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Mandan ϕ -marking and the morphosyntax of first person plural

Marcel den Dikken*

Abstract. In the Mandan (Western Siouan) complex verb, the makeup of the prefixal field features two loci for ϕ -feature marking, separated by what the Siouanist literature calls “preverbs” (PV). The pre-PV ϕ -slot is for marking first person plural (1PL); the post-PV ϕ -slot is for markers of speech-act participants. The question central to this paper is what explains the positioning relative to the preverbs of the 1PL marker and the other ϕ -morphology of Mandan. The Mandan 1PL prefix, which has a morphologically transparent dual inclusive reading, is syntactically represented in the form of a comitative phrasal structure involving the asyndetic coordination of a plural pronoun and a combination of the first person singular and second person pronouns: ‘we, viz., I with you’. While 1PL is a morphosyntactic complex occupying SpecTP (preceding preverbs), the first and second person markers are agreement inflections (following preverbs), linked to *pro*’s in A-positions.

Keywords. ϕ -agreement; first person plural; asyndetic coordination; comitative

1. The problem. In the Mandan (Western Siouan) complex verb, a wide variety of prefixes can occur before the verbal root, which can, in turn, be followed by one or more enclitics. All of these are strung along in a fixed order. In its richest form, the makeup of the prefixal field looks as in (1). From (1), it is immediately apparent that there are two loci for ϕ -feature marking, separated from one another by what the Siouanist literature calls “preverbs” (PV). (For a list of abbreviations used in this paper, see the end of the paper, above the bibliography.)

(1) [v REL NEG UNSP 1PLPV 1SG 2 VCE ITER/INCH MAN/TR V ...]

The post-PV ϕ -slot is for markers of speech-act participants:¹

(2) waa-o-wa-rEEh=rjx=o’sh (Hollow 1973a: 48)
NEG-PV:IRR-1.ACT-go.there=NEG=IND.M
‘I am not going to go there’

* This paper was triggered by a suggestion I made in the discussion of McCann’s (2023) GLOW paper on the difference in placement relative to preverbs of the 1PL marker and the other ϕ -markers of Mandan. I owe a lot to Éva Dékány’s encouragement to develop this suggestion into a full-fledged analysis, and I thank Éva as well for her insightful comments on the initial draft of this paper. I would also like to acknowledge the detailed descriptive work reported in Kasak’s (2019) excellent dissertation on Mandan morphology. A previous version of this paper was presented at the workshop ‘Factors in Natural Language Design – The Nominal Domain and Beyond’ (Georg-August-Universität, Göttingen, December 12, 2023), at the 7th “Össznyelvész” Conference (ELTE, Budapest, December 21, 2023), and at a CRISSP workshop in Brussels (June 4, 2024). I am grateful to the audiences present on these occasions and two anonymous reviewers for their constructive feedback.

I offer this paper to Masha Polinsky on the occasion of her retirement from her teaching position at the University of Maryland. The amount of knowledge that I have gained through the years that I worked closely with Masha is immeasurable, as is the extent of Masha’s expertise, skills, dedication and energy. And the amount of encouragement and friendship that I have received from her is so large that it is impossible to reciprocate to an adequate extent. This paper is a tiny contribution towards repaying my debt. All my best to you, Masha! Author: Marcel den Dikken, Hungarian Research Centre for Linguistics & Eötvös Loránd University, Budapest (marcel.den.dikken@nytud.hu).

¹ There is no marking of non-participants (“third person”) on the verb in Mandan. As Kasak (2019: 287) points out, “when multiple individuals are involved in the discourse, it can become confusing to keep track of who did what.”

(3) waa-w-r̥-krah=r̥x=o'sh (Hollow 1973b: 96)
 NEG-1.STAT-2.ACT-be.afraid.of=NEG=IND.M
 'you are not afraid of me even now'

(4)² a. e-w-r̥-pE=o'sh (Kasak 2019: 171)
 PV-1.ACT-2.STAT-say.1.ACT=IND.M
 'I said it to you'
 b. e-w-r̥-tE=o'sh
 PV-1.STAT-2.ACT-say.2.ACT=IND.M
 'you said it to me'

The pre-PV ϕ -slot, on the other hand, is specifically for marking first person plural. Although the referent for this prefix is typically dual inclusive (i.e., the speaker and a single addressee), Kasak (2019) labels it '1PL' since a plural reading is not excluded for it: in the company of the enclitic plural marker =*nit* (glossed by Kasak as '2PL'³), the pre-PV ϕ -marker supports plural and non-inclusive readings.

