

## The Mass Problem: A Classifier Solution

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I argue for the existence of the ClassifierP (CLP) in the nominal domain of American Sign Language (ASL); this projection is responsible for disambiguating between mass and count nouns in the language. However, ASL is not a generalized CL language: this phenomenon occurs only if an appropriate classifier exists – one that allows for ‘packaging.’

At first glance, ASL appears not to encode countability: mass nouns behave like count nouns (1)-(2)

<p>(1) Mass nouns: SUMS (a-c), PARTS (d-e).</p> <p>a. Should not pluralize</p> <p>b. Should not directly combine with numerals</p> <p>c. Should not combine with <i>each</i>, <i>many</i>, <i>fewer</i></p> <p>d. Should not combine with ‘count adjectives’/stubbornly distributive predicates (Schwarzchild 2011, i.a.)</p> <p>e. Should not compare based on number (Barner &amp; Snedeker 2005, Bale &amp; Barner 2009) (Deal 2017)</p>	<p>(2) a. WOW SHIT<sub>arc+&gt;&gt;+&gt;+</sub> HERE <i>lit.</i> ‘Wow, shit.<b>PL</b> are all over here’</p> <p>b. IX<sub>1</sub> WANT 3 / FEW BLOOD <i>lit.</i> ‘I want few blood’</p> <p>c. WOW NEED MANY OIL FOR FOOD <i>lit.</i> ‘Wow, I need many oil for food’</p> <p>d. IX<sub>a</sub> GOLD SMALL <i>lit.</i> ‘That gold a small.’</p> <p>e. <i>Context: Mary’s wine barrel contains more wine than Peter’s 15 bottles</i> PETER HAVE MORE WINE ‘Peter has more wine’ (true on number reading, false on volume reading)</p>
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Additionally, ASL is a language that lacks definite articles and obligatory number marking. The first observation is evidenced by (3): the element argued to serve as the definite article (IX) cannot occur in the prenominal position in the environments associated with the definite article: encoding uniqueness and anaphoricity (Schwarz 2009); instead, the NP must be bare.

<p>(3) TODAY SUNDAY. DO-DO. GO CHURCH, SEE (*IX) PRIEST. (*IX) PRIEST NICE ‘Today is Sunday. What to do? I’ll go to church, see THE priest. THE priest is nice.’</p>
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The second observation is evidenced by (4): neither NURSE (4a) nor STUDENT and TEACHER (4b) have overt number marking irrespective of the interpretation.

<p>(4) a-NURSE, 1-IX FINISH INFORM<sub>agreeing-a</sub>{[singular]/[dual]/[multiple]/[exhaustive]}</p> <p>‘I informed {the nurse/two nurses/the nurses/all nurses}’ (Petronio 1995)</p> <p>b. STUDENT FRUSTRATE, TEACHER UPSET</p> <p>i. <i>Context: The Mastery Test is generally not well liked:</i> ‘Students are frustrated, teachers are upset’</p> <p>ii. <i>Context: The argument between the teacher and the student needs to be resolved with a help of the Principal</i> ‘The student is frustrated, the teacher is upset’</p>
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Together, (1)-(4) suggest that ASL nouns are all mass kinds (Chierchia 1998) which predicts an existence of generalized ‘counting classifiers’ (Cheng & Sybesma 1998, i.a.). However, (5a) shows that the former cannot be the case: kinds resist anaphoric interpretations (unexpected if all nouns, including those in anaphoric contexts, were kinds, Despic 2017); also lexical plurals exist (5b).

<p>(5) a. POSS<sub>1</sub> FAMILY GENERATION MAKE WINE. #DRINK AMAZING ‘My family has been making wine for generation. (This) drink is amazing’ → #if DRINK refers to WINE = no anaphoric reference to a kind</p> <p>b. IX<sub>1</sub> HAVE ONE {*CHILDREN / CHILD} NAME MARY ‘I have one child, her name is Mary’</p>
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Moreover, while ASL has noun class/sortal classifiers (Shembri 2003, Benedicto & Brentari 2004), they are clearly a very different element than the numeral classifiers used for partitioning (Borer 2005, i.a.). E.g., nothing can intervene between the noun and the numeral

classifier, and the classifier and the numeral must be adjacent (Greenberg-Sanchez 1978, i.a.); this, however is violated in (6) with the addition of the adjectives CHA ‘huge’ and DRUNK.

