

AN L2 PERSPECTIVE ON POSSESSIVES: CONTRASTS AND THEIR POSSIBLE CONSEQUENCES

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ABSTRACT

The present paper presents the contrastive background and the basic objectives of a cross-linguistic research project (POSS) that takes an L2-oriented perspective on possessives in English, Norwegian, German, French and selected Slavic languages. Our paper focuses on L1/L2 pairs involving Norwegian as L2 or L1. Section [1] outlines the rationale behind our project. The morpho-syntactic ('core') systems of English, French, German, Norwegian and Russian third possessives are described and compared in section [2] while section [3] draws attention to dimensions of contrasts that fall outside the scope of our project. Section [4] specifically addresses the L2 issue, presenting for selected L1/L2 pairs our basic assumptions concerning challenges to the acquisition of the L2 possessive core system. Section [5] contains a concluding summary.

[1] INTRODUCTION: AN L2 PERSPECTIVE ON POSSESSIVES

Linguistic expressions of possession (in a wide sense) are a fairly well established topic of cross-linguistic research (see among others (Alexiadou 2007; Baron et al. 2001; Börjars et al. 2013; Chappell & McGregor 1996; Coene & D'hulst 2003; Heine 1997; Koptjevskaja-Tamm 2002, 2003; Manzelli 1990; McGregor 2009; Zifonun 2005)). To our knowledge, however, in-depth comparisons of related but somewhat different systems of possessives are scarce (but see Drewnowska-Vargáné & Zifonun (2011); Gunkel et al. (2017, B1.5.4); Ramm & Fabricius-Hansen (2012); Zifonun (2005)). Accordingly, little is known as to whether or how morpho-phonological or syntactic similarities and differences between L1 and L2 possessives¹ ('possessive contrasts') are reflected in native versus non-native acquisition, use and processing of such items, i.e. what role any influence from L1 – so-called transfer (Benati & Angelovska (2016, 31–58); Ellis (2008, 349–402); Jarvis & Pavlenko (2008);

[1] We use L2 as a cover term for L2 and foreign languages acquired after L2. In accordance with Zifonun (2005) we subsume under the category 'possessive' both possessive determiners like French *mon/ma/mes* 'my' and genitive forms of so-called personal pronouns like English *his*.

Meisel (2000); Odlin (2003)) — could play in this area. In fact, compared to their non-possessive counterparts, possessive pronouns seem to have been strangely neglected in psycholinguistic (L1 and L2) research (but see Marinis (2016)); for relevant L2 studies concerning non-possessive third person anaphoric pronouns (*he, she* etc.), including reflexives (*himself, herself* etc.), see e.g. Clahsen & Felser (2006); Felser & Cunnings (2012); Patterson et al. (2014); Roberts et al. (2008); Umesh et al. (2016) and further references therein. An important issue discussed in these and many other publications on L2 acquisition is the division of labor between what may be seen as specific L1 influence (transfer) and general L2 processing effects (so-called general learner effects). Our paper presents the cross-linguistic background and the basic objectives of L2-oriented research on adnominal possessives that may shed new light on this issue. Some preliminary empirical results are presented by Pitz et al. (2017), Helland (2017) and Behrens (2017).²

From a cognitive point of view, possessives seem more complicated than ordinary pronouns due to the fact that they are not only anaphoric (third person alone) or deictic but at the same time relational expressions: An anaphoric adnominal third person possessive like an ordinary anaphoric pronoun demands an *antecedent DP*; as a determiner or modifier (see section [3.1]) within a DP, it anchors the referent of its *host DP* to the referent of the antecedent DP by a relation of possession in a more or less broad sense (see references above), where the antecedent DP denotes the ‘owner’ (the *possessor*) and the host DP the ‘owned’ entity (the *possessum*). Thus, processing an anaphoric possessive in a given context involves the following subtasks:

- (i) identifying (the lexical head of) its host DP,
- (ii) finding a proper antecedent (i.e. anaphoric resolution), and
- (iii) using that and the relational meaning of the possessive to establish a referent for the host DP.

In the case of first and second person and deictically used third person possessives, the possessor is provided by the non-linguistic context.

In this paper we are concerned with English, German, Norwegian (bokmål), French and Russian, which all distinguish formally between first, second and third person possessives, exhibiting two or more formally different words (lexical items) of the last category (Faarlund et al. (1997, 203–208); Huddleston & Pullum (2002,

[2] In addition to the authors of this paper the following persons participate in the (POSS) project, which is part of a broader research project on *Language as Product and Process* under the leadership of Bergljot Behrens: Bergljot Behrens (U Oslo), Oliver Bott (U Tübingen), Torgrim Solstad (ZAS, Berlin), Barbara Mertins (TU Dortmund), and Katarzyna Stachowiak (U Warsaw). We thank Bergljot Behrens, Oliver Bott, Katarzyna Stachowiak, Hildegunn Dirdal (U Oslo) and an anonymous reviewer for very useful comments on earlier versions of this paper.

Language	First person (possessor = speaker)	Second person (possessor = addressee)	Third person (poss. ≠ sp. and addr.)
English	<i>my; our</i>	<i>your</i>	<i>his, her, its; their</i>
German	<i>mein*</i> ; <i>unser*</i>	<i>dein*</i> ; <i>euer*</i> ; <i>Ihr*</i>	<i>sein*</i> ; <i>ihr*</i>
Norwegian	<i>min/mi/mitt/mine</i> ; <i>vår/vårt/våre</i>	<i>din/di/ditt/dine</i> ; <i>deres</i>	<i>sin/si/sitt/sine</i> ; <i>hans, hennes, dens</i> , <i>dets</i> ; <i>deres</i>
French	<i>mon/ma/mes</i> ; <i>notre/nos</i>	<i>ton/ta/tes</i> ; <i>votre/vos</i>	<i>son/sa/ses</i> ; <i>leur</i> , <i>leurs</i>
Russian	<i>moj*</i> ; <i>nash*</i>	<i>tvoj*</i> ; <i>vash*</i>	<i>ego, eë; ich</i>

} ***svoj****

TABLE 1: Adnominal possessives in English, German, Norwegian (bokmål), French and Russian.

470ff); Riegel et al. (2009, 288–290); Timberlake (2004, 240–256); Zifonun et al. (1997, 40f)). For convenience they are listed in table 1. The starred items in the German and the Russian columns represent sets of inflected forms: *mein, meine, meinen, meinem, meines, meiner*; *dein, deine* etc. (see section [2.3] and [2.5]); for the other languages all possible word forms are listed (for details see section [2]). In what follows, we concentrate on third person adnominal possessives.³

The choice between the different third person options is determined in part by properties of the antecedent DP (or the entity it refers to, i.e. the possessor). From a processing (comprehension) point of view, this means that a possessive provides grammatical or semantic cues governing the search for a suitable antecedent.⁴ However, the hierarchy and type of cues vary somewhat across languages, with the result that even phonologically similar and genetically related items like the possessives beginning with *s-* in German, Norwegian, French and Russian (henceforth: *s-possessives*; boldface in table 1) are cued differently ('false possessive friends', see section [4.6]).

In addition, the form of the possessive may vary by inflection according to morpho-syntactic features of its host DP, i.e. by so-called grammatical agreement, as is the case with the German and French possessives, with Norwegian *sin/si/sitt/sine*, and with Russian *svoj**; or it may be independent in this respect like

[3] Different from the Norwegian third person reflexive possessive *si**, the Russian reflexive possessive *svoj** is 'impersonal', i.e. neutral with respect to the distinction between first, second and third person possessor (see section [2.5]).

[4] Compare Umesh et al. (2016) concerning non-possessive reflexive pronouns.

the other possessives in Norwegian and Russian, and the English possessives as well. In the former case, then, processing a possessive involves checking for two sets of features: those relating to the antecedent and those pertaining to the head noun. For pronominal possessives this normally means ‘looking’ both to the left and to the right.

A preliminary comparison of English and French may illustrate the two types of contrasts and their intricate effects (see section [2] for more details). In English, the choice of possessive depends on the antecedent (referent) alone, as illustrated in (1).

- (1) a. ..._{[DP Peter]_i/[DP Anna]_j..._{[DP his_i/*_j/her_j/*_i dog]/[DP his_i/*_j/her_j/*_i dogs]...}}
- b. ..._{[DP Peter]_i and Anna_j]_k..._{[DP their_k/*_i/*_j dog]/[DP their_k/*_i/*_j dogs]...}}
- (2) a. ..._{[DP Jean]_i/[DP Anna]_j..._{[DP son_i/_j chien]/[DP ses_i/_j chiens]}}
- b. ..._{[DP Jean]_i et Anna_j]_k..._{[DP leur_k/*_i/*_j chien]/[DP leurs_k/*_i/*_j chiens]}}

In French, the choice between *son/sa/ses* on the one hand and *leur/leurs* on the other hand likewise is determined by the antecedent (singular versus plural), corresponding to *his/her* versus *their*, cf. (2). As for *son* (or *sa*) versus *ses*, however, it is the grammatical gender and number of the head noun (*chien* ‘dog’: masculine singular, *chiens*: plural) alone that counts; and likewise for *leur* versus *leurs*. That is, while *his* and *her* unambiguously demand a male (Peter) and a female (Anna) antecedent referent respectively, *son/sa* and *ses* are neutral in this respect: they may have either *Jean* or *Anna* as their antecedent, as illustrated in (2) for *son* and *ses*. And in contrast to English, French possessives, like adjectival modifiers, are marked for possessum number and — if singular — also gender, agreeing with their head nouns. In other words: *son, sa* and *ses* are different inflectional forms of one ‘stem’ or possessive lexical item, as are *leur* and *leurs*; and the two stems are marked for possessor singular and plural, respectively, while their different forms are possessum-dependent, agreeing with the head noun with respect to gender and number. The French possessives are not cued for possessor gender, whether natural (as in English) or grammatical (as in German); see section [2.3].

