Everyone Is Different

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1 Introduction

An interesting and very healthy side-effect of the formal analysis of understudied languages — of which Henry Davis is one of the foremost champions — is that it can shed new light on languages that have been investigated for much longer. Phenomena that might seem marginal in English and neighbouring languages sometimes turn out to be common cross-linguistically, and what was once thought to be universal may come to be recognized as the exception rather than the rule.

Much of Henry’s research in semantics (reported in Davis 2010, 2013, and related work) has been concerned with questioning the cross-linguistic validity of the NP-Quantifier Universal originally proposed by Barwise & Cooper (1981), according to which noun phrases express GENERALIZED QUANTIFIERS (GQs). Henry has demonstrated convincingly that noun phrases in St’át’imcets and other Salish languages in fact do not express GQs. (For the debate surrounding this issue, see also Jelinek 1995 and Matthewson 1998, 2001, 2014.)

The NP-Quantifier Universal is a claim about all noun phrases in all languages.¹ We can conceive of two kinds of counterexamples to this claim: let’s call a language in which no noun phrases denote GQs a strong counterexample, but a language in which some but not all do, a weak one. Henry’s findings show that St’át’imcets is a strong counterexample to the NP-Quantifier Universal. But for a long time now, there has been widespread agreement that English is (at least) a weak counterexample. Since Barwise & Cooper’s classic article, many theories have been proposed in which major subclasses of noun phrases do not have the semantic type of GQs, \(<<e,t>,t>\). The current mainstream view is that definetes are of type \(e\), and denote either ATOMIC entities (if singular) or NON-ATOMIC ones (if plural). Indefinite articles have been analyzed as free variables of type \(<<e,t>,e>\), and other weak determiners are generally assumed to be cardinality predicates of type \(<e,t>\). Bare plurals are often viewed as names for kinds. This leaves precious few examples of “real” GQs, even in English: perhaps only noun phrases with strong quantificational determiners such as every, each, all, and most, and proportional many and few. It is well known that even this small residual set is by no means homogeneous in its semantic properties. This raises the question of whether the class of GQ-denoting noun phrases might be reduced even further, and perhaps eliminated.

This paper takes a small step towards answering this question by chipping away further at the class of (allegedly) GQ-denoting noun phrases in English, zeroing in on the behaviour of one small subclass, namely quantifiers such as everyone, everybody, and everything. To have a convenient label for this mini-class, let’s call them PRONOMINAL UNIVERSAL QUANTIFIERS, or PUQs.² These behave differently from their full noun phrase counterparts consisting of the determiner every plus a lexical noun (e.g., every woman). I will argue that PUQs refer to a contextually salient group, and carry a maximizing implication about the members of the group. This is analogous to Henry’s analysis of certain noun phrases in Salish (Davis 2010, 2013).

¹Barwise & Cooper (1981:177) state unequivocally that the NP-Quantifier Universal is meant to apply to all noun phrases: “[…] the noun phrases of a language are all and only the quantifiers over the domain of discourse” [my italics].
²Related to PUQs are their negative (nobody/one/thing) and existential (somebody/one/thing) counterparts. These mostly fall outside the scope of this paper, but the negative subclass will make a brief appearance in section 6.
2 Collective predicates and number

In the literature on the semantics of number (another one of Henry’s interests), a basic distinction is made between DISTRIBUTIVE and COLLECTIVE predicates. Whereas distributive predicates like _leave_ can be used with either singular or plural subjects (see (1a)), collective predicates such as intransitive _meet, gather, and swarm_, are only compatible with subjects that are plural, as illustrated in (1b-c). An important exception are morphologically singular nouns phrases headed by what I will call GROUP NOUNS, i.e., nouns such as _committee_ or _crowd_ which denote a ‘collection’ of people or other entities. As (2a,b) show, group nouns allow (at least some) collective predicates. Another exception are MASS NOUNS, illustrated in the attested example (2c):

(1) a. The student/students left the stadium.
   b. The students/*student met after the exam / gathered in the hall / surrounded the prof.
   c. The spectators/*spectator swarmed out of the stadium / dispersed.

(2) a. The committee met after the exam / surrounded the student.
   b. The crowd gathered in the hallway / swarmed out of the stadium / dispersed.
   c. Dust gathered [...] at the baseboards and around the bottom of standing lamps. (COCA)

This generalization can be extended to quantifiers.³ Quantificational noun phrases which are mor-pho-syntactically plural can be combined with collective predicates, but singular ones can’t, again with the exception of group nouns (Morgan 1985, Winter 2002, Rullmann 2003):

(3) a. Most / Many (of the) / All (the) students met after the exam / gathered in the hallway.
   b. *Every / *Each student met after the exam / gathered in the hallway.
   c. At least two students / *More than one student met before the exam.
   d. Every / Each supervisory committee met immediately after the QP presentations.

