

On the mass/count distinction in Ojibwe

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10.1 Introduction

On the basis of the fact that Ojibwe allows the pluralization of many nouns, including mass nouns, it has been suggested in the literature that Ojibwe lacks a grammaticized mass/count distinction. Consider, for example, the quotes in (1) and (2) taken from the functionalist literature.

(1) ‘Or consider the Algonquian language Ojibway (Richard Rhodes 1990:153–4, and personal communications). Nouns which might be expected not to have a plural do in fact form plurals freely, interestingly with the unit reading and not with the sort reading. Thus *mkwam* ‘ice’ or ‘piece of ice’, *mkwamiig* (plural) ‘pieces of ice’. Rhodes is unable to find a noun that cannot be pluralized in Ojibway.’ (Corbett 2000:87)

(2) ‘In Ojibwa there is no grammatical distinction like the mass/count distinction of Indo-European. Thus *mkwam* can equally mean ‘ice’ or ‘a piece of ice’. *Nbiish* can mean ‘water’ or ‘an amount of water.’ (Rhodes 1990:153)

The idea is that while the count/mass distinction has a clear morphosyntactic effect in English, this is apparently not the case in Ojibwe. As is well known, count nouns in English exhibit a singular/plural contrast *nut* (singular) versus *nuts* (plural), whereas mass nouns do not. Although *grass* is possible, the plural version of *grass* is not: **grasses* (abstracting away from kind readings).¹ Ojibwe certainly behaves differently from English in that regard: as pointed out in (1) and (2), one can pluralize, not only count nouns such as *baagan* ‘nut’ ~ ‘*baaganan*’ ‘nuts’, but also mass nouns (on a non-kind reading). The following examples, whose English translation both necessarily involves a measure phrase (the noun is not interpreted

¹ As is well known, pluralized mass nouns in English can have a kind reading (see Chierchia 1998b and many others).

as a kind), illustrate the phenomenon in the context of a sentence.² The object noun agrees with the verb in number and gender (Ojibwe, like other Algonquian languages, has a gender system based on animacy).

- (3) a. n-gii-waabam-aa-g mandaamin-ag. [Ojibwe]
 1SG.S-PAST-see-3O-PL.ANIM corn-PL.ANIM
 'I saw pieces of corn.' (literally: 'I saw corns.')
- b. n-gii-waabam-aa-g mashkosiw-ag.
 1SG.S-PAST-see-3O-PL.ANIM grass-PL.ANIM
 'I saw blades of grass.', literally: 'I saw grasses.'

The general ability of nominals to be pluralized in Ojibwe resembles the case of Halkomelem Salish, a language which, like many other Native North American languages (Mithun 1988), has been argued to lack a grammaticized mass/count distinction (Wiltschko 2007, 2008). In that language, all nouns appear to be the target of pluralization, including mass nouns (see also Davis and Matthewson 1999 for Lillooet Salish). According to Wiltschko's (2007, 2008) account, this follows from the fact that, whereas number marking in English is a functional head (#, head of #P), in Halkomelem Salish it is a modifier (to the nominal root). As a modifier, plural marking can attach to categories other than count nouns, including mass nouns.

Although Halkomelem Salish and Ojibwe share the property of systematic noun pluralization, I want to argue in this chapter that this property arises independently from the parameter setting proposed by Wiltschko (2007, 2008). I show in particular that pluralization of mass nouns is possible in languages where number marking is inflectional. This is true for some Indo-European languages, which means that Halkomelem Salish may not in this regard be very different after all from these better-studied languages. Pluralized mass nouns in Halkomelem Salish appear to yield a reading that is similar to an 'abundance reading' (to use a term introduced by Corbett 2000), or at least a reading where the exact counting of individuals is neither possible or important, and which we find in languages such as French, Hebrew, Persian and even (Biblical) English.

On the other hand, pluralization of mass nouns in Ojibwe yields a unit or a unit of measure reading with a clear atomization effect. This, I will argue, is made possible in Ojibwe, because its grammar embeds a singulative number system. I will show that, as in other singulative languages, the singulative in Ojibwe is expressed morpho-syntac-

² Many of the data used in this article are taken from fieldwork undertaken with members of The Chippewas of Nawash Unceded First Nation at Cape Croker (Neyaashiinigmiing). I wish to thank Philomene Chegahno, Berdina Johnston, Donald Keeshig, Joanne Keeshig, Isabel Millette, Juanita Pheasant, Ernestine Proulx, and Ella Waukey for teaching me Ojibwe. Thanks also to Shirley Ida Williams from Trent University for sharing her knowledge with me. Thanks are also due to Richard Rhodes, Bethany Lochbihler, Elizabeth Ritter, Hagit Borer, Jila Ghomeshi, and Martina Wiltschko for their questions and comments. Funding by SSHRC is gratefully acknowledged: #230424-120699-2001 and #230611-120699-2001.

tically through gender shift. While in Breton, Arabic, etc. gender shift is from masculine to feminine, in Ojibwe it is from inanimate to animate. Although this process is admittedly less than transparent in Ojibwe, because of the loss of final vowels on singular nouns (final *-a* for animate nouns, final *-i* for inanimate nouns), there are remaining exemplars nonetheless. I will show that Fox (Mesquakie), another Algonquian language, provides clear evidence that Algonquian grammars embed a singulative system, since in that language final *-a* and *-i* on nouns have been retained.

In the course of the discussion, I will also review Wiltschko's (this volume) newer account of the count/mass distinction in Halkomelem Salish and in particular her proposal, based on Blackfoot, that animacy might not be gender, but nominal aspect. While her claims may well be correct for Blackfoot, in Ojibwe there is every reason to believe, as I will show, that animacy is gender in Ojibwe and not nominal aspect.

Section 10.2 shows that number in Ojibwe is clearly inflectional. Section 10.3 introduces the relevant examples showing that plural mass nouns as well as singular mass nouns can be used in Ojibwe to express units from collectives and units of measure for mass nouns. Section 10.4 gives an analysis of these facts and provides an account of the singulative within Borer's (2005) theory of number and division. Section 10.5 concludes the chapter.

10.2 Number as an inflectional category in Ojibwe

Many Native North American languages have been claimed to lack inflectional plural marking and more generally the traditional grammaticized mass/count distinction found in languages of the Indo-European type. Consider the following quote from Mithun (1988).

(4) 'In the vast majority of North American languages ... only certain nouns have plural forms. In most of these, only nouns referring to human beings have plurals, or only some nouns referring to humans, often kin terms. (Multiple animals that are considered 'sentient things', such as pets or characters in legends, are also often referred to by plural nouns.) The plurals that do exist are used only on some occasions, not every time multiple participants are discussed.' (Mithun 1988:212)

For example, in Slave, an Athabaskan language spoken in parts of the Northern Territories, British Columbia and Alberta, Canada, a plural suffix *-ke* is attached optionally to nouns denoting a human or a dog, but never to inanimate nouns (Rice 1989).³ In other Native North American languages plural marking is completely optional and plural marking can target all sorts of nouns, count or mass. This is the case in Halkomelem Salish (Wiltschko 2008), and according to Wiltschko this suggests that the mass/count distinction is not grammaticized in that language. Hopi

³ 'In languages with such systems, number can usually be determined from the verb.' Mithun (1999:83).

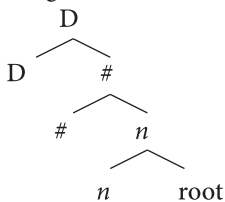
(Whorf 1941) and Lillooet Salish (Davis and Matthewson 1999) are other North American languages for which the grammaticized mass/count distinction has been claimed to be lacking.

