On the notion ‘determiner’

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Abstract

Following a common practice in generative grammar, HPSG treats the determiners as members of a separate functional part of speech (DET), just like the complementizers, the coordinating conjunctions, and (in some frameworks) the auxiliaries. The status of such functional parts of speech is a matter of debate and controversy. The auxiliaries, for instance, are commonly treated as members of a separate category (AUX or INFL) in many variants of generative grammar, including GB, MP and LFG, but in GPSG and HPSG, it is a matter of equally common practice to treat them as members of V and to reject the postulation of a separate functional category, see (Pullum and Wilson 1977) and (Gazdar, Pullum and Sag 1982). This text makes a similar case for the determiners; more specifically, I will argue that they are categorially heterogeneous, in the sense that some determiners are members of A, whereas others are members of N. The argumentation is mainly based on inflectional morphology and on morpho-syntactic agreement data. The consequences of the categorial heterogeneity are hard to reconcile with the specifier treatment of the determiners of (Pollard and Sag 1994), and even more with the Det-as-head treatment of (Netter 1994), but it can smoothly be integrated in the functor treatment of the prenominals of (Allegranza 1998) and (Van Eynde 2003b).

1 The categorial heterogeneity of the determiners

Adopting the classical X-bar distinction between specifiers and adjuncts, as proposed in (Chomsky 1970), (Pollard and Sag 1994) treats the determiners as specifiers and the other prenominal dependents as adjuncts. In *his many beautiful pictures*, for instance, the possessive is a specifier, whereas *many* and *beautiful* are adjuncts. Adjuncts are optional and can be stacked; specifiers, by contrast, are sometimes obligatory, as in the case of singular count nouns in English, and cannot be stacked, as in **the his pictures*. Moreover, adjuncts are projections of substantive categories (N,V,A,P), whereas specifiers are projections of functional categories, such as DET.

This systematic correlation between syntactic function (specifier of NP) and part of speech (determiner) is unfortunate and had better be removed, both for methodological and empirical reasons. Methodologically, it goes against the grain of cross-categorial generalization which is typical of X-bar syntax and of the HPSG framework. A complement or a head, for instance, can belong to any kind of category; so why should a specifier be a priori restricted to belong to one particular part of speech (Det)? Empirically, there is ample evidence from various languages that the set of words which are standardly treated as determiners is a rather heterogeneous collection which comprises both signs with adjectival properties and signs with nominal properties. Some of this evidence will be presented in this section.

	[SG,MASC]	[SG,FEM]	[PL,MASC]	[PL,FEM]	
Adj	*alto*	*alta*	*alti*	*alte*	high
	facile	*facile*	*facili*	*facili*	easy
Dem	*questo*	*questa*	*questi*	*queste*	this
Wh	*quale*	*quale*	*quali*	*quali*	which

Table 1: The forms of the Italian prenominals

	[−AGR,−DCL]	[−AGR,+DCL]	[+AGR]			
Adj	*goed*	*goede*	*goeden*	*goeder*	*goeds*	good
	koel	*koele*	*koelen*			cool
Poss	*ons*	*onze*	*onzen*	*onzer*	*onzes*	our
Dem		*deze*		*dezer*		this
Wh	*welk*	*welke*				which

Table 2: The forms of the Dutch prenominals

1.1 Adjectival determiners

In languages in which the prenominal adjectives show inflectional variation, one commonly finds the same variation in the case of the determiners. In Italian, for instance, the demonstratives show the same variation with respect to gender and number as the prenominal adjectives which end in *-o*; similarly, the *wh*-determiner *quale* 'which' shows the same variation as the adjectives which end in *-e*, see table 1. The same holds for the Dutch determiners. Their variation in terms of agreement (AGR) and declension (DCL) mirrors the one of the prenominal adjectives, see table 2.[1]

This similarity in inflectional variation is significant, since it is one of the main criteria for motivating part of speech membership: a word like *operation*, for instance, is treated as a noun, since it inflects like a noun, and the fact that its meaning is closely related to the one of a verb, does not matter in this respect. In keeping with this practice, I will assume that the determiners in tables 1 and 2 are members of A. Further evidence for this assumption is provided by the fact that the determiners are subject to the same agreement constraints as the prenominal adjectives. The Italian prenominals with the *-a* suffix, for instance, only combine with singular feminine nouns, both when they are adjectives and when they are determiners. In Dutch, the agreement facts are more complex than in Italian, but they confirm the observation that the determiners are subject to the same constraints as the prenominal adjectives, see (Van Eynde 2003a).

[1]The forms with an AGR affix are either genitive or dative. They are not commonly used and therefore absent in many paradigms, but notice that such gaps occur both among the determiners and the prenominal adjectives.

1.2 (Pro)nominal determiners

The specifiers of NPs can also be genitives of proper nouns and pronouns. In Dutch, they are in complementary distribution with the possessive adjectives. Compare, for instance, *onze kat* 'our cat' with *Peters/wiens kat* 'Pete's/whose cat'. In terms of morphology and agreement, though, the genitives do not behave as adjectives.[2] They do not take any of the typically adjectival affixes, such as the declension affix,[3] and they do not show any agreement with the head noun. Compare, for instance, the agreement in case, number and gender between the possessive and the head noun in *mijns/*mijn inziens* 'my-GEN insight-GEN' with the lack of agreement between the genitive NPs and the head noun in *Peters/wiens boeken* 'Pete's/whose books', in which the prenominal is a singular masculine genitive, whereas the head noun is a plural neuter noun in standard case. This lack of agreement can also be observed in the combination of a noun with a prenominal adjunct of the category common noun, as in *aluminium tubes*, in which the singular mass noun *aluminium* does not show agreement with the plural count noun *tubes*.

