PRAGMATIC SKEWING IN 1 ↔ 2 PRONOMINAL COMBINATIONS IN NATIVE AMERICAN LANGUAGES

JEFFREY HEATH
UNIVERSITY OF MICHIGAN

1. Introduction. Many Native American languages have rich verbal morphology including "agreement" for both subject and object of transitive clauses. In some languages the subject and object (or ergative and absolutive) pronominal markers occur in separate morphological slots and do not interact; an example is Nahuatl, where subject and object series appear to reflect recent agglutination of formerly clitic pronouns. However, in a remarkable percentage of languages, several subject/object combinations are fused, opaque (difficult to segment), or unusually complex.

Some of the irregularity can be explained by classical morphological markedness theory. Most obviously, in many languages the pronominal subject markers of intransitive verbs express a full set of number distinctions (perhaps sg/du/pl), but some of these distinctions are neutralized in transitive combinations (e.g., semantic du → du, du → pl, pl → du, and pl → pl all expressed as morphological "pl → pl").

Other agreement systems revolve around a person hierarchy of the type {1, 2} versus 3, where speech-act participants {1, 2} outrank the third or "nonperson."\(^1\) Other features (animacy, number) may be used to rank-order pairs of 3d-person markers. In "direct-inverse" (= "hierarchical") systems, the order of subject and object markers is determined not by grammatical relation but by these hierarchies, so "direct" {1, 2} → 3 combinations like 'I saw her' differ in structure from "inverse" 3 → {1, 2} combinations like 'she saw me'.\(^2\) Markedness considerations are again at work here, since 'I saw her' is less marked, as a combination, than 'she saw me'. If (as in most

\(^1\)The following notations should be distinguished in the body of this paper: "[1, 2]" with set-theoretical curly brackets denotes the set of 1st- and 2d-person markers; "12" denotes 1st inclusive; and "1/2" denotes a single morpheme used for either 1st or 2d (but not 3d) persons. In languages with a 12 category, the residual 1pl category is to be interpreted as exclusive.

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\(^2\)In true "direct/inverse" systems there is a nonzero Inverse morpheme in 3 → {1, 2} combinations which helps differentiate them from direct {1, 2} → 3 counterparts. In some recent papers one notices extensions in the use of these terms, as "inverse" is applied to forms lacking an Inverse morpheme. Such mission creep has destroyed the usefulness of many once valuable linguistic terms, including "diglossia," and should be resisted in this case.

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such languages) the higher-ranking element comes first, we interpret the ordering as the grammaticalization of a topic-first ordering principle. Most direct-inverse systems (e.g., Algonquian) result in surface combinations that are moderately difficult to segment, but their basic organization can be explained in functional-typological terms (along the lines of Silverstein 1976).

Armed with markedness theory and a few simple functional notions (such as topic-first), we can motivate many of the apparent irregularities we find in $3 \rightarrow 3$ and $\{1, 2\} \leftrightarrow 3$ combinations in various languages. However, the remaining quadrant, the $1 \leftrightarrow 2$ combinations where both subject and object are speech-act participants, has attracted little attention from typologists. This is hardly because these combinations are transparent and regular; on the contrary, in language after language they are opaque and irregular. But there seems to be no method in their madness. The “irregularities” of asymmetrical $\{1, 2\} \leftrightarrow 3$ combinations turn out to show recurrent cross-linguistic characteristics which have been successfully analyzed by cognitive-functional typologists, but in $1 \leftrightarrow 2$ combinations the formal irregularities differ so much from language to language that no (positive) cross-linguistic pattern emerges.

A decade after putting the final coat of paint on the last of several Australian grammars in which I had wrestled with the formal morphological analysis of transitive pronominal paradigms, it dawned on me (on the road to Damascus) that the correct cross-linguistic generalization is a negative one, namely, that transparent $1 \leftrightarrow 2$ combinations are avoided (Heath 1991). In other words, maximally transparent ‘I saw you,’ ‘you saw me,’ etc., tend to form negative or taboo targets and are often replaced by more opaque surface forms.

This preference for opacity resembles pragmatic restrictions in many languages on the use of transparent 2sg pronominals (thou, tu, etc.), which may become bluntly “familiar,” hence inappropriate in polite discourse, where they are replaced by impersonal, third-person, or morphological “2pl” forms. In Japanese, Indonesian, and other Asian languages deeply influenced by court traditions, pragmatic restrictions apply to 1st- as well as 2d-person

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3 The double-headed arrow notation $P \leftrightarrow Q$ denotes the set $\{P \rightarrow Q, Q \rightarrow P\}$. Therefore “$1 \leftrightarrow 2$,” used passim in this paper and its title, represents the set $\{1 \rightarrow 2, 2 \rightarrow 1\}$.

4 Even the title of this paper has been modified for taboo reasons. Referees complained about “Amerindian” in the original version, though for different reasons; one was “offended” by this term (though not by “American Indian”), another worried about associations with the controversial Greenbergian “Amerind” phylum. The point of using a substitute expression like “Native American” is as much the avoidance of the negative target as the positive semantic content of the replacement.
pronouns; Japanese is famous for largely avoiding 1st- and 2d-person pronouns in conversational discourse.

In languages with rich pronominal agreement, pragmatic restrictions do not focus on independent pronouns, which are omitted unless required for discourse effect (e.g., contrastive topic). Instead, restrictions focus on the verbal agreement system, and particularly (I suggest) on the transitive $1 \leftrightarrow 2$ combinations. Here we get both of the pragmatically sensitive pronominal categories, and in an asymmetrical subject/object relationship to boot. In this light, I recall that during my first fieldwork on (Mississippi) Choctaw in 1972, I had difficulties eliciting $1 \leftrightarrow 2$ forms of transitive verbs (even though they turn out to be formally regular in that language). My first informant cheerfully translated ‘he hit her’, ‘he hit them’, ‘I hit him’, etc., but when it came to ‘you hit me’ he balked, saying “We Choctaws don’t talk like that; it sounds like I’m accusing you.” I treated this, probably with little grace, as another bit of informant obstinacy to overcome; it would have saved me some grief later on had I recognized the wisdom in his words.

A maximally transparent system would be one where all $1 \leftrightarrow 2$ combinations are of the schematic type ‘1m-2m’ consisting of a 1st- and a 2d-person marker (“m”). The relative ordering and even adjacency of the two markers is subject to language-specific adjustment. Each marker may be internally multimorphemic, maximally, e.g., ‘1-Fem-Pl-Agent’ with person, gender, number, and case components. To be fully transparent, both the ‘1m’ and the ‘2m’ markers should be identical to the intransitive ‘1m’ and ‘2m’ markers and/or to the corresponding independent pronouns, and should maintain the same number/gender distinctions. This is based on the assumption that intransitive affixes and independent pronominals have unequivocal categorial values, and that native speakers used them as touchstones in analyzing transitive pronominal combinations.

