theory account of Chinese examples analogous to *80, repeated below as 123.

(123) *L-i-y-al-be   li Maruch-e$_i$ [ti te i-y-il   *pro*$_i$ ta k'in
        CP-B1-A3-tell-IO the Maria-ENC   that there CP-A3-see   at fiesta
        li Petul-e].
        the Pedro-ENC
        'Maria$_i$ told me that Pedro saw her$_i$ at the fiesta.'

The relevant constraint would be condition B, but on the face of it, there is no violation since *pro* is free within the complement clause.[46] Central to this account then is the idea that *pro*, like PRO, is subject to a control condition which Huang calls GENERALIZED CONTROL (GC).

(124) Generalized control (Huang 1984): Coindex an empty pronominal with the closest nominal element.

For an embedded subject PRO, the closest nominal element could be in the higher clause, accounting for control effects. In the case of an object *pro*, however, the nearest nominal element will generally be the local subject. But unless the pronoun is an anaphor, coindexation of the object and subject will violate condition B. GC thus rules out the possibility of nonanaphoric object *pro*, and any representation of 123 or the like in which an embedded object *pro* is anteceded by the subject of the matrix clause. A possibly positive aspect of Huang's account is that it links this disjoint reference effect to languages that allow object *pro*. Something more must be said though, since the effect is often seen in languages that permit null objects.

(125) a. Zhangsan kanjian Lisi le ma?
         Zhangsan see   Lisi LE Q
         'Did Zhangsan see Lisi?'

   b. Ta kanjian *e*   le.
      he saw   [him] LE
      'He saw him.'   (Huang 1984:533)

If the null object in 125b is *pro*, this sentence violates condition B and should be ungrammatical. Huang's proposal is that this null object is not *pro*, but an A'-bound trace (i.e. a variable), bound by a null operator, perhaps to be identified with Topic. Under this proposal, the structure of 125b is [Op$_i$ ta kanjian t$_i$ le]. The question then is why the null object in the complement of Tzotzil 80 and 123, etc., or Chamorro 107 cannot be an A'-bound trace, and the answer is straightforward: such a trace would also be coindexed with the main clause subject, yielding a strong crossover (condition C) violation. In short, assuming that there are exactly two possibilities for a Case-marked null object, a variable and pro, both structures have been excluded in cases like Tzotzil 80 and 123 and Chamorro 107.

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[46] Condition B: A pronoun is free within the domain of its governor.

Chung 1984 argues against this account for Chamorro, where A'-bound traces can be distinguished from *pro,* and where the null object in examples like 107 is not an A'-bound trace. There are also problems with this account in Tzotzil, some of which parallel points made by Chung. First, as we saw earlier' in 85–87, coreference between object *pro* and a matrix subject becomes possible when the intervening subject is first or second person (cf. analogous discussion of Chamorro in Chung 1984). GC would accordingly have to be restricted to clauses in which the subject is third person. Further, since only third person pronouns are subject to GC in Tzotzil (see 88–89), GC would be operative only in clauses with both third person subjects and objects. While this does not cut to the heart of the proposal, it limits its domain to exactly that of obviation.

More damaging is the fact the null objects can be located within islands (cf. Chung 1984 on Chamorro, and Farrell 1990 on Brazilian Portuguese). Under Huang's account, such null objects are A'-bound traces, and should induce at least subjacency violations when bound from outside the island. In Tzotzil, however, null objects within islands do not induce any noticeable degradation in grammaticality. Example 126a shows the null object pronoun (italicized in the translation) within an embedded question, and 126b shows it within a relative clause.

(126) a. Mu j-na'   [k'usi i-y-ak'-be   *e* li   Xun-e].
         not A1-know what CP-A3-give-IO the Juan-ENC
         'I don't know what Juan gave *him.*'

      b. *Juan was unhappy because*
         Chopol [li   pox   [li   i-y-ak'-be   *e* li   Petul]]-e.
         bad   the liquor the CP-A3-give-IO the Pedro-ENC
         'The liquor that Pedro gave *him* was bad.'

The structures of 126, per Huang's account, would be 127a, b where the null operator which binds the null object (italicized in the translation) is located outside the island.

(127) a. [Op$_i$ [Mu jna' [k'usi$_j$ iyak'be e$_j$ e$_i$ li Xune]]]
         'I don't know what Juan gave *him.*'

      b. [Op$_i$ [Chopol li pox [Op$_j$ iyak'be e$_j$ e$_i$ li Petule]]]
         'The liquor that Pedro gave *him* was bad.'

The grammaticality of 126a and b contrasts sharply with examples like 128 and 129, with visible extraction out of an island. Ex. 128 attempts extraction of the object from an embedded question. In contrast to 126a, the result is ungrammatical on the relevant reading (though *k'usi* 'what, how' can be interpreted as originating in the higher clause).

(128)   (*)K'usi$_i$ l-a-y-al-be   li   Xun-e   [buch'u ch'ich'   tal t$_i$]?
         WH   CP-B2-A3-tell-IO the Juan-ENC who   ICP/A3-bring DIR
         'What did Juan tell you who was going to bring?'
         OK: How did Juan tell you who was going to bring it?

Ex. 129 attempts extraction from a relative clause; in contrast to 126b, the result is profoundly ungrammatical.

(129)   *Buch'u$_j$ x-av-ojtikin [li   vinik [li   ta s-k'opon-e   t$_j$]]?
         who   NT-A2-know   the man   the ICP A3-speak-ENC
         'Who do you know the man who is speaking to?'
         cf. *Mi xavojtikin li vinik li ta sk'opon li Manvele?* 'Do you know the man who is talking to Manuel?'

These examples testify to robust island effects in structures parallel to those containing null objects, and undermine the binding theory account of examples like *80/123.

3. GENITIVES. Campana (1992) proposes an account of examples like 119 (but again, from Jakaltek) based on a version of Huang's generalized control. Campana proposes that the *pro* object in 119 is subject to an identification condition which forces coindexing with the nearest c-commanding lexical subject. The result violates condition B (unless *pro* is an anaphor). It is problematic for this approach that a *pro* object can occur in this configuration if it refers to an inanimate (recall 75). Also problematic is the ungrammaticality of *120 which has no object *pro* and thus falls outside this account. Again, these facts suggest that the problem with 119 does not lie in the structural relation between pronoun and antecedent.

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Stevenson College
University of California, Santa Cruz
Santa Cruz, CA 95064