My main empirical claim in this paper is that PUQs are different from other quantificational noun phrases and can easily be the subject of collective predicates, despite being singular:

(4) Everyone/body met after the exam / gathered in the hallway / swarmed out of the stadium.

But these are constructed examples, and the validity of the judgments may be questioned. For more robust evidence let’s turn to naturally occurring cases found in a corpus.

3 Gathering evidence

The corpus data in this paper have been collected from the Corpus of Contemporary American English, or COCA (https://corpus.byu.edu/coca/). The collective predicate used here to probe the special behaviour of PUQs is _gather_, which is probably the most frequent such predicate.⁴ First of all, we need to establish that _gather_ is indeed a collective predicate. Matters are complicated

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³I am using the terms ‘quantifier’ and ‘quantificational’ in a loose and purely descriptive sense, which should be distinguished from the technical term ‘generalized quantifier’, i.e., an expression of type \(<\langle e, t \rangle, t>\).

⁴Other collective predicates are either too infrequent to yield a sufficient number of examples (e.g., _surround, disperse_), or have homophonous non-collective uses which makes doing automated searches difficult (e.g., _meet_).
somewhat by the fact that this verb can be either intransitive or transitive. When intransitive, gather is collective relative to its subject argument, but when transitive it is distributive for its subject and collective for its object. In other words, it is always the theme (or affected) argument of gather that is collective. This is illustrated in (5):

(5) a. The students / clouds / crowd / dust gathered.
   b. The professor gathered the students / examples / information.

A search was performed on COCA for the template “the NN1 GATHER”, where NN1 is the tag COCA uses for a singular noun, and the lemma GATHER can be instantiated as any inflected form of the verb (i.e., gather, gathers, gathered, or gathering). If intransitive gather is collective for its subject argument, the prediction is that NN1 should overwhelmingly be a group or mass noun. This is exactly what we find. (6) lists the 20 most frequent nouns returned in the search for this template, and (7) provides a few of the examples extracted from COCA:

(6) The 20 most frequent nouns in the template “the NN1 GATHER” in COCA (n = 980):
   information (101 occurrences), family (80), crowd (79), group (49), world (45), evidence (28), team (25), country (17), community (14), storm (12), church (11), company (9), audience (9), light (9), neighbourhood (8), congregation (8), crew (8), intelligence (7), cast (6), author (6)

(7) a. They all waited and had more drinks while the crowd gathered.
   b. They begin to walk toward the main house, where the family gathers for meals.
   c. On Sundays, the congregation gathered in a meeting room [...].
   d. The darkness gathered over Adam’s corner of the hall, spiraling around him like smoke.

Almost all of the nouns in (6) are either group nouns (family, crowd, group, world, team, country, community, church, company, audience, neighbourhood, congregation, crew, cast), or mass nouns (information, evidence, light, intelligence). The mass nouns in (6) are all inanimate and frequently involve cases where the verb is a participle heading a reduced relative clause (e.g., The information gathered from this survey is illuminating in many ways), which means that the noun represents the object of transitive gather. This leaves just two singular nouns in the top 20 that are neither group nouns nor mass nouns, namely storm and author. All the occurrences of author in this template are cases where it is the subject of transitive gather (as in, the author gathered data for his argument), and the same is true for the other non-group count nouns that occur below the top 20 in the frequency ranking (e.g., woman, teacher, boy, and survey). Storm is a very interesting exception of a different kind. It is a count noun which refers to an entity consisting of multiple “parts” (say, storm clouds) that can move independently of each other and therefore “gather” in one location. A similar case involves the count noun dress, found in the example leaving the dress gathered at her waist. Here it is really the fabric of the dress that was “gathered”.