(5) a. r̥-rEEh=o'sh (Kasak 2019: 202)
 1.ACT.PL-go.there=IND
 'we_{DU} went there'
 b. r̥-rEEh=r̥t=o'sh
 1.ACT.PL-go.there=2PL=IND.M
 'we_{PL} went there'

(6) r-aa-ra-rEEh=r̥t=o'sh (Kasak 2019: 208)
 1PL.STAT-PV:TR-2.ACT-go.there=2PL=IND.M
 'you brought us here'

The question central to this paper is what causes the positioning of the 1PL marker and the other ϕ -morphology relative to the preverbs to be so strikingly different. For Kasak (2019), the most detailed analytical treatment of Mandan morphophonology to date, the answer is that 1PL and the first and second person markers represent different "slots" in the templatic make-up of the complex verb: counting leftwards from V, the person markers are in slots 4 and 5, the preverbs occur in slots 6 and 7, and 1PL occupies slot 8. Kasak's morphology of the Mandan verb is strictly templatic; the answer to why the morphemes occur where they do is as deep as the morphological template itself, which is stipulated. Kasak demonstrates cogently that phonology cannot be what is behind prefix order in Mandan. McCann's (2023) attempt to treat the placement of 1PL relative to the preverb in OT-theoretic phonological terms, in terms of metathesis, is no refutation of this: there are no indications that metathesis in Mandan affects anything other than [kp] sequences and [ʔ], and at any rate, the constraint-based account provided inherently

² Though (4) presents a welcome minimal pair showing that the post-PV first person marker precedes the second person marker regardless of the θ -roles or grammatical functions of the two speech-act participants, it introduces a complication (which I immediately set aside): the verb *éhe* 'say' is exceptional in that the active argument is marked on the verb twice, both via the regular post-PV prefix and with the aid of an enclitic.

³ This is because this enclitic is used primarily in combination with the second person marker. It is used mostly for subjects and "sparingly" (Kasak 2019: 273) in combination with an object-marking ("stative") post-PV ϕ -marker. But =*nit* can also team up with the 1PL marker, which "grants a plural reading, and does not automatically give an inclusive reading" (Kasak 2019: 203). That =*nit* is compatible with non-inclusive readings suggests that it does not just multiply addressees. This casts doubt on glossing =*nit* as '2PL'; but I follow standard practice here.

cannot aspire to more than being a restatement of the facts. Rejecting Kasak's (2019) arguments against a syntactic explanation for the order of prefixes in (1), this paper gives a precise morpho-syntactic answer to the question of why 1PL and the first and second person markers appear exactly where they do. Central to the analysis is the argument, based on the morphophonology of the markers involved, that while the first and second person markers are inflections, 1PL has an elaborate phrasal structure that serves as the occupant of SpecTP.

2. The status of the non- ϕ -marking prefixes. As a preamble to the treatment of 1PL and the post-PV person markers, I examine the status of the non- ϕ -marking prefixes occurring on Mandan verbs.

Three inflection-like prefixes can precede 1PL. The "unspecified argument" prefix *wa-*, which shows up in instances of unspecified object deletion, has traditionally been treated on a par with the prefix *waa-*, which serves three purposes in Mandan: functioning as the indefinite subject prefix, the partitive marker, and the nominalizer. These seemingly heterogeneous functions of *wa(a)-* may be unified if this prefix is treated as similar to elements that in Indo-European languages commonly serve as "linkers" in nominal constructs. The French functional P-element *de* is particularly germane. It occurs in nominalizations (*la destruction de la ville* 'the destruction of the city'), in partitives (*la moitié/plupart de la population* 'half/most of the population'), and in the counterparts of English bare indefinites (*de la viande* '(lit.) of the meat, i.e., meat'). If this is a valid parallel, the prefix *wa(a)-* probably has a choice to combine just with the subject (as in its partitive and indefinite uses) or with a clause-size extended projection of the verb (as in its nominalization guise, which probably includes its use in unspecified object deletion cases: nominalized verbs are typically not obligatorily transitive). I offer this, with some reservation, as an outlook on *wa(a)-*, and add that, if this is on the right track, the syntax of this prefix places it in one of two positions that are far removed from the verb: either within the subject or outside the verb's clause, but in neither case in the verb's extended projection.

