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The role of *gender* and *count* features in the acquisition of *het* as a pronoun: similarities and differences with its acquisition as a determiner.

AAFKE HULK & LEONIE CORNIPS

1. Introduction

It is well known from the literature that Dutch monolingual children are slow in the acquisition of the gender on definite determiners, that is: until they are approximately six years of age, they mainly use the common definite determiner *de*, also where neuter *het* is required. This overgeneralization goes in one direction only, Dutch children do not use neuter *het* with common nouns (Van der Velde 2004, Blom et al. 2008). In this respect, Dutch children are very different from children acquiring grammatical gender in other languages: for example, Romance children acquire the gender of determiners in a quick and almost error free way and are target like around age 3 (see Hulk & van der Linden (in press) and references cited there); the same holds for German children who initially have some problems with neuter gender, but they are target like around age 4 (Mills 1986). Several explanations have been proposed in the literature for this delay in child Dutch. First of all, there is not much evidence for grammatical gender on determiners in the Dutch input to children. Gender in Dutch is visible only on singular definite determiners (and demonstratives) where common nouns take *de* and neuter nouns *het*, but not on the plural determiner: all nouns take *de*, and not on the indefinite determiner which is *een* for all (count) nouns. Secondly, there are hardly any cues for gender on the noun itself, with exception of the diminutive suffix which is left outside the scope of this paper. Finally, there is a difference in frequency between common nouns and neuter nouns: according to a dictionary based estimate by Van Berkum (1996) 75% of Dutch nouns are common, 25% are neuter.

There is, however, another difference between *de* and *het* which may be important in this respect, and that is: *het* can also be a (personal) pronoun, as illustrated in the following example:

- (1) De kinderen lopen op *het* ijs. Is *het* wel stevig genoeg?
The children walk on the ice. Is it solid enough?

The question arises how Dutch children acquire the (gender morphology of the) pronoun *het* and whether its acquisition is comparable to that of the determiner *het*. In particular, we would like to know whether for personal pronouns, too, there is overgeneralization in one direction and whether *het* as a pronoun comes in slowly and late, just as *het* as a determiner. As yet, this is still a rather un-explored area in the acquisition literature, where pronouns are mainly studied in relation to their referential or binding properties and not with respect to their (gender)morphology.

The only authors who have considered the early acquisition of Dutch pronouns are Van Kampen (2004) and Roozendaal (2008) who compare the emergence of Dutch determiners and personal pronouns in spontaneous speech and claim that both type of elements emerge around the same age: between age 2 and 3. However, these authors do not make a distinction within the class of pronouns/determiners and do not consider *het* separately. Moreover, they do not specifically address the question of gender morphology on determiners or pronouns.

In the present paper, we make a start with answering these questions, in presenting a small pilot experiment eliciting the (object) pronouns *het* and *hem*. We will show that the acquisition of *het* as a pronoun appears to involve other features and to develop differently from what we know about the acquisition of *het* as a determiner.

Let us first take a look at personal pronouns in Dutch adult language.

2. Dutch personal pronouns

Dutch personal pronouns are generally analyzed as occupying the same positions as nouns, although this is not (always) the case for the weak forms of these pronouns, which are left outside the scope of this paper. Dutch personal pronouns are assumed to be marked for person, gender, number and case. *Het* 'it' is traditionally analyzed as a neuter, third person singular pronoun that can appear both in subject and direct object position. It forms a paradigm with the other third person singular pronouns *hij/hem* 'he/him' and *zij/haar* 'she/her', as shown in figure 2-1:

Within this paradigm, the pronoun marked with feminine grammatical gender has a special position since it is nowadays only used to refer to female persons (or animals): *zij* in subject position and *haar* in

Figure 2-1 **Dutch third person singular pronouns**

noun	masculine	feminine	neuter
subject	<i>hij</i> (<i>he</i>)	<i>zij</i> (<i>she</i>)	<i>het</i> (<i>it</i>)
direct object	<i>hem</i> (<i>him</i>)	<i>haar</i> (<i>her</i>)	<i>het</i> (<i>it</i>)

object position. Contrary to *zij/haar*, the pronoun *hij/hem* is not exclusively used to refer to masculine persons or animals. To refer to non-female animate and in-animate nouns, either *hij* (as subject) /*hem* (as object) or *het*, which is not case marked, can be used.

