

# L2 strategies of morphological variability in the morphosyntactic acquisition of German DPs

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## ABSTRACT

Cette recherche se propose d'explorer, au sein du cadre générativiste, l'interface syntaxe-morphologie du domaine nominal en L2 chez un groupe d'adultes de langue maternelle italienne apprenant l'allemand. En particulier, nous nous sommes intéressés à la relation qui lie le placement des modificateurs nominaux par rapport aux noms et l'insertion à la fois de matériel morphologique sur les adjectifs attributifs et du –s du génitif possessif. Nos résultats montrent que les apprenants adultes n'ont aucune difficulté en ce qui concerne l'ordre linéaire cible de la L2. En revanche, la flexion morphologique des modificateurs nominaux est un domaine problématique pour les apprenants L2 qui font appel à différentes stratégies non seulement en fonction de l'élément concerné (le –s du génitif vs les adjectifs) mais aussi en fonction de la configuration syntaxique impliquée dans le processus flexionnel.

## 1. INTRODUCTION

Lardiere (1998a,b), Prévost & White (2000) report on persistent difficulties in L2 learners' insertion of verbal morphology at different levels of proficiency. Interestingly, this fact does not correlate with lack of syntactic reflexes of fineness (i.e. non-target placement of finite verbs in the clause, non-target case assignment on subjects), thus leading to a dissociation between a target verbal syntax and lack of verbal inflection. Based on these findings, the authors argue that variability in L2 performance does not reflect the absence of functional categories and features associated with them (i.e. tense and agreement) in learners' interlanguage grammars. Rather, L2 subjects have difficulties with the overt realization of morphology due to an 'imperfect mapping' of specific morphological forms to abstract categories (*Missing Surface Inflection Hypothesis*). In this study I will extend a similar line of research to the nominal domain, focusing on some aspects of the morphosyntax of German and Italian nominal constructions. In particular, I will explore the relationship between target placement of non-pronominal Possessors and APs with respect to NPs and insertion of inflectional morphology on such nominal modifiers. Results indicate a substantial dissociation between syntax and morphology. Acquisition of bound morphology seems to pose major problems for L2 learners, who resort to the insertion of non-target inflection rather than omission. On the basis of these findings, I define a fine-grained scenario of the L2 strategies adopted by Italian learners when facing the

process of morphological insertion. The non-target patterns reveal that morphological errors mostly involve the substitution of simpler forms which, presumably, act as 'default inflectional markers' in the L2 interlanguage grammar. Combined with the present study's result that L2 linear order is successfully acquired, findings support the view that any representational deficit lies in morphology rather than syntax, as also proposed for the nominal domain by White et al (2004) and McCarthy (2008) a.o.<sup>1</sup>.

## 2. SOME COMPARATIVE REMARKS ON THE MORPHOSYNTAX OF NOMINAL CONSTRUCTIONS IN GERMAN AND ITALIAN

For this study, I consider two different kinds of variation that differentiate the syntax of Italian and German DPs: (i) the different position of the NP with respect to APs; (ii) the different position of bare proper name possessors (henceforth BPN Poss) with respect to NPs and APs in –s *Genitive* constructions. Examples in (1) – (2) show the relevant patterns for German and Italian, respectively:

- (1) Ilse's rote Tasche  
'Ilse's red bag'  
(2) la/una borsa rossa di Ilse<sup>2</sup>  
the/a bag red of Ilse  
'Ilse's red bag'/one of Ilse's red bags'

<sup>1</sup> Mc Carthy (2008) argues that morphological variation comes from a deficit in the way morphological features are represented (*Morphological Underspecification Hypothesis*). According to this view, L2 morphological variability reflects a problem of competence rather than performance. Crucially, evidence for this claim come from converging results in different tasks of production and comprehension of L2 Spanish agreement phenomena by English speakers (i.e. gender and number agreement in clitics and adjectives). Crucially, learners systematically adopt the same default gender/number marker across tasks (masculine over feminine, singular over plural). Turning to the present study, the nature of the data (production data) can only confirm that the L2 deficit lies in the morphological component and not in the syntax. I leave for further research the important question whether L2 learners represent features in a native-like way but simply overuse the representationally simpler form over the others (a 'performance' issue) or whether their representations of features are impoverished in a non-native like way (a 'competence' issue in the sense of McCarthy 2008).