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3These numbers include cases where gathering is used as the second member in a noun-noun compound, such as the family gathering. But this is only possible or likely for some of the nouns in (6), and even for those, such cases are a minority (of the 80 occurrences with family, 21 involve instances of the family gathering). And more importantly, in the compound cases the left-hand member of the compound represents the theme of gathering, and as such the constraint that it must be a group or mass nouns probably applies to it as well (although there may some cases such as the student gathering, where student could be regarded as number neutral).
For object noun phrases immediately following *gather*, the situation is very similar. The nouns occurring most frequently in the template “*GATHER the NN1*” are overwhelmingly mass nouns (*information, courage, evidence, strength, news, dough, fabric, material, wood, money, intelligence, light, hair, energy, equipment, etc.*) or group nouns (*family, group, team*). Cases where count nouns appear in this template are much less common (only one occurs in the top 20), and involve either the idiomatic expression *gather into one’s arms*, which can take a non-collective object (e.g., *Summer [...] stooped to gather the dog up into her arms*) or spurious cases where *every NN1* is the subject of a clausal complement (e.g., *I gathered the dog was...*) or a possessive (e.g., *and gathered the dog’s skin into my good hand*).

The upshot is that we have strong evidence from corpus data in support of the hypothesis that *gather* is collective, for its subject argument when intransitive and for its object when transitive. This may not be surprising, but it is good to see the intuitions reported in the theoretical literature confirmed, because this property of *gather* is crucial if we want to use it as a diagnostic for the exceptional behaviour of PUQs, which is our next step.

### 4 PUQs as subject or object of *gather*

If PUQs can indeed be the subject of collective predicates, we should find that they appear more frequently as the subject of *gather* than full noun phrases of the form *every N*. This is confirmed by the data from COCA. The second column in Table 1 gives the total number of occurrences of *everyone, everybody, and everything* as well as *every NOUN*. (*NOUN* is the COCA tag for a common noun.) This is our baseline for comparing how often these expressions co-occur with *gather*. In the third column of Table 1, we see the number of occurrences of the noun phrases *everyone, everybody, everything and every NOUN* when immediately followed by a form of the lemma *GATHER*. It is obvious that *everyone* is much more likely to occur in this position than *every NOUN* is, especially since overall (as the second column shows) *every NOUN* is about twice as frequent as *everyone*. Moreover, inspection of the four instances of the template *every NOUN GATHER* in COCA reveals that in none of them is *every NOUN* actually the subject of the verb.\(^6\) *Everybody* also sometimes occurs as the subject of *gather*, but I have no explanation for why it does so less frequently than *everyone*. Perhaps this is a collocational effect.\(^7\) We thus have clear evidence that *everyone* (and to a lesser extent *everybody*) can happily occur as the subject of a collective predicate, in contrast to *every NOUN*. (8) gives some of the examples from COCA.

<table>
<thead>
<tr>
<th></th>
<th>total occurrences</th>
<th>before <em>GATHER</em></th>
<th>after <em>GATHER</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>everyone</em></td>
<td>101,378</td>
<td>101</td>
<td>22</td>
</tr>
<tr>
<td><em>everybody</em></td>
<td>68,216</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td><em>everything</em></td>
<td>138,989</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td><em>every NOUN</em></td>
<td>208,699</td>
<td>4</td>
<td>48</td>
</tr>
</tbody>
</table>

\(^6\) In two cases it is the object of a reduced relative and in one it is part of a larger subject phrase headed by a plural noun: *Presidents, kings and ministers from every continent gathered here today to salute the United Nations on its 50th birthday*; the fourth case is also spurious since it involves the noun phrase *every neighbourhood gathering*.

\(^7\) Only one example was found of the string *everything GATHER*. Unsurprisingly, given that the subject of *gather* is usually human, this case is a reduced relative clause where *everything* is the object argument of *gather*.
a. Everyone gathered in Denver on Memorial Day weekend.
b. On Easter morning, everyone gathered for Krispy Kreme donuts and testimony.
c. The night Adam came for Jacob, he found everyone gathered in the kitchen.
d. Everybody gathered in the Great Hall to welcome him.
e. Everyone gathers around as Laroche begins to talk.

Let’s also take a look at the object of *gather* (see the fourth column in Table 1). At first blush, the number of occurrences of *every* NOUN immediately following *GATHER* seems surprisingly large considering that *gather* is collective in its object argument. However, the majority of these 48 cases are spurious ones, in which the noun is either a calendric unit (such as *day*, *morning*, etc.) or a measure noun (such as *ounce*, *bit*, *piece*, or *shred*). In the former cases, *every* NOUN is a modifier rather than a direct object, and in the latter the *NOUN* is part of a larger object noun phrase headed by a mass noun (e.g., *She gathered every ounce of strength*). This leaves only ten genuine instances in COCA where *gather* is followed by a direct object consisting of *every* plus a count noun. A few of these are given in (9):

(9) a. He gathered every skeleton in the place.

b. [...] fearing suddenly that its sharp cars might gather every word they spoke.

c. You have to gather every story and understand them as representations.