Viewed from the perspective of L2 acquisition, this complicated interplay between differences and similarities gives rise to the following general assumptions:

- (i) Achieving native-like fluency in the use and processing of L2 adnominal possessives (in the languages we are concerned with) is a task of varying complexity, depending in part on the degree of isomorphism between the possessive core systems of the specific L1/L2 pair involved.⁵

[5] This, of course, is a theoretical simplification. Transfer in L2 production and comprehension can occur from L1, but also from other foreign languages learnt before or along with the actual L2 (Westergaard et al. 2016), and, according to generative grammar, even from Universal Grammar (UG) (cf. Eide (2015)).

- (ii) For a given L1/L2 pair, some possessive contrasts may be more fundamental than others, impeding L2 performance of even quite advanced L2 learners.

Testing these and related hypotheses, to be refined somewhat in section [4], is the main direct objective of our POSS project. At a more general level, our investigations hopefully will contribute to the ongoing theoretical discussion concerning the role of transfer from L1 in L2 processing.

Our paper is structured as follows: Section [2] gives a contrastive overview of the (morphosyntactic) core systems of third person adnominal possessives in English, German, Norwegian, French and Russian, with a view to other Scandinavian and Slavic languages. In section [3], we briefly comment on additional dimensions of contrast that are also highly relevant from a L2 perspective but which have to be neglected in the present context. Our approach in these two descriptive sections leans partly on a model of comparison developed within the project *Grammatik des Deutschen im europäischen Vergleich* ‘The Grammar of German in European Comparison’ (Gunkel et al. 2017)⁶ and applied to possessive pronouns by Zifonun (2005) and Gunkel et al. (2017, B1.5.4) (see section [2]). In section [4], we outline for selected L1/L2 pairs what we, in view of the core systems described in section [2], take to be major obstacles to native-like L2 proficiency in the production and comprehension of possessives.⁷ Section [5] concludes by outlining the way forward for the POSS project.

A final terminological note: In what follows, we shall use the term *possessor* not only for the entity referred to by the antecedent DP (see above) but also for the linguistic expression (i.e. the antecedent DP) itself, when necessary specifying the intended meaning in a proper way. In a similar vein, the term *possessum*, introduced above for the entity denoted by the host DP (i.e. the entity that is identified as ‘belonging to’ the possessor), unless otherwise indicated will refer to the nominal head (*dog* etc.) of the host DP. Accordingly, grammatical and semantic properties of a possessive that are determined by the antecedent (referent) will be called *possessor-/antecedent-related* while grammatical (inflectional) features triggered by agreement with the head noun are *possessum-related*.

[2] CONTRASTING MORPHOSYNTACTIC (CORE) SYSTEMS OF POSSESSIVES

[2.1] Preliminaries

As mentioned in the previous section, in view of their twofold function adnominal possessives must contain cues to identify the possessor and have the means to anchor the possessum to this entity. It is with respect to marking these relations that the languages exhibit differences. To describe and contrast the systems,

[6] See also <http://www1.ids-mannheim.de/gra/abgeschlosseneprojekte/gde.html>.

[7] As far as Norwegian versus German and French is concerned, see (Pitz et al. 2017) and Helland (2017) for more detailed discussions.

we will make use of parameters presented in Zifonun (2005), Gunkel et al. (2017, B1.5.4) to account for the differing dimensions of the possessive systems across languages.⁸ We shall concentrate on the parameters that are of relevance for the languages to be considered here, that is, English (En), French (Fr), German (Ge), Norwegian (No) and Russian (Ru). Importantly, as stated above, we will be concerned with third person possessives alone.

The parameters differentiating between the core systems of the languages under consideration are the following: (i) the categorial (part of speech) status of the possessive, i.e. the question whether it may be classified as an inflectional (genitive) form of the personal pronoun or whether it constitutes a lexical item of its own, being inflected like determiners or adjectives; (ii) the morphological properties or categories establishing the relation to the possessor and the possessum, such as person, number and gender; and (iii) reflexivity, i.e. the question whether the language distinguishes formally between reflexive and non-reflexive possessor relations, where reflexive means that the antecedent of the possessive has to be found (as binder) in a local syntactic domain, like the antecedent of non-possessive third person reflexive pronouns (e.g. Norwegian *seg*, German *sich*).

To account for *reflexivity*, one usually turns to *Binding Theory* (BT) (Chomsky 1981). Reflexive uses obey principle A of BT, which states that ‘anaphors’, i.e. reflexives, must be locally bound within their binding domain. In technical terms, the binding domain is the smallest clause that contains the possessive DP and its co-indexed antecedent, generally a higher subject. This means that the reflexive possessive in (3) is (co-)referentially dependent on a nominal element that appears as the subject of the clause (M: masculine, R: reflexive).^{9,10}

- (3) Han_i fant igjen bilen sin_i/sin_i bil.
 he found again car.DEF.M.SG POSS.R.M.SG/POSS.R.M.SG car

Reflexive and non-reflexive possessives are in complementary distribution. For a language like Norwegian this contrast is formally marked: The non-reflexive – more precisely: *irreflexive* – possessive *hans* in (4) cannot be bound by the subject pronoun, i.e. (4) is deviant under the co-referential reading indicated by

[8] The languages she investigates are German, French, English, Italian, Polish and Hungarian (with a view to the Scandinavian languages, Dutch and Spanish). For a complete list of the parameters, see Zifonun (2005) and Gunkel et al. (2017).

[9] In the examples, co-referentiality is marked by co-indexation. In its standard formulation (see Chomsky (1981, 183–230)), the binding domain is defined with respect to C-command: A c-commands B iff (i) A does not dominate B and B does not dominate A. (ii) The first branching node dominating A also dominates B. The possessives in (3) are thus both c-commanded and co-indexed by their antecedents.

[10] The Norwegian possessive may occur in post-head position or in the prenominal position of a determiner (Faarlund et al. 1997, 263ff). In the former case the head noun has a definite suffix (-en in the example) in (3), see section [3.3].

the subscripts (IR: irreflexive).¹¹

- (4) **Han*_i fant igjen bilen *hans*_i/*hans*_i bil.
 he found again car.DEF.M.SG his.IR/his.IR car

Principle B of BT states that non-reflexive possessives must be free in their binding domain. The ungrammatical character of *han*_i...*hans*_i in (4) is therefore explained. Irreflexive *hans* is incorrectly bound by the subject pronoun *han*.

In contrast to the formally marked Norwegian possessive *si**, German *sein** (like *ihr**) and French *son/sa/ses* can, but do not have to, be locally bound by their antecedents, i.e. they may be used reflexively and non-reflexively; cf. (5) vs. (6)

- (5) a. *Peter*_i liest *sein*_{i/j} Buch.
 'Peter reads his own/somebody else's book.'
 b. *Pierre*_i lit *son*_{i/j} livre.
 'Peter reads his own/somebody else's book.'
- (6) *Petter*_i leser *sin*_{i/*j}/*hans*_{j/*i} bok//boka *si*_{i/*j}/*hans*_{j/*i}.
 'Peter reads his own/somebody else's book.'

Some additional general remarks are in order: According to Zifonun (2005) and Gunkel et al. (2017), *person* and *number* of the possessor have to be expressed. The Russian (more generally: Slavic) reflexive possessives are exceptions in this respect, however, since the third person reflexive (Russian *svoj**) may have first and second person antecedents, both singular and plural (Timberlake 2004, 240–256). The encoding of possessor person, however, will not be discussed in this paper since we are concerned with third person possessives only. In addition to these obligatory categories, properties such as grammatical gender/natural gender or animacy of the third person singular possessor may be expressed if the language makes this distinction in the nominal domain. In the cases where the possessive can be analyzed as a genitive of the personal pronoun, additional inflectional morphology is likely to be precluded (Zifonun 2005, 64).

[2.2] English

The English possessive system is the most straightforward one. The possessives *his/her/its/their* can be analyzed as genitive forms of the third person pronouns *he/she/it/they* Huddleston & Pullum (2002, 470ff), hence we do not expect possessum-related morphological markers (see Zifonun (2005, 64)). As personal pronouns distinguish between natural gender (male/female) and -human in the singular, the singular possessives will also express these properties of the possessor; cf. (7)–(10).

[11] The expressions *his*, *her*, *their* and *its* occurring in glosses should be understood as abbreviations for POSS.M.SG, POSS.F.SG, POSS.PL and POSS.NONHUM.SG respectively.