<sup>2</sup> In Italian, only adjectival possessors occur in prenominal position and are introduced by a (definite/indefinite) determiner:  
(i) la/una sua borsa  
the/a her bag  
'Her bag/one of her bags'

Adopting the articulated DP structure proposed by Haegeman (2004), Giusti (2006), Cinque (2005) a.o.<sup>3</sup>, I assume that configurations as in (1)-(2) involve NP and Possessor movement to different dedicated positions in the extended projection of the German DP for a feature checking requirement (Definiteness/Case feature on the Possessor and Phi-features on the NP). Following this proposal, insertion of inflectional morphology on Possessors<sup>4</sup> and APs has to be interpreted as the ‘visible’ result of such agreement relations, as illustrated in (3):

(3) [<sub>SpecDFin</sub> Peters<sub>i</sub> [<sub>DFin</sub> [<sub>IP</sub> [<sub>SpecFP</sub> rotes<sub>F</sub> [<sub>SpecFP</sub> Auto<sub>j</sub> [<sub>F</sub> [<sub>SpecNP</sub> t<sub>j</sub> ]]]]]]]]]<sup>5</sup>

Contrary to German, PBN Poss is licensed in situ in Italian possessive constructions through the insertion of the preposition *di* (Analytic Possessive Constructions). In this language, the NP raises to an intermediate (specifier) functional position, as exemplified in (4):

(4) [<sub>DFin</sub> la [... [<sub>SpecFP</sub> borsa<sub>j</sub> [<sub>F</sub> [<sub>SpecFP</sub> rossa<sub>F</sub> [<sub>SpecNP</sub> di Ilse [<sub>NP</sub> t<sub>j</sub> ]]]]]]]]]

Concerning morphological variation between German and Italian at the DP level, it should be stressed that both languages possess a rich inflectional paradigm for marking Gender, Number and, for German, also Case. The most crucial difference involves the AP inflectional paradigm. In German, Case, Gender, Number features as well as the Determiner choice interact in a very complex way. In general terms, when D appears as a bare form (5a)<sup>6</sup> or there is no determiner introducing the nominal (5b), APs carry the strong inflection. Otherwise APs show up with a weak inflection (5c):

(5)a Peter hat **ein** rotes Auto<sup>7</sup>  
 Peter has a<sub>[Acc, Neut, Sing]</sub> red<sub>[Acc, Neut, Sing, Strong]</sub> car<sub>[Neut]</sub>  
 ‘Peter has a red car’  
 b Peters **rotes** Auto  
 Peter<sub>[Gen]</sub> red<sub>[Nom, Neut, Sing, Strong]</sub> car<sub>[Neut]</sub>  
 ‘Peter’s red car’

<sup>3</sup> These hypotheses are based on the assumption that the Determiner Phrase consists of three layers (DP, IP, NP) and several functional projections. Such an articulated DP structure is desirable in order to account for several cross-linguistic variation phenomena that emerged in the domain of possessive constructions.

<sup>4</sup> –s Genitives constructions have a very restricted distribution in German. The invariable -s affix attaches to bare proper names/kinship terms only.

<sup>5</sup> In the complex DP structure in (3), the lexical layer (the NP projection) is the projection where the noun and its arguments (i.e. the possessor) are merged. The inflection layer (the IP projection) can be also split in several functional projections (FP) that serve as landing site for NP movement and whose specifier positions host adjectives. The highest layer (DFinP) is the projection where I assume that definiteness is checked.

<sup>6</sup> It is the case of indefinite singular determiners both in Nominative masculine/neuter contexts and Accusative neuter contexts.

<sup>7</sup> The AP Inflection paradigm used with indefinite determiner or possessive pronouns is called *Mixed Inflection*: it is mostly equivalent to the weak inflection, except in three contexts (Singular Masculine/Neuter Nominative and Singular Neuter Accusative) when it is equivalent to the strong inflection.