The other two other prefixes that come to the left of 1PL belong to the syntax of the verbal clause: the negative prefix and the relativizer prefix *ko-*. The relativizer stems from a Proto-Siouan demonstrative. In other Siouan languages (including Biloxi and Crow), it is a free-standing element. Although the Mandan relativizer is phonologically dependent on the verb, I treat it as an occupant of either C or SpecCP (the choice between these is immaterial for present purposes). The negative prefix is treated by Kasak (2019) as a grammaticalization of the free-standing indefinite argument *wáa*, co-occurring with a negative enclitic in an instance of negative concord. It always precedes all the verbs in multi-verb constructions, which suggests that it is syntactically autonomous relative to the verb, occupying Neg or SpecNegP. I treat the clause-internal prefixes that precede 1PL as phonological prefixes exponing syntactic positions, morphologically independent of V.¹

Mandan preverbs are mostly (high) applicative or (high) aspectual in nature.¹ As Kasak (2019: 137) points out, they resemble the prepositional prefixes of Indo-European: they are semantically clearly discrete and rather loosely connected to the verbal root; "preverbs and verbs likely do not form an atomic morphological unit." An assimilation of the Mandan preverbs to the prefixal particles of Indo-European or the preverbs of Hungarian seems to me entirely feasible.

¹ In so doing, I follow a line of analysis taken previously by Cinque (1999) and Mchombo (2004) (for Bantu).

⁵ There is also an irrealis PV, which is treated separately and can co-occur with other PVs, preceding them. I set the irrealis preverb aside in my analysis, not being certain as to how best to treat irrealis in Siouan.

Assuming so, I treat the Mandan preverbs as elements base-generated in syntax as independently projecting elements, not as integral subparts of the complex verb.

To the right of the first and second person markers, we find voice (middle) and low aspectual (iterative, inchoative) prefixes, which are plausibly treated as heads that define their own syntactic projections, as well as what Kasak glosses as ‘INS’ (for ‘instrumental’) and what I presented in (1) under the label ‘MAN/TR’. These latter prefixes “indicate the manner by which an action occurs” (Kasak 2019: 144) when combining with a transitive verb; when occurring on basic intransitive verbs, on the other hand, they transitive them. Especially this latter behavior suggests that these prefixes are exponents of ‘little *v*’. I treat them as such, and hence give them a syntactic head position outside VP.

This gives us a reimagining of (1) as in (7), minus the prefix that Kasak (2019) labels as ‘UNSP’, which I have proposed stands outside the extended projection of the verb, and minus the ϕ -markers.

(7) [CP REL [NegP NEG [AspP PV_{Asp} [AppIP PV_{AppI} [VceP VCE [AspP ITER/INCH [_{VP} v=MAN/TR [VP

It is the status of these ϕ -markers that I focus on in the remainder of this paper.

3. The status of the ϕ -marking prefixes. The immediately post-PV ϕ -slot is for first and second person markers, of which the latter is itself unspecified for number: a postverbal enclitic (=nit; recall footnote 3) has the function of marking plurality for it. Because section 2 assigned the prefixes that separate the person markers from the verb positions in the extended projection of the verb, one could imagine giving the person markers that follow the preverb a syntactic treatment. It is certainly interesting to note that the prefix that is linearly closest to the post-PV person prefixes is the voice prefix. This might be taken to suggest that the post-PV person prefixes are in their normal syntactic positions, and only become part of the complex verb in the PF component. But there are problems for an approach along these lines.

The first and second person markers representing agents could conceivably be positioned in SpecVceP, which is where Kratzer (1996) base-generates external arguments. But in Mandan, these markers can also signal the person features of the object or the subject of a non-agentive verb: like other Siouan languages, Mandan is an active/stative language, making a distinction between ACTIVE and STATIVE arguments that is reflected in the morphology of the ϕ -markers (see, e.g., (2) and (3)). For the STAT allomorphs of the first and second person markers, placing them in SpecVceP would not be in line with Kratzer (1996).

A second problem for a treatment of the post-PV ϕ -markers as occupants of phrasal positions in syntax is that these are strictly ordered in terms of their person specification, not their thematic status or grammatical function: in the post-PV field, first person markers consistently precede second person markers, regardless of the thematic status of the arguments that they represent; an analysis placing agents in SpecVceP and person-marked objects in SpecAspP would, all else equal, predict an ordering of person markers along thematic or grammatical function lines. A treatment of the post-PV ϕ -markers as agreement inflections thus seems preferable. I explicitly endorse an inflectional analysis at the end of section 5.

But no matter how the post-PV ϕ -markers are best analyzed, a separate question is why these person prefixes are systematically preceded by the marker for 1PL. For Kasak, the answer to the question of why the 1PL marker and the person markers occur in positions on opposite sides of the preverbs is that they represent different “slots” in the templatic makeup of the complex verb: counting leftwards from V, the person markers are in slots 4 and 5, the preverbs occur in slots 6 and 7, and 1PL occupies slot 8. I already pointed out in the introduction that a strictly templatic

approach to prefix order can describe the facts but is inherently unfit to explain them: the template is a stipulation. I agree with Kasak that phonology is not responsible for prefix order in Mandan. But with “pure” morphology and phonology eliminated, that leaves (morpho-)syntax as a candidate. Kasak accepts that the ordering of the Mandan enclitics reasonably reflects syntax. But he rejects the idea that syntax could be responsible for the order of prefixes in (1).