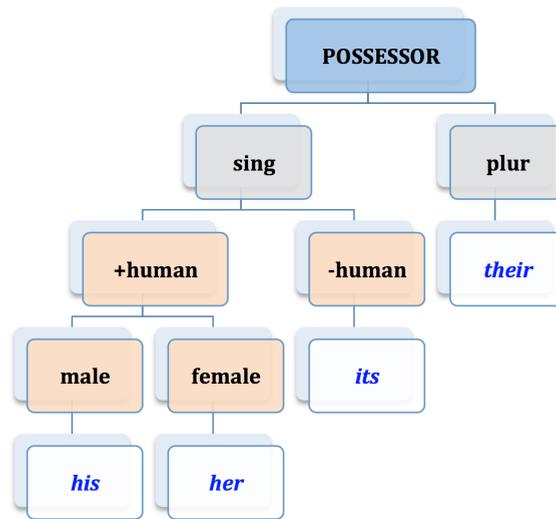


FIGURE 1: The English system of third person adnominal possessives.

- (7) REFLEXIVE USE
Anna_i/Henry_j loves *her_{i/*j}/his_{j/*i}* hat/cars.
- (8) NON-REFLEXIVE USE
Anna_i/Henry_j wore a hat/gloves. *Her_{i/*j}/His_{j/*i}* hat was green./*Her_{i/*j}/His_{j/*i}* gloves were green.
- (9) NON-REFLEXIVE USE
Anna wore [*a hat*]_{*i*}. *Henry* didn't like *its_i* colour.
- (10) REFLEXIVE USE
 [*Anna and Henry*]_{*i*} love *their_i* car/cars.
- (11) NON-REFLEXIVE USE
 [*Anna and Henry*]_{*i*} have a car/two cars. *Their_i* car is red./*Their_i* cars are red.

The properties of the English possessive system can be represented as in figure 1. As indicated by the highest node, the choice of the possessive item depends exclusively on *possessor* properties, foremost on the possessor number. In the singular, a further possessor-related feature \pm human comes into play, providing just one form for -human (*its*), while for +human, the possessives vary according to natural gender (male/female) of the possessor.¹²

[12] Gray background: grammatical features; orange/yellow background: purely semantic features.

[2.3] French

In French, the possessive represents a determiner-like part of speech (Helland 2006, 155–158). The third person possessor number is expressed by stem variation (singular *son/sa/ses*, plural *leur*) while the gender of the possessor is not marked.¹³

As mentioned in section [1], the possessive in French agrees with the possessum in (singular gender and) number. French distinguishes between masculine and feminine gender nouns, and the possessive exhibits two morphological forms, *son* (masc.) and *sa* (fem.) expressing this distinction in addition to possessum number (sg.). Hence, with a singular possessum we get *son*, *sa* or *leur*, with a plural possessum *ses* or *leurs*, that is one common plural form for both possessum genders. Thus, *possessor number* is expressed by stem variation, while *possessum number* is expressed by inflection. Possessum gender is marked only in the possessor singular; cf. examples (12)–(13) and (14)–(15), which correspond in spirit to the English examples (7)–(8) and (10)–(11), respectively. Where relevant, nouns are annotated for gender and number (M: masc. sg., F: fem. sg., PL: plural).

- (12) REFLEXIVE USE
Anna_i/Jean_j aime son_{i/j} chapeau_M/sa_{i/j} casquette_F/ses_{i/j} chapeau_{xPL}.
Anna_i/John_j loves POSS_{i/j} hat/POSS_{i/j} cap/POSS_{i/j} hats
- (13) NON-REFLEXIVE USE
Anna_i/Jean_j porte un chapeau/une casquette/des gants. Son_{i/j}
Anna_i/John_j wears a hat/a cap/gloves POSS_{i/j}
chapeau_M/Sa_{i/j} casquette_F est verte./Ses_{i/j} gants_{SPL} sont verts
hat/POSS_{i/j} cap is green/POSS_{i/j} gloves are green
- (14) REFLEXIVE USE
[Anna et Jean]_i aiment leur_i chien_M/leur_i voiture_F/leurs_i voitures_{SPL}.
[Anna and John]_i love their_i dog/their_i car/their_i cars
- (15) NON-REFLEXIVE USE
[Anna et Jean]_i ont un chien_M/une voiture_F/deux voitures_{SPL}. Leur_i
[Anna and John]_i have a dog/a car/two cars their_i
chien_M/voiture_F est noir/noire./Leurs_i voitures_S sont noires.
dog/car is black/their_i cars are black

Table 2 and figure 2 summarize the French system: The possessor number determ-

[13] A note on the historical development might be in order. In the third person singular and plural, classical Latin had competing forms for non-reflexive and reflexive uses, *eius/suus* (third masc. sg.) and *eorum/sui* (third masc. pl.) (Peteghem 2012). In the evolution from Latin to French, the reflexive variant *suus* survived in the third person possessor singular, leading to French *son/sien*. In the third person plural however, the reflexive form *sui*, which competed with the genitive paradigm (*eius/eorum*), was replaced by French *leur*. This meant that French developed (historically) reflexive possessives (*son/sien*) and (historically) non-reflexive possessives (*leur*) with both reflexive and non-reflexive uses.

Possessor	Possessum		
	Sg. masc.	Sg. fem.	Plural
Sg. (<i>Anna/Jean</i>)	<i>son</i> (<i>chapeau</i>)	<i>sa</i> (<i>voiture</i>)	<i>ses</i> (<i>chapeaux/voitures</i>)
Plur. (<i>[Anna et Jean]</i>)	<i>leur</i> (<i>chapeau</i>)	<i>leur</i> (<i>voiture</i>)	<i>leurs</i> (<i>chapeaux/voitures</i>)

TABLE 2: The French system of third person adnominal possessives.

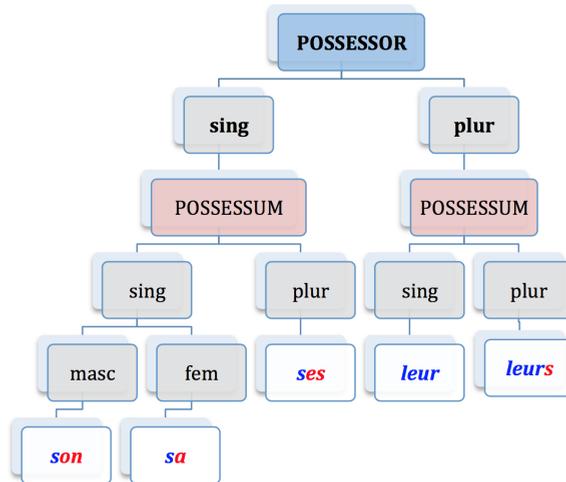


FIGURE 2: The French system of third person adnominal possessives.

ines the stem of the possessive. The remaining part of the system expresses properties of the possessum (agreement). The first distinction made by the possessum-related morphology is between singular and plural both for singular and for plural possessors. For the singular possessum, the possessive has a masculine and a feminine form.

[2.4] German

In German, too, the possessives belong to the category of inflected determiners. The possessor is identified by stem variation of the possessive: *sein** for both masculine and neuter singular antecedents, *ihr** for feminine singular and for plural antecedents. That is, the possessive *ihr** is ambiguous between possessor singular feminine and plural, and *sein** between possessor masculine and neuter singular.

Similar to other determiners, the possessive in German is subject to general agreement requirements within the DP. These conditions include gender and number agreement with the head noun, in addition to agreement in morphological

case marking; cf. (16)–(20), which in principle are comparable to (7)–(11) in section [2.2]. Where relevant, nouns are annotated for gender and number (M: masc. sg., F: fem. sg., N: neuter sg., PL: plural); for convenience, we have skipped case annotation).

- (16) REFLEXIVE USE
- a. Anna_i liebt *ihren*_i Hut_M/*ihre*_i Mütze_F.
Anna_i loves her_i hat/her_i cap.
- b. Peter_j liebt *seinen*_j Hut_M/*seine*_j Mütze_F.
Peter_j loves his_j hat/his_j cap.
- (17) NON-REFLEXIVE USE
- a. Anna_i trug einen Hut/eine Mütze. *Ihr*_i Hut_M/*Ihre*_i Mütze_F war
Anna_i wore a hat/a cap. Her_i hat/Her_i cap was
grün.
green.
- b. Peter_j trug einen Hut/eine Mütze. *Seine*_j Hut_M/*Seine*_j Mütze_F war
Peter_j wore a hat/a cap. His_j hat/His_j cap was
grün.
green.
- (18) NON-REFLEXIVE USE
- a. Anna trug [*einen Hut*_M]_i/[*eine Mütze*_F]_j.
Anna wore [a hat]_i/[a cap]_j.
- b. Peter mochte *seine*_i/*ihre*_j Farbe_F nicht.
Peter liked its_{i/j} color not.
'Peter didn't like its color.'
- (19) REFLEXIVE USE
- [Anna und Peter]_i lieben *ihr*_i Auto_N/*ihre*_i Auto_{SPL}.
[Anna and Peter]_i love their_i car/their_i cars.
- (20) NON-REFLEXIVE USE
- [Anna und Peter]_i haben ein Auto/zwei Autos. *Ihr*_i Auto_N ist
[Anna and Peter]_i have a car/two cars. Their_i car is
rot./*Ihre*_i Auto_{SPL} sind rot.
red./Their_i cars are red.

Figure 3 illustrates the properties of the German third possessive system. The stem is dependent on possessor number and gender (if singular). As to the possessum-related features, the possessive inflects according to gender, number and morphological case (N: nominative, A: accusative, G: genitive, D: dative) of the host DP.