(6) a. THREE CAR CHA CL <sub>vehicle</sub> >+>+>+	‘Three huge cars standing side by side’
b. WOMAN DRUNK CL <sub>person</sub> l	‘A drunk woman’

**Account:** In languages without generalized classifiers and non-obligatory number marking, we turn to numerals (Chierchia 2008). Rothstein (2011) observes that numerical partitives take only count DPs as complements while *some of the* partitives can take either mass or count NPs. Since mass Ns can combine with numerals (2b), if all ASL nouns can be interpreted as count (as in Yudja), both mass and count should be grammatical in partitive cases (with Boster 1996, I assume that Q takes NP as complement and the NP moves above the quantifier). Yet, this is not possible (7a-b) unless CL is added (7c) (as in Boskovic & Sener 2014).

(7) a. APPLE <sub>i</sub> IX <sub>1</sub> WANT 3 / FEW APPLE <sub>i</sub>	lit: ‘of apples, I want 3/a few’
b. *BLOOD <sub>i</sub> IX <sub>1</sub> WANT 3 / FEW BLOOD <sub>i</sub>	lit: ‘of blood, I want 3/a few’ vs. (2b)
c. BLOOD <sub>i</sub> IX <sub>1</sub> WANT 3 / FEW CL <sub>container</sub> +>+>+>+ BLOOD <sub>i</sub>	lit: ‘of blood, I want 3/few CL’

Additionally, some, though not all substance nouns in the sample resist pluralization without a CL.

(8) a. JOHN MARY SEE SAND CL <sub>tall-object</sub> +++	‘J. and M. saw tall sand objects’ => J: 5 sand castles, M: 5 #sandboxes / <sup>ok</sup> sand castles
b. JOHN MARY SEE SAND CL <sub>box</sub> +++ /*SAND +++	‘J. and M. saw box-shaped sand objects’ => J: 5 #sand castles / <sup>ok</sup> sandboxes, M: 5 sandboxes

Finally, generally, without a CL, quantifier stranding is also banned (9).

(9) * MARY REGISTER {FEW/3}STUDENT, JOHN DROP {MANY/5} _	‘Mary registered {a few/3}students, John dropped {many/5}’
b. MARY REGISTER FEW STUDENT, JOHN CL <sub>person.PL</sub> DROP	‘Mary registered few students, John dropped CL’

The availability of the rescue operation appears contingent on the existence of just the right *sortal* classifier in the language: despite being able to be naturally individuated (Rothstein 2010, i.a.) along various other tests (1), mass nouns do not all behave identically simply because classifiers are available for some N but not for others – the language provides no packaging solutions for some cases, and, thus, the ‘rescue operation’ may ((7b)-(8b), (10a)) or may not (10b) be possible.

(10) a. AIR IX <sub>1</sub> WANT MANY/MUCH CL	lit: ‘Of air, I want a lot CL (units)’
b. *IMAGINATION IX <sub>1</sub> WANT MANY/MUCH CL	lit: ‘Of imagination, I want a lot CL’

**Conclusions:** Despite what looks like the evidence to the contrary, ASL encodes mass-count distinction. This distinction is revealed in the application of CL which exposes the difference between nouns in terms of SUMS or PARTS (Deal 2017). At this point I leave open what the syntax and semantics of C<sub>1</sub>P is: literature has argued for their predicative analysis (Benedicto & Brentari 2004, Abner 2017, Davidson 2015), but the data presented here show that classifiers affect movement possibilities within the nominal domain alone (7). While ASL does not behave like a general classifier language, the data suggest something like Cheng & Sybesma (1998)’s CLP. Whether Ns generate there or arrive there by movement, the difference between mass/count Ns is ontological, not grammatical.

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