The departures from this idealized maximal transparency that were noted, with Australian examples, in Heath (1991) can be organized into the following “strategies”:

(1) marker disguised by partial phonological distortion
(2) one of the two markers expressed by isolated suppletive allomorph
(3) one of the two markers (elsewhere nonzero) expressed by zero
(4) number neutralization, sometimes including use of “pl” for semantic “sg”
(5) 1st or 2d marker merged with (or replaced by) 3d-person marker
(6) entire combination expressed by unanalyzable portmanteau
(7) entire combination expressed by zero (special case of portmanteau)
(8) inclusive (12) marker replaces 1st or 2d marker, or entire combination
Schematically, using “?” to indicate fuzziness in morpheme identification, and “n” as a number/gender variable, we could represent (1) and (2) as ‘1n?-2n’ or ‘1n-2n?’, (3) as ‘0-2n’ or ‘1n-0’, (4) as ‘1-2n’ or ‘1n-2’, (5) as ‘3n-2n’ or ‘1n-3n’, (6) as ‘X’, (7) as ‘0’, and (8) as ‘12n’. The Native American data surveyed below confirm these types and add some new ones, of which the most typologically significant appear to be the following (with one or two salient examples, to be described later, shown in parentheses):

(9) merged 1/2 marker is part of both 1 ↔ 2 and 2 ↔ 1 combinations (Salishan: Lummi)
(10) subject and object markers compete for a single slot (Guaraní, Carib, Delaware)
(11) co-occurring 1st and 2d markers are widely separated (Salishan: Kalispel)
(12) combinations with identical segments differ in tones (Oto-Manguean: Popoloca)

Schematically, we could represent (9) as ‘[1/2]n-2n’ or ‘1n-[1/2]n’, (10) as a choice between ‘1n’ and ‘2n’, and (11) as ‘1n-...-2n’. Type (12) involves a tonal overlay on one of the other systems, such as (6).

Some of the avoidance strategies have the effect of reducing the surface “transitivity” of the morphology (disguising or deleting a subject or object marker, or fusing the two into a portmanteau). However, the motivation here is not the discourse-pragmatic backgrounding emphasized by Hopper and Thompson (1980), rather social-pragmatic suppression.

Since the driving force is avoidance of a negative target, and since many avoidance strategies are available, we may think of the systems in question as subject to more or less Darwinian principles. Assuming an idealized, maximally transparent proto-system, chance “mutations” due to rapid-speech mechanisms, speech errors, or sporadic situational phenomena are “selected for” in the more socially delicate pronominal combinations, and become grammaticalized.

Pragmatic skewing ranges from slight uncertainty about morpheme identifiability to actual loss of information, and at this point the pragmatic forces favoring opacity run into communicative forces favoring at least a minimal level of referential clarity. A possible ascending scale of seriousness of information loss is this: neutralization of number marking < neutralization of person marker < homophony among semantically disjunct combinations. The Native American data reveal several cases of homophony between ‘1(sg) → 2(sg)’ and its inversion, ‘2(sg) → 1(sg)’, which pushes the system to its referential limits; see Penutian (Siuslawian), Tarascan, Mixe-Zoque (Zoque of Copainalá), and Carib (Surinam and Apalai), below.
In morphologically complex languages, information lost or obscured in the core pronominal agreement markers is sometimes recoverable (inerrable) from clues in other co-occurring morphemes. If we could track the morphologies over a few millennia we might discern a tendency toward equilibrium between (pragmatically favored) opacity and (communicatively favored) transparency. Of course, one can always use optional free pronouns to resolve ambiguities.

We now embark on a whirlwind Levi-Straussian tour of the Western Hemisphere, from north to south. Readers are free to skip around the following sections in small doses, rather than trying to read the paper as a narrative, which may induce gogginess. I reproduce the transcription of original sources unless otherwise noted, except that morpheme breaks are often added. I use Sapirian groupings like “Hokan” and “Penutian” for bureaucratic convenience rather than out of megalocomparativistic fervor. I apologize in advance for the inevitably cursory treatment of individual languages, many of which deserve amplified synchronic/historical discussion by competent specialists. There is always a tension between “general” theorizing and devoted language-specific analysis, but precisely this confrontation is the font of most wisdom in Linguistics. I would encourage readers to remain focused on the general point, consider whether the array of data surveyed here suffices to support it in a broad way, and assess its relevance (if any) to the languages they work on. General readers whose interest is piqued by one of the languages surveyed here should consult primary sources or contact specialists, rather than citing data from this paper as authoritative. In addition to this and the original programmatic paper (Heath 1991), I plan further regional surveys on this topic for other parts of the world.

2. Eskimo-Aleut. As our exemplar we take West Greenlandic Eskimo, whose verbs have inflectional suffix combinations including subject-object agreement (Schultz-Lorentzen 1945:54–55, with morpheme breaks—sometimes fairly opaque—added). In 1sg → 2sg indicative -va-y-kit or -va-git, we have indicative transitive -va-, then an optional -v- that shows up elsewhere in 2pl (and some 1pl) combinations, and a final portion -kit (or lenited -git) that resembles the most common 1pl ending -gut but whose final segment could also be identified with 2sg -t, -it. Certainly there is no clear ‘1sg’ morpheme here. The 2sg → 1sg indicative -va-r-ma is likewise opaque; the -r- appears elsewhere in combinations with 1sg, 1pl, or 2pl (but not 2sg!) subject on 3sg object. The ending -ma occurs nowhere else in the verbal agreement system, though it is obscurely related to -ma, the suppletive ergative-case counterpart for 1sg possessive -ga or -ra (note that in 2sg → 1sg the 1sg marker is absolutive, not ergative). So we have an obscure ‘1sg’
allomorph (strategy 2) and no discernible ‘2sg’ morpheme (verging on strategy 3). There is a 1 → 2pl indicative -va-v-se with subject number neutralized (‘1/we → you[pl]’, strategy 4), ending with 2pl marker -se. The remaining forms (1pl → 2sg, 2sg → 1pl, and those with 2pl subject) are fairly transparent.

For 2sg → 1sg the interrogative form is -vi-nga (with 2d-person interrogative -vi-) and the imperative form is just -nga added directly to the stem. Both have the regular 1sg marker -nga and are therefore more transparent than the indicative forms (and the “relative preterit” and “relative future” forms, not shown here but also rather messy). This makes me wonder whether the pragmatic-skewing model proposed here might be sensitive to the specific pragmatic effects of particular moods. Since the interrogative is not ordinarily assertive (‘Did you see me?’ as opposed to indicative ‘You saw me’), transparent 1 ↔ 2 combinations are not dangerous here and perhaps are not selected against. On the other hand, blunt directness is appropriate in commands and transparent pronominal forms there are positively selected for.

3. Algonquian. Data are from Bloomfield (1946), citing morphemes in their Proto-Algonquian forms. The most memorable (and overrated) feature of these languages is the simple 2 > 1 > 3 rule for access to the single prefixal slot in the indicative mode. The prefix is absent from the conjunct order, and even in the independent order it is largely redundant, since the elaborate suffixal system makes almost all of the necessary distinctions. Transitive animate verbs take “theme” suffixes that indicate the broad sets “1 object,” “2 object,” “direct,” or “inverse.” In the independent order, the “1 object” theme *-i- is used only in 2 → 1 combinations, and the “2 object” theme *-e0- is used only in 1 → 2 combinations, since 3 → {1, 2} combinations use the inverse theme. As a result, *-i- and *-e0- function as portmanteaus in this mood. (In the conjunct order, *-i- and *-e0- are used in all {2, 3} → 1 and {1, 3} → 2 combinations, respectively, instead of the inverse theme.)