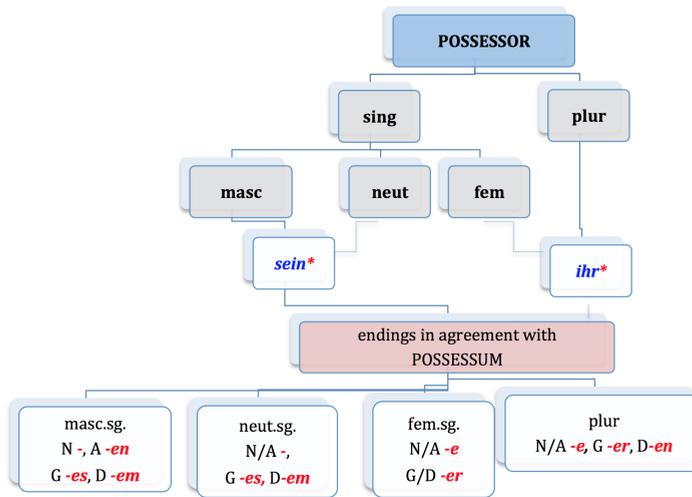


FIGURE 3: The German system of third person adnominal possessives.

[2.5] Norwegian (and other Scandinavian languages)

As mentioned in section [2.1], Norwegian distinguishes between reflexive and irreflexive possessives. The *reflexive* possessive *si** demands a third person antecedent but exhibits no stem variation relating to (other) properties of the possessor.¹⁴ It agrees in gender and number with the possessum (sg. masc. *sin*, fem. *si*, neut. *sitt*, pl. *sine*), as illustrated in (21) and (22). (Since Norwegian *bokmål* is developing into a two-gender language, feminine being ‘suppressed’ by masculine gender, we use the term ‘common gender’ for the latter. This is the term used in relation to standard Danish and Swedish, which are genuine two-gender languages.)

(21) REFLEXIVE

- a. *Anna_i/Peter_j solgte bilen/kua* *sin/si_{i/j}*
 Anna/Peter sold car/cow.DEF.SG.COMM/FEM POSS.R.SG.COMM/FEM
 ‘Anna_i/Peter_j sold her_{i/*j}/his_{j/*i} car/cow.’
- b. *Anna_i/Peter_j solgte huset* *sitt_{i/j}*
 Anna_i/Peter_j sold house.DEF.SG.NEUT POSS.R.SG.NEUT
 ‘Anna_i/Peter_j sold her_{i/*j}/his_{j/*i} house.’
- c. *Anna_i/Peter_j solgte maleriet* *sine_{i/j}*
 Anna_i/Peter_j sold painting.DEF.PL POSS.R.PL
 ‘Anna_i/Peter_j sold her_{i/*j}/his_{j/*i} paintings.’

[14] First and second person possessives are neutral with respect to reflexivity; see table 1.

- (22) REFLEXIVE
 [Anna og Petter]_k solgte bilen *sin*_k/kua *si*_k/huset
 [Anna and Peter]_k sold car their_k/cow their_k/house
*sitt*_k/maleriene *sine*_k.
 their_k/paintings their_k.

Like the English possessives, the *irreflexive* Norwegian possessives can be analyzed as genitive forms of third person personal pronouns *han* ‘he’, *hun* ‘she’, *den/det* ‘it’, *de* ‘they’. Here, the natural gender of the possessor (male vs. female), grammatical gender (common – or masc./fem. – vs. neuter) and the feature \pm human play a role. Hence, we have +human sg. male possessive *hans* vs. female *hennes*, -human sg. comm. *dens* vs. neuter *dets* and, more straightforward, the plural possessive *deres*, which is unspecified in other possessor-related respects. As expected, these forms do not inflect. Being irreflexive, they cannot refer to the subject of the clause (see section [3.1] for a description of binding conditions); cf. (23)–(27) (IR: irreflexive).¹⁵

- (23) IRREFLEXIVE
*Anna*_i har en bil/flere malerier. Petter_j liker bilen/maleriene
 Anna_i has a car/several paintings. Peter likes car/paintings
*hennes*_{i/*j}.
 her_i
- (24) IRREFLEXIVE
*Petter*_j har et stort hus. Anna_i liker huset *hans*_{j/*i}.
 Peter_j has a big house. Anna_i likes house his_j
- (25) IRREFLEXIVE
 [Anna og Petter]_i har et stort hus. Naboen_j liker huset *deres*_{i/*j}.
 [Anna and Peter]_i have a big house. The neighbor likes house their_i
- (26) IRREFLEXIVE
*Terroren*_i og *dens*_i årsaker må undersøkes.
 [The terror]_i and its_i causes must be investigated
- (27) IRREFLEXIVE
*Selskapet*_i varsler at *dets*_i resultater blir dårligere enn
 [The company]_i warns that its_i results will be worse than
 forventet.
 expected

The properties of the Norwegian system are summarized in figure 4. The highest

[15] Since alternatives to possessives tend to be preferred with nonhuman antecedents *dens* and *dets* ‘its’ are rather infrequent, in particular in spoken language.

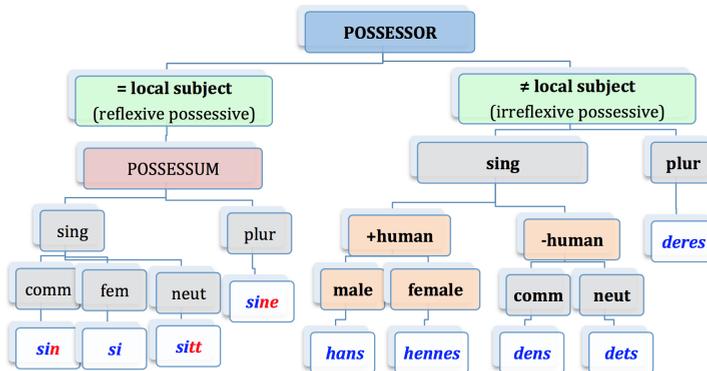


FIGURE 4: The Norwegian system of third person adnominal possessives.

distinction in the hierarchy is between reflexive and irreflexive possessives, where the reflexive has its own paradigm relating it to properties of the possessum while the irreflexive is a genitive form which reflects possessor properties alone.¹⁶

Norwegian shares the fundamental distinction between reflexive and irreflexive possessives with the other Scandinavian languages although there are differences in the details. Thus, the Danish reflexive possessive *sin/sit/sine* demands a singular antecedent while *deres* ‘their’ refers to a plural possessor independently of binding conditions; i.e. different from Norwegian, Danish *deres* is neutral with respect to reflexivity.¹⁷

[2.6] Russian (and other Slavic languages)

The Russian¹⁸ system is similar to the Norwegian system in distinguishing reflexive and irreflexive possessives. Also, the latter can be analyzed as genitive forms of the third person personal pronouns, differentiating possessor gender and number; as in German, however, there is a syncretism between the sg. masculine and the sg. neuter form: masc./neut. *ego*, fem. *eĕ*, pl. *ich*.

While the irreflexives lack possessum-related features, the reflexive possessives are inflected for gender, number and morphological case in agreement with the possessum.

Consequently, *svoju* in (28) can only refer to the clause subject whereas *ego* and *eĕ* in (29) must find their antecedent in the preceding context; and likewise for

[16] Green background: syntactic feature of possessor.

[17] This means that possessor number has a higher position than reflexivity in the Danish hierarchy of relevant dimensions.

[18] In the present paper, we use Russian as a representative of Slavic languages exhibiting the distinction between irreflexive and reflexive possessives – whatever the latter are called in the grammatical tradition of each specific language. In practice, our project will be concerned with Czech and Polish rather than Russian.

svoju vs. *ich* in (30) and (31) (M: masculine, F: feminine, A: accusative).

- (28) REFLEXIVE
Pjotr_i/Anna_j ljubit svoju_{i/j} sobaku.
 Peter_i/Anna_j loves POSS.R_{i/j}.F.SG.A dog.F.SG.A
 ‘Peter loves his (own) dog./Anna loves her (own) dog.’
- (29) IRREFLEXIVE
 ...*Pjotr_i/Anna_j ... Dmitri_k/Marja_i ljubit ego_{i/*j/*k/*l}/eë_{j/*i/*k/*l} sobaku.*
 ...Peter_i/Anna_j ... Dmitri/Mary loves POSS.IR.M.SG/POSS.IR.F.SG dog
 ‘...Dmitri/Mary loves Peter’s dog./Dmitri/Mary loves Anna’s dog.’
- (30) REFLEXIVE
 [*Pjotr i Anna*]_i ljubjat *svoju_i* sobaku.
 [Peter and Anna]_i love POSS.R_j dog.
 ‘Peter and Anna love their (own) dog.’
- (31) IRREFLEXIVE
 ...[*Pjotr i Anna*]_i ... [Dmitri i Marja]_j ljubjat *ich_{i/*j}* sobaku.
 ...[Peter and Anna]_i ... [Dmitri and Mary]_j love their_{i/*j} dog.
 ‘... Dmitri and Mary love Peter’s and Anna’s dog.’

In contrast to Norwegian, the Russian reflexive possessive *svoj** is not restricted to third person subjects but may take first and second person antecedents as well, competing with the regular Indo-European first and second person possessives *moj** ‘my’, *tvoj** ‘your_{sing}’, etc. (see table 1); cf. (32) and (33).

