On the grammatical mass/count distinction in Hebrew child language – Language change?

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In this paper we report the results of an experiment exploring the mass/count distinction in Hebrew-speaking 4;4-17;11 year-olds and adults. The acquisition pattern is surprising, with children showing no mass/count distinction before age 7;9. Convergence was later reached, but only to disappear again for teenagers. We argue that this data reflects the growing unimportance of the grammatical mass/count distinction in Hebrew.

Using Barner & Snedeker’s (2005) quantity-judgment task we tested 44 typically developing monolingual Hebrew-speaking children in Israel of the following age groups: 4;0-6;1 (N=9), 7;9-9;10 (N=4), 10;2-12;0 (N=11), 13;6-14;6 (N=10), 17;0-17;11 (N=10). Six native Hebrew-speaking adults served as controls. We examined five different noun types, corresponding to five experimental conditions: substance-mass (kemax ‘flour’), count (efronot ‘pencils’), flexible-mass (niyar ‘paper’), flexible-count (niyarot ‘papers’), and object-mass (rihot ‘furniture’), with 4 items per condition and 12 filler-items. Test items are illustrated in (1).

Our results, presented in (2), show that adults categorically base their judgments on number in the count condition as well as in the flexible-count and the object-mass conditions, choosing the character with the most individual items at 100%. Conversely, in the substance-mass and the flexible-mass conditions, speakers clearly judge the character with the overall more volume to have "more".

In contrast, all the children were adultlike only in the count and object-mass conditions, with judgments by number at nearly 100%. On the two mass conditions, the youngest children always base their judgments on number, regardless of NP-type. The distinction starts to emerge for the 7;9-10;3 year olds and reaches adultlike levels in the mass condition for the third age-group (10;7-12;0), only to become less adultlike again for the two teenage groups. The flexible-mass condition never reaches adultlike levels. Another set of surprising results comes from the flexible-count condition, for which (adultlike) judgment based on number decreases with age.

To explain the children’s results, we propose that Hebrew is losing its grammatical mass/count distinction. We argue that this change is driven by a) the scarcity of different syntactic structures encoding the mass/count distinction, and b) the influence of Russian. While English morphosyntax marks the mass/count distinction by a variety of structures, including pluralization; indefinite articles; modification by much/little/less (mass nouns) vs. many/few/fewer (count nouns), etc., the only prominent structure distinguishing mass/count in Hebrew is pluralization. Additionally, it has become increasingly common for Hebrew mass nouns to be used with count syntax and vice versa, for example lexamim ‘breads’, rexavim ‘vehicles’, kamut anashim/hazmanot/kisa’ot ‘amount of people/orders/chairs’. We suggest that this increasing flexibility has arisen under the influence of Russian, a major immigrant language in Israel since the 1990s. Russian does not display a clear grammatical mass/count distinction: there are no articles, mass nouns can be pluralized, they can take numerals, and they can take many quantifiers that count nouns can take as well (Kimmelman, p.c.). Thus, we conclude that Hebrew is losing its sole mass/count distinguishing mechanism pluralization under the influence of Russian L2 speakers of Hebrew. This loss is reflected in the acquisition pattern of the monolingual Hebrew-speaking children.
(1) Experimental conditions – Illustrations

a) Substance-mass condition: Who has more flour?

b) Count condition: Who has more pencils?

c) Flexible mass condition: Who has more paper?

d) Flexible count condition: Who has more papers?

e) Object mass condition: Who has more furniture?

(2) Results: % judgments based on number

References