The theme suffixes are followed by one or more additional suffixes that complement the prefix and the theme suffix, marking subject person and (if applicable) plurality of subject or object. Therefore, the person/number category of each transitive participant is recovered by addressees by piecing together information distributed over the prefix, the (inner) theme suffix, and the outer suffixes. Although such a cumbersome system does not neatly fit into one of the simple “strategies” listed above, it inevitably lacks the transparency that we would get with separate subject and object slots and seems relevant to the current study.
In Delaware (Goddard 1979:136; I add morpheme breaks), the conjunct order shows a further development, in that the 2sg conjunct subject marker (PA \*(y)an) has spread to 1sg \(\rightarrow\) 2sg -\(\omega\)-an, which is therefore distinguished from 2sg \(\rightarrow\) 1sg -\(\omega\)-yan only by the theme suffix. (Delaware -\(\omega\)- and -\(\omega\)- reflect PA theme suffixes \*(-\(\omega\)-th) and \*(-\(\omega\)-.) The post-theme slot in 1 \(\leftrightarrow\) 2 combinations is filled by a 1pl morpheme if relevant (1pl \(\rightarrow\) 2, 2 \(\rightarrow\) 1pl), and by the relevant 2d-person morpheme (2sg or 2pl) if the first-person pronominal is singular. This specific subsystem of Delaware therefore related to strategy 10.\(^5\)

4. Iroquoian and Caddoan. In Northern Iroquoian (Tuscarora and the Five Nations languages, data checked with W. Chafe, personal communication, 1994), the usual 1sg \(\rightarrow\) 2sg form \(k\-\(\omega\)-\) consists of the regular ‘1’ morpheme \(k\)- and an un glossable nasalized-vowel element. The (1du, 1pl) \(\rightarrow\) 2 combinations are exemplified by \(k\-n\-i\-\) ‘1-Dual-’, used for any 1 \(\rightarrow\) 2 combination involving one or two duals (but no plural). In none of the 1 \(\rightarrow\) 2 forms is there an identifiable ‘2’ marker, so these forms fit nicely into our framework (verging on strategy 3). The 2 \(\rightarrow\) 1 combinations, on the other hand, are transparent sequences of the type ‘2-1-...’ (nonsingular number markers follow the person markers).

To be sure, Mithun’s (1976) dissertation on Tuscarora ventured a formal analysis of the pronominal paradigms in which \(k\-\(\omega\)-\) (represented as \(kv\-\) or a variant thereof, with \(v\) as the nasalized vowel) was analyzed as underlying //\(k\-\(e\)-\(a\)-// (‘1-2-OBJ’), but there is no real support from the rest of the morphology for either ‘2’ //\(e\)-// or—in the relevant morphemic position—an objective case allomorph //\(-a\)-// (Mithun 1976:156, 178, 185). This then-fashionable mode of analysis reflected the generativist quest for “deep” symmetry lurking under a fragmented and epiphenomenal “surface.” (I wasted my youth doing exactly similar formal analyses of Australian pronominal paradigms, so I cast no stones or aspersions.) Within the framework offered here, irregular and opaque morphological combinations have a positive pragmatic value and need no apologies.

In Caddo (Wally Chafe, personal communication, 1994), the 2 \(\rightarrow\) 1 prefix combination yah-\(\omega\)-k- is transparent (‘2agent’ + ‘1patient’), but the 1 \(\rightarrow\) 2 form is a portmanteau t\(\omega\)-, unrelated to ‘1agent’ ci- and ‘2patient’ si- (strategy 6).

5. Siouan. For the large Mississippi Valley subgroup, we can cite several opaque 1 \(\leftrightarrow\) 2 combinations from Boas and Swanton (1911:909, 915),

\(^5\) I thank an IJAL referee for clarifying the Delaware material.
which covers “Dakota” (= Lakhota) and has some non-Lakhota comparative data. The 1sg → 2sg combination is either an unanalyzable portmanteau (Lakhota čhí-, Ponca wi-) or morphologically reduced (Winnebago ni-*-, i.e., [nįिऺ], consists of the bare ‘2patient’ morpheme, without the usual 1sg agent marker ha-). These illustrate, respectively, strategies 6 and 3. The other 1 ↔ 2 combinations are generally transparent, but in Ponca the 2sg → 1pl combination wa-qa-, while regular, is homophonous with 2sg → 3pl, hence must be labeled 2sg → {1pl, 3pl}. “Φ” is unexplained but apparently represents [ɔ] (referee comment). Though no actual morphological transformation of the 2sg → 1pl combination occurs, the surface effect is similar to that of strategy 5. For Lakhota, Rood and Taylor (1996:468) additionally indicate that for the small class of “stative transitive” verbs, 2sg → 1sg and 1sg → 2sg are both expressed by ni-ma- (2sg-1sg); the morphemes are transparent but the rigid ordering blurs the subject/object relationship.

John Koontz (personal communication, 1994) believes that the synchronically portmanteau 1sg → 2sg forms in many Siouan languages (including the čhí-, wi-, and nįिऺ- mentioned above) can be derived from proto-forms *w-yi- and nasalized *w-yi-, readily analyzable as ‘1agent-2patient’, though the historical phonology necessary to derive the attested forms is quite messy. If he is right, one could conclude that all 1 ↔ 2 combinations were once transparent and regular, and disrupting phonetic changes are responsible for the synchronic mess. Even if this is historically correct, my spin on this is to emphasize that the languages have not undertaken restructurings to restore morphological transparency undermined by regular sound changes, and indeed seem to have actively selected for rapid-speech mutations that accentuated the opacity.

In Biloxi, which belongs to the southeastern subgroup, 2 → 1 and 3 → 1 prefixes are homophonous; thus ya-xtedi ‘you[sg]/he hit me’ (Einaudi 1976: 73), cf. strategy 5.

6. Salishan. A few of the languages in this family show interesting behavior. For Kalispel, Vogt (1940:35–36; morpheme breaks added) notes that the 1pl prefix qe’- occurs in 1pl → 3 qe’-[verb]-an-tam but is inexplicably omitted from 1pl → 2 θ-[verb]-an-c-t, both of which contain completive -an-. The endings -tam and -t can perhaps be glossed ‘1pl’, but they occur only in a few transitive combinations and one could argue about segmentation and glossing. By contrast, qe’- is a very clear ‘1pl’ morpheme also used with intransitive verbs and its omission seems pragmatically relevant (strategy 3).

The morphology of predicate possessed nouns of the type ‘X (is) father of Y’ also appears to indicate avoidance of close juxtapositions of 1pl qe’- and 2d-person markers. In k̓u-p otxút ‘thou art our father’ and p-p otxút
‘you[pl] are our parents’, the only surface prefixes are the 2sg and 2pl intransitive subject markers, respectively. Contrast qe’-poxút ‘he is our father’, which shows the 1pl prefix (here in possessive function). Reversing the roles of 1pl and 2d-person markers, we get ‘we are thy/your parents’ which could likewise, in theory, result in close juxtaposition of 1pl and 2d-person prefixes. As it happens, this surfaces as qe’-poxút-lal-t with the regular 1pl prefix. Instead of the expected 2d-person prefix, we get a rather opaque suffix complex that can be shakily segmented into ‘1pl’ -lal- and ‘2’ -t (with number neutralized) by comparison with qe’-poxút-lal-s ‘we are his/their parents’ (Vogt 1940:25–26). Overall, the 1pl ↔ 2 forms are rather opaque in this language, making use of suppletive allomorphs (strategy 2), deletion of 1pl marker (strategy 3), number neutralization (strategy 4), and perhaps physical separation whereby an expected prefix surfaces as a suffix (strategy 11).