Although the lack of a grammaticized mass/count distinction appears widespread in Native North American languages, there are notable exceptions. Mithun (1988) suggests that all nouns in Taos, Kiowa, Zuni, and the Algonquian languages are inflected for number. Ojibwe, being an Algonquian language, is thus expected to grammaticize the mass/count distinction. The aim of this section is to show that this is indeed the case.

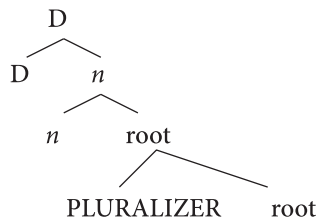
While many properties associated with number in Halkomelem Salish appear (at least at first) to indicate that it is derivational across the board, the status of number in Ojibwe is clearly inflectional. For instance, contrary to Halkomelem Salish, number in Ojibwe is obligatory (section 10.2.1), triggers agreement (section 10.2.2), is not possible inside compounds (section 10.2.3) or inside derivational morphology (section 10.2.4). Moreover, Ojibwe has *pluralia tantum* (section 10.2.5) and bare plurals (section 10.2.6), two properties lacking in Halkomelem Salish and which Wiltschko (2008) argues follow from her analysis.

Wiltschko (2007, 2008) proposes that number must be parameterized cross-linguistically. While number in English is inflectional (it is projected in the syntax, DP selecting a #P in the nominal domain), as shown in (5a), it is non-inflectional in Halkomelem Salish (#P is not projected), as illustrated in (5b). Instead, plural marking in that language is a modifier attached to a nominal root (i.e. it is derivational).⁴

(5) a. English



b. Halkomelem Salish



While this captures the differences between languages such as English and Halkomelem Salish, it does not say anything about languages such as Ojibwe where number seems to be inflectional, but where certain mass nouns can nevertheless be pluralized. The parameter also appears to be too strict, since in many Indo-European languages where number is clearly inflectional, certain mass nouns can nevertheless be pluralized (see section 10.3.2).

⁴ The term *pluralizer* is the term used by Wiltschko (2008) for modificational plural markers.

Rather than viewing inflectional morphology and derivational morphology as two different systems (use of number as the head of #P in one language versus use of number as a modifier to the nominal root in another language), I will follow Booij (1993, 1995) in viewing both types of morphology as processes (the distinction between inflectional and derivational morphology is far from clear, see for example Distributed Morphology, Halle and Marantz 1993, Marantz 1997, 2001 where the distinction is blurred).

Wiltschko (this volume) proposes another parameter that caters for languages like Blackfoot, another Algonquian language, since it has pluralized mass nouns but clear inflectional uses of number otherwise. I will review this new parameter in section 10.3.

10.2.1 *Plural marking is obligatory in Ojibwe*

In English, plural marking is obligatory. For example, the numeral *three*, which forces a plural interpretation, triggers plural marking on the noun (6a). The unmarked (singular) form is not compatible with a plural interpretation as illustrated by (6b).

- (6) a. the three boy-s
b. *the three boy

Wiltschko (2008) shows that Halkomelem Salish (HS) is different: a noun following a numeral of cardinality greater than one can but *need not* be marked for plural. In (7) plural marking is optional: the unmarked form is compatible with a plural interpretation, a characteristic of general number (Corbett 2000). In other words, there is no meaning difference associated with the presence of the plural marker.⁵

- (7) a. te lhíxw swíweles a'. te lhíxw swóweles [HS]
DET three boy DET three boy.PL
'the three boys' 'the three boys'
b. qex te s-th'im b'. qex te s-th'eth'im
many DET NMZ-berry many DET NMZ-berry.PL
'many berries' 'many berries'

(Wiltschko 2008:642)

⁵ The Halkomelem Salish plural has the following three forms, usually treated as phonologically conditioned allomorphs: *reduplication*, *-l- infixation*, and *vowel change (Ablaut)*.

- (i) a. *reduplication*: méle mámele
child children
b. *-l-infixation*: q'ámi q'álemi
girl girls
c. *Ablaut*: swíweles swóweles
boy boys

(Galloway 1980:14, 1993:379f., in Wiltschko 2008:641)

In Ojibwe, on the other hand, pluralization is obligatory just as in English, as shown by the examples in (8a,b). In Ojibwe, plural nominals receive a different kind of plural marking depending on whether they are animate (-*ag*) or inanimate (-*an*). As already mentioned in the introduction, Ojibwe is a language where gender is based on animacy.⁶ The unmarked noun (*boy* or *gwiizens*) is interpreted as singular and is thus incompatible with a plural interpretation. (8a',b') are not grammatical because plural marking is missing. The plural morpheme is necessary for a plural interpretation. This is a typical property of inflectional plural marking.

- | | | | | | | | |
|-----|----|----------------|---------------------|-----|--------------------------|----------|----------|
| (8) | a. | niizh | gwiizens- ag | a'. | *niizh | gwiizens | [Ojibwe] |
| | | two | boy-PL.ANIM | | two | boy | |
| | | 'two boys' | | | intended: 'two boys' | | |
| | b. | niibina | miin- an | b'. | *niibina | miin | |
| | | many | berries-PL.IN | | many | berry | |
| | | 'many berries' | | | intended: 'many berries' | | |

10.2.2 Plural marking triggers agreement

Another pervasive property of inflectional plural marking is its ability to trigger agreement. For example, a noun marked for plural in English requires that the preceding demonstrative be marked for plural as well (9a). If the demonstrative is not marked as plural, the sentence is ungrammatical as shown by (9b). Conversely, an unmarked (singular) noun is not compatible with plural marking on the demonstrative (9c); rather, an unmarked noun must be preceded by a singular demonstrative (9d).

- (9) a. **These** boys can sing.
 b. *This boys can sing.
 c. ***These** boy can sing.
 d. This boy can sing.

Halkomelem Salish is again different from English. As shown by Wiltschko (2008), a noun marked for plural is compatible with a preceding plural determiner (*ye* in (10a)) but it does not *require* a plural determiner. Rather, a plural-marked noun is also compatible with the unmarked determiner *te* (as in (10a')). Similarly, an

⁶ While Hollowell (1960), Black-Rogers (1982), Straus and Brightman (1982), and Corbett (1991:23) have argued that gender in Algonquian languages has a semantic basis (i.e. the crucial notion being power), it appears in fact that the animate/inanimate contrast has grammaticized over time. The gender system cannot be entirely semantic since some inanimate elements receive the animate gender agreement: *aakim* 'snowshoe', *seeman* 'tobacco', *miskomin* 'raspberry', etc. While *miskomin* 'raspberry' is animate, 'strawberry' *odehimin* is inanimate, which shows how unpredictable gender can be in the language. There is also considerable variation between dialects indicating that gender in Ojibwe is grammatically based. The gender shift phenomenon described later in the chapter shows that animacy has often nothing to do with power, but more to do with measure or unit readings. In addition, the idea that gender in Algonquian is tied to power should not be exaggerated (see footnote 15).

unmarked noun is compatible with plural marking on the determiner (10b) but it can also co-occur with the unmarked determiner (10b').

- (10) a. t'ílém ye s-í:wí:qe. a'. t'ílém te s-í:wí:qe. [HS]
 sing DET.PL man.PL sing DET man.PL
 'The men are singing.' The men are singing.'
- b. t'ílém ye swíyeqe. b'. t'ílém te swíyeqe.
 sing DET.PL man sing DET man
 'The man is singing.' 'The man is singing.'

