Romanian co-distributive marker câte and bare plurals

1. Introduction: Romanian indefinites introduced by $c\hat{a}te$ belong to the class of distributive numerals (DistNum henceforth), on a par with those found in many other languages (Tlingit [4], Telugu [1], Korean a.o. [9], Kaqchikel [8]). We will avoid the label 'dependent indefinites' used by [6], [7], [2], for reasons to be explained shortly. This talk takes into account the difference between 'DistNum $c\hat{a}te$ ' and 'indefinite $c\hat{a}te$ ', which is needed for examples of the type in (1)a, in which only the singular *un* (which is ambiguous between the singular indefinite "a" and the cardinal "one" in Romanian), but not any other cardinal is felicitous. We take this as evidence that *câte un profesor* in (1) is not DistNum, but the 'indefinite *câte*':

(1) a. Fiecare student admira câte un/??doi/??trei profesor(i).

every student admires CÂTE a two three professor(s)

'Every student admires a/ two/ three professor(s).'

The generalization is that verbs such as *admire, hate, love*, etc. do not legitimate 'DistNum *câte*', but only 'indefinite *câte*'. Moreover, the contrast between the singular-indefinite version of (1)a and (1)b shows that 'indefinite *câte*' is sensitive to the same restrictions as a plain indefinite with a dependent reading – the dependence is most naturally established if the subject is universally quantified (as in (1)a), as opposed to a definite plural (see (1)b):

(1) b. ???Studenții respectă câte un profesor-

students._{DEF} respect CÂTE a professor

The main aim of the paper will be to propose an analysis of 'DistNum $c\hat{a}te$ ' that keeps it clearly distinct from dependent ($c\hat{a}te$ -marked or unmarked) indefinites. Our core proposal will be that 'DistNum $c\hat{a}te$ ' does not contribute an individual variable to the LF representation, but rather a generalized existential quantifier over amounts. As different from recent proposals ([8] a.o.), our account will not rely on post-suppositions and will reject the hypothesis that 'DistNum $c\hat{a}te$ ' is to be analyzed in terms of evaluation plurality.

2. Previous analyses – DistNum indefinites as variables over entities: The various analyses of DistNum have one assumption in common: these indefinites (including reduplicated numerals [1], [4], [8]) contribute individual-level variables and some kind of direct or indirect (via an event variable) mechanism that ensures that these variables are assigned multiple values. For instance, [8], working in Dynamic Plural Logic, assumes a postsupposition which requires that, globally, the cardinality of the evaluation-plurality introduced by a DistNum is greater than the Num(eral) modified by the co-distributivity marker). On the other hand, [4] assumes a more indirect strategy (via partition of events, which yields the desired "multiplication" of the individual variable introduced by the DistNum).

3. Proposal: $C\hat{a}te$ + cardinal indefinites do not introduce an individual variable, they denote existential quantifiers over amounts, on a par with bare plurals (BPs) under [5]'s's analysis. To illustrate, the nominal phrase *câte doi copii* ("câte two children") is semantically interpreted as "children in groups of two", namely as a bare plural whose domain is assigned a cover such that in each cell of the cover there are two children. The role of *câte* is merely to signal distributivity of the amount variable introduced by the BP (that can be obtained by severing off the *câte-Num* part, possibly by an LF-raising rule comparable to *combien*-raising in French, e.g., *Combien as-tu lu de livres?* 'How many have-you read books'). This analysis is supported by the examples in (1), which show that verbs such as *hate, admire, respect,* which disallow BP objects in Romance

languages, also disallow 'DistNum $c\hat{a}te$ ' (see [5] and references therein). Our analysis will be shown to explain the contrast below:

(2) a.	Tot mieunau trei pisici.		
	TOT meowed three cats		
	'Three cats kept meowing.'		
b.	Tot mieunau pisici.	c.	Tot mieunau câte trei pisici.
	TOT meowed cats		TOT meowed CÂTE three cats
	'Cats kept meowing.'		'Cats in threes kept meowing.'
	a. b.	 a. Tot mieunau trei pisici. <i>TOT meowed three cats</i> 'Three cats kept meowing.' b. Tot mieunau pisici. <i>TOT meowed cats</i> 'Cats kept meowing.' 	 a. Tot mieunau trei pisici. <i>TOT meowed three cats</i> 'Three cats kept meowing.' b. Tot mieunau pisici. c. <i>TOT meowed cats</i> 'Cats kept meowing.'

Because *tot* is not a quantifier (instead it signals multiple time-indices and has been sometimes attribute a 'pluractional operator' status) – it cannot yield an evaluation plurality for the plain indefinite in (a). And because plain indefinites must introduce individual variables, the same three cats repeatedly meow. On the other hand, *tot* allows a 'more-than-three-cats' reading of *câte trei* '*CÂTE three*' in (c) because the BP associated with the 'DistNum- *câte*' supplies an overall domain plurality and the *câte* -marked numeral specifies the cardinality of the cells of an associated cover; the repeated events of meowing can now be interpreted as involving possibly different groups of three cats. The difference between (b) and (c) is that the cardinality of each cell is left unspecified in the former case.

(3) E ?*(câte) un șoricel/ sunt ?*(câte) doi șoricei în trei colțuri ale camerei.

is CÂTE a mouse are CÂTE two mice in three corners of room. POSS

'There is a mouse/ there are two mice in three corners of the room.'

Similarly, (3) shows that plural spatial Localizers do not legitimate a dependent reading of a plain indefinite, hence the low acceptability of the *câte*-less version of the example (due to pragmatic oddity), though they do serve as adequate legitimators (distributive keys in the terminology of [1]) for *câte*-marked constituents. As above, the bare plural supplies the domain plurality, which is distributed in space in cells containing two mice each.

Leaving technical matters aside, the treatment proposed here differs from [8] in one crucial respect: 'DistNum *câte*' does not contribute an evaluation plurality, but a mere <u>domain plurality</u> with a constraint regarding the way in which the plurality is partitioned. It also differs from all the other accounts in terms of the semantic status of the DistNum phrase. The present account is supported by the availability of examples such as(4), which strongly suggest that the amount referred to by the direct object is evaluated as a whole, therefore a domain plurality.

(4) Francezii au in medie câte 2,5 copii.

French.*DEF have in average CÂTE 2,5 children* 'The French have on average 2,5 children.'

The French have on average 2,5 children.

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