**c Das** rote Auto  
 the<sub>[Nom, Neut, Sing]</sub> red<sub>[Nom, Neut, Sing, Weak]</sub> car<sub>[Neut]</sub>  
 ‘The red car’

Contrary to German, in Italian the declension is mostly reduced to the alternation –a/e (Feminine; Singular/Plural) vs –o/i (Masculine Singular/Plural):

(6)a **la macchina rossa/le macchine rosse**  
 the<sub>[Fem, Sing]</sub> car<sub>[Fem, Sing]</sub> red<sub>[Fem, Sing]</sub>  
 ‘The red car/cars’  
 b **il nuovo libro/ i nuovi libri**  
 the<sub>[Masc, Sing]</sub> new<sub>[Masc, Sing]</sub> book<sub>[Masc, Sing]/</sub> new<sub>[Masc, Plur]</sub>  
 book<sub>[Masc, Sing]</sub>  
 ‘The new book/books’

With these very brief comparative remarks in mind, let us now consider the implications for the acquisition of –s Genitive constructions in Italian L2 learners. At the level of syntax, this process implies the resetting of parameters responsible for the opposite linear order of non-pronominal possessors and APs in both languages. This might cause initial difficulties due to L1 transfer. Hence, a L1 linear order NP-AP-Poss should be expected at least for Beginners L2 learners. At the level of morphology, due to the fact that knowledge of L2 adjectival agreement categories is available via L1 Transfer, a robust tendency to omit inflection on APs is not expected<sup>8</sup>. On the other hand, mastering the target inflectional morphology of the German DP may cause difficulties in Italian learners due to the interplay of Gender/Number/Case system in the L2 declension system.

### 3. THE DATA

#### 3.1. Experimental Procedure and L2 Subjects

The corpus consists of 1170 tokens collected through an oral Picture Description Task. For the present study, only 630 DPs containing attributive APs and –s Genitive possessors are analysed. The experimental subjects are 18 Italian adult learners of German (4 Beginners, 10 Intermediates, 4 Advanced) and 8 German native speakers.

#### 3.2. Results

**Genitive Constructions.** The acquisition of –s Genitive Constructions is characterized by a clear developmental path. Beginners only resort to possessive constructions similar to their L1 (i.e. Analytic Possessive Constructions); in Intermediate L2 learners, production of –s Genitive Constructions increases considerably with respect to Beginners (36% (91/250)); in Advanced L2 learners –s Genitive Constructions represent the favourite option for expressing the possession (65% (65/100)).

<sup>8</sup> In the L2 population considered here, abstract functional categories such as, for example, agreement within the Determiner Phrase is expected to be anyhow available through the L1 system. Hence, Italian learners of German should not have problems in establishing and realizing morphologically an agreement relation between Ds, APs and NPs in their interlanguage grammar. They are expected to resort more to non-target inflected forms rather than to the omission of inflection because the category ‘agreement’ is present in their mental representation.

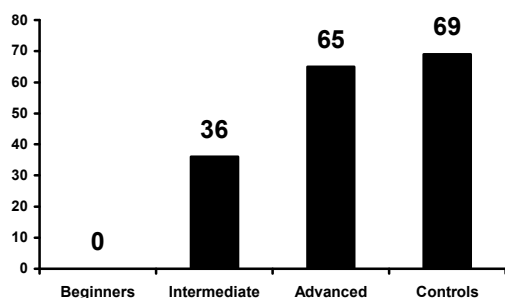


Figure 1: (%) -s Genitive Constructions according to proficiency level

Concerning morphology suppliance, the omission of -s affix is the only non-target pattern attested (*Das ist UtaØ Ring* vs *Utas Ring* – This is Uta’s ring). This strategy is restricted to Intermediate L2 learners (34% (40/91)), as exemplified in Figure 2.