(Wiltschko 2008:643)

Assuming that plural marking in Halkomelem does not instantiate a functional head and is thus not capable of triggering the syntactic operation Agree, Wiltschko (2008) predicts that there is no agreement for number established elsewhere in the grammar. For example, in Halkomelem, subject-verb agreement does not include number, only person. In the case of 3rd person, the same subject agreement marker (-es) is used for both singular and plural subjects, as illustrated in (11).

- (11) a. máy-t-es ye sí:wí:qe ye shheláli.
 help-TRANS-3S DET.PL man.PL DET.PL woman.PL
 'The men are helping the women.'
- b. máy-t-es te swíyeqe ye shheláli.
 help-TRANS-3S DET man DET.PL woman.PL
 'The man is helping the women.'

(Wiltschko 2008:654–655)

In Ojibwe, the situation is different. Agreement is obligatory between the noun and the preceding demonstrative as shown in (12) for animates and in (13) for inanimates. (12b') and (13b') are ungrammatical because the noun does not carry plural marking.

- (12) a. maaba gwinzens [Ojibwe]
 this.ANIM boy
 'this boy'
- b. maamig gwinzens-ag b'. *maamig gwinzens
 these.ANIM boy-PL.ANIM these-ANIM boy
 'these boys' intended: 'these boys'
- (13) a. maanda baagan
 this.IN nut
 'this nut'
- b. maamin baagan-an b'. *maamin baagan
 these.IN nuts-PL.IN these.IN nut
 'these nuts' intended: 'these nuts'

It is noteworthy that, in Ojibwe, subjects agree differently with the verb depending on whether the subject is singular or plural. Compare (14a) with (14b). In (14a), the suffix *-ig* is the 3rd person singular agreement while in (14b) the suffix *-oog* is the 3rd person plural agreement.⁷

- (14) a. nene n-gii-waabm-ig. [Ojibwe]
man-1SG 1SG-PAST-see-3SG
'(A) man saw me.'
- b. nenwag n-gii-waabm-igoog.
men-3PL 1SG-PAST-see-3PL
'Men saw me.'

10.2.3 *Plural marking is not possible inside compounds in Ojibwe*

As is well-known, plural marking in English is prohibited inside of compounds as illustrated by the examples in (15).

- (15) a. baby-sitting a'. *babies-sitting
b. key-ring b'. *keys-ring

As shown by Wiltschko (2008), the situation is different in Halkomelem Salish. Although English-type compounds, where two free forms are merged, are rather rare, it is often possible for a bound root to merge with a free root thus forming a compound (Gerdtz and Hinkson 1996, Gerdtz 1999, 2003). Plural marking is possible on the non-head of such compounds, as shown on the basis of the following kind of head initial compounds.

- (16) a. tem-qoqo: qo = water [Halkomelem Salish]
time-water.PL
'high water time'
- b. tem-weléxes wéxes= frog
time-frog.PL
'time of frogs' (= 'March')

(Wiltschko 2008:644)

Similarly, the initial root within such a compound can also be pluralized without necessarily pluralizing the referent of the complex noun. For example, in (17) the exocentric compound can refer to one chipmunk with more than one stripe.

⁷ Note that, as is well known, Ojibwe proclitics do not agree with subjects or objects but with the argument which is higher on a person/gender hierarchy: 2nd > 1st > Animate 3rd > Obviative (Animate) 3rd > Inanimate. Third person marking is usually not pronounced. When it is, it is suffixal rather than a proclitic.

- (17) s-xexp'-ítseł xep [Halkomelem Salish]
 NMZ-stripe.PL-back stripe
 'chipmunk (with more than 2 stripes)' 'stripe' (Galloway 1980:63)

In Ojibwe, on the other hand, plural marking is not possible inside of compounds, as shown by (18a) for animate nouns and (18b) for inanimate nouns (compounds are head last).

- (18) a. aamoo-ziinzibaakwad a'. *aamoo-g-ziinzibaakwad
 bee-sugar bee-PL.ANIM-sugar
 'honey'
 b. ishkode-daaban b'. *iskode-n-daaban
 fire-car fire-PL.IN-car
 'train'

If the nominal is pluralized, the whole compound is necessarily pluralized (19). Thus, the situation is unlike that of Halkomelem Salish, but similar to English.

- (19) ishkode-daaban-an [Ojibwe]
 fire-car-PL.IN
 'trains'

10.2.4 *Plural marking is not possible inside derivational morphology*

Another property often used to identify inflectional categories has to do with their distribution relative to derivational morphology. Generally, inflectional categories are impossible inside of derivational morphology, as illustrated by the English examples in (20). A root nominal is first merged with a derivational affix. Only then, an inflectional affix can be merged with the complex word as in (20a–d). The reverse in (20a'–d') is impossible.

- (20) a. dog-ish a'. *dog-s-ish
 b. mother-ese b'. *mother-s-ese
 c. brother-hood c'. *brother-s-hood
 d. tattoo-ist d'. *tattoo-s-ist

In contrast, plural marking in Halkomelem Salish is possible inside of derivational morphology. As shown in (21), plural reduplication appears between the nominalizing prefix *s-* and the root.

- (21) a. s-p'eqp'eq' s-p'eq' = white [Halkomelem Salish]
 NMZ-white.PL
 'white spots on skin'
 b. s-th'ekw'th'ekw' s-th'eth'ikw' = 'be sore'
 NMZ-CONT.sore
 'sore', 'lots of sores'

(Galloway 1993:379, in Wiltschko 2008:645)

(22) a. bkwenzh-gan-ag a'. *bkwenzh-ag-gan
bread-NMZ-PL.AN IM bread-PL.ANIM-NMZ
'breads'

b. wazas-win-an b'. *wazas-an-win
nest-NMZ-PL.IN nest-PL.IN-NMZ
'nests'

Wiltshcko (2008) argues that, since number is not a grammatical category in Halkomelem Salish, no mismatches between form and meaning can arise. The presence of a plural modifier in Halkomelem Salish must be interpreted. This contrasts with English plural marking which functions as a syntactic head and as such can display form-meaning mismatches. This is most apparent in *pluralia tantum*. In English, *pants* and *scissors* are plural but refer to single objects. Wiltshcko (2008) reports that in Halkomelem Salish there are no cases of *pluralia tantum* (Galloway 1993).

(23) a. biiwekdamaagnan ‘wood shaving’ (W) [Ojibwe]
 b. bootsan ‘boots’ (from English boots, Odawa)
 c. e-baasgobjigengakin ‘spring-tooth harrows’, a farm implement.
 (Valentine 2001:182)

Since on Wiltschko's (2008) analysis, plural marking in Halkomelem is merged as a modifier, it is predicted that in that language the plural marking does not change the category of the noun it merges with. In English, on the other hand, a pluralized noun is no longer a noun, but instead functions as a number phrase (#P). In Halkomelem Salish a pluralized noun is still a noun and does not become a #P. This structural difference suggests that in English, but not in Halkomelem, pluralized nouns have a distribution distinct from unmarked nouns. The idea is that English pluralized nouns can be used as arguments without a preceding determiner (i.e. as so-called bare plurals). This is illustrated in (24).

⁸ This may in fact not be the best test to use, because the apparent possibility for inflection to feed derivation also occurs in languages where plural marking is clearly otherwise inflectional: the case of compounds in Dutch (Booij 1993, 1995) and of compounds in Breton (Stump 1991). In Ojibwe, contemporatives can appear before or after plural marking (Valentine 2001).