- (3) Waar is mama? ***Zij*** is in de keuken – ik zie ***haar*** daar staan.
Where is mommy? She is in the kitchen, I see her standing there.
- (4) Waar heeft papa *de* auto gelaten? ***Hij*** heeft ***hem*** om de hoek geparkeerd
Where has daddy the car left? He has him around the corner parked
- (5) Heb je *het* water gevoeld? ***Het*** is erg koud. Ik vind ***het*** niet lekker.
Did you feel the water NEUTER. It is very cold. I do not like it.

Traditionally the distinction between *het* and *hij/hem* is based on the grammatical gender of the noun to which they refer: *het* refers to neuter nouns and *hij* to common nouns. However, recent research on a very large data base of today spoken Dutch (Audring 2006, 2009) has shown that when *het* refers to a noun, it can do so not only to nouns having neuter gender, but also to common nouns provided they are [-count], as shown in the following examples:

- (6) Er is gisteren veel *sneeuw* gevallen, maar ***het*** is niet blijven liggen.
Yesterday there fell a lot of snow COMMON, but it did not stay.

Audring shows that in today spoken Dutch all mass nouns - both neuter and common ones - can be resumed by the pronoun *het*: adults show a strong tendency to use the pronoun *het* to refer to mass nouns, even if these nouns have common gender and take *de* as definite determiner. From

this, it appears that the choice for the pronoun *het* is not (only) based on a grammatical property, [neuter gender], but (predominantly) on a semantic property, [-count], of the noun to which the pronoun refers. According to Audring (2009) this tendency is the strongest in speakers younger than 20ⁱ. Similarly, the pronoun *hij/hem* is increasingly used to refer not only to common nouns, but also to neuter nouns which are [+count], as shown in the following example where *hem* refers to the neuter noun *boek*:

- (7) Ik heb vorige week een heel leuk *boek* gekocht. Ik wil
hem graag aan je lenen.
 I have last week a very nice book [neuter,+count]
 bought. I want *him* to you lend

In other words, in today spoken Dutch the selection of third person singular pronouns in direct object position is predominantly made on the basis of the [\pm count] feature of the noun to which the pronouns refers, as represented in the following figure:

Figure 2-2 **The selection of Dutch object pronouns according to Audring (2006)**

noun	common	neuter
+count	<i>hem(him)</i>	<i>hem</i>
-count	<i>het (it)</i>	<i>het</i>

It seems plausible to assume that this variety of spoken Dutch constitutes the main input to monolingual Dutch children at least before age 6, when they start learning how to readⁱⁱ. This slightly complicates our question concerning the acquisition of *het* as a pronoun compared to that of *het* as a determiner. Since, with respect to the latter, the neuter gender feature seems to be the one that makes *het* difficult to acquire. Further, the role of the feature [-count] has not been claimed to play a role (but see Hulk et al. forthcoming).

As for *het* as a pronoun, we would now like to know whether young Dutch children in their use of *het* as a personal pronoun use indeed the property [-count] of the referent significantly more than the feature [neuter gender]. Moreover we are interested to find out whether there is evidence that such feature is difficult or easy to acquire. Therefore, we conducted a small elicited production experiment and investigated the error pattern and (non) target like behavior in the use of *het* as a pronoun by young monolingual Dutch children.

3.0. The acquisition of *het* as a pronoun.

In order to find out whether the semantic property [\pm count] plays a role in the monolingual acquisition of pronouns, we have conducted a pilot study on the acquisition of Dutch third person singular pronouns by young monolingual children (Beltman 2009).

The question we would like to be answered is the following: do these children choose to produce the pronoun *het* on the basis of the grammatical gender of the noun to which the pronoun refers or on the basis of the semantic property [-count]? In other words, which of the two properties of the noun to which *het* refers plays a significant role, that is; its grammatical gender or its [-count] characteristics?

3.1. Methodology

We have designed a elicited production task, involving picture descriptions by sentence completion. The child was shown pictures depicting actions with a [\pm count] object and the experimenter asked her a question about this action. The child has to use an object pronoun to refer to this item in her answer. The experimenter already started the answer with the subject to make sure that a complete sentence and not just a verb is elicited, and the child had to complete the sentence, as shown in the following example. In this example, the child is shown a picture on which Donald Duck is swiping away rubbish:

(8)

Experimenter: Wat doet Donald Duck met *de* rommel [-count, common]? Hij

What is Donald Duck doing with the rubbish? He ...