In Lummi (Jelinek and Demers 1983:168), the interesting detail is a ‘1/2object’ suffix -ŋos- shared by all 1 ↔ 2 combinations, following the transitive suffix -t- and preceding the subject marker: xčí-t-ŋos-sén ‘I know you’, xčí-t-ŋos-sx* ‘you know me’ (strategy 9).

7. Penutian. I take no position on the genetic validity of Sapir’s “Penutian.” Quite a few of the languages show opaque 1 ↔ 2 combinations.

Chinook (Boas 1911:580–84, cf. Silverstein 1976:132) has a basically well-behaved transitive agreement system with ergative and absolutive prefix slots. The irregularities occur in 1 → 2 combinations. In 1sg → 2 forms, instead of the regular 1sg prefix n- we get a suppletive ya-, hence 1sg → 2sg ya-m-, 1sg → 2du ya-m-t-, and 1sg → 2pl ya-m-c- (arguably y-am-, etc., with a different segmentation). The 2d-person components -m-, -m-t-, -m-c- are regular; one might alternatively segment the combined forms as y-am-, etc. In combinations of 1st nonsingular subject on 2d object, the usual 1st nonsingular ergative markers (e.g., 1pl exclusive ergative ntc-k-, including ergative case marker -k-) are replaced by qa-, which seems to be an indefinite subject (ergative) marker q- plus a linking vowel. Boas further indicates (1911:584) that a 1st-person agent is omitted in ditransitive verbs when a 2d-person dative object is present: ʔ-t-am-l-ō’-t-a ‘I shall give them to you’ (ʔ-3pl-2sg-to-give-Future). So we have three distinct ways to avoid clear expression of 1st-person agents with 2d-person complements: suppletive allomorph (strategy 2), replacement by impersonal morpheme (variant of strategy 5), and omission of normally nonzero morpheme (strategy 3).

In Takelma (Sapir 1922:170–72), the transitive agreement markers are usually transparent, with pronominal suffixes showing the order subject-object-. However, {2, 3} → 1sg forms express 1sg object by a stem-internal vowel change (o → ū, a → e, vacuous for other stem vowels) instead of by a suffix (Sapir 1922:59). The 2 → 1sg forms are expressed by this
(overtly or vacuously) ablauted stem plus an intransitive 2d-person marker of the intransitive (stative/resultative) class II; the intransitivity suggests that the 1sg element (stem ablaut) is not treated as though fully present morphemically (cf. strategy 3). The reduced salience of a (sometimes vacuous) stem-vowel change, as opposed to an easily segmentated affix, is similar to the low visibility of pronominals marked only by tonal distinctions overlaid on affixes; see discussion of Popoloca (Oto-Manguean), below.

In Coos (Frachtenberg 1922a:350–51), verbs have a single pronominal prefix and many transitive verbs also have a suffix. In transitives, the prefix slot is filled by a \{1, 2\} person marker in preference to a 3d-person marker (regardless of case), and by a 3d-person subject in 3 \rightarrow 3\ combinations. In 1 \rightarrow 2 combinations, subject number is neutralized (strategy 4) and the subject is expressed only opaquely in the form of portmanteau suffixes -āīs ‘2 → 1’ and -āmē ‘1 → 2’, which are not used elsewhere in the morphology. If the object in a \(1 \rightarrow 2\) combination is plural, it is expressed in the prefix. In both 1sg → 2sg e’-[verb]-āmē and 2sg → 1sg e’-[verb]-āīs, the prefix is 2sg e’. This system shows elements of strategies 6 (portmanteau) and 9 (component morpheme shared).

In Siuslawan (Frachtenberg 1922b:468, 472–75), transitive verbs are suffixed with \(a\) very general “objective element” markers, either ‘3obj’ or ‘1/2obj’ (cf. strategy 9), next \(b\) specific object markers (like 1pl), and finally \(c\) specific subject markers. In several \(1 \rightarrow 2\) combinations, the expected three-part sequence of -1/2obj-O-S, with “objective element” followed by specific object and subject markers, actually surfaces only for combinations where the object is plural (2sg → 1pl, 2pl → 1pl, 1sg → 2pl, and 1pl → 2pl). With nonsingular subject on singular object (1du → 2sg, 1pl → 2sg, 2pl → 1sg), the specific singular object marker is omitted (strategy 3), giving -1/2obj-S. In the remaining (sg → sg) cases, we get -āīs-(a)-nx (-1/2obj-2sg, with intervening linking vowel) in both senses (‘1sg → 2sg’ and ‘2sg → 1sg’), which can only be disambiguated by adding (optional) independent pronouns. Although this paper adduces other cases of merger of ‘1(sg) → 2(sg)’ and ‘2(sg) → 1(sg)’ (‘I see you’ = ‘you see me’), this creates communicative strains, and in Siuslawan it may be motivated idiosyncratically by avoidance of homophony with forms elsewhere in the system.\(^6\)

Klamath (Barker 1964:239, 242) has, in addition to ordinary independent pronouns, exactly two special portmanteau-like forms (strategy 6) for subject–object combinations: 2sg → 1sg *ins (or ‘i’s) and 1sg → 2sg min. Note

\(^6\)Since 3sg is a zero pronominal in Siuslawan, the sense ‘3sg → 1sg’ is expressed regularly as -1/2obj-1sg-(0). This may explain why the sense ‘1sg → 2sg’ is expressed not by the expected *-1/2obj-1sg (which would be homophonous to the ‘3sg → 1sg’ just described) but rather by -1/2obj-2sg (also used for ‘2sg → 1sg’). Given the omission of 1sg and 2sg object markers in \(1 \rightarrow 2\) combinations, some homonymy is unavoidable, but the language can “choose” where the homonymy will occur.
that these are precisely the two most pragmatically sensitive combinations. The first of them is vaguely segmentable as a fused contraction of 2sg 'i, 1sg ni, and objective marker s. The second is more thoroughly unanalyzable, though again the alveolar nasal could perhaps be connected with the 1sg morpheme.

In the 1 ↔ 2 forms of Southern Sierra Miwok, we can usually segment the morphemes but there are some difficulties in glossing them (Broadbent 1964:43–44, 93). In 1sg → 2sg -mu-s-u- and 1sg → 2pl -mu-tok-su- the -s-u- is probably a ‘2’ morpheme (cf. ‘2 intransitive’ si-) and the -tok- is clearly a ‘2pl’ marker. The remaining morpheme -mu- is perhaps a ‘1’ allomorph (cf. 1sg intransitive ma- in alternation with zero). The 2 → 1 forms are even more opaque, especially 2sg → 1sg -mu-, which appears to consist just of the ‘1’ allomorph with no overt subject marker (strategy 3; for 2sg → 1pl we get -muh-me-, ending with a ‘1pl object’ morpheme). The preceding forms are from the indicative “series 3” used in present imperfect and present perfect. Among the “series 4” forms used in the imperative, we may mention 1sg → 2sg -ni- (the morpheme can be tentatively identified as a minor ‘2’ marker) and 2sg → 1sg - - (i.e., lengthening of preceding vowel) or -Y-. The latter variant most closely resembles the intransitive ‘1inclusive pl’ marker (see strategy 8).