- (24) a. I saw bears.
b. Bears saw me.

Following Déchaine and Wiltschko (2002), Wiltschko (2008) assumes that the presence of some functional structure (such as #) is sufficient to turn a nominal predicate into an argument. Consequently, the well-formedness of English bare plurals in argument position reflects the presence of functional structure (i.e. #P). Nouns without such superstructure are not licensed as arguments. In Halkomelem the plural marker does not change the syntactic category of the pluralized noun, i.e. it does not project functional structure. As a consequence, Halkomelem does not have bare plurals: all nouns in argument position must be preceded by a determiner (see Matthewson 1998 for a cross-Salish perspective). This is illustrated in (25).

- (25) a. tsel kw'ets-l-exw *(te) {swíyeqe/sí:wí:qe}. [Halkomelem Salish]
1SG.S see-TRANS-3O DET man/man.PL
'I saw the man/the men.'/ 'I saw a man/men.'
- b. t'ít'elem *(te) {slháli/slhelhláli}.
singing DET woman/woman.PL
'The woman/women is/are singing.'/ 'A woman/women is/are singing.'

In Ojibwe, bare plurals are possible in both subject and object position as attested by the examples in (26). This means that #P is projected and that #Ps can be used directly as arguments without the need of a determiner.

- (26) a. n-gii-waabmag nenwag. [Ojibwe]
1SG-PAST-see-3PL.ANIM men-3PL.ANIM
'I saw men.'
- b. nenwag n-gii-waabm-igoog.
men-3PL.ANIM 1SG-PAST-see-3PL.ANIM
'Men saw me.'

10.2.7 *Intermediate summary*

Table 10.1 summarizes the findings above:

TABLE 10.1. **Summary**

	English	Halkomelem	Ojibwe
Obligatory plural marking	yes	no	yes
Obligatory agreement	yes	no	yes
Plural inside compounds	no	yes	no
Plural inside derivational morphology	no	yes	no
Pluralia tantum	yes	no	yes
Bare plurals	yes	no	yes

It should be clear by now that the distribution of number in Ojibwe patterns with languages such as English rather than with languages such as Halkomelem Salish. Ojibwe is a language with inflectional number. As seen in (27), the opposition between singular and plural cuts across the paradigms of nouns, pronouns and verbs. Agreement is obligatory with all these categories.

- (27)
- | | SINGULAR | PLURAL | GLOSS |
|----|-----------|-------------|---|
| a. | giin | giinwaa | 'thou (SG) ~ you (PL)' |
| | wiin | wiinwaa | 'he ~ they' |
| | maanda | nanda | 'this (one) IN proximal ~ these (ones) IN proximal' |
| | n-... -im | n-... -naan | 'my ~ our (exclusive)' |
| b. | giuwe | giuwewag | 'go home (PRES, 1/2/3 SG) ~ go home (PRES, 3PL)' |

Despite all the differences between Halkomelem Salish and Ojibwe with regard to the status of number, there is, nevertheless, one remaining property that Ojibwe shares with Halkomelem Salish. Mass nouns can be systematically pluralized in both languages. Moreover, as the next section will show, mass nouns in both languages can appear with numerals or quantifiers otherwise uniquely paired with count nouns. We thus have a paradox: on the one hand, everything points to the view that in Ojibwe, number is a functional head rather than a modifier (number marking is obligatory, it triggers agreement, and it is not possible inside compound or derivational morphology). On the other hand, the fact that many mass nouns can be pluralized might be taken to indicate that number in Ojibwe is not an inflectional category and that a grammaticized mass/count distinction is absent in the language. The next two sections address this problem.

10.3 Ojibwe pluralized mass nouns

In section 10.2, we saw that the number system of Ojibwe shares many properties with the number system of English and that contrary to Halkomelem Salish, number marking in Ojibwe is obligatory, triggers agreement, and is not possible inside compound or derivational morphology. This indicates that number in Ojibwe is an inflectional category. In the simplest cases, pluralization in Ojibwe thus creates a series of discrete individuals. In (28a), 'nuts' means 'more than one nut' and the same goes for *bagaan* versus *bagaanag* in Ojibwe. (28b–c) are other examples of animate nominals while (29) introduces a list of inanimate nouns (IN).

- (28)
- | | | | | | | |
|----|----------------|-----------|---|-------------------|------------|------|
| a. | bagaan | 'nut' | ~ | bagaan-ag | 'nuts' | ANIM |
| b. | miigwan | 'feather' | ~ | miigwan-ag | 'feathers' | ANIM |
| c. | maanadikoshens | 'goat' | ~ | maanadikoshens-ag | 'goats' | ANIM |

- (29) a. akwaandawaagan ‘ladder’ ~ akwaandawaagan-an ‘ladders’ IN
 b. ishkwaandem ‘door’ ~ ishkwaandem-an ‘doors’ IN
 c. makizin ‘moccasin’ ~ makizin-an ‘moccasins’ IN

What is noteworthy in Ojibwe is that mass nouns that cannot be pluralized in English can easily be pluralized and be associated with numerals and quantifiers otherwise uniquely used with count nouns. We turn to this in more detail.

10.3.1 *Pluralized mass nouns in Ojibwe*

As already mentioned in the introduction, mass nouns in Ojibwe can easily be pluralized. This is true for animate nouns (30) and for inanimate nominals (31). In English, the pluralization of these nouns is simply not possible (unless a kind interpretation is targeted, see footnote 1). Some nouns in this list are collective rather than mass nouns. This is the case, for example, of (30f).⁹

- (30) a. maandaamin ‘corn’ ~ maandaamin-ag ANIM
 b. waabigan ‘clay’ ~ waabigan-ag ANIM
 c. aninaatig ‘maple’ ~ aninaatig-oog ANIM
 d. mashkosiw ‘grass’ ~ mashkosiw-ag ANIM
 e. semaa ‘tobacco’ ~ semaa-g ANIM
 f. zhooniya ‘money’ ~ zhooniya-g ANIM
 g. mikwam ‘ice’ ~ mikwam-iig ANIM
- (31) a. (a)ki ‘earth’ ~ (a)ki-in IN
 b. azhashki ‘mud’ ~ azhashki-in IN
 c. bkwezghan ‘bread’ ~ bkwezghan-an IN
 d. aasaakamig ‘moss’ ~ aasaakamig-oon IN
 e. ziinzibaakwad ‘sugar’ ~ ziinzibaakwad-oon IN

Although pluralization of mass nouns appears to be very productive, some mass nouns, however, resist pluralization, contrary to what is claimed in the quotes introduced in (1) and (2). The language speakers that I consulted rejected pluralization of the nominals in (32). When prompted to pluralize ‘oil’ one speaker even protested, ‘But it’s a mass noun!’.