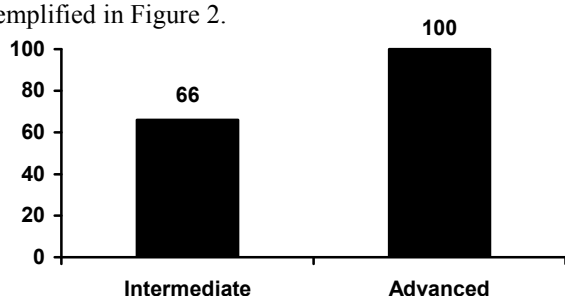


Figure 2: (%) Target morphology on Possessors according to proficiency level

**DPs with adjectives.** The L2 linear order AP-NP is produced at a high rate (Beginners: 86% (105/122); Intermediate: 93% (280/300); Advanced 99% (119/120)). The L1 linear order NP-AP is not attested.

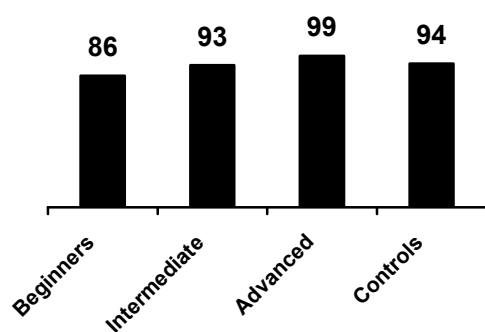


Figure 3: (%) L2 AP-NP linear order according to proficiency level

Moreover, accuracy on target AP morphology is fairly low regardless of proficiency level (Beginners: 38% (46/122); Intermediate: 32% (95/300); Advanced 41% (49/120)).

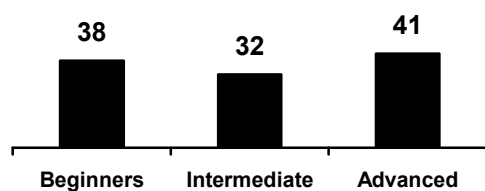


Figure 4: (%) Target AP agreement morphology according to proficiency level

As for morphology suppliance, several kinds of non-target patterns emerge; (1) **Agreement Matching**. DPs surface with a non-target morphology on determiners and adjectives, although a ‘default’ Gender/Number/Case agreement matching between both elements is established: *Der Mann spricht mit \*[eine spanische Freund]* Acc,Fem,Sing vs *einem spanischen Freund* Dat,Masc,Sing (The man is talking with one of his Spanish friends); (2) **AP Ending Substitution**. Target morphology on D and non-target AP ending: *Das ist der \*[gelben] Rock der Karin* vs *[der gelbe Rock]* Nom, Masc,Sing (This is Karin’s yellow skirt); (3) **Missing Inflection**. Omission of AP inflectional morphology: *Das Kind nimmt eine [gelbØ] Blume* vs *[eine gelbe Blume]* Acc,Fem,Sing (The child takes a yellow flower); (4) **Agreement Mismatching**. Non-target morphology on determiners and adjectives and feature clash between D and AP: *Das ist \*[die weisser Mantel] von Albert* vs *[der weisse Mantel]* Nom,Masc,Sing (This is Albert’s white coat)<sup>9</sup>. It is worth considering that, across L2 learners’ groups, **Agreement Matching** and **AP Ending Substitution** prevail over **Missing Inflection** and **Agreement Mismatching**, which is restricted to Beginners and Intermediate learners. Furthermore, **Missing Inflection** is attested at a low rate in all the three groups. Figure 5 exemplifies these facts:

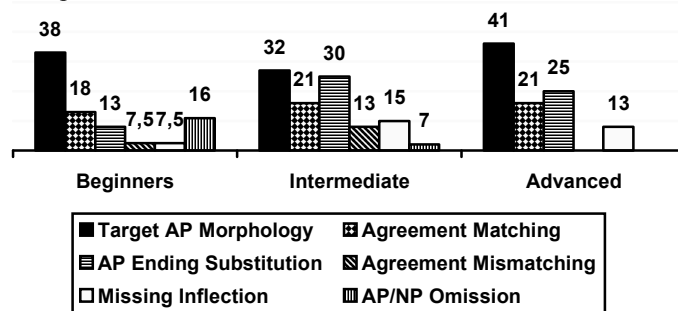


Figure 5: (%) AP morphology – Tendency across L2 learners’ groups

As for the L2 strategies adopted in the non-target patterns, it is worth pointing out: (i) Overuse on both determiners and adjectives of the agreement endings -e/-e (i.e. **Agreement Matching** pattern), which in German mark Nominative/Accusative feminine singular DPs. As a consequence, nominals show up with a non-target Case/Gender morphology independently from the one required by the context. This strategy emerges in all the three L2 learners groups (Beginners 18% - 21/120; Intermediate 21% - 63/120; Advanced 21% - 25/120); (ii) Overuse on adjectives of the ending -e/-en (**AP Ending Substitution** pattern) which have the largest distribution in the German AP inflectional paradigm. This strategy mostly