Kasak bases his arguments against a syntactic approach to prefix order on (a) Anderson’s (1977, 1982) hypothesis that derivational and inflectional morphology are to be treated strictly separately and assigned to separate strata (the lexicon and syntax, respectively), and (b) the assumption that all the non- ϕ -marking prefixes in (1) from PV down to the verb are derivational. If (a) and (b) were correct, then (8) would involve a back-and-forth between inflectional (syntactic) and derivational (lexical) morphology in the prefixal field: 1PL.STAT is inflectional, PV:IRR derivational, 2.ACT inflectional again. But ‘irrealis’ is by no means one’s typical derivational morpheme: a preverb corresponding to a Germanic prefixal particle would have been more conducive. Moreover, the threat to the separation hypothesis is voided by section 2’s demonstration that all material separating the 1PL marker from the verb can be given a syntactic treatment.

- (8) ro-o-ra-hE=rjt=o’sh (Hollow 1970: 477)
 1PL-PV:IRR-2.ACT-see=2PL=IND.M
 ‘you_{PL} are going to see us’

Nothing that precedes 1PL in the string in (1) is a morphological prefix according to the syntactic treatment of the REL, NEG and UNSP prefixes offered in section 2. Hence, nothing in principle stands in the way of a treatment of 1PL as a syntactically autonomous element, occupying a phrasal position in the tree. Indeed, this is what I advocate in the remainder of this paper, with section 5 eventually identifying SpecTP as the locus of the 1PL marker.

4. A closer look at the morphophonology of the Mandan ϕ -markers. Kasak (2019: 201, 203, 272) observes multiple times that the Mandan ‘1PL’ prefix has a *dual inclusive* reading, i.e., besides the speaker its reference includes just the addressee.⁶ A close inspection of the form of the 1PL prefix reveals that its dual inclusive reference is morphologically transparent, much as in Dolakha Newar (Sino-Tibetan; Nepal) and Tok Pisin (creole; Papua New Guinea), whose dual inclusive pronouns are transparently the combinations of their first and second person singular pronouns: see (9) and (10) (taken from Moskal 2018: §5, *q.v.* for the original sources).

- (9) 1SG *ii* (Dolakha Newar; Moskal 2018: 14, (29))
 2SG *chi*
 1DU.INCL *chiji*
- (10) 1SG *mi* (Tok Pisin; Moskal 2018: 15, (32))
 2SG *yu*
 1DU.INCL *yumi*

After establishing that Mandan 1PL is a composite of first and second person morphology, I will subsequently translate our morphological findings into a syntax for the Mandan 1PL prefix.⁷

⁶ But recall from footnote 3 that in combination with the plural enclitic =*nit*, an inclusive reading is not guaranteed (Kasak 2019: 203).

⁷ A reviewer finds the Mandan data and the analysis offered for them below “ideally suited for other syntactic accounts of distributed number”, referring to Dali & Mathieu (2021) and Scontras (2022). I hasten to add, however, that nothing in my analysis depends on the idea that number can be associated with various functional heads.

Each of the φ -markers of Mandan comes in two basic forms, each with a number of surface variants. The two basic forms are differentiated based on the grammatical function or (non-) agency of their referent: the ACTIVE form is used with reference to a (typically agentive) subject; the STATIVE form represents the object of transitive verbs and non-agentive surface subjects of a subset of intransitive verbs.

(11)		ACTIVE	STATIVE
	1SG	<i>wa-</i>	<i>ma-</i>
	2	<i>ra-</i>	<i>ni-</i>
	1PL	<i>nu-</i>	<i>ro-</i>

Both Kennard (1936: 8) and Mixco (1997: 14) mention that Mandan has a set of personal pronouns as well, but they diverge on both the membership of this set⁸ and the forms of the members. Neither source differentiates explicitly between active and stative forms for the participant pronouns, but it is interesting that the differences between the forms quoted by Kennard and Mixco are centered on their nasality, exactly as in the active/stative contrasts in (11).