- (32) a. bimide ‘oil’ ~ *bimide-n IN
 b. (a)niibiishaaboo ‘tea’ ~ *(a)niibiishaaboo-n IN
 c. doodooshaaboo ‘milk’ ~ *doodooshaaboo-n IN

⁹ The examples in (31) involve pluralized mass nouns that are inanimate. It is expected under my analysis that they should be animate. However, it may be that these examples simply exhibit the continuing loss of the singulative system. For example, in some dialects the plural of ‘rice’ is animate while in others it is inanimate. It appears that for some speakers, the singulative system is no longer productive or that at least there are major lexical gaps.

d.	miskwi	'blood'	~	*miskwi-n	IN
e.	aamoo-ziinzibaawad	'honey'	~	*aamoo-ziinzibaawad-an	IN
f.	nbiish	'water'	~	*nbiish-in	IN
g.	negwiki	'sand'	~	*negwiki-n	IN
h.	mini	'pus'	~	*mini-n	IN

These nominals cannot even be pluralized to mean 'kinds of', for example 'oils' as 'kinds of oil'; this is an observation that coheres with the quote introduced in (1) and which was confirmed by my informants. For example, speakers reject the direct translations of 'What kind of sugars do you have?' (for instance, upon entering a shop). It turns out that Ojibwe has a special word that it uses for kinds, call it a kindifier, namely *dnawa* or *dowa* (cf. Valentine 2001:593, my consultants used *daawa*).

In addition, the pluralized nouns in (32) resist a conventionalized unit reading. This shows that the alleged systematic pluralization of mass nouns in Ojibwe is not a kind of generalized coercion mechanism and that the concept of conventionalized unit is orthogonal to the issue of mass noun pluralization. Although mass nouns cannot normally be pluralized in English, exceptions to that generalization are possible provided that the interpretation of mass nouns is coerced to that of kinds (33a) or standard servings (33b).

- (33) a. There are only three waters available (tap, still, and sparkling water).
 b. John ordered three waters (i.e. glasses, bottles etc.).

The mass/count distinction in English, although grammaticized, is therefore actually quite flexible. Mass nouns can be made count (via the Universal Sorter, e.g. (33a), or via the Universal Packer, e.g. (33b), see Bunt 1985b) and count nouns can be made mass (David Lewis's Universal Grinder, e.g. *there was dog all over the road*, cf. Pelletier 1979).¹⁰

For Ojibwe, it is not difficult indeed to think of 'milks', 'teas', 'waters' or 'oils' as conventionalized units in the Ojibwe community (bottles of oil, cartons of milk, cups of tea). Yet, these particular mass nouns cannot be pluralized in the language.

Conversely, many pluralized mass nouns in (31) clearly do not involve conventionalized units; a fact which again indicates that in Ojibwe pluralization of mass nouns is a separate process from that of conventionalized unit creation. When 'ice', 'mud', 'grass', 'air', 'moss' are pluralized, there is no sense that the portioning leads to a conventionalized unit, since there is no conventionalized unit that corresponds in the Ojibwe culture to these nominals.

¹⁰ In fact, as pointed out by a reviewer, even in English it is not always clear that coercion is entirely flexible. In other languages, there is definite evidence that coercion is syntax-dependent. The same reviewer points out that the 'dog-stuff' reading is not possible in Mandarin Chinese (Cheng, Doetjes and Sybesma 2008). In that language, there is no syntactic reason to coerce since bare singulars are fine in argument position.

In sum, the grammatical distinction between mass and count terms is not neutralized in the language. What is noteworthy is that all the pluralized mass nouns in (30) and (31) receive a measure reading. *Semaag* means ‘wads or pieces of tobacco’, *mikomiig* ‘pieces of ice’, *mashkosiwag* ‘blades of grass’, *akiin* ‘bits of earth’, *bkwezghanan* ‘slices or pieces of bread’, *wiiyaasan* ‘pieces or cuts of meat’, etc. When the noun is a collective rather than a mass noun, we obtain a simple unit reading as in the case of *zhooniyaag* ‘coins’. Once we fully appreciate the meaning behind the pluralization of mass nouns in Ojibwe, it is easier to understand why mass nouns in Ojibwe can appear with exactly the same numerals and quantifiers that are otherwise associated with count nouns. I turn to this in the next section.

10.3.2 *Mass nouns and numerals/quantifiers*

In English, while count nouns can be modified by cardinal numerals, e.g. *three nuts*, mass nouns cannot, e.g. **three mud(s)*. Also, English count nouns can be modified by quantifiers such as *many*, *few*, *every* and *each*, e.g. *many/few nuts*, *every/each nut*. On the other hand, mass nouns cannot be modified by such quantifiers: **many/few mud(s)*, *every/each mud*.

In Ojibwe, mass nouns can not only be pluralized – see examples in (30) and (31) – they can, just like count nouns (34), also be modified by cardinals (35) and can be modified by the same quantifiers used for count nouns. Compare (36) with (37).

- | | | | | | | | |
|------|----|----------------------|----------|----|------------------------|---------------|----------|
| (34) | a. | bezhig | baagan | b. | niizh | baagan-an | [Ojibwe] |
| | | one | nut | | two | nuts.PL.IN | |
| | | ‘one nut’ | | | ‘two nuts’ | | |
| (35) | a. | bezhig | azhashki | b. | niizh | azhashki-n | |
| | | one | mud | | two | mud.PL.IN | |
| | | ‘one chunk of mud’ | | | ‘two chunks of mud’ | | |
| (36) | a. | gakina | baagan | b. | gakina | gwiizens | |
| | | every | nut | | every | boy | |
| | | ‘every nut’ | | | ‘every boy’ | | |
| (37) | a. | gakina | azhashki | b. | gakina | ziinzibaakwad | |
| | | every | mud | | every | sugar | |
| | | ‘every piece of mud’ | | | ‘every piece of sugar’ | | |

Halkomelem Salish behaves exactly like Ojibwe in this regard. The quantifier *qex* (many/much) can be used with mass nouns (38) as well as with count nouns (39).

- | | | | | | | |
|------|----|------------------------------|--------------|-----|------|----------------|
| (38) | a. | tsel | kw'êtslexw | qex | (te) | qó/qoqo. |
| | | 1SG.S | see-TRANS-3O | QU | DET | water/water.PL |
| | | ‘I have seen lots of water.’ | | | | |

- b. el stl'í kw qex (te) mélk/memelk.
 1SG.POSS want DET QU DET milk/milk.PL
 'I want lots of milk.' (Wiltschko 2007)
- (39) a. tsel kw'éts-lexw qex (te) theqá/theqtheqát.
 1SG.S see-TRANS QU DET tree.PL
 'I saw lots of trees.'
- b. tsel kw'éts-lexw qex (te) sth'im/sth'eth'im.
 1SG.S see-TRANS QU DET berry
 'I saw lots of berries.' (Wiltschko 2007)

It is also possible to combine numerals with both count and mass nouns as shown by the examples in (40) and (41) respectively.

- (40) a. tsel kw'éts-l-exw isále sth'im/sth'eth'im. [Halkomelem Salish]
 1SG.S see-TRANS-3O two berry/berry.PL
 'I have seen two berries.'
- b. tsel kw'éts-l-exw isále theqát/theqtheqát.
 1SG.S see-TRANS-3O two tree/tree.PL
 'I have seen two trees.' (Wiltschko 2007)
- (41) a. tsel kw'éts-l-exw isále siyítsem.
 1SG.S see-TRANS-3O two sand.PL
 'I have seen two pieces of/kinds of sand.'
- b. tsel kwé'ts-l-exw isále siyólh
 1SG.S see-TRANS-3O two wood.PL
 'I saw two pieces of wood.' (Wiltschko 2007)

If we focus on the interpretation that these pluralized mass nouns get in Halkomelem Salish it is easy to notice that there is an important difference in interpretation between Halkomelem and Ojibwe. In Ojibwe, plural marking leads to a reading where the mass term is divided into portions or pieces (the measure reading).¹¹ In contrast, the function of the plural with mass nouns in Halkomelem Salish is simply, in most cases, to denote a large amount of mass (without a quantifier, e.g. *qex*). Consider the following examples.

