The Cognitive Basis of the Mass-Count Distinction: Evidence from Bare Nouns

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1 Introduction

The naive view of the linguistic mass-count distinction has been that it reflects a cognitive distinction between homogeneous matter which lacks units for counting, and discrete entities which form atomic units and thus can be counted. The naive view has often been questioned in the literature, most recently when Gillon (1992) and Chierchia (1998) discussed mass nouns which denote discrete entities—such as jewelry, clothing, furniture, mail. To consider one example, a chair is an atomic unit of furniture, since part of a chair is not furniture. Thus furniture is not homogeneous; nevertheless, it is a mass noun. Conversely, Rothstein (2010) discussed the fact, first pointed out by Mittwoch (1988), that there are count nouns which denote homogeneous entities—such as fence, line, cloud, bouquet. Two clouds which come together form a cloud, demonstrating the homogeneity of the count noun cloud. As a result of the discrepancy between the mass-count linguistic contrast and the homogeneous-atomic cognitive contrast, the distinction between mass and count nouns emerges in the work of these scholars as partly arbitrary and language specific.

Indeed Chierchia (1998) constructs a theory of the mass-count distinction which views it as a linguistic distinction, only partly cognitively based. In a sophisticated twist, it actually presents those mass nouns with atomic structure such as jewelry, clothing, furniture, mail, to be prototypical mass nouns. The idea is that the denotation of all mass nouns contains discrete units, for example particular quantities of water in the case of the mass noun water, but these units are not linguistically accessible. Later, Chierchia (2010) abandons this view. One reason is the observation due to Roger Schwarzschild whereby units of mass

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nouns are linguistically accessible after all, since one can for example predi-
cate size of them in the phrase *the big furniture*, where *big* is the size of units of
furniture. Chierchia (2010) readopts the view whereby the mass-count classifi-
cation reflects a cognitive distinction between types of units. Mass nouns are
vague nouns with *unstable* units: within the same context (or actually within
precisifications of the context), entities in the denotation of a mass noun might
at the same time be both a unit and an aggregate of units. Only mass nouns
which actually have *stable* units, like *furniture*, now treated as *fake mass nouns*,
reflect an arbitrary linguistic decision.

Our aim in this paper is to tighten the connection between the mass-count
distinction and its cognitive basis. In section 2 we discuss Karitiana, a language
that does not have nominal pluralization and does not have any formal mass-
count distinction in the structure of nouns or noun phrases, yet semantically
distinguishes nouns which can be counted from nouns which cannot. In sec-
tion 3, we will bring data from Modern Hebrew, a language which has plural
nominal morphology, but where, like in Karitiana, countability is not reflected
by pluralization, but rather by a semantic identification of *stable units.* Follow-
ing Chierchia (2010), we view mass nouns as denoting entities with *unstable units*: within the same context, an entity is at the same time both a unit and
an aggregate of units. Count nouns on the other hand have stable units in a
given context. We discuss a new example of mass nouns with atomic structure,
found in Modern Hebrew and hitherto undiscussed in the literature. The anal-
ysis of this new example will substantiate the (2010) model, as it demonstrates
that even fake mass nouns fit non-arbitrarily into the mass-count classification.
Thus we believe that the claim that the mass-count distinction reflects a cog-
nitive distinction can be extended to its limit and include fake mass nouns.2

In the system of Chierchia (2010) there is no need to assume, as he does, that
fake mass nouns reflect the arbitrary linguistic decision to ignore their exist-
ing atomic structure. Rather, we will show a principled reason for their mass
nature.

(A) We claim regarding such mass nouns as *furniture* that they are bona-fide
mass terms, since what counts as a unit of furniture in a given context is
not stable; it could be the whole sitting room set or just one of its parts.
Accordingly, it may be felicitous in a given context to utter *This living room
set is so much furniture!*

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2 A different type of approach for the substantiation of the same claim is found in Grimm and
Levin (2011).