- (32) *Ja_i ljublju svoju_i/moju_i sobaku.*
 ‘I love my dog.’
- (33) *Ty_i ljubish svoju_i/tvoju_i sobaku.*
 ‘You love your dog.’

This means that the Russian reflexive possessive is not cued for any inherent (semantic or grammatical) properties of the possessor, in contrast to the possessives in the languages considered so far; it only marks the structural position or syntactic function of the possessor. The Russian third person core system — including the ‘impersonal’ *svoj** — is summarized in figure 5. Figure 6 shows the inflection of the reflexive *svoj** (N: nominative, A: accusative, G: genitive, D: dative, I: instrumental, P: prepositional case).

[2.7] Summary of contrasts

In this section we have described the (third person) possessive systems of English, French, German, Norwegian and Russian in terms of possessor- and possessum-related properties. First, quite generally, the *possessor number* determines the

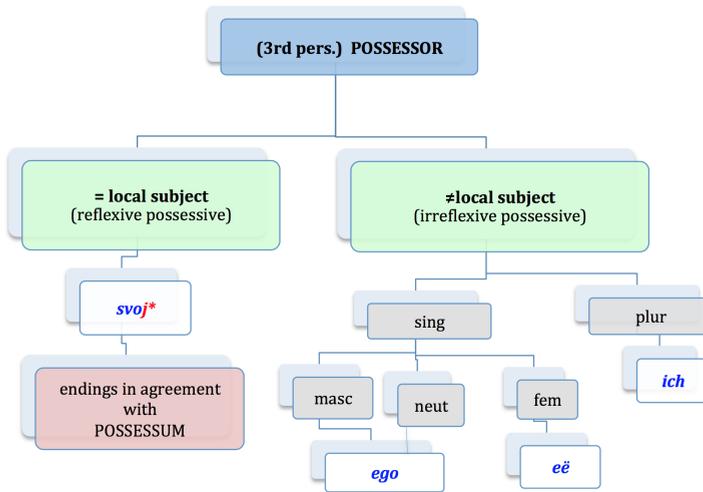


FIGURE 5: The Russian system of adnominal possessives with third person possessor.

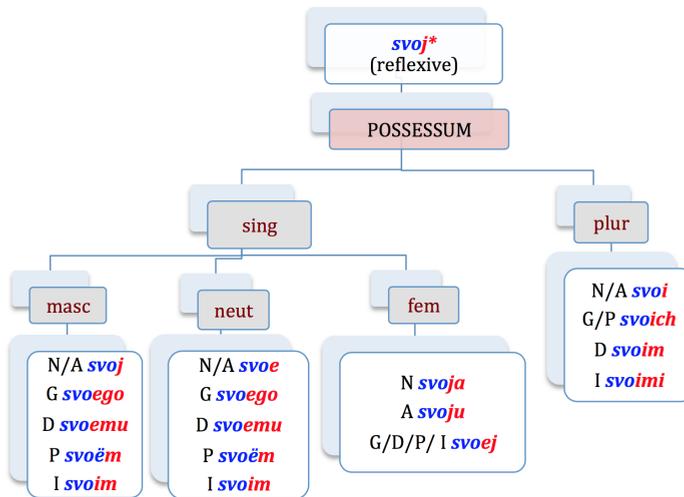


FIGURE 6: Possessum-dependent inflection of the Russian reflexive possessive *svoj**.

stem of the possessive, whether this is a genitive form as in English, Norwegian (irreflexives) and Russian (irreflexives) or has its own determiner-like inflectional paradigm as in French and German. The Norwegian and Russian reflexive possessives, however, are exceptions in this respect, being underspecified with respect to possessor number.

Next, as a general property, the head noun of the host DP — the *possessum* — by agreement determines the inflection of the possessive unless the latter is a genitive form prohibiting further morphological marking. Hence the (sub)systems of genitive forms (English possessives, Norwegian and Russian irreflexive possessives) exhibit possessor features only. They do, however, express more intricate semantic features of the possessor such as \pm human (English and Norwegian irreflexives *hans/hennes* vs. *dens/dets*), natural gender (English *his* vs. *her* and Norwegian *hans* vs. *hennes*), features which are left unspecified or underspecified in the other (sub)systems. The following summarizes the main contrasts concerning (lack of) specification in the various dimensions.

- (i) The non-Slavic languages except Norwegian are underspecified with respect to reflexivity, i.e. local versus nonlocal binding.¹⁹
- (ii) English possessives express semantic properties of the possessor such as \pm human and natural gender while possessum-related properties are left unspecified.
- (iii) French possessives are underspecified with respect to all possessor properties except for number.
- (iv) German exhibits idiosyncratic ambiguities with respect to possessor gender and number, presenting a syncretism between singular masc. and neuter (*sein**) on the one hand and between singular fem. and plural (*ihr**) on the other hand.
- (v) The Norwegian reflexive subsystem is underspecified with respect to possessor properties other than (local) binding but specified for possessum number and grammatical gender (in the singular). In the irreflexive subsystem, semantic possessor properties such as \pm human and natural gender are distinguished, but possessum-related features are not marked.

Viewed from a comprehension perspective, then, it appears that the languages with reflexivity permit the best identification of the possessor. Although the

[19] English, German and French do have means to avoid corresponding referential ambiguities in natural discourse, e.g. the demonstrative genitive forms *dessen* (masc./neut.sg.) and *deren* (sg. fem./plur.) in German, which preferably take a non-subject antecedent (see Bosch & Umbach (2007)). Demonstrative alternatives tend to be stylistically marked, however, and will not be considered here.

reflexive subsystem is underspecified with respect to possessor properties, the possessor is still unambiguously identified as the subject of the clause.

Note, finally, that even closely related languages exhibit differences in their systems (e.g. German vs. Norwegian, English vs. German), while languages from different language families may exhibit important similarities (e.g. Norwegian and Russian with respect to the reflexive/non-reflexive distinction).

[3] OTHER DIMENSIONS OF POSSESSIVE CONTRAST: SYNTAX, SEMANTICS, USAGE

In this section we briefly present some non-morphological dimensions of contrast that are relevant with respect to our object languages but which we do not yet plan to take up in our L2-oriented empirical research.

[3.1] *Binding properties*

Norwegian possessives are not complex for the reasons mentioned in the preceding section alone. They also, in some variants of Norwegian, display binding properties that go well beyond the standard cases mentioned in section [2.1]. According to principle A of Binding Theory, reflexive possessives ought to be bound within their binding domain, which normally corresponds to the smallest clause that contains the possessive DP and its co-indexed antecedent; see examples (21)–(22) in section [2.5]. For some speakers of Norwegian though, binding across a clause boundary, called long-distance binding (LDB), is still quite acceptable. In the ScanDiaSyn survey, for instance, reported in [Lundquist \(2014a,b\)](#) and [Julien \(2015\)](#), among others, sentences containing reflexives within embedded clauses were tested. Recall that binding into the embedded finite clauses should normally be forbidden (by principle A of BT):

- (34) *Regjeringen*_i regner ikke med at forslaget_{et}
 Government.DEF.SG count not with that proposal.DEF.SG.NEUT
*sitt*_i vil få flertall.
 POSS.R.SG.NEUT will get majority
 ‘The government do not expect that its proposal will get majority.’

The reflexive possessive (*sitt*) of the embedded clause subject in (34) is tested for reflexive binding from the matrix subject (*regjeringen*). These kinds of sentences are rejected by most speakers in the ScanDiaSyn-survey, and also by the Norwegian author of this paper, but, strikingly, informants from some parts of Norway, especially central parts (Sør-Trøndelag and Nord-Trøndelag) and even some Northern parts, are much more liberal with respect to their acceptability. In general, sentences like (35) containing an irreflexive possessive in the embedded subject position are more readily accepted by the wide majority of speakers:

- (35) **Regjeringen_i** regner ikke med at forslaget
 Government.DEF.SG count not with that proposal.DEF.SG.NEUT
dens_i/deres_(i) vil få flertall.
 POSS.IR.NONHUM.SG.NEUT/POSS.IR.PL will get majority
 ‘The government do not expect that its proposal (the proposal of the government)/their proposal (the proposal of the members of the government) will get majority.’

As stated by [Lundquist \(2014b, 500\)](#),

it is however worth pointing out that sentence #156 [our (35)] gets higher scores than sentence #157 [our (34)] in the area where L(ong)-D(istance)B(inding) in general is quite acceptable (Sør-Trøndelag, Møre og Romsdal, northern Oppland and northern Hedmark).

Thus, we have to accept that the already complex distribution pattern of Norwegian reflexive and non-reflexive possessives in normative cases are further complicated by the existence of LDB in varieties of Norwegian. In [Julien \(2015\)](#), we find many cases of binding into embedded clauses, in subject (37) or non-subject position (36), with a surprisingly high rate of acceptability, for example:

- (36) **Hun** føler at noe mangler i livet **sitt**.
 she feels that something lacks in life.DEF.SG.NEUT POSS.R.SG.NEUT
 ‘She feels that something is lacking in her life.’
 (Rejected by only 10 out of more than 90 informants in [Julien \(2015\)](#).)
- (37) **Hun** mente at **sin** egen plan var best.
 she found that POSS.R.SG.COMM own plan.SG.COMM was best
 ‘She found that her own plan was the best one.’
 (Rejected by 28 out of 90 informants in [Julien \(2015\)](#).)