- (42) a. tsel kw'éts-l-exw te/ye th'exth'éxet. [Halkomelem Salish]
 1SG.S see-TRANS-3O DET/DET.PL gravel.PL
 'I saw a lot of gravel.'

¹¹ Ojibwe is not the only Native North-American language with plural mass nouns triggering a unit of measure reading. Mithun (1999:80) mentions the case of Yup'ik: 'Yup'ik mass nouns such as *uquq* "oil" and *meq* "water" often appear with number suffixes to indicate units of substance, such as "containers of": *uqu-k* "oil-DUAL" = "two sealpokes of oil"; *mer'-et* "water=PLURAL" = "buckets of water". Yup'ik appears to have all the properties associated with number in Ojibwe: obligatory, disjunctive, transparent, word final, yet it allows the pluralization of mass nouns.

- b. tsel kw'éts-l-exw te/ye syiqyíq.
 1SG.S see-TRANS-3O DET/DET.PL snow.PL
 'I've seen a lot of snow.'
- c. tsel kw'éts-l-exw te/ye spepiw.
 1SG.S see-TRANS-3O DET/DET.PL ice.PL
 'I've seen a lot of ice.'
- d. tsel kw'éts-l-exw te/ye shweláthetel.
 1SG.S see-TRANS-3O DET/DET.PL fog.PL
 'I've seen a lot of fog.'

(Wiltschko 2008:669)

There are a couple of exceptions, see the examples in (41). In these cases, the translation by Wiltschko (2007) is 'pieces of'. However, this reading is shown to be possible only when numerals are used, not when determiners are used. In most cases, it seems that, in order to divide mass terms, Halkomelem Salish resorts to partitive quantifier phrases of the kind available in English. The element *i'axwli* which literally means 'small' (43a) is used as such a phrase. An example is introduced in (43b).

- (43) a. i'axwíl siyólh [Halkomelem Salish]
 piece of wood
- b. tsel kw'éts-l-exw (te) i'axwli siyólh.
 1SG.S see-TRANS-3O det small wood
 i) 'I saw a piece of wood.'
 ii) 'I saw a little bit of wood.'

On the other hand, Ojibwe does not appear to have measure phrases corresponding to 'a piece of', 'a bit of' or 'a portion of'.¹² As Greenberg (1972:16) has made explicit, 'there are a considerable number of Amerind languages [...] which do not have measure constructions [including Ojibwe, Greenberg 1974b]. Numerals occur directly both with nouns designating mass as well as countable objects.' This is an important point and a crucial fact of the language which explains why mass nouns can be pluralized in Ojibwe with an atomizing reading. We turn to this in more detail.

10.3.3 *The interpretation(s) of pluralized mass nouns*

The main point that I would like to make is that the different uses of pluralized mass nouns as we find in Ojibwe on the one hand, and in Halkomelem Salish, on the other, as well as the different interpretations tied to these different uses, are independent from the parameter proposed by Wiltschko (2007, 2008). The pluralization of mass

¹² Measure words are not completely absent: the word for 'pound' is *dibaabiishkoojian*.

nouns is often possible in languages with number as inflectional. This is clear in more familiar languages of the Indo-European stock: French (44), Hebrew (45), Persian (46), and also Biblical English (47).¹³

- (44) a. La fonte des neiges/les neiges éternelles [French]
 the melting of.the snows/the snows eternal
 'The melting of the snow' / 'The eternal snow(s)'
 b. Les eaux du Nil ont débordé de leur lit.
 the waters of-the Nile have spilled from their bed
 'The waters of the Nile have spilled over from their bed.'
 c. Des viandes avariées gisaient sur la table.
 some meats bad lay-IMP on the table
 'Bad meats were lying on the table.'
- (45) Iarad harbe šeleg/šlagim. [Hebrew]
 fell.3SG.PAST a lot snow.SG.MASC/ snow.PL.MASC
 'A lot of snow fell/has fallen.'
- (46) âba-e/âb-â-ye daryâ bâlâ umad-an. [Persian]
 water-EZ/ water-PL-EZ sea high came
 'The sea level rose.'
 (Sharifan and Lotfi 2003:231)
- (47) And he said unto them, Go. And they came out, and went into the swine:
 and behold, the whole herd rushed down the steep into the sea, and perished
 in the waters. (Matthew 8:32)

A special interpretation is attached to all the examples where the mass noun is plural. These plurals appear neither dividing nor counting. Rather, they appear to denote abundance: see, for example, Corbett (2000) about the plural of abundance. The plural of abundance is one of several plurals (plural of modesty, exaggerative plural, hyperbolic plural, approximative plural, anti-associative plural, etc.) that has nothing to do with counting individuals. These plurals often can take special forms. For example, in Banyun, a language of the West Atlantic branch of Niger-Kordofanian, spoken in Senegal and Guinea Bissau, the plural of abundance (sometimes called the greater plural) is used when the exact number is impossible to pinpoint or when it is irrelevant, and it surfaces as a different form from that of the dividing plural. In that language, nouns typically have singular and plural, distinguished by prefixes, but the special plural is used when the number cannot be counted or the speaker feels it unnecessary (Corbett 2000, Sauvageot 1967).

In the French example illustrated in (44a), although an aspectual reading is clearly available as well (something like the annual melting of the snow is implied), *la fonte*

¹³ Thanks to Keren Tonciulescu for the Hebrew data.

des neiges ‘the melting of the snow’ means abundance of snow. In Persian, it appears that the more spreading, pouring, or gathering a context indicates, the more the use of the plural form (Sharifan and Lotfi 2003, Hamedani 2011). The judgements are subtle, and often abundance is not necessary to obtain the reading: it is sufficient for the pluralized mass noun to denote a vague notion of number (number is either difficult to pinpoint or unimportant to the speaker).

This appears to be the kind of reading we obtain with Halkomelem Salish pluralized mass nouns. If this is correct, number in Halkomelem might thus be inflectional after all, the pluralization of mass nouns arising from the use of inflectional number inherently in addition to its more traditional contextual use. The distinction between inherent and contextual inflectional morphology was introduced by Booij (1993, 1995) who shows that in certain languages (he concentrates on Dutch), in addition to the traditional use of number where a verb agrees with a nominal subject, it is possible to use number in a derivational fashion. Rather than relegating number to derivational processes, however, Booij (1993, 1995) argues that it must be kept part of inflectional morphology but with the added twist that number can also be used inherently. Inflectional morphology and derivational morphology are not two different kinds of morphology, but two different processes. When used inherently it might be used as a modifier as in Wiltschko (2008) or introduced in the nominal structure via *n* (cf. Lecarme 2002, Kihm 2005, Acquaviva 2008).

In other words, there is no need to claim that number in Halkomelem Salish is derivational across the board. Number in that language, is never, after all, impossible, but simply optional. In addition, many of the tests used by Wiltschko (2007, 2008) would equally work in languages with inflectional number (see footnote 8).

To summarize: in this section, we saw that the abundance or non-counting reading yielded by pluralized mass nouns is available in languages where number is clearly inflectional and that this use of the plural is thus completely independent from whether the language has a grammaticized count/mass distinction. In Ojibwe, we saw that pluralized mass nouns yield a reading that is either a simple unit or a unit of measure. We must now explain how this unit reading is made possible in the language. I turn to this in the next section.