8. Hokan. This is a notoriously controversial genetic grouping. I have spot-checked a few of the languages, but not many have fused transitive pronominal agreement systems.

An exception is Karuk (= Karok), where the archaic-looking transitive pronominal prefixes (occasionally circumfixes) show extensive number neutralization and syncretism, so the forms often require supplementation by independent pronouns. Data are from Bright (1957:64); cf. also the morphological reanalysis in Macaulay (1992). In the indicative positive, we get the following syncretisms involving 1 ↔ 2 combinations: (a) 1 → 2sg = 1pl → 3 ni'-; (b) {1, 3} → 2pl ki-(k)i'-ap; (c) {2sg, 3sg} → 1sg ná-; (d) {2pl, 3pl} → 1sg kaná'-; and (e) {2, 3} → 1pl = 3pl → 3pl kin'-.

In all cases, one of the two component markers in the 1 ↔ 2 combination is merged with a 3d-person marker (cf. strategy 5), and except for (a) all the mergers are in the subject category. In the 1 → 2 (but not 2 → 1) forms, subject number (‘I/we’) is always neutralized (strategy 4). Since the transitive-prefix system seems to be residual, a formal morphological analysis is intrinsically slippery, but we may hazard a few comments. There is no sign of a 2sg morpheme (cf. pronoun ‘i-m’) in any of the 1 ↔ 2 combinations. Form (a) consists of a 1pl morpheme, so we have number neutralization by which the plural form generalizes to include singular usage. This violates Jakobsonian/Greenbergian markedness principles but is nicely in line with pragmatic skewing, since the reader will agree with us (!) that ‘1pl’ is less intense.
pragmatically than ‘1sg’ (strategy 4). Form (c) is a 1sg marker. Neither (d) nor (e) occurs as such in the intransitive paradigm, so neither is a pure person marker. We might analyze (d) kanáː as containing (c) ná- ‘1sg’, whereby the residual ka- is taken as indicating plural subject (with 1sg object). The morphemic glossing of (e) is also tricky; it is mainly a ‘1pl object’ marker but extends also to ‘3pl → 3pl’.

In Washo (Jacobsen 1996:33 and personal communication, 1997), the 2 ↔ 1 proclitic combinations are 1 → 2 mi-le- (the superscript indicates e-coloring of a following vowel) and 2 → 1 le-m-. These consist of the regular independent pronouns lé: and mí: (minus the latter’s word-final lengthening), plus the regular subject markers also used with, e.g., intransitive verbs. The system of categories is already minimal, since the Dual and Plural morphemes which can be added to independent pronouns are not used in these fused combinations. Also relevant is the fact that the preconsonantal variant of mi-le- is not the expected #mi-di- with the usual preconsonantal 1sg-person subject allomorph di-, rather a truncated mi- with zero expression of the 1st person (strategy 3), as in mi-dámal-é:s-i ‘I do not hear you’. Another instance of the same strategy occurs in the imperative. The usual Imperative prefix is g- (or allomorph), but just in the 1st-person object (i.e., 2 → 1) form this prefix is omitted. Instead, we get the prefix used (in the indicative mood) for 3 → 1, hence la-dámal ‘listen to me!’, distinguished from la-dámal-i ‘he hears me’ only by absence of Imperfective -i.

9. Kiowa. This language is related to the Tanoan languages of the pueblos; Sapir’s grouping of Kiowa-Tanoan with Uto-Aztecan remains to be definitively proved. Inflected verbs begin with a slot for an internally complex pronominal prefix. In Watkins’s analysis (1984:109–45), the prefix begins with one full pronominal marker, from either the “agent” or “patient” series, and ends (if applicable) with an indication of the number category of a 3d-person “object” (a category distinct from “patient”). Watkins’s abstract underlying representations (intended, more or less, as internally reconstructed proto-forms) bear only a distant resemblance to the surface forms; e.g., underlying 2sg intransitive  ámb-í想要 metamorphoses into òm-.

By definition, a system like this with only one full pronominal does not allow the combination of overt ‘1’ and ‘2’ person markers, so it fits nicely into the pragmatic-skewing model. The choice of ‘1’ or ‘2’ person marker at the beginning of the various 1 ↔ 2 combinations depends on various factors, with a nonsingular patient getting first priority, and 2d-person nonsingular agent next highest priority. For 1sg → 2sg, one option is òm-, which is identical to the 2sg intransitive and so is analyzable as just ‘2’ morphologically (strategy 3). Another option is the referentially overlapping 1sg → {2sg, 3sg} gyá-, which is arguably based on a special ‘1’ allomorph also seen (but with different tone) in ‘1sg agent with 3sg object [≠ patient]’ gyá-.
In each of the seven remaining 1 ↔ 2 combinations, for one of the two components we get a merger {1, 3} or {2, 3} involving third person (cf. strategy 3), though the morphemic composition is often not transparent, as in {2sg, 3sg} → 1sg ē-.

10. Keresan. In Acoma (Miller 1965:100–101), the whole system of agreement prefixes is messy, since even the intransitive prefixes occur in three main series (nonmodal, dubitative, hortative) with many irregularities. For 1 → 2 the forms for the three series are ṣa-/ca-/ṣa-, which seem loosely connected to the parallel intransitive ‘2’ forms s-/c-/ {c'-, c'uu-, c'uu-}; this is in the region of strategies 1 through 3. The three 2 → 1 forms are dyu-/dyu-/gu-, for which no clear morphological identifications emerge, so they are arguably portmanteaus (strategy 6).

11. Tarascan. This Mexican isolate distinguishes ‘1/2indicative’ -ka- from ‘3indicative’ -ti- based on whether the subject is or is not a speech-act participant. This opposition helps resolve ambiguities due to syncretisms in the pure pronominal affixes and enclitics (1pl = 3pl subject kši, 2pl = 3pl object kši-ni; Foster 1969:44, 54, 56). Of more direct interest here is another combined {1, 2} morpheme, namely, the enclitic cē for ‘1/2object’ (often but not always indirect object; Foster 1969:125). When ‘1/2indicative’ is combined with ‘1/2object’, the result has 1 → 2 and 2 → 1 readings: /a-ri=će-a-ka/ ‘you will tell me; we will tell you’ (the last two morphemes are ‘-Fut-1/2indicative’; Foster 1969:35). As noted earlier, the merger of 1 → 2 and 2 → 1 forms can cause communicative problems, and presumably requires the occasional addition of free pronouns.

12. Mayan. In most languages of this large family, ergative pronouns are prefixed but absolutive pronouns are suffixed, so there is no morphological fusion or other interaction between the two series and the pickings are thin for our pragmatic-skewing model. However, in some of the languages we get adjacent ergative and absolutive prefixes, and a few “chemical reactions” among them occur. In Tzotzil, absolutive pronominal markers are prefixed (to the left of the ergative prefixes) if an aspectual prefix (e.g., completive) is also present, otherwise the absolutive markers are suffixed. The intriguing irregularity is that in the 2 → 1 combination, the 1st-person absolutive is suffixed, even when an aspectual prefix is present (Aissen 1987:44–45). One could interpret this as an instance of strategy 11 (physical separation of ‘1’ and ‘2’ markers). However, a contributing factor motivating avoidance of a prefix sequence *1abs-2erg-... could be avoidance of phonological problems; the sequence would be -i- plus -a(v)- and the first prefix would risk being phonetically absorbed by the initial vowel of the second.
13. Mixe-Zoque. For this family, inspection of a few grammatical sketches suggests that opaque 1 ↔ 2 combinations are common; I presume that free pronouns are regularly used for disambiguation. In the languages examined, verbal prefixes indicating pronominal person (or transitive person combinations) are supplemented by suffixes, mainly ‘1/2pl’ and ‘3pl’.