(12)		Mixco (1997)	Kennard (1936)
	a. 1SG	<i>wi</i>	<i>mi</i>
	b. 2	<i>ri</i>	<i>ni</i>
	c. 1PL		<i>nu</i>

It is important to bear in mind that in the phonology of Mandan, [n] is an allophone of /r/ (rendered orthographically as ⟨r⟩) and [m] is an allophone of /w/ (Kasak 2019: 44, 65, 110; see also Hollow 1970). For the sonorants of the language, place of articulation (coronal vs. bilabial) is distinctive but nasality is not; the nasality of sonorants is generally the product of regressive nasal assimilation to underlyingly nasal vowels. But the vowels of the basic forms of the first and second person prefixes and pronouns are oral, so the nasality of the initial consonants of the stative markers *ma-* and *ni-* and Kennard's pronouns *mi* and *ni* is not triggered by these vowels. These considerations lead me to the hypothesis that the first and second person markers are specified for [bilabial] and [coronal], respectively, and that 'stative' is a non-segmental morpheme represented by the feature [nasal], expounded on the bilabial/coronal consonant:⁹

(13)	a. PERSON	1=[bilabial] 2=[coronal]
	b. STAT	[nasal]

When we now take another look at the 1PL forms in (11) and (12) from the perspective of the analysis of the post-PV first and second person markers in (13), it becomes apparent that the 1PL forms are composites of the [coronal] feature of the second person marker and the [bilabial]

⁸ Mixco (1997) does not include a 1PL pronoun, but mentions a third person pronoun, *i* (ignored in (12)), which he says "only occurs as a proclitic on one of two particles" (not identified in the text), which makes it clear that it is never a free-standing pronoun – but this may also (have) be(en) true for the other pronouns in (12): Kennard (1936: 9) points out that "the personal pronouns are ordinarily prefixed to the verbal complex."

⁹ The specification of first and second person for [bilabial] and [coronal], respectively, tracks that of personal pronouns of typologically unrelated languages such as Indo-European (German *mich* 'me' and *dich* 'you', French *me/moi* 'me' and *te/toi* 'you') and Uralic (Finnish *minä* '1SG' and *sinä/te* '2SG', Udmurt *mon* '1SG' and *ton* '2SG'). The focus in my discussion of the Mandan post-PV φ -markers is on their consonants, not on the vowels (which are absent in some of their allomorphs, while in others the postconsonantal vowel is [e]). The vowels of the pre-PV 1PL markers are morphosyntactically significant, however, as the paragraph that follows in the main text shows.

The second thing to note is the order in which the constituent parts of the 1PL forms of Mandan occur in the string: second person (exponed as the coronal consonant of the CV syllable) precedes first person (exponed as the labial vowel). Viewed from the perspective of (15a), this could be the reflex of a (metalinguistic or deferential) preference for *you and me* over *me and you*.¹⁰ But (15b) can make the expression of second person before first person a linguistic fact, as follows. Though den Dikken et al. (2001) take the comitative PP to be the predicate of a small clause (with 1SG as its subject), I assume (at least for Siouan) that it is adjoined to the projection of the first person pronoun. The Western Siouan languages *left*-adjoin their (postpositional) PPs to their nominal host: adnominal PP modifiers precede the nominal constituents that they combine with. For Crow (whose syntax is better described), this is illustrated in (17) (Graczyk 2007: 217):¹¹

- (17) [báashee-m awuuá] taláashpita-m
 boat-DET inside oil-DET
 ‘the oil inside the boat’

For the dual inclusive interpretation that is typical of 1PL in Mandan, the combination of den Dikken et al.’s (2001) comitative approach to 1PL (abridged to employ adjunction), and the fact that adnominal PPs in Siouan are left-adjuncts, gives us the structure in (18).

- (18) [DP 1PL : [DP [PP P_{COMIT} [2SG]] 1SG]]

The 1PL pronoun is itself silent (*pro*), while second person is realized as [coronal] and 1SG as [bilabial]. So in Mandan, the structure in (18) is mapped onto the CV skeleton of the personal pronouns as in (19), with [coronal] exponed on C and [bilabial] on V.¹²

- (19) [DP *pro*_{1PL} : [DP [PP 2_[coronal] P_Ø] 1_[bilabial]]]
-

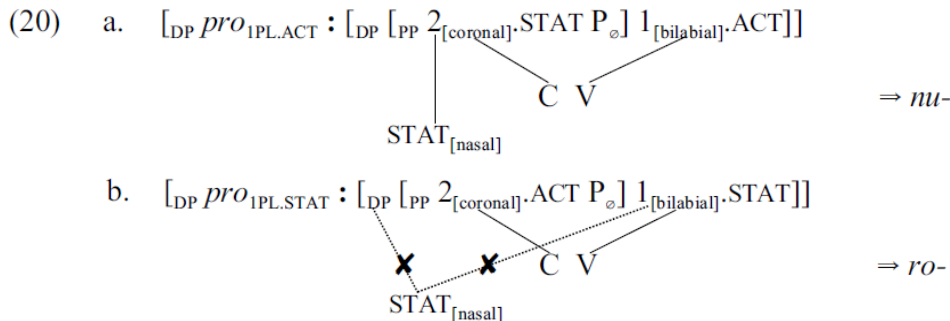
I turn next to the distribution of [nasal] across the active/stative distinction. Recall that for the post-PV first and second person markers in (11), [nasal] corresponds to the stative, as codified in (14b). For the 1PL forms in (11), on the other hand, it appears that [nasal] represents the active. I propose that a key ingredient of the linguistic representation of Mandan 1PL (i.e., the first