10.4 Basis for a solution

In the preceding sections, we established that number in Ojibwe has clear inflectional properties and that the reading obtained when mass nouns are pluralized is one that corresponds to individuation or measuring. On the other hand, Halkomelem Salish pluralized mass nouns were shown to yield a different kind of interpretation, i.e. one that appears to be related to abundance or vagueness of number. In this section, I provide a solution to the Ojibwe puzzle: why are pluralized mass

The main idea introduced in this section is that the unit of measure reading yielded by pluralized mass nouns in Ojibwe stems from the use of gender shift in the singular to express singularization. The same mechanism is used to create individuals out of collectives. Pluralized mass nouns are possible because gender shift has applied in the singular prior to pluralization. This will be shown to be the reflex of a singulative system. Before I give details about the singulative, I want to discuss briefly the status of gender in Ojibwe.

At this point, it is worth reviewing Wilschko's (this volume) claim that animacy in Blackfoot (and thus perhaps in other Algonquian languages) is not gender but nominal aspect. I will argue that in Ojibwe animacy is definitely gender. Wilschko (this volume) claims on the basis of Blackfoot that animacy is not gender, but nominal aspect. Following Rijkhoff (1991), Wilschko makes an analogy between the verbal and the nominal domain in terms of boundedness. Bounded events have an inherent endpoint/culmination, beyond which the same event cannot continue (e.g. *walk to the store*) while unbounded events have no inherent endpoint/culmination—the same event can continue over an indefinite period of time (e.g. *play cards*). For the nominal domain, the idea is that mass nouns are unbounded (they are not collections of individuals) while count nouns are bounded (they form collections of individuals).¹⁴

(48) a. [DP D⁰ [NumP Num⁰ [AspP Asp⁰ [*n*P *n*⁰ [$\sqrt{\text{N}}$]]]]] [English]
 ↓
 [+/- bounded]

¹⁴ This is an idea that has been popular in French for French mass nouns (see Anscombe 1986).

b. [DP D⁰ [NumP Num⁰ [AspP Asp⁰ [nP n⁰ [√N]]]]] [Blackfoot]

↓
[+/- animate]

In order to support her claim, Wiltschko uses the fact that in Blackfoot, verbs have different forms depending on whether the participants are animate or inanimate. She argues that verbal Aktionsart is thus not based on [+/- bounded]/telicity, but instead that in Blackfoot Aktionsart is based on [+/- animate]. Wiltschko also argues specifically that animacy in Blackfoot is not like gender. In German, she shows that nominalizers are specified for gender but that in Blackfoot they are not: German *die Grammat-ik* ‘the grammar’ (feminine) versus *der Lehr-er* ‘the teacher’ (masculine); the Blackfoot nominalizer *a’tsis* is used for both animate nouns (*saa’kssoya-a’tsis* ‘poison ivy’) and inanimate nouns (*isoohkama-a’tsis* ‘container’).

In Ojibwe, the count/mass distinction is clearly grammaticized, as I have shown in the present chapter. For example, not all mass nouns can be pluralized: liquids resist pluralization. Also, while it is true that verbs in Ojibwe end in either animate or inanimate forms—for example, the verb ‘be’ has two forms (see also the examples in (49) below): one for animate nouns (-*wi*), and another for inanimate nouns (-*wan*), cf. Valentine (2001), this is in addition to a [+/- bounded] distinction. As pointed out by Valentine (2001), verbs such as those in (49) can be interpreted not only as ‘be’ but also as ‘become’ where a change of state is clearly asserted.

- (49) a. *ninii-wi*. [Ojibwe]
man-be
‘He is a man.’ or ‘He has become a man.’
b. *oodenaa-wan*.
town-be
‘It is a town.’ or ‘It has become a town.’

More generally, Ojibwe verbal expressions corresponding to ‘walk to the store’ are bounded while ‘play cards’ are not. In sum, telicity is, as in English, a concept very much anchored in the grammar of Ojibwe.

Finally, while it is true that Ojibwe nominalizers are indifferent as to whether the noun they merge with is animate or inanimate (e.g. the nominalizer -*gan* can appear with either), it is not clear how this is relevant to distinguishing languages with a grammaticized count/mass distinction from languages without one. In conclusion, there is no reason in Ojibwe to treat animacy as (nominal) aspect instead of the more traditional notion of gender. Everything points to the view that animacy is nothing other than gender in Ojibwe.

(50) a. zhooniyaahi ‘silver, money’ IN ~ zhooniyaaha ‘a coin, a bill’ ANIM [Fox]
 b. miichipehi ‘game’ IN ~ miichipeha ‘a game animal’ ANIM

(51) a. owiiaasi ‘meat, flesh’ IN ~ owiiaasa ‘a piece/cut of meat’ ANIM
 b. owiinenwi ‘fat (generic)’ IN ~ owiinenwa ‘a piece of fat’ ANIM
 c. anakehkwi ‘bark’ IN ~ anakehkwa ‘a piece of bark’ ANIM

(Goddard 2002:213)

It is evidently difficult to notice the gender shift that is the spell out of the singulative in Ojibwe. This is because Ojibwe nouns have lost their final *-i* for inanimates and *-a* for animates for most singulars. There are, however, visible effects of this process in modern Ojibwe as I am about to show.

¹⁵ This is a separate phenomenon and in my view not the realization of the singulative. Inanimates can become animates if they become important in the story or if they acquire power. However, as pointed out by Goddard (2002), the use of gender shift in narratives to express power should not be exaggerated. For example, in Fox inanimates seem to be freely assigned the powers of speech, comprehension, and thought without shifting gender (Goddard 2002:208).

- (Piggott 2007:15)

In words where no final *-i* or *-a* surfaces it is assumed that the vowel has been truncated. Interestingly, however, as argued by Piggott (2007), the vowel can only be truncated if the word meets minimality requirements. If the word is too small, e.g. it is bisyllabic, the vowel cannot be truncated. The process is, therefore, systematic and predictable. The word *nika* ‘goose’ in (54a) is clearly singular and animate and its plural version *nikag* ‘geese’ is visibly plural and animate.

For most singular nouns, however, especially those that end with a consonant, it is impossible to tell whether they are animate or inanimate from the endings, creating a situation where the singulative is not morphologically visible. In addition, because some words have lost their final *-i* together with final consonants, inanimate nouns may end in an *-a* which is the mark for animates rather than inanimates (and vice-versa).

With this in mind, take the case of the collective noun *zhoonya* ‘money’ in (53a). It is listed in dictionaries as an inanimate noun (although it ends in *-a*), but interestingly in the plural it is listed as animate. The same goes for *mitig* in (53b). It is listed in dictionaries as inanimate when it is interpreted as ‘wood/forest’, but as animate when it means ‘tree’. Although there is no morphological evidence, this is a clear residual effect of the gender shift correlated with the singulative use (in Fox, *zhooniyaahi* ‘silver, money’ ends in *-i* the mark of the singular inanimate while *zhooniyaaha* ‘a coin, a bill’ ends in *-a* the mark of the singular animate).

- [Ojibwe]

In order to show that nouns such as *zhoonya* ‘money’ and *mitig* ‘tree’ are animate on their individual reading we can introduce them in a sentence. Since Ojibwe has two different kinds of verb stems, animate transitive (TA) versus inanimate transitive (TI), the kind of verb stem selected will depend on the gender of the noun. Moreover, animate nouns are marked obviative. Ojibwe distinguishes between two third persons in a sentence or a narrative by means of a mechanism called obviation. In the sentence ‘John saw Fred’, for example, there are two third persons, John and Fred. When a sentence contains two third persons in this kind of grammatical relationship, one of them is seen as the main one and is called proximate (as if it were somehow closer to the interest of the speaker) and the other one is seen as secondary and is called obviative. In Ojibwe, the obviative is marked only on animate nouns. In (54a) *makwa* ‘bear’ is animate; it takes the obviative form *-n*

and the verb stem is TA. In (54b) *jiiman* ‘boat’ is inanimate; it takes no obviative form and the verb stem is TI.