<sup>9</sup> Differently from the non-target pattern labelled as Agreement Matching, a feature clash between D and AP emerges in this case. As a consequence, phi-features on both elements do not match. In the example *\*[die weisser Mantel]*, the nominative masculine singular noun *Mantel* (coat) is introduced by the definite determiner *die* which mark nominative/accusative feminine nouns. On the contrary, the **AP is properly inflected** according to the Gender/Number/Case features of the noun.

prevails in Intermediate and Advanced L2 learners (Beginners 13% - 16/120; Intermediate 30% - 36/120; Advanced 22% 30/120); (iii) **Missing Inflection** is mainly attested in weak inflectional contexts in Beginners (78% - 7/9) and Intermediate (73% - 33/45) L2 learners (i.e. *Das Kind nimmt eine gelbe Blume* – the child takes a yellow flower). Advanced L2 learners resort to Missing Inflection in strong inflectional contexts (*Das ist Karls schwarze Kravatte* – This is Karl's black tie; 60% - 9/15).

#### 4. DISCUSSION AND CONCLUSION

Findings indicate that L2 learners are very accurate as far as BPN Poss/AP placement is concerned, whereas accuracy on inflectional morphology represents a problematic domain regardless of proficiency level. As for –s Genitives constructions, results suggest that the interlanguage grammar is clearly influenced by L1 representation in the first stages of acquisition (Schwartz & Sprouse 1996). The L2 learners resort to the pattern they already know from their L1 (Analytic Constructions prevail over –s Genitives). Concerning NP placement, no considerable differences emerge in learners' performance, despite their different levels of proficiency in the L2. Resetting of word-order parameter relevant for the different position of NP with respect to nominal modifiers in Italian and German seems to be an easier target to achieve. At the level of morphology, the comparison between the acquisition of –s affix and the AP adjectival inflection reveals interesting asymmetries. Overall, **Missing Inflection** is a very limited phenomenon in both domains. However, the omission of –s affix decreases according to level of proficiency, whereas the rate of AP Missing Inflection does not. Interestingly, the AP ending omission seems to be sensitive to the morphology of the D-element appearing in DPs: an inflected D-element (i.e. determiners, -s Genitives) is more likely to trigger Missing Inflection on APs rather than an uninflected determiner. This strategy may probably reflect a more general economy principle adopted by L2 learners that consists in marking only the first element of the DP. While –s Genitive constructions are affected only by Missing Inflection, different kinds of non-target patterns emerge in DPs with adjectives. The strategies mostly adopted by L2 learners (**Agreement Matching** and **AP Ending Substitution**) suggest that the complex interplay of Case/Gender system contributes to make the AP inflection a vulnerable domain sensitive to L2 morphological variability. Specifically, a general tendency towards a 'morphological reduction' of the German AP inflectional paradigm emerges and seems to operate at different levels: (i) only on the AP node where inflection has to be inserted. In this case L2 learners reduce the AP inflectional system to the endings *-e/-en* which have the widest distribution in the German inflectional paradigm; hence '**AP Ending Substitution**' emerges; (ii) at the DP level (i.e. **Agreement Matching** pattern). L2 learners reduce the German Case/Gender system to the

Nominative/Accusative Feminine *-e/-e*, which seems to 'reproduce', from a morpho-phonological point of view, the paradigm of Italian nominal agreement system ending in vowels. It is interesting to observe that both strategies coexist in the L2 population investigated for this study and do not seem to vary depending on proficiency level, at least for Intermediate and Advanced speakers of German.

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