For the Mixe branch, in Popoluca⁷ of Oluta (Clark 1981:126–27), the prefix tuš- is used both for 1 → 2 (without suffix) and 2 → 1 (with a further suffix ‘-c,’ i.e., [’k]). This -’k is the only pronominal suffix not marking plurality. The prefix tuš- contains the regular ‘1’ prefix tu-. The š shows up elsewhere only in 1 → 3 and 2 → 3 forms (and there only in the dependent mode) and is difficult to gloss; it has no resemblance to the ‘2’ morpheme, which is mi-.

In Zoque of Francisco León (= Magdalena), if I interpret Engel and Alhiser de Engel (1987:378–82) correctly, the only transitive pronominal prefixes are (a) 3 → 1 θ- (zero); (b) 3 → 3 /y/-; (c) {1, 2} → 3 and 1 → 2 /N/-; (d) 12 → 3 and 2 → 1 ndφ-; and (e) 3 → 2 /Ny-/. Phonetically, /y/ represents palatalization of the stem-initial consonant, and /N/ surfaces as a homorganic nasal. Form (d) is presumably the combination of the nasal archiphoneme in (c) plus ‘12’ (inclusive) tφ- (this is the 12 intransitive subject form). We can therefore generalize that /N/- is always present for {1, 2} transitive subject (it is not used in the intransitive paradigm). Form (e) looks superficially like a composite of forms (b) and (c), but /Ny/- is also used as the ‘2’ subject marker in intransitives and so may be a single morpheme, and 3 → 2 does not fit the categorial specification just given for use of /N/- Plurality of subject is indicated by ‘1/2pl’ and ‘3pl’ suffixes. Of special typological interest here is the use of ‘12’ (i.e., 1st inclusive) morphology for the 2 → 1 combination. Instead of appearing as separate pronominal markers (‘2subject’ plus ‘1object’), the 1st- and 2d-person elements are, for morphological purposes, additively combined into inclusive person (strategy 8). This is a logician’s (and syntactician’s) nightmare but a pragmaticist’s idyll. Note also that form (c) subsumes 1 → 3 and 1 → 2, giving the familiar 1 → {2, 3} pattern (strategy 5).

In Zoque of Copainalá (Harrison, Harrison, and García 1981:425–26 and Wonderley 1951:140–41), the facts are similar except that the 2 → 1 prefix is /N/- with no additional ‘1inclusive’ morpheme, so 2 → 1 is syncretic with 1 → 2. Although this syncretism can cause communicative problems, the residual prefix systems in Zoque languages are so reduced overall that they are no longer heavily relied on to express pronominal categories.

14. Oto-Manguean. In Popoloca of Metzontla (Veerman-Leichsenring 1991:126, 152–54), there is a distinction between (morphological) one-

⁷ Unrelated to Popoloca (Oto-Manguean, see below).
place ("S") and two-place ("SO") verbs. The "O" (object) in SO is usually a human object (indirect object, or object of certain verbs like 'want', 'owe', and 'bite'), so most syntactically transitive verbs ('hit', 'kill', 'eat') are simple S verbs morphologically. Inflected verbs take a pronominal suffix ("desinence"); there are also clitics for various plural pronominal categories. Suffixes, like syllables of stems, can have lexical tones, and there are some tonal interactions between stems and suffixes. For S verbs, the basic suffixes are: zero for '3', -a (no inherent tone) for '1', and -ā (macron indicates inherent mid tone) for '2' (1991:129). For some S verbs, the first syllable of the stem has one tone for \{1, 2\} subject, a different tone for 3d-person subject.

A distinct set of suffixes is used with the SO verbs. If we disregard the tones and focus exclusively on the segments, we have -e for \{2, 3\} → 3, -na for \{2, 3\} → 1, and -a for both \{1, 3\} → 2 and 1 → 3. From this information we infer that the basic senses of these morphemes are -e = '3object', -na = '1object', and -a = '2object', though the latter is also extended anomalously to 1 → 3. Identifying these morphemes as object-person markers is confirmed by comparison with possessive suffixes for the corresponding persons on nouns, which have the same segments.

Overlain suffixal tonal distinctions complement these suffixal–segment oppositions, with the result that all seven nonreflexive person combinations are differentiated one way or the other. For example, what is shown above as a triply ambiguous suffix -a actually materializes as three distinct forms: 3 → 2 -a, 1 → 3 -a, and 1 → 2 -ā. Perhaps these tonal distinctions historically reflect the interaction between the original lexical tone of the (object-marking) suffix and anticipation of the tone of a following (subject-marking) clitic, at least for 1st- and 2d-person subjects (Popoloca has no nonzero 3d-person clitic). However, I can detect no clean synchronic correlation of subject person categories with suffixal tones: for 1st-person subject we get low (1 → 3) and high (1 → 2) tone; for 2d-person subject we get mid (2 → 1) and high (2 → 3); and for 3d-person subject we get low (3 → 1) and mid (3 → 2 and 3 → 3).

To return to this paper's focus on 1 ↔ 2 combinations, the point to make is that the Popoloca 1 ↔ 2 set distinguishes 2 → 1 from 3 → 1, and 1 → 2 from 3 → 2 (and 1 → 3), only by the tone of suffixes. Without entering into a psycholinguistic disquisition, it seems reasonable to argue that pitch distinctions are perceptually less conspicuous under normal listening conditions than distinctions made by -CV (i.e., fully syllabic) segment strings, so that in the two-place verbs the object is strongly marked while the subject is faintly marked. In Popoloca, this is all the more so since there is no one-to-one correlation of tones with specific subject persons. Although close in spirit to strategy 1 (person marker disguised by partial phonological distortion), this is really a different mechanism (strategy 12) taking
advantage of the differential perceptual accessibility of segmental and suprasegmental material.

15. Aymaran. In Jaqaru (Hardman 1983:92–106), we get fairly reduced transitive suffixes that seem to consist of a single clear person morpheme, along with an onset vowel that is unglossable and dubiously segmentable. For the realsis tenses, \(1 \rightarrow 2\) -ima is basically a ‘2’ morpheme seen in possessive -ma ‘your’. \(2 \rightarrow 1\) -uta resembles a different ‘2’ morpheme seen in 2d intransitive and \(2 \rightarrow 3\) -ta but is also similar to the basic ‘1’ suffix (intransitive, also \(1 \rightarrow 3\) ) -\(1^\text{a}\). Taking the Future as representative of the irrealsis tenses, the \(2 \rightarrow 1\) form -(u)tumata can be segmented as -(u)tu-mata, which ends in the 2 intransitive and \(2 \rightarrow 3\) Future marker -mata and perhaps begins with a minor ‘Irrealis 1object’ marker (cf. \(3 \rightarrow 1\) Future -(u)tuni ). However, the Future \(1 \rightarrow 2\) form -mama looks like a doubled ‘2’ morpheme. Overall, the \(1 \leftrightarrow 2\) combinations consist of various ‘2’ allomorphs and contain no discernible ‘1’ morphemes (approaching strategy 3).