Another class of NP specifiers with nominal characteristics are the non-genitive pronouns. As an example, let us take the Italian interrogative *che* 'what'; this pronoun is not only used as an argument of the verb, as in *che dici?* 'what say-you', but also as a prenominal, as in *che/quali intenzioni hai?* 'what/which intentions have-you'. In this use, it has the same meaning and function as *quale* 'which', but in contrast to the latter it does not show any adjectival morphology or agreement. A similar example is the Dutch quantifying *wat* 'some(thing)'; it can be used as the argument of a verb, as in *er is nog wat over* 'there is still some left', but also as a prenominal, as in *er zijn nog wat erwten* 'there are still some peas'. In that use, the singular *wat* does not show any agreement with the head noun *erwten*, which demonstrates that it behaves like a (pro)noun rather than like an adjectival determiner.

Summing up, the specifiers of NP do not belong to a separate part of speech, but are either adjectives or nouns. In the former case they show the same inflectional variation and the same agreement as the prenominal adjectives, in the latter, they do not show any agreement.

2 Accommodating the categorial heterogeneity

The conclusion of the previous section is a problem for the treatment of the determiners as **specifiers** in (Pollard and Sag 1994), for if determiners belong to either A or N, then there is no categorial basis anymore for the distinction between specifiers and adjuncts. Further complications arise when one adopts the assumption, also made in (Pollard and Sag 1994), that the nouns lexically select their specifier, for in that case the value of the selecting feature (SPR) will be <A|N>, so

[2] In contrast to the English possessive *'s*, which can be argued to be a word which takes an NP as its specifier, as in (Pollard and Sag 1994), the Dutch *-s* is a genitive affix.

[3] The affix in the pronoun *ikke* 'I-EMP' is not a marker of declension, but of emphasis.

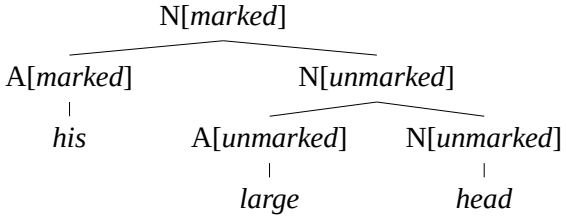
that the addition of an adjectival or nominal adjunct will inadvertently trigger the cancellation of the noun's SPR requirement.

The conclusion is even more problematic for the DetP style analysis in (Netter 1994). Netter treats the determiners as **heads** which take a nominal projection as their complement and—in order to get a uniform result for nominals with and without determiner—claims that the determiner inherits the category of its complement, i.e. N. As a result, it cannot accommodate the fact that most of the determiners are adjectival. Moreover, since the determiners also inherit the HEAD|AGR value of their nominal complement, which includes case, number and gender, it erroneously predicts that genitive NPs have to show agreement with the head noun.

A treatment which is compatible with the findings of the previous section is the one of (Allegranza 1998) and (Van Eynde 2003b). They treat the determiners as **functors** which select a nominal projection as their head and which contribute their MARKING value to the combination.

$$\textit{hd-func-phr}\left[\begin{array}{l}\text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\,|\,\text{MARKING}\quad \boxed{2}\ \textit{marked}\\ \text{HEAD-DTR}\,|\,\text{SYNSEM}\quad \boxed{1}\ \textit{synsem}\\ \text{NONHEAD-DTRS}\quad \left\langle\ \text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\left[\begin{array}{l}\text{HEAD}\,|\,\text{SELECT}\quad \boxed{1}\\ \text{MARKING}\quad \boxed{2}\end{array}\right]\right\rangle\end{array}\right]$$

This phrase type models all combinations in which the non-head daughter selects the head daughter, and hence subsumes the *head-adjunct*, *head-specifier* and *head-marker* phrase types of (Pollard and Sag 1994). The differences between determiners and prenominal adjectives are captured in terms of the MARKING value. They both select an unmarked nominal, but while the MARKING value of the determiners is *marked*, the one of the adjectives is *unmarked*. This accounts for the fact that adjectives can be stacked, whereas the determiners cannot, as well as for the fact that the determiners must precede the adjectives.[4]



This treatment has no problem with the categorial heterogeneity of the determiners, for since the determiner status is captured in the MARKING value and since the HEAD value of the determiner is not shared with the NP, one gets a uniform NP

[4]The distinction captured by the MARKING value is not a semantic one. The possessives, for instance, are marked in Dutch and English, but not in Italian, cf. *il suo cane* 'the his dog'. Similarly, while the English quantifying *each* is marked, its near-synonym *every* is not, cf. *his every move* and *where a film's every truckling nuance is debated* (TIME, January 13, 2003, 50).

analysis, both when the determiner is an adjective and when it is a (pro)noun. At the same time, the part of speech distinction provides the means to differentiate the agreeing adjectival determiners from the non-agreeing nominal ones.

3 Conclusion

Determiners do not belong to a separate functional category, but are categorially heterogeneous: some are adjectives, others (pro)nouns. This is a problem for the specifier treatment of (Pollard and Sag 1994) and for the head treatment of (Netter 1994), but not for the functor treatment of (Allegranza 1998) and (Van Eynde 2003b). The latter's emphasis of the different roles of HEAD and MARKING values allows for a cleaner distinction between form and function.

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