¹⁰ Note that the pronouns in (9) and (10) (called “dvandva pronouns” in Moskal 2018) likewise express second person before first person. For Dolakha Newar and Tok Pisin, I have not been able to establish whether this is an effect of left-adjunction or pragmatic deference.

¹¹ The Western Siouan languages have mostly head-final DPs. While relative clauses (and, in Mandan, also AP-modifiers, which the language appears to treat as reduced relatives) follow the head noun, the determiner or definiteness marker (*-m* in (9); *-s* in Mandan) follows relative clauses and is radically final. There is some non-uniformity in the Siouan DP, especially in the realm of demonstratives. While Biloxi DPs have their distal demonstrative *ko* ‘that’ in final position (see Torres 2010), in Crow “[w]hen the demonstratives are modifiers, they are initial in the noun phrase” (Graczyk 2007: 68) – a generalization that applies not just to *ko* but to all adnominal deictics of the language. These deictics are arguably phrasal in Crow: they can be used on their own, and can express spatial deixis (‘there’); they can co-occur with determiners, which are DP-final suffixes. In light of this, it is plausible to think that Crow *hinne iichíilee-sh* ‘this horse-DET’ (Graczyk 2007: 221) is similar in its syntax to *den här häst-en* ‘the here horse-DEF’ in Swedish, with the demonstrative in a phrasal specifier or left-adjoined position.

¹² I would like to emphasize that in (19), as in the representations presented later in this section, we are dealing with mappings between morphosyntax and phonology. The morphosyntax itself is phonology-free (Scheer 2010, 2012), but the association of phonological material to syntactic structures can be sensitive to aspects of these structures: see the discussion of the exponence of the feature [nasal] in the paragraph below (19).

person dual inclusive) is that the participant markers that specify the content of *pro* have opposite specifications for ACT/STAT – perhaps as an aid towards distinguishing the two. When 1PL is active (serving as the subject of a canonical transitive clause and of a subset of intransitive clauses), the speaker is active so the first person marker (exponed on the vowel) is oral; the second person marker must then be in the STAT form, giving rise to a nasal consonant: *nu-* in (11) (and probably also *nu* in (12)), represented as in (20a). The addressee is not asserted to be inactive: the second person marker’s STAT specification should be understood relative to, and as a function of, the ACT specification of the first person marker. When 1PL is stative, the speaker is not active (hence STAT); because the two terms of the DP that specifies the content of *pro* have opposite specifications for ACT/STAT, this entails that the second person marker is in the ACT form – the unmarked form for the ACT/STAT distinction, phonologically oral. This explains the oral consonant of *ro-* in (11). But why is the feature [nasal] not exponed on the vowel of 1PL.STAT in (20b)? The answer once again lies in the syntax: the first person marker in (18) is a segment of a dis-segmental adjunction structure. The floating [nasal] feature cannot associate to a segment: only categories are visible to the syntax and the interpretive components. Associating STAT to the entire adjunction structure headed by the first person marker and exponing it on that is also impossible because this category (i.e., the lower DP) comprises both the first person marker and the adjoined second person marker, and the two must have opposite specifications for ACT/STAT; they cannot share a single STAT feature associated with the DP that includes both speech-act participants. So the floating feature [nasal] associated with STAT in (20b) cannot dock onto anything. As a consequence, although STAT is a part of the representation of 1PL.STAT in (20b), it remains unrealized on the surface. The output of (20b) is thus a form with an oral coronal consonant and an oral bilabial vowel: *ro-* in (11).



What pleads in favor of an approach to 1PL along these lines is Kasak’s (2019: 202) observation (made in prose but not explicitly illustrated with any examples) that in Mandan, 1PL is “in complementary distribution with the first person singular prefixes, though it can co-occur with second person prefixes.”¹³ This is interesting in light of the observation about Hungarian that motivated den Dikken et al.’s (2001) approach to 1PL: the fact that Hungarian (21a) requires the definite agreement form of the verb, despite the fact that elsewhere in the grammar of Hungarian first and second person objects always trigger indefinite inflection on the verb. In (21a),

¹³ Kasak (2019: 202) actually confines his observation to *nu-*, the first person plural active. It is not entirely clear, however, how he arrived at the confinement to the active form: when 1PL *nu-* immediately precedes 2.STAT *ni-*, both the 1PL prefix and the second person prefix are realized as /tũ-/; and the ACT/STAT distinction for 1PL is wiped out in all cases in which the prefix precedes a vowel-initial stem, in which case the 1PL prefix again has an initial /t/, as in the STAT form. Given that all Mandan preverbs are vowel-initial, the ACT/STAT distinction is effectively never formally marked in the presence of a preverb.