16. Tupí-Guaraní. Intransitive verbs are of two types, corresponding to what many typologists call “active” and “stative” intransitives (for a functional-typological analysis, see Payne 1994). For these two classes in Guaraní, Gregores and Suárez (1967:131–32) give paradigms of active (“subject”) and stative (“personal reference”) prefixes. Transitive verbs have so-called object prefixes; I would prefer to analyze them as subject/object combinations. To be sure, some “object” prefixes do basically mark object category and are identical in form to corresponding stative intransitive prononinals: \(X \rightarrow 1sg \, \text{še}-, \, X \rightarrow 1pl\) (exclusive) ore-, and \(X \rightarrow 12\) (inclusive) yane-, each consisting of a simple 1st-person marker. However, we could alternatively claim that \(2 \rightarrow 1\) merges with \(3 \rightarrow 1\) (to form \(X \rightarrow 1\)) due to zeroing of 2d-person agent markers (the ‘3’ marker is zero anyway); cf. strategy 3. Moreover, the merger of \(3 \rightarrow 2\) and \(1 \rightarrow 2\) into \(X \rightarrow 2\), expected if these prefixes were simple “object” markers, does not occur. While the \(3 \rightarrow 2\) forms do indeed match the corresponding stative 2d-person markers (2sg and \(3 \rightarrow 2sg\) ne-, 2pl and \(3 \rightarrow 2pl\) pene-), for \(1 \rightarrow 2\) we get special prefixes 1 \(\rightarrow 2sg\) ro- and 1 \(\rightarrow 2pl\) po-, distinct from the 2d-person stative markers. These are arguably related to active 2sg re- and 2pl pe- , respectively, on the basis of shared consonants, but the vowels are different and we would expect true “object” markers to match the stative, not active, series. Moreover, \(1 \rightarrow 2sg\) ro- is more exactly identical to active ‘1pl’ (exclusive) ro-, which makes sense if we take the \(1 \rightarrow 2sg\) morpheme as designating the

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8 The stative prefixes are also substantially identical to possessive prefixes on nouns, and to free pronouns.
agent (rather than object), and furthermore merging subject number in favor of the plural form—strategies 3 and 4. The ambiguous morphemic identity of 1 \(\rightarrow\) 2sg **ro-** (‘1pl’ or ‘2sg’) is positively evaluated in a pragmatic-skewing model, though of course this example depends on a language-specific morpheme-similarity quirk and is not here beatified as a typological “strategy.”

Aside from the active/static contrast in intransitives, the Guaraní system has structural affinities to the Carib systems discussed below, since both use strategy 10 (single-slot transitive agreement) supplemented by one or two transitive portmanteaus. Tupí-Guaraní and Cariban are thought to be distantly related genetically.

17. *Quechua*. In the Huallaga variety of Quechua (Weber 1989:77–79, cf. 96), a “transition” is a suffix complex including both pronominals and tense markers, fused together to varying degrees. Weber argues that the basic structure of a “transition” is object-tense-subject, but he proceeds to recognize a “subject marking anomaly” rule (1989:97) by which the 3d-person subject marker in 3 \(\rightarrow\) 12 (inclusive) and 3 \(\rightarrow\) 2 combinations is replaced by a subject marker matching the category of the object. Hence, 3 \(\rightarrow\) 12, which should show up as ‘12-tense-3’, actually shows up as morphemic ‘1-tense-12’; likewise 3 \(\rightarrow\) 2, which should show up as ‘2-tense-3’, actually shows up as ‘2-tense-2’. Inspection of the paradigm of transitive transitions suggests a partial reanalysis. To begin with, since 3d-person object is expressed by zero, X \(\rightarrow\) 3 forms for any X can be disregarded since they are identical to intransitive-subject X prefixes. Remaining transitive transitions, except 1 \(\rightarrow\) 2, begin with either ‘1object’ -**ma-** (used in {2, 3} \(\rightarrow\) 1 and 3 \(\rightarrow\) 12) or -**shu-** for 3 \(\rightarrow\) 2. Neither -**ma-** nor -**shu-** occurs elsewhere in the pronominal morphology, and since -**shu-** occurs only in the 3 \(\rightarrow\) 2 form I prefer to just label it as ‘3 \(\rightarrow\) 2’ rather than (with Weber) more ambitiously as ‘2object’. The -**ma-** or -**shu-** is followed by a tense morpheme (Present -**n-**, Past -**ra-**). The third (rightmost) morpheme position may be either a subject or object marker, according to a person hierarchy \{12, 2\} \(\rightarrow\) 3 \(\rightarrow\) 1. We get ‘12’ -**nchi-**: only in the 3 \(\rightarrow\) 12 forms (there is no *2 \(\rightarrow\) 12), e.g., Past -**ma-ra-nchi-**.\(^9\) We get a ‘2’ morpheme in both 3 \(\rightarrow\) 2 (Past -**shu-ra-yki** and 2 \(\rightarrow\) 1 (Past -**ma-ra-yki**), and a ‘3’ morpheme only in 3 \(\rightarrow\) {1sg, 1pl} (Past -**ma-ra-n**). So far there is no especially strong indication of pragmatic skewing of 1 \(\leftrightarrow\) 2 combinations.

However, the tripartite transition structure does not apply to 1 \(\rightarrow\) 2 forms, which lack the initial morpheme. The Present tense 1 \(\rightarrow\) 2 form is just -**-** (lengthening of preceding vowel), which lacks even the Present

\(^9\) I am inclined to detect ‘1’ (especially ‘1sg’) morpheme -**-** (see below) in -**nchi-**, though of course this violates Weber’s tripartite analysis.
tense marker -n- and consists of a ‘1’ (or perhaps ‘1sg’) morpheme seen in 1sg possessive --. Clearly there is no ‘2’ morpheme here. The absence of the Present marker distinguishes 1 → 2 -: from 1 → 3 -n.\textsuperscript{10} However, in the Past tense a single form -ra-: is used for 1 → 2 and 1 → 3, so we have another syncretic 1 → \{2, 3\} combination. Strategy 3 therefore permeates the 1 → 2 forms, but whether it produces actual loss of information depends on whether the tense marker is also deleted.

\textbf{18. Carib.} (I use \textit{i} for the back unrounded vowel.) Strategy 10, where the agreement slot permits a single morpheme (representing subject, object, or a portmanteau), is typical of Carib languages (see Gildea 1992 for a historical and typological survey). Faced with such a system, a formal syntactician instinctively looks for a geometrical principle based on arboreal structure, such as a constraint on paths of feature percolation or of raising (Alexander 1990). On the other hand, a functional typologist’s instinct is to look for a hierarchical principle explaining why the agreement slot is occupied by the subject in some combinations and by the object in others. Both approaches have been essayed. Neither has been fully satisfactory and neither has any account (going beyond pure parsimony) for the existence of single-slot systems.