This means that for objects the special behaviour of PUQs is less pronounced than for subjects. Nevertheless, when we compare the numbers in the fourth column of Table 1 to the second column, we still see that *everyone* and *everything* occur more frequently as the object of *GATHER* than would be expected: although overall *every* NOUN occurs twice as often in COCA as *everyone*, and about 50% more often than *everything*, as the object of *GATHER*, both *everyone* and *everything* are found about twice as often as *every* NOUN (22 and 21 vs. 10). Some instances found in COCA of *everyone* and *everything* occurring as the object of *gather* are shown in (10):

(10) a. We hope you’ll gather everyone you know and join around this morning [...].

b. As commanded, Trent and the other men gathered everything Abel Wilcox had touched.

c. Father gathered everyone around him into a little knot.

5 Theoretical implications

Since PUQs can be the argument of a collective predicate like *gather*, they cannot be GQs of type \(<e,t>,t>\). If they were, they would have to vary over atomic entities (individual people in the case of *everyone* or *everybody*, or inanimate objects in the case of *everything*), and collective predicates by definition are predicates which cannot be true of non-group atoms. But the fact that PUQs pattern with definite noun phrases headed by group nouns (such as *the team*) gives us a clue to their true semantics: they must refer to groups. (Perhaps PUQs are actually *ambiguous* between a GQ-reading and a group-reading, but I will set that possibility aside to focus on the latter interpretation.) However, unlike group nouns, PUQs have no descriptive content (other than being human or inanimate). They just pick out some group that is salient in the context, and in that respect, they act like pronouns such as *they* and *it*.

But just saying that PUQs refer to a contextually salient group is not enough to fully capture their semantics. They are also ‘universal’ in some sense. For instance, if we say *Everyone gathered in the hallway*, referring to a particular group of students, we are not just predicating something of the group as a whole, but we are also implying that *each member* of the group took
part in this gathering event. Dowty (1987) characterized this kind of implication in terms of what he called DISTRIBUTIVE SUBENTAILMENTS. Although collective predicates primarily express a property that applies to a non-atomic entity or group as a whole, they often have entailments that apply to its individual members. For instance, if the predicate gather in the hallway is true of a group of students, this entails that individual students ended up in a location in the hallway close to the other members of the group. What Dowty pointed out is that adding the pre-determiner all to a plural definite noun phrase has the maximizing effect of ensuring that the distributive subentailments of a collective predicate apply to every member of the non-atomic entity denoted by the noun phrase. (See also Brisson 2003 for an alternative account of this maximizing effect in terms of ‘covers’ and event semantics.) Thus, whereas (11a) allows for exceptions (there may have been some students who stayed outside), the addition of all in (11b) implies that every student took part in the gathering.

(11) a. The students gathered in the hallway.
   b. All the students gathered in the hallway.
   c. The whole team gathered in the hallway.

I propose that something similar is going on with PUQs that are the argument of a collective predicate: they imply that the distributive subentailments of the predicate are true of each member of the group they refer to. If this idea is on the right track, PUQs have a lot in common semantically with definite plural noun phrases modified by all (such as all the students), or with St’át’imcets noun phrases with tákəm ‘all’, which Henry has analyzed along the lines of Brisson (2003) as referential expressions with maximizing implications (Davis 2010, 2013). But since PUQs are singular, their closest analogues are probably singular definite group noun phrases of the form the whole N, such as the whole team in (11c). This also makes sense in light of the fact that the equivalent of everyone in French is tout le monde (lit. ‘the whole world’).

PUQs are therefore a class of noun phrases with a unique combination of properties: they pick out a contextually salient entity in the way that pronouns do, but that entity must be a group (similarly to group-denoting definite nouns phrases such as the team), and in addition to this (just like noun phrases with all or whole) they carry the maximizing implication that any distributive subentailments of the predicate are true of each member of the group.

6 PUQs and reciprocals

The unique nature of PUQs also manifests itself with another type of collective predicates, namely those involving reciprocals. Although normally reciprocal pronouns like each other require plural antecedents, many examples can be found in COCA in which everyone and everybody are the subject of a verb followed by each other, something which is extremely rare for every NOUN. A few of these examples are given in (12). Table 2 provides the relevant numbers.\(^8\)

(12) a. People fondly remember a time [...] when everyone knew each other.
   b. Businesses don’t work by everyone hugging each other.
   c. When you lose, everybody hates each other.