“normal” indefinite inflection is ungrammatical. By contrast, (21b) gives rise to regular indefinite agreement and rules out definite inflection, even on an inclusive reading.¹⁴

- (21) a. én minket/bennüket is {*beleveszek/[?]beleveszem} a névsorba
 I us.ACC also include.1SG.INDEF/1SG.DEF the namelist.into
 ‘I also include us into the list of names’
- b. te minket/bennüket is {beleveszel/*beleveszed} a névsorba
 you_{SG} us.ACC also include.2SG.INDEF/2SG.DEF the namelist.into
 ‘you_{SG} also include us into the list of names’

The explanation that den Dikken et al. (2001) give for (21a) is that when *minket/bennüket* is in the regular object position, the 1SG pronoun that is part of the syntactic representation of the first person plural is inadvertently bound within its governing category (the clause) by the subject in (21a), forcing a definite placeholder pro-form to be inserted in this position, to which *minket/bennüket* (itself not occupying an A-position) is associated. In (21b) (not discussed in den Dikken et al. 2001), by contrast, *minket/bennüket* is welcome to occupy the regular object position, giving rise to the usual indefinite inflection on the verb:¹⁵ the 2SG pronoun in the syntax of the first person plural, being structurally represented as an adjunct, has no governing category, and hence cannot violate the ban on pronouns bound within their governing category. Returning now to Mandan, we can derive the fact that that 1PL cannot combine with a first person singular prefix but happily co-occurs with second person prefixes along these same lines, given the approach to Mandan 1PL taken here, on the assumption that the repair strategy that Hungarian employs in (21a) is unavailable to Mandan.

5. The placement of ϕ -markers. With the morphophonology of Mandan 1PL now represented syntactically along the lines of (20), we can return to the question of why 1PL must precede preverbs while the other ϕ -markers follow them – the puzzle presented at the outset of this paper.

Because 1PL is syntactically complex, it cannot be an agreement marker: the structure comprising the first and second person markers must occupy a phrasal position in syntax. That position is consistently SpecTP – not just for 1PL.ACT, but also for 1PL.STAT. One factor behind this could be the EPP, the requirement that SpecTP be filled: 1PL, as a phrasal term, is an excellent satisfier of this condition, and indeed its only overt satisfier. I do not wish to rule out the EPP (or other potential determinants, for that matter²) as a cause of the fact that 1PL must be in SpecTP. But since the EPP remains poorly understood, I would like to venture an analysis that identifies as the most probable cause of this the properties of the case and argument licensing system. The Siouan languages are pronominal argument languages, in the sense of Jelinek’s (1984) work: *pro*’s occupy the θ -positions, while overt DP arguments occupy non-argument positions, not forming constituents with the *pro*’s whose reference they specify. Neither the *pro*’s nor the overt DPs are subject to the Case Filter (“*DP_[-case] if overt and in an A-position”), the former because they are silent and the latter because they are not in argument positions. But 1PL

¹⁴ The example in (21a) is adapted from É. Kiss (2013: 6), with the form *bennüket* ‘us’ added alongside *minket* ‘us’ as a realization of the first person plural object. While *bennüket* is usually dispreferred to *minket*, some speakers report that it works better than *minket* in cases of inclusive reference anaphora of the type in (21a).

¹⁵ For different answers to the question of why first and second person objects give rise to indefinite inflection on the verb in Hungarian, see den Dikken (1999), Bartos (2000), Coppock & Wechsler (2012) and É. Kiss (2013).