It could be added to this that binding ‘errors’ under standard conditions are also easily found, even in written texts, for example from newspapers:

- (38) **Den 26-årige bokdebutanten Shani Boianiju_i** drar nå verden rundt og promoterer boka ***hennes_i** (√**si_i**)
 Lit.: ‘The 26 year old novice writer Shani Boianiju now travels around the globe and promotes her book.’ (Dagbladet 2013)

Since it is her own book Shani Boianiju wants to promote, the reflexive possessive *si** is called for while in the next example, the reflexive *si** would refer to the authorities (the clausal subject), which of course is not intended:

- (39) Svenske myndigheter fratok i går **Mijailo Mijailovic_i** ***sitt_i** (√**hans_i**) svenske statsborgerskap.

Lit.: ‘The Swedish authorities yesterday deprived Mijailo Mijailovic (of his Swedish nationality.’ (Aftenposten 2004)

Such complexities in the grammar(s) of Norwegian should be borne in mind when we discuss L2 acquisition challenges involving Norwegian as L2 (section [4.6]).

[3.2] *Possessives vs. definites: (in)alienable possession, and ‘external’ possessives*

There are further highly interesting questions about the distribution of possessives in our languages that we mention *en passant* without going into details. Thus, as we saw in section [1], ‘our’ possessives combine definite reference (anaphoric or deictic) with a relational meaning of possession in the broad sense (hierarchy, property, kinship, part-whole, and so on) (Baron et al. 2001; Heine 1997; Koptjevskaja-Tamm 2002; Zifonun 2005). In this respect, the type of relation marked by a possessive DP is typically *alienable*. *My house* is a type of (concrete) object that I may own for possibly a very long period, but I may also sell it. *Alienable possession* is contrasted with *inalienable possession*, which encodes parts – typically body parts – that are intrinsically linked to the ‘possessor’. *Inalienable possession* is of course not possession in the strict sense. I do not *own* my arm, leg, nose and so on, but the parts of my body are inherent parts of me. *Inalienability* is thus related to inclusion and dependency. What is in the part is necessarily in the whole and the whole includes the part (Kleiber 2008). Since all human beings in principle have the same body parts, *inalienable possession* is typically marked as presupposed or given information. This is why some languages tend to express this type of relation by a definite determiner, cf. (40).²⁰ On the ontology scale of Kleiber (2008), humans have the largest amount of *inalienable parts* and *properties* the least: Humans > animals > concrete objects > events > properties.

- (40) a. NORWEGIAN
Da han endelig snudde *hodet* og så på meg, hadde han tårer i *øynene*.
(BHH1N.3.3.s94)
Lit.: ‘When he finally turned *the head* and looked me, he had tears in *the eyes*.’
- b. FRENCH
Et lorsqu’ il a enfin tourné *la tête* pour me regarder, il avait les larmes *aux yeux*.
(BHH1TF.3.3.s97)
- c. GERMAN
Als er endlich *den Kopf* bewegte und mich ansah, standen ihm Tränen *in den Augen*.
(BHH1TD.3.3.s92)

[20] The following examples are taken from the Oslo Multilingual Corpus (OMC, see <http://www.hf.uio.no/ilos/english/services/omc/>). In each set, the first example comes from the source text, the others are target text versions from authorized translations. Possessives are blue and in italics, ‘inalienable DPs’ containing a definite article instead are black and regular throughout.

The head and the eyes are integrated (body) parts of the subject referent. Hence the use of definites in both Norwegian, French and German. However, there are cases where the explicit marking of inalienables differ from language to language:

- (41) a. NORWEGIAN
 [...] og jeg rakte *armen* ut og fikk et slangebitt så overdådig at jeg skrek høyt. (BHH1N.1.1.s56)
 Lit.: ‘...and I stretched *the arm* out and got a snakebite so sharp that I screamed loudly.’
- b. FRENCH
 [...] En guise de réponse, *j*’avais tendu *mon bras*, puis senti une morsure de serpent si violente que *j*’avais poussé un grand cri. (BHH1TF.1.1.s56, s57)
- c. GERMAN
 [...] und ich streckte *den Arm* aus und erwischte einen so heftigen Schlangenbiß, daß ich laut aufschrie. (BHH1TD.1.1.s53)

In a case like (41), one might ask why possessive marking should be necessary in French in contrast to Norwegian and German. Whenever the speaker feels the need to establish the possessive (in the wide sense) referential link with the antecedent in an explicit manner, a possessive may be used. This tendency seems to be stronger for English and French than Norwegian (Woldsnes 2013),²¹ and also stronger for German than Norwegian. In fact, more generally, our languages exhibit differences of usage in this area, which we cannot pursue further in the present paper:

- (42) a. NORWEGIAN
 Og *hun* ville rope på *mora*, kjenne henne inntil seg. (HW1N.1.s5, s6)
 √Og *hun* ville rope på *mora si*, kjenne henne inntil seg.
 Lit.: ‘And she wanted to call for the mother/her mother, feel her against her.’
- b. FRENCH
Elle aurait voulu appeler *sa mère*, la sentir tout près d’elle. (HW1TF.1.s5)
 #*Elle* aurait voulu appeler *la mère*, la sentir tout près d’elle.
- c. GERMAN
 Und *sie* wollte nach *der Mutter* rufen, sie nahe bei sich haben. (HW1TD.1.s7)
 √Und *sie* wollte nach *ihrer Mutter* rufen, sie nahe bei sich haben.

We will not be concerned with usage preferences between possessives and def-

[21] See also Hasselgård (2012) concerning possessive absolutes in English and Norwegian.

inites in our object languages. We do have to take into consideration, though, that the grammatical possessive system for a language like Norwegian is highly complex in itself, opening up for dialectal and idiolectal variation. This makes it hard to acquire even for native speakers of Norwegian. These points should be borne in mind when investigating the acquisition of e.g. German and French L2 by Norwegian L1-speakers and the acquisition of Norwegian as a foreign language.

Another means to express the inalienable relation between possessor and possessum is the use in some languages of so-called external possessors (Haspelmath 1999; Stolz et al. 2008; Zifonun 2005). In the external possessor construction, the possessor is realized as a constituent of its own, in German as a dative noun phrase called the possessive dative or *Pertinenzdativ* (Zifonun et al. 1997, 1337ff); cf. (43a) and (44) from (40c) above. In French, the external possessor appears as a clitic (43b). According to Lødrup (2009a), the external possessor in Norwegian (Icelandic, Swedish and Danish) typically appears as a PP with a locative preposition (45):

- (43) a. Ich habe *mir* die Finger verbrannt.
Lit.: ‘I have burnt me the fingers.’
‘I burnt my fingers.’
b. Je *me* suis brûlé les doigts.
- (44) *Ihm* standen Tränen in den Augen.
Lit.: ‘Him stood tears in the eyes.’
‘He had tears in his eyes.’
- (45) De måtte fjerne leveren på *ham*.
Lit.: ‘They had to remove the liver on him.’
‘They had to remove his liver’.

Another construction strongly resembling the dative external possessor in German and French results from *possessor raising* in Norwegian (Lødrup 2009b) (46) – and English.

- (46) Hun slo *ham* i hodet.
‘She hit him in the head.’

This construction, however, differs from the dative external possessor construction in German by having the possessor as a direct object while in German, the possessor is realized as a dative and the possessum typically as an accusative, i.e. direct, object; and likewise for the French external possessor construction (Lødrup 2009b). A comparison of external possessors in Norwegian and German fiction in the OMC (see footnote 20) revealed that the German dative possessor occurs more often than the Norwegian external possessor PPs (Holthe 2016).

[3.3] *Categorial status and definiteness*

Typically, even in theoretically driven accounts (Alexiadou et al. 2007; Lødrup 2011; Peteghem 2012), possessive ‘pronouns’ may be viewed as either ‘determiners’ or ‘adjectives’. Their determiner-like behavior is easy to demonstrate. Thus for English, French, German and Norwegian, the prenominal possessive is in complementary distribution with genuine determiners, as witnessed in (47); more specifically, the possessive makes the DP semantically definite like a definite article (Zifonun 2005). Hence the definite D and the (prenominal) possessive D may be said to occupy the same slot in syntactic structure.