- (54) a. John o-gii-waabam-aa-n makwa-n. [Ojibwe]
 John 3SG.S-PAST-see.ANIM-3SG.O-OBV bear-OBV
 ‘John saw a bear.’
 b. John w-gii-waabnd-aa jiimaan *jiiman-an.
 John 3SG-PAST-see.IN-3SG.O boat boat-OBV
 ‘John saw a boat.’

When we turn to mass and collective terms, we see that in (55a), *mnoomin* ‘rice’ is obviative and the verb stem is TA and that the same goes for *zhoonya* ‘money’ in (55a).

- (55) a. John o-gii-waabam-aa-n mnoomin-an agidisag. [Ojibwe]
 John 3SG.S-PAST-see.ANIM-OBV rice-OBV on.floor
 ‘John saw a grain of rice on the floor.’
 b. John o-gii-waabam-aa-n zhoonya-an agidisag.
 John 3SG.S-PAST-see.ANIM.OBV coin-OBV on.floor
 ‘John saw a coin on the floor.’

We can now see why, in Ojibwe, mass terms can systematically be pluralized. It is not because the language lacks a grammaticized count/mass distinction, but because in these cases, a gender shift process has operated on the singular to give a plural with a gender that is different from that of the original mass/collective noun. When the input to the atomization process is a collective noun we obtain a unit reading and when the input is a mass noun we obtain a unit of measure reading (pieces of *x*, portions of *x*, blades of *x*—depending on the noun).

The singulative is an important component of the grammars of Breton, Welsh, Arabic, Dagaare, etc. It can turn a mass or collective term into a noun denoting an individual or unit of measure reading. In these languages, the change from mass/collective to individual/unit of reading surfaces with a shift of gender from masculine to feminine. My point in this chapter is that in Ojibwe this is exactly what happens: gender shift (from inanimate to animate) is a reflex of the singulative. That Algonquian grammars might embed a singulative system has, to the best of my knowledge, never been entertained.

As an individualizer, the Breton singulative can target collective nouns as shown in (56) (examples from Stump 2005: 62). These are semantically plural, but morpho-syntactically singular. The output nominal is individuated. Breton is like Ojibwe: number marking is obligatory, triggers agreement, etc. It is clearly inflectional. It is in fact always the case, it seems, that languages with a singulative system, have grammars with number as an inflectional category. There do not appear to be

languages with only derivational number (contrary to what is predicted by Wiltschko's 2007, 2008 parameter).

- (56) a. buzbug 'worms' ~ buzbug-enn 'a worm' [Breton]
 b. kraon 'walnuts' ~ kraon-enn 'a walnut'
 c. per 'pears' ~ per-enn 'a pear'
 d. logod 'mice' ~ logod-enn 'a mouse'

The resulting singulative form can in turn be pluralized as shown in (57).

- (57) a. buzbug-enn 'a worm' ~ buzbug-enn-où 'worms'
 b. kraon-enn 'a walnut' ~ kraon-enn-où 'walnuts'
 c. per-enn 'a pear' ~ per-enn-où 'pears'
 d. logod-enn 'a mouse' ~ logod-enn-où 'mice'

The process is productive and appears to be syntactic in the sense that it occurs in exactly in the same syntactic contexts as the choice between an ordinary singular noun and its plural counterpart. For example, Stump (2005) shows that the syntactic contexts that determine the choice of the ordinary singular noun *potr* 'boy' (lenited form *botr*) and its plural counterpart *potred* 'boys' likewise determine the choice between the singulative noun *sivienn* 'strawberry' (lenited form *zivienn*) and its collective counterpart *sivi* 'strawberries'. This is shown in Table 10.2 (from Stump 2005: 63).

When mass nouns are the target of the singulative operation we get a unit of measure reading.

- (58) a. douar 'earth, ground' ~ douar-enn 'plot, terrier' [Breton]
 b. geot 'grass' ~ geot-enn 'blade of grass'
 (Stump 2005:62)

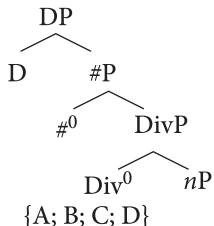
TABLE 10.2. Stump (2005:63)

	POTR 'boy'	SIVI 'strawberries'
Singular contexts	Singular: potr ur potr bennak 'a certain boy' meur a botr 'many a boy'	Singulative: sivienn ur zivienn bennak 'a certain strawberry' meur a zivienn 'many a strawberry'
Plural contexts	Plural: potred un nebeud potred 'some boys' kalz potred 'a lot of boys'	Collective: sivi un nebeud sivi 'some strawberries' kalz sivi 'a lot of strawberries'

- c. glav 'rain' ~ glav-enn 'a drop of rain'
 d. traez 'sand' ~ traez-enn 'a beach' (Acquaviva 2008:245)
- e. plouz 'straw' ~ plouz-enn 'wisp of straw'
 f. ed 'wheat' ~ ed-enn 'stick of wheat' (Trépos 1980:67)

The function of the singulative thus consists not only in turning abstract object types into identifiable objects, but also picking discrete entities out of undifferentiated mass. As pointed out by Acquaviva (2008: 245), the precise sense of the unit of measure reading varies with the word. This state of affairs is widespread in languages that allow the singulative and is exactly what we find in Ojibwe (see above).

In Mathieu (forthcoming), I show that Borer's (2005) system can accommodate the singulative on the assumption that in addition to classifiers and the plural, division can be performed by the singulative. Borer (2005) proposes that all nouns in all languages are in need of being portioned out before they can interact with the count system. In Chinese, this is achieved by (count) classifiers for count nouns and (mass) classifiers for mass nouns (Cheng and Sybesma 1999). In English, plural marking takes the role of classifiers for count nouns and measure phrases are used in lieu of mass classifiers (Sanches and Slobin 1973, Doetjes 1996, 1997). For singular individual nouns in English, e.g. *one cat*, the numeral *one* functions both as a divider and a counter. In Hungarian, Tagalog and Turkish this is generalized to all numerals in which case it is possible for the noun to be free of plural marking (Borer 2005). The singulative is another way of dividing undivided stuff.

- (59) a. 
- b. Possible content of Div⁰
 A = plural (Number system 1)
 B = numeral classifier (Number system 2)
 C = numerals (Number system 3)
 D = singulative (Number system 4)

In Mathieu (forthcoming), I show that the plural can apply after the singulative in a higher projection. This means that the role of the plural is dual: that of dividing (as in Borer 2005), but also that of counting (as in common wisdom).

The incorporation of the singulative into Borer's (2005) system of division is perfectly natural. While the singulative has been less studied in recent years in the context of research on number, its importance in the grammar of many languages, including, as I have shown in this chapter, Ojibwe, shows that the singulative deserves a central place in the theory of division.

10.5 Conclusion

The aim of this chapter was to show that the count/mass distinction is grammaticized in Ojibwe, that its grammar imbeds a singulative system and that the singulative is performed via gender shift (from inanimate to animate). This explains why mass nouns can be pluralized. While at first this property might be seen as a sign that the language has no grammaticized mass/count distinction, this is only an illusion.