² Relevant may be Gertjan Postma’s (p.c.) observation that an inclusive reading of the impersonal pronoun (e.g., French *on*, on the interpretation ‘we, i.e., the speaker and associates’) restricts this pronoun to the subject function (i.e., to occupancy of SpecTP when phrasal; Italian impersonal *si* in *si è arrivati* – Burzio 1986: 59 – is a clitic on T).

holds an interesting middle ground between simple *pro* and overt DPs. Although the head of the DPs in (20) is *pro*_{1PL}, it forms a constituent with the DP that contains the first person marker and the comitative PP harboring the second person marker. The fact that, unlike ordinary DPs, the 1PL DP is headed by *pro* entitles it to occupy argument positions. At the same time, the *pro*-headed DP contains overt material: the first and second person ϕ -markers. This makes it the only DP of Mandan that is subject to the Case Filter. Since there is only one case-dependent DP in the structure of sentences with a 1PL argument (viz., the 1PL DP itself), there is no competition for case (in the sense of Marantz's 2000 theory of dependent case). The unmarked case assigned by T ('nominative' or 'absolute'; the difference is immaterial in a single-case environment) is thus the only one that comes into play. This case is assigned to the occupant of SpecTP. So the 1PL nominal must be raised to SpecTP, regardless of its θ -role and specification for the ACT/STAT distinction. With the 1PL DP consistently occupying SpecTP in overt syntax, it then follows from the syntax in (22) (a development of (7), above) that 1PL must always be linearly ordered in between the negation marker to its left and any preverb to its right.

(22) [CP REL [NegP NEG [TP **1PL** [AspP PV_{Asp} [AppIP PV_{Appl} [VceP VCE [AspP ITER/INCH [_{vP} v=MAN/TR [VP ...]]]]]]]]]]

For the first and second person markers that follow preverbs, no argument can be made in favor of the hypothesis that they occupy a phrasal A-position in syntax. The facts of Mandan actually argue quite cogently *against* these markers serving as arguments in A-positions. Recall that the post-PV person markers are ordered strictly as a function of their person specification, not by the thematic role or grammatical function that their referents have: when both are present, the first person marker precedes the second person marker in the Mandan equivalents of both *I hit you* and *you hit me*. If the first and second person markers found themselves in A-positions, one would expect that in sentences in which a first person marker combines with a second person marker, the relative positioning of these markers would be governed by the θ -roles or grammatical functions of their referents. The problem is particularly grave in a scenario in which 1PL co-occurs with a post-PV second person marker, as in (8) (repeated below). In this example, 1PL represents the object and the second person argument is the subject (as shown by the form of the second person prefix used: the active one in (11), *ra-*, with an oral onset). If the second person marker in (8) sat in an A-position, it would have to be SpecVceP, in recognition of its status as the external argument. With 1PL occupying SpecTP and taking the unmarked case, this would then dictate an ergative case alignment for (8), with the external argument being assigned ergative case in its base position. There are no indications, however, that Mandan actually has ergative-absolutive alignment.

(8) ro-o-ra-hE=rjt=o'sh
 1PL-PV:IRR-2.ACT-see=2PL=IND.M
 'you_{PL} are going to see us'

I conclude that the post-PV ϕ -markers are agreement inflections, linked to *pro*'s in A-positions. It is plausible to assume (along the lines of section 2) that the ϕ -markers originate in the functional categories in whose specifiers the *pro*'s that they cross-reference are licensed – Vce in the case of ACT and the lower Asp head in (22) for STAT. The ordering of the inflectional ϕ -markers is subject to morphophonological constraints, ones that syntax has nothing to say about but that can be taken care of in the postsyntactic morphophonology. Because Vce and the lower Asp head are immediately contiguous and nothing overt occupies the SpecAspP position, the relative

order of the ϕ -markers output by syntax can be flipped in the PF component by Distributed Morphology's morphological merger *cum* local dislocation (for discussion of morphological merger and local dislocation, see Marantz 1988; Embick & Noyer 1999, to which I refer the reader for further details).

But while the post-PV person markers are arguably agreement inflections originating lower than the preverbs, the 1PL marker represents a complex DP that occupies a phrasal position in syntax – specifically, SpecTP.¹⁷ This placement of 1PL ensures that the 1PL marker is spelled out to the right of negation and to the left of all preverbs. And this is what solves the morpheme order puzzle with which I started the paper.

Abbreviations

1: first person; 2: second person; ACC: accusative; ACT: active; AL: alienable possession; COMIT: comitative; DEF: definite agreement; DET: determiner; IND: indicative force; INCH: inchoative aspect; INDEF: indefinite agreement; IRR: irrealis mood; ITER: iterative aspect; M: masculine; MAN: manner marker; NEG: negation marker; PL: plural; POSS: possessive; PV: preverb; REL: relativizer; SG: singular; SS: same-subject switch-reference marker; STAT: stative; TR: transitivity marker; UNSP: 'unspecified argument' prefix; VCE: voice.

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¹⁷ Jan-Wouter Zwart (p.c.) asks why 1PL is not associated with agreement inflection on V. I suggest that this is because in the structure in (19), *pro*_{1PL} is locally content-licensed by the complement of \pm , which renders content-licensing by agreement redundant.

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