Expected answer: ... *veegt het/hem* op
swipes it/him away

participants

25 monolingual Dutch children were tested, age 4 – 6. We divided them in three age groups: (i) 4;4-4;11 (n=11); (ii) 5;0-5;10 (n=9) (iii) 6;1-6;6 (n=5)

test material

As test items, the following type of nouns were used:

[count, neuter, singular (n=6)]; [count, common, singular (n=6)], [mass, neuter (n=8)] and [mass, common (n=6)].

3.2. Results

First, we will divide the test items according to gender and examine whether this gender distinction plays a significant role in the choice for *het* versus *hem*. If the children predominantly use the gender property of the referent for their choice of the pronoun, we expect them to use *het* significantly more often referring to neuter nouns than to common nouns, and to use *hem* significantly more often to refer to common nouns than to neuter nouns.

Table 3-1 **Results for the pronoun *hem* or *het*; antecedent is neuter or common.**

age	neuter			common		
	Hem	Het	Total	Hem	Het	total
4;4-4;11 n=11	38 40%	58 60%	96	38 37%	64 63%	102
5;0-5;10 n=9	31 36%	55 64%	86	30 38%	50 62%	80
6;1-6;6 n=5	17 44%	22 56%	39	17 46%	20 54%	37

Fisher's exact test indicates that these results are not significant: the grammatical gender of the noun to which the pronouns refers does not play a significant role in the choice of the pronoun by these children. This holds for all age groups. Interestingly, the children use as many *het* to refer to common nouns as to neuter nouns. This is very different from what has been found (in the literature and our own research) for the use of *het* as definite determiner, which is hardly ever used with common nouns. Similarly, we do not see an overuse of *hem* referring to neuter nouns, contrary to the massive overuse of *de* with neuter nouns. A striking difference between the two elements *het*!

Let us now examine the results for the [+count] and the [-count] nouns, as shown in the following table. If the children use this property of the referent noun for the choice of the pronoun, we expect them to use *het*

significantly more often with [-count] nouns than with [+count] nouns, and the other way around for *hem*.

Table 3-2 **Results for the pronoun selection hem or het; antecedent is [+/-count]**

age	-count			+count		
	Hem	Het	Total	Hem	Het	total
4;4-4;11 n=11	22 21%	85 79%	107	54 59%	37 41%	91
5;0-5;10 n=9	16 17%	77 83%	93	45 62%	28 38%	73
6;1-6;6 n=5	6 16%	32 84%	38	28 74%	10 26%	38

Here, Fisher's exact test shows that the property [\pm count] does play a significant role in the choice of the personal pronoun; this holds for all three age groups: $p < .0001$

Since Audring has shown that also adults in today spoken Dutch base their choice of the personal pronoun on the [\pm count] feature of the antecedent, we can say that already at age 4, these children behave target like. Here again, we see an important difference with the choice of the definite article which, according to the literature and our own work (regarding other Dutch children), is certainly not target like yet at age 4.

Summarizing, we can say these (pilot) results do show that the semantic feature [-count] and not the grammatical feature [neuter gender] plays a significant role in the use of *het* as a personal pronoun by these Dutch monolingual children, and this from age 4 onwards.

4. Discussion

These results allow us to positively answer the question raised above: do Dutch children use the property [-count] of the referent in their use of *het* as a personal pronoun?

What about the other question raised above: what are the differences and similarities between the acquisition of *het* as a pronoun and *het* as a definite determiner? First of all, there is a clear difference in that for pronouns we do not find the massive overgeneralization in one direction that was found for determiners, e.g. *de* was massively overgeneralized with neuter nouns, but the inverse did not occur. Here, we

found that *hem* is not used more than *het* and that *het* is used as much to refer to common nouns, as to neuter nouns. Since we also found that gender does not play a significant role in the selection of pronouns, whereas it plausibly does in the case of determiners, this difference may not come as a surprise. It is striking nevertheless.