In the case of 3 → 3 and \{1, 2\} ↔ 3 combinations, surface forms consisting of no more than one nonzero pronominal marker are typologically common even in multiple-slot agreement morphologies, since 3d person is often expressed by zero. So the most interesting aspect of single-slot systems is that 1 ↔ 2 combinations are expressed by either ‘1’ or ‘2’ instead of as a nonzero sequence -1-2- or -2-1-. I suggest that strategy 10 is simply one device among many to avoid such transparently bipartite 1 ↔ 2 combinations. Single-slot systems prohibit (by definition) juxtaposed person markers and also entail a considerable amount of neutralization of subject/object categories, though excessive neutralization can be avoided by adding a few special transitive portmanteaus. Specific details (which do not matter much in the current theory) vary from one Carib language to another, but the basic single-slot structure (which does matter) has been relatively consistent from the proto-language on. This suggests that the real “function” of the system is at least as much to avoid transparent 1 ↔ 2 combinations as to “express” a specific person hierarchy.

In Hixkaryana (Derbyshire 1985:188), there are eight transitive agreement prefixes (two of which have phonologically based allomorphs). Six of them also occur in intransitive uses, from which we infer their core pronominal senses; the remaining two are candidates for the status of transitive

\textsuperscript{10}This could be analyzed as Present -n- plus a phonetically vacuous ‘1’ marker, on the assumption that vowel lengthening applies vacuously to a preceding consonant.
portmanteaus. However, one of the “portmanteaus” (y-/∅-) occurs in place of the usual 3 → 3 prefix mi- when the verb is immediately preceded by an object NP; we can think of ∅- (before consonants) as absence of a prefix, and of y- (before vowels) as a ligature.\textsuperscript{11} This leaves ro- ‘3 → 1’ as the only clear transitive portmanteau.

Since there are no portmanteaus in the 1 ↔ 2 part of the transitive system, we can identify all relevant prefixes with a specific person/number value (by comparing them with the intransitive paradigm). The sole 2 → \{1, 3\} prefix mi- is a ‘2’ allomorph used with certain intransitive verbs (including motion verbs); note the by-now familiar merger of object person (and number); cf. strategy 5. The 1sg → 2 prefix ki- is identifiable as the (intransitive) ‘1sg’ morpheme; curiously, it has a very different transitive sense 3 → 12 with inclusive object. The remaining 1 ↔ 2 category is 1pl → 2, which is expressed by α-, the primary ‘2’ allomorph in intransitives (it is also used for 3 → 2). There are hints, but only hints, of a hierarchical system here—there is a partial preference for ‘2’ person markers (whether subject or object), but ki- (‘1’) for 1sg → 2 is a counterexample, and the preference for ‘2’ markers may simply reflect the convenient availability of two distinct allomorphs (α-, mi-) for this category. The impression one gets is that the single-slot system is motivated by pragmatic masking, but that within this structural framework the language strategically deploys its person markers and their allomorphs to maintain a decent level of referential clarity (i.e., somewhat more than one would get with a rigid hierarchy such as 2 > 1 > 3 without compensating allomorphic variation).

The details differ in other Carib languages. In the “Carib” from Surinam described by Hoff (1968:26; cf. the functional-typological reanalysis in Gildea 1994), ki- (cognate to the ‘1’ marker of Hixkaryana) turns up as a ‘12’ (inclusive) marker in intransitives and is used for both 1 → 2 and 2 → 1 in transitive contexts. Its core sense in this language is therefore ‘12’, and its use in 1 → 2 and 2 → 1 transitive combinations illustrates strategy 8 as well as 10, with the 1st and 2d markers being morphologically added to produce ‘12’ in defiance of grammatical logic. A similar system occurs in Apalaí (Koehn and Koehn 1986:108), where k(i)- is used for 1 → 2, 2 → 1, 3 → 12, and (with nouns) for 12 possessor, and hence seems to have ‘12’ as core meaning; however, in intransitive verbs the 12 subject marker is s(i)-, not found elsewhere in the system.

19. Concluding remarks. Despite the brevity of the descriptive sections above, I hope readers are persuaded that Native American languages with rich agreement amply confirm the same tendency toward opacity of

\textsuperscript{11} The combination of object NP plus verb, like that of possessor plus possessed noun, approaches a compoundlike character in this language.
1 ↔ 2 combinations which had been observed earlier in Australian languages. This opacity takes a myriad of forms, which the twelve strategies listed above only crudely summarize.

I anticipate difficulties, on the part of both cognitive-functional typologists (at least those who are more cognitive than functionalist) and formal syntacticians, in absorbing and applying the present framework. The whole point of those approaches is to positively motivate attested linguistic structures. I have argued, on the contrary, that 1 ↔ 2 agreement combinations delight in messiness. Structures that make the most sense cognitively or formally are actually avoided when they denote pragmatically sensitive pronominal combinations. Opaque structures, I suggest, are selected for and may be stable over long periods of time.

As I comb through grammars for this project, I am continuously struck by the tendency of linguists to be bothered by the morphological disarray that confronts them. One way to defeat the messiness is to set up idealized, transparent, and symmetrical underlying forms (which are then subjected to surface disfigurement and rearrangement by morphological and phonological rules). A similar intellectual comfort can be achieved by reconstructing a “golden age” proto-language, where the transparency and symmetry were visible on the surface (deep and surface structure being identical) before undergoing sound changes or restructurings. One also encounters efforts to impose order on the 1 ↔ 2 subsystem by elaborating \{1, 2\} > 3 \ldots \text{hierarchies as either} 1 > 2 > 3 \ldots \text{or} 2 > 1 > 3 \ldots \text{—which ever works better for a given language—but often at the cost of artificial segmentation and labeling of surface morphemes in opaque 1 ↔ 2 combinations, and at considerable risk of missing the general point.}

My immediate concern is to establish the plausibility of the general idea of negative-target avoidance by demonstrating the frequency of nontransparent subject/object combinations in Australia (Heath 1991), the Americas (the present paper), and eventually other regions (work in progress). In this rhetorical context, I have tended to treat all of the avoidance strategies as functionally equivalent. If the basic model achieves a degree of initial acceptance, as the regional surveys progress it will be possible to shift the focus to lower-level issues. The typology of avoidance “strategies” is of course evolving; the present paper has added strategies 9–12 to those from the original Australian sample, as well as describing further variants on some of the eight originals. It is too early to attempt quantitative study of the distribution of these strategies, either globally or in correlation with typological characteristics, but in the long run such a study would be worthwhile, in spite of coding difficulties and all the technical problems associated with “random” sampling of languages. In strategies 3 and 10, where just one of the two markers is omitted, it may turn out that there are
asymmetrical preferences for omission from the set \{subject, object\}, from the set \{1st, 2d\}, or from both.

Another line of attack would be a quantitative cross-linguistic study of the relative frequencies with which particular 1 ↔ 2 combinations display categorial merger and/or formal skewing. On theoretical grounds, it might be predicted that skewing is most typical of the pragmatically delicate sg → sg types ‘I saw you[sg]’, ‘you[sg] saw me’, but this is at present merely a hypothesis.

Another topic deserving further study is interactions between 1 ↔ 2 skewing and tense/aspect/mood (TAM) categories. I suggested above, in connection with Eskimo, that the social delicacy of these pronoun combinations might vary from one mood category to another and that this might be occasionally reflected in the morphology. It is possible that with a larger sample of languages, a sufficient number of systems with pronominal/TAM interactions can be found to permit a more general investigation of this issue.

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