\(^8\)Among the three cases in Table 2 with every NOUN, only one involves the subject of the verb: Every kid sees each other like every other kid. In the other two cases, every NOUN is a modifier and the noun is a calendric unit.
Table 2: PUQs and every NOUN immediately preceding VERB each other in COCA

<table>
<thead>
<tr>
<th>subject</th>
<th># of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>everyone VERB each other</td>
<td>25</td>
</tr>
<tr>
<td>everybody VERB each other</td>
<td>31</td>
</tr>
<tr>
<td>every NOUN VERB each other</td>
<td>3</td>
</tr>
</tbody>
</table>

We may view these data as additional evidence showing that PUQs are not GQs. However, there also is a bit of a mystery here. If PUQs refer to groups, we would expect them to behave similarly to singular-group-denoting noun phrases like the team; however, such noun phrases do not seem to readily be able to act as the antecedent of reciprocals: sentences like The team loves each other seem to be marginal at best (but see (13c,d) below!). This is confirmed by a search in COCA for occurrences of each other immediately preceded by a verb inflected with the suffix -s (3rd person singular present tense), for which COCA uses the tag VVZ. As Table 3 shows, in a clear majority of cases (40 out of 55), the subject is a PUQ (everyone, everybody) or one of their negative counterparts (no one, nobody). (13) gives some of the examples found in COCA.10

(13) a. Everyone warmly greets each other.
    b. I mean, nobody knows each other in this damn place.
    c. We are a pretty good team, one that complements each other.
    d. [...] where a group of artists shares studio space, sends each other customers, and [...].

Table 3: Subjects of VVZ each other in COCA

<table>
<thead>
<tr>
<th>subject</th>
<th># of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>everyone / everybody</td>
<td>35</td>
</tr>
<tr>
<td>no one / nobody</td>
<td>5</td>
</tr>
<tr>
<td>NP with quantificational determi</td>
<td>3</td>
</tr>
<tr>
<td>other</td>
<td>12</td>
</tr>
<tr>
<td>unknown or spurious</td>
<td>9</td>
</tr>
</tbody>
</table>

While not numerous in an absolute sense, the cases with PUQs in Table 3 are far more frequent than those in which the subject is a full noun phrase with a quantificational determiner; the only three instances of the latter type are none of the children, every kid, and each of you. The “other” category in this table for the most part involves the pronoun it (four cases) or noun phrases headed by a group noun (e.g., a pretty good team, a group of artists, the network of friends), but these are also quite rare as antecedents of each other compared to PUQs; cf. (13c,d). It should be noted, however, that the large majority of the cases with PUQs in Table 3 involve just a handful of different verbs, mainly knows (which by itself accounts for a full 28 cases) and a few others such as helps and hates (each occurring 4 times). Perhaps what we are dealing with here should be viewed as a collocational effect. However that may be, the ability of PUQs to bind reciprocals makes them quite unique among singular noun phrases.

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9This number excludes the “unknown or spurious” category in Table 3 comprised of instances where each other is not a reciprocal but a sequence of the determiner each followed by the adjective other, as well as cases where the subject is too far away from the verb to be included in the context that is visible in a COCA search, or actually not the binder of the reciprocal (e.g., once you learn what makes each other happy, the sex can be more passionate and intense.)

10The cases in Table 3 only partly overlap with those in Table 2, because the tag VERB includes other verb forms besides the 3rd person singular present tense, and for the data in Table 3 the subject need not be adjacent to the verb.
7 Conclusion and outlook

The behaviour of PUQs with collective predicates suggests that they are similar to English or St’át’imcets definite noun phrases modified by ‘all’ as analyzed by Dowty (1987), Brisson (2003) and Davis (2010, 2013). However, this analogy also raises some interesting further questions. One of Henry’s main arguments for his analysis is based on the CUMULATIVE interpretation of the St’át’imcets quantifiers. But PUQs seem to resist this kind of reading. I very much doubt that (14a) can have a cumulative interpretation (i.e., ‘the total number of papers written by members of the relevant group is five’), although perhaps such a reading is possible if we add together as in (14b). (Interestingly, the facts seem to be similar for all the students.)

(14)  
a. Everyone wrote five papers.  
b. Everyone together wrote (a total of) five papers.

A solution to this problem might start with Henry’s observation that the maximizing implication of St’át’imcets tákəm is cancellable and weaker than that of English all (Davis 2013). If the maximizing implication of everyone is what forces the distributive reading of (14a) (‘each group member wrote five papers’), then that could go some way towards explaining this difference between the two languages. All the more reason for doing more cross-linguistic research!

References


Morgan, J.L. (1985). Some problems of determination in English number agreement. Proceedings of ESCOL 1 (pp. 69-78). Ohio State University, Columbus.