Secondly, we found that these children already at age 4 behave like adults in their use of the feature [\pm count] for the selection of *het* and *hem*. This is certainly not the case of the use of the gender feature in the selection of *het* as a determiner. Tentatively, one could say that this suggests that, for Dutch children, the [\pm count] feature is easier to acquire than the grammatical gender feature. It is important to note in this respect that in Dutch the semantic [\pm count] feature also plays a role in the distinction between (Dutch) nouns that take the indefinite determiner *een*, and that can be pluralized, i.e. count nouns, and the ones that cannot, i.e. mass nouns. There plausibly is a lot of evidence in the input for this distinction. Moreover, there are some indications in the literature that Dutch children acquire plural formation at an early age (van Wijk 2007) and that they produce the indefinite determiner *een* only with [+count] nouns and not with [-count] nouns (Cornips et al forthcoming).

This also raises a third point, and that is: does this [\pm count] feature play a role in the children's selection of definite determiners? We know that this is not the case in adult language, but it could be that in a certain developmental stage, for example when the children already use this feature for other purposes, such as pronoun selection, or the use of *een* and pluralization, for a short time, they also use it in the selection of *het* as definite determiner. Elsewhere (Cornips et al to appear) we have shown that there is indeed some evidence for the role of the feature [-count] in the selection of *het* as a definite determiner, but only within the class of neuter nouns. In other words, Dutch children age 4-6 never (incorrectly) use *het* as a determiner with [common,-count] nouns such as *sneeuw* (the snow), as they do with the pronoun *het*, as shown above. However, they do use *het* more often/earlier with [neuter,-count] nouns such as *water* (water) than with [neuter, +count] nouns such as *boek* (book), where they continue to (incorrectly) use *de*. This shows that the semantic feature [-count] also plays a role in the selection of *het* as a definite determiner by Dutch children, but (probably) only in a certain developmental stage, and always in interaction with the grammatical [neuter gender] feature.

5. Conclusion

We started this paper by claiming that there is a difference between the Dutch definite determiners *de* and *het* that is overlooked in the literature: *het* is also a pronoun. The general question we raised is: is the acquisition of the pronoun *het* as difficult as the acquisition of *het* as determiner? The tentative answer to this question is : no, the acquisition of *het* as a pronoun seems to be easier, since the children tested in our pilot experiment showed an adult like behavior from age 4 onwards. However, the comparison between the two elements *het* is complicated by the observation that the features of *het* as a pronoun and *het* as a definite determiner, as used by young Dutch children and adults, appear to be different. According to Audring (2006, 2009) the use of *het* as a pronoun in today spoken Dutch is mainly based upon the semantic features [-count] of its referent, while these features do not play a role in the selection of *het* as a definite determiner by Dutch adults. The results of a pilot experiment eliciting pronouns shows that for Dutch children age 4-6 only the semantic property [+count] of the referent is significant in their choice between *het* and *hem*. This does not hold for the grammatical feature [gender]. These results are strikingly different from what is found for the acquisition of determiners in the literature, where overgeneralization is found in one direction only: *de* is used with neuter nouns and never the other way around by Dutch monolingual children age 4-6. In our pilot experiment, Dutch children from a similar age group, used *het* as a pronoun as much to refer to common nouns as to neuter nouns.

We briefly mentioned the early and swift acquisition of other Dutch phenomena involving the [+count] feature, such as plural formation and the use of the indefinite determiner *een* with [+count] nouns but not with [-count] nouns, which shows that these features are present in the children's grammars from early on. This may (partly) explain why the target like acquisition of *het* as a pronoun appears to be easier and earlier than the acquisition of *het* as a determiner: it crucially involves the semantic [+count] feature. Consequently, it is probably the grammatical (neuter) gender feature, for which there is again a lot less evidence in the Dutch input than for the [+count] feature, which makes the acquisition of *het* as a definite determiner more difficult than as a pronoun.

We did not have the space here to look at the acquisition of other features both elements *het* may have, such as grammatical number and definiteness. Also the relevance of these acquisition data for linguistic theory is an issue to be addressed in future research. In fact, our

experiment raises more questions . :Is the fact that *het* is also a pronoun, with apparently different features, a hindrance for its acquisition as determiner? Are semantic features in general acquired earlier than grammatical features? We hope to consider these and other questions in future research.

Notes

ⁱ Audring also shows that other features individuating the referent, such as [\pm animate], play a role in the selection of pronouns. We leave these outside the scope of this paper, but note that [-count] nouns are always [-animate] but [+count] nouns can be both [-animate] and [+animate].

ⁱⁱ Recently, de Vogelaer (2006) reported that Flemish children around age 8 choose personal pronouns according to the [\pm count] feature in a written task.

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