- (47) a. *the *his* book
 b. *le *son* livre
 c. *das *sein* Buch
 d. *den *hans* bok

This, of course, is a more general typological tendency (for cross-linguistic data, see Alexiadou et al. (2007, 566ff)) ruling out their co-occurrence. In general, languages don’t accept definites co-occurring with possessives in front of the head noun. At the same time, there are languages that do have definite – or even indefinite – determiners co-occurring with possessives. Italian is a case in point (Cardinaletti 1998), showing a definite determiner (*il*) preceding the possessive (*suo*) and the (expressed) noun:

- (48) *il suo libro*

The possessive in (48) (*suo*) exhibits adjectival properties. In a similar vein, French has possessives with adjectival morphology, which are necessarily preceded and followed by respectively a definite determiner and an elliptical head noun:

- (49) *le sien* (*livre)

In generative grammar, these issues have received much attention from the 1990s and onwards; see, e.g. Julien (2005) and Alexiadou et al. (2007) for an overview. They have also been framed as a distinction between *strong*, *weak* and *clitic* forms (Cardinaletti 1998). The main idea of this type of approach is that all possessives, whether they are determiner-like or adjectival-like, share the same base position. Assuming a fine-grained elaborate structure of the nominal projection (= DP), the possessive starts out as a specifier of a lower constituent within the extended DP, for example the nP. This corresponds to the *strong* position of the possessive in Cardinaletti’s terms. Adapting her framework slightly, the nominal head will move from the low NP into the head position of the nP and then further up to the head position of a functional projection (FP) above and to the left of the possessive:

(50) [DP [D la [FP macchina [NP SUA [n macchina] NP macchina]]]]

While the strong possessive, as in (50), remains in its base position, *weak* possessives move further up the tree, to a higher (functional) specifier position:

(51) [DP [D la [FP sua [macchina]] [NP sua [n macchina] NP macchina]]]]

Besides being preceded by a definite article, weak possessives in Cardinaletti's system are thus *deficient*. However, they still occupy a specifier position (of FP). This property distinguishes them from fully grammaticalized clitics. The French system is given as an example in Cardinaletti's treatment of a *clitic* possessive, adjoining to the head position of D as in (52):

(52) [DP [D sa [FP sa [voiture]] [NP sa [n voiture] NP voiture]]]]

The strong-weak-clitic-treatment of possessives – and more generally of personal pronouns (Cardinaletti & Starke 1999) has been quite influential, but it has mainly been applied to Romance.²²

For our purposes, we will not make use of the strong-weak(-clitic) distinction. It should be noted however that the Norwegian system is particularly complex from a syntactic viewpoint since Norwegian has both prenominal (53a) and postnominal (53b) possessives. In this respect Norwegian differs from Danish, where possessives are restricted to the prenominal position.

- (53) a. *hans bil*
his car
b. *bilen hans*
car.DEF his

As for the French and German case (see above), we treat the prenominal possessive as a kind of determiner, or at least as occupying a head position, possibly of a possessor phrase, high in the extended nominal projection. The postnominal possessive of Norwegian however behaves quite differently since it combines obligatorily with a definite noun: (53c) is ungrammatical.

- (53) c. **bil hans*
car his

[22] Attempts have been made, though, to adapt it to Germanic. Lødrup (2011), for instance, takes Norwegian postnominal possessives to be weak and Norwegian prenominal possessives to be strong, contrary what one would expect in view of Cardinaletti's hypothesis for Romance. In Norwegian, only prenominal possessives can be coordinated (*mitt og hennes hus* 'my and her house') and focused (*dette er bare MITT hus* 'This is only MY house'). And even if postnominal possessives may also easily be focused (*bilen MIN, ikke DIN* 'my car, not yours'), this is not taken by Lødrup (2011) as an argument for necessarily treating them as strong.

This means that the postnominal possessive in Norwegian cannot adjoin to the D-position like the French possessive determiner in Cardinaletti's treatment. It should rather be seen as a specifier of a lower nominal projection, either the nP (Cardinaletti 1998) or the NP (Julien 2005).

[4] L2 ACQUISITION CHALLENGES IN THE CORE SYSTEMS: GENERAL ASSUMPTIONS

[4.1] *Preliminaries*

As mentioned in section [1], we assume that

- (i) achieving native-like fluency in the use and processing of L2 possessives (in the languages we are concerned with) is a task of varying complexity, depending in part on the degree of isomorphism between the possessive core systems of the specific L1/L2 pair involved; and
- (ii) for a given L1/L2 pair, some possessive contrasts may be more fundamental or pervasive than others, impeding L2 performance of even quite advanced L2 learners.

It should be stressed, though, that *production* and *comprehension (interpretation)* are very different tasks (Zeevat 2014) and, accordingly, that features of L2 which cause problems in L2 production may represent less of an obstacle in interpretation tasks, and vice versa (see e.g. Jarvis & Pavlenko (2008, 15ff)). Also, when measuring L2 proficiency, it is important to distinguish between the outcome of a production or interpretation task, i.e. the *product*, on the one hand and what we shall call the *process*, i.e. processing itself, on the other hand.²³ In our context, this means that ideally, hypotheses concerning the acquisition or command of L2 possessives should be specified along these different dimensions and tested in adequate offline and online experimental settings.

In addition to free production and interpretation of written or spoken L2, foreign language learners are often faced with the task of explicitly *translating* between L1 and L2 (both ways). Accordingly, we consider (product and process) data from translation tasks to be relevant in our context as well, despite the special character of such tasks. Notably, translation involves either L1 comprehension and L2 production or L2 comprehension and L1 production, depending on whether L2 is the target or the source language. Consequently, one might expect form-based priming between the two languages to be more frequent in translation tasks than in non-translational L2 production or comprehension; cf. Pitz et al. (2017), Helland (2017) and Behrens (2017).²⁴

[23] We prefer the term *process* since *processing*, as used psycholinguistic literature, seems to be used partly in a very general sense but also more specifically for the 'decoding' (comprehension) process.

[24] Relevant German literature makes a convenient terminological distinction between *Hin-Übersetzung* (L1 to L2) and *Her-Übersetzung* (L2 to L1).

L1	L2				
	Norwegian	German	French	English	Russian
Norwegian		No1/Ge2	No1/Fr2	No1/En2	No1/Ru2
German	Ge1/No2		Ge1/Fr2	Ge1/En2	Ge1/Ru2
French	Fr1/No2	Fr1/Ge2		Fr1/En2	Fr1/Ru2
English	En1/No2	En1/Ge2	En1/Fr2		En1/Ru2
Russian	Ru1/No2	Ru1/Ge2	Ru1/Fr2	Ru1/En2	

TABLE 3: L1/L2 pairs involving Norwegian, German, French, English and Russian.

Our set of five languages generates 20 different L1/L2 pairs (table 3). Note, though, that English is the first foreign language for No1 speakers, and probably for most Ge1 and Fr1 speakers as well (column 4), while No2, Ge2, Fr2, and Ru2 in most cases will be a second (or later) foreign language.

In the sections [4.2] through [4.5] we summarize what we take to be the main possessive challenges of English, German, French and Russian as L2; section [4.6] is concerned with Norwegian as L2 (first column of table 3), and in particular with the possible effects of the distinction between reflexive and irreflexive possessives.

At present the research questions we pursue in ongoing and planned empirical investigations focus on the boldface pairs in table 3, which have Norwegian as L2 or Norwegian as L1 with German or French as L2, in part for practical reasons (availability of data and test persons), in part because these three languages are underrepresented in L2 research, as compared to English. In addition, experimental research concerning Czech vs. German and Polish vs. English possessives is being conducted in Dortmund and Warsaw, respectively.

[4.2] *English as L2*

The fairly simple English possessive systems may be assumed to represent less of a L2 challenge to Norwegian, German, French and Russian learners than the other way round. Note however that genuine restructuring (Jarvis & Pavlenko 2008; McLaughlin 1990; Pashler 1999) is demanded from *French* learners of English: In the possessor singular they will have to replace their possessum-oriented gender-number distinction (*son/sa/ses*, see figure 2) by the possessor-oriented distinction between *his*, *her* and *its*, which is of a semantic nature in the sense that it reflects properties of the possessor referent (\pm human, natural gender); cf. figure 1.²⁵ That is, viewed from the L2 production perspective of a French En2 learner, each of the three L1 items *son*, *sa* and *ses* may correspond to either *his* or *her* (or *its*) in the

[25] Note, though, that French does exhibit possessor-oriented stem variation with respect to the categories person (first, second, third) and number (cf. table 1).

L2, depending on (the \pm human feature and) the natural gender of the (singular) possessor; *leur* and *leurs*, on the other hand, ‘converge’ to L2 *their*; cf. examples (12)–(16) in section [2.3].

Since *Norwegian* has the possessor gender and \pm human distinction built into its system, albeit at the lower hierarchical level of irreflexive possessives (cf. *hans* ‘his’, *hennes*, ‘her’ and *dens/dets* ‘its’) (figure 4), Norwegian learners of English, on the other hand, may be expected to acquire the English possessive system quite easily. This holds for *German* learners, too, due to the fact the possessives *sein** and *ihr**, which normally reflect the grammatical gender of the antecedent DP (if singular), may be used deictically referring to a male, female (or human plural) possessor, respectively; similarly for the *Russian* irreflexive possessives *ego*, *eë* and *ich*.

[4.3] *German as L2*

As far as German possessives are concerned, their complicated inflection, based on number, gender and case agreement with the head noun, is a well-known problem for Ge2 learners, more or less independently of their L1 — and for Ge1 acquisition as well. Being common to German determiners in general (apart from some details), however, it is of less interest in our context than two possessor-related characteristics of the German possessive system: the fact that the choice between *sein** and *ihr** is determined by number and grammatical rather than natural gender of the antecedent DP; and the fact that *ihr** is underdetermined between (possessor) plural and feminine singular (see section [2.4] and figure 3).²⁶

Thus *Norwegian* and *English* Ge2 learners will have to substitute a possessor-related distinction of grammatical gender for their native semantic distinction and in addition adapt to an idiosyncratic possessor-related ambiguity. The latter, notably, may be more of a problem in Ge2 interpretation than in Ge2 production: No1 *hennes* (irreflexive possessor singular feminine), *deres* (irreflexive possessor plural) – and (reflexive) *si** with a singular feminine or plural possessor — ‘converge’ to Ge2 *ihr** (production perspective) while Ge2 *ihr** may correspond to No1 *si** (reflexive), *hennes* (irreflexive singular feminine) or *deres* (irreflexive, plural) (comprehension perspective).

French Ge2 learners face a similar restructuring challenge as with En2 (see above), possibly complicated by the phonological similarity between German *sein* (possessor singular masculine) and French *son* (possessor singular, unspecified possessor gender; possessum singular masculine). Consequently one might expect French Ge2 learners to use *sein** instead of correct *ihr** more often than the other

[26] Ordinary third person pronouns distinguish between masc. *er** and neuter *es* in the singular while *sie** like the possessive *ihr** may take a sg. fem. or a plural antecedent. Note also that the word form *ihr* in addition to (possessum) sg. masc. nominative and sg.neut. nominative/accusative of the possessive *ihr** represents the dative of the third person fem. sg. pronoun *sie** ‘she’ and the nominative of the second person plural pronoun, i.e. ‘you’ (plural).

way round. In a similar vein, *Norwegian* and

Like Norwegian Ge2 learners, *Russian* Ge2 learners — even when aware of the systematic differences — may tend to associate *sein** with their native reflexive *s*-possessive (*si** and *svoj**, respectively), resulting in a skewed distribution of error types in Ge2 production (*sein** used instead of correct locally bound *ihr** more often than vice versa) and Ge2 comprehension (*sein** more often than *ihr** erroneously understood as locally bound, i.e. interpreted reflexively); for No1/Ge2 see [Pitz et al. \(2017\)](#).

[4.4] *French as L2*

Turning to L2 French, we assume that *English*, *Norwegian* and *Russian* learners may tend to erroneously equate the possessor-dependent gender-number distinction between their possessives — English *his*, *her*, (*its*) *their*, Norwegian irreflexives *hans*, *hennes*, (*dens/dets*) and *deres*, and Russian irreflexives *ego*, *eë* and *ich* — with the possessum-related gender-number distinction between *son*, *sa* and *ses*, ignoring the French possessor-plural possessive *leur(s)*.

Likewise, *German* Fr2 learners will have to replace their possessor-dependent gender-number distinction (*sein*/ihr**) by the French possessum-dependent gender-number distinction (*son/sa/ses*); and due to the greater phonological similarity, we might expect that they wrongly equate *son/ses* with *sein** (ignoring that e.g. *son père* is ambiguous between *sein Vater* and *ihr Vater*, as is *ses enfants* between *seine Kinder* and *ihre Kinder*). On the other hand, since *sa* corresponds to the sg. fem. form *la* of the definite article, Fr2 learners may tend to equate *sa* with the feminine possessor *ihr**, ignoring the ambiguity of *sa mère* between *ihre Mutter* — *seine Mutter*. Like German Fr2 learners, Norwegian and Russian Fr2 learners will have to ‘deactivate’ any associative bond between the French *s*-possessive and their native reflexive *s*-possessive (*si** and *svoj**, respectively); for No1/Fr2 see [Helland \(2017\)](#).

[4.5] *Russian as L2*

As for Russian as L2, we assume — abstracting from inflectional complications — that *English*, *German* and *French* Ru2 learners encounter the same kind of problems with the reflexive possessive (*svoj**) vs. irreflexive third person possessives (*ego*, *eë*, *ich*) as they may be expected to have when learning Norwegian (see section [\[4.6\]](#)) while *Norwegian* Ru2 learners should come to master the choice between *svoj** and an irreflexive third person possessive — and the obligatory reflexive (locally bound) interpretation of *svoj** — quite easily.

[4.6] *Norwegian as L2: reflexivity and (potentially) false possessive friends*

Abstracting from the inflectional complexities of German and Russian, the Norwegian core system is evidently more complex than any of the other possessive

systems presented in section [2], primarily due to the distinction between reflexive and irreflexive possessives but also because singular irreflexive possessives are differentiated according to both natural and grammatical gender of the possessor (figure 4).²⁷ Acquiring Norwegian possessives, then, would seem to demand more complicated restructuring from L1 speakers of *German*, *French* or *English* than the other way round since the reflexivity parameter introduces a type of possessor-related distinction (possessor cue) at the highest ‘decision’ level which is absent in their L1 (compare figures 1, 2, and 3 to figure 4).²⁸

The result is lexical L1-L2 divergence involving Norwegian *si**: In production, No2 learners have to choose between *si** and some irreflexive alternative (*hans/hennes/...*), depending on the syntactic (binding) circumstances, irrespective of which L1 possessive — if any (see section [3.2]) — would be adequate in the given context. As for comprehension, *German* and *French* No2 learners conversely face the challenge that the Norwegian *si** variants (*sin, si, sitt, sine*) are also under-determined in the sense of being unmarked for possessor-related features that determine the choice between lexical alternatives in their L1, i.e. *sein** vs. *ihr** in German and the *s-* vs. the *leur-* possessive in French. Thus the Norwegian, German and French possessives beginning with *s-* — and in particular the specific forms *sin* (Norwegian), *sein* (German) and *son* (French) — constitute what may be termed (partly or potentially) ‘false friends’: they are morpho-phonologically similar but cued differently in relation to the possessor.

We expect the No2 performance of German and French learners to reflect the hierarchical importance of the reflexivity contrast in general and the false-friend relation between No2 reflexive possessives and L1 *s-* possessives in particular. More specifically, we assume that not too advanced No2 learners tend to prefer Norwegian *si** over irreflexive alternatives under conditions calling for an *s-* possessive in their mother tongue and to interpret Norwegian *si** in accordance with its (partly false) possessive friend in their L1, whether or not this a correct solution to the production or comprehension task at hand. Specifically, this seems to be a plausible hypothesis for translation tasks (into or from No2), where the actual presence of an *s-* item in the L1 or No2 source text may prime for the possessive (but potentially false) friend in the target language. And we assume that the possessive performance of otherwise quite advanced No2 learners tends to be somewhat impeded in related ways as compared to the performance of No1 speakers.

As for *Russian* No2 learners, on the other hand, we do not expect them to have particular problems with the reflexivity distinction in Norwegian while the twofold differentiation of singular irreflexive possessives (*hans* vs. *hennes* and *dens* vs. *dets*)

[27] An additional complexity is the prevailing postnominal position of Norwegian possessives; cf. [Anderssen & Westergaard \(To appear\)](#).

[28] Note though that the reflexive-irreflexive distinction is present in the non-possessive pronoun systems of these languages (cf. German *sich*, French *se*, English *himself* / ...).

may represent a challenge here (compare figure 5 and 4) – and perhaps for French and German No2 learners as well.

[5] SUMMARY AND OUTLOOK

The present paper set out to present the contrastive background and the basic objectives of a cross-linguistic research project (POSS) that takes an L2-oriented perspective on third person possessives in English, Norwegian, German, French and selected Slavic languages, focusing on L1/L2 pairs involving Norwegian as L2 or L1 but with a view also to pairs including Czech or Polish.

In the first, descriptive part of the paper we first compared the various morpho-syntactic ('core') systems of possessives, Russian representing the Slavic group (section [2]), and then briefly presented other – purely syntactic, semantic, or usage-oriented – dimensions of contrasts that go beyond the immediate scope of our project (section [3]).

Section [4], finally, addressed our main research question: What impact – if any – may the contrasts laid bare in section [2] have on the acquisition, processing and use of L2 possessives across our object languages? To what extent and in what ways may the acquisition or command of possessives in L2 be impeded or enhanced by the specific properties of the possessive system in L1?

Our basic assumption is that the challenges a L2 learner faces in relation to L2 possessives depend in part on the degree of isomorphism between the possessive core systems of her/his L1 and the L2 in question. Specifically, the reflexive-irreflexive bifurcation of Norwegian (and Slavic) third person possessives is based on a purely syntactic distinction (local versus non-local binding by the possessor) at the top level of the dimensions determining the choice of third person possessive in production and the search for an antecedent in comprehension. Acquiring this system, then, demands high-level possessive restructuring by German, French and English learners, whose L1 lacks that distinction in the possessive system – although reflexivity is explicitly encoded in the system of 'ordinary' third person pronouns (cf. German reflexive *sich*, French *se*, English *her-/himself* etc.). On the other hand, English, German, Norwegian (and Slavic) learners of French have to adapt to the fact that possessor gender, an important dimension in their L1 possessive systems, is irrelevant in the French system (cf. figure 3 and section [4.3]).

We assume that even when L2 learners are fully aware of such important contrasts, i.e. have successfully restructured their explicit knowledge of possessives, their actual L2 performance may still be somewhat hampered as compared to native speakers of the language in question. That is, we assume that automatization may lag behind even for quite advanced L2 learners, in particular – or at least in particular ways – where false possessive friends are involved (e.g. Norwegian *si** versus German *sein** and French *s** (*son/sa/ses*), German *sein** versus French *s**).

The issues discussed in this paper bear on very basic problems of L2 acquisition and proficiency (Roberts et al. 2008): what is traditionally labeled *transfer* of features from the learner's L1 into her/his interlanguage variety of L2 (IL2) (see e.g. Benati & Angelovska (2016, 31–58); Eide (2015); Ellis (2008, 349–402); Jarvis & Pavlenko (2008, 61ff); Meisel (2000); Odlin (2003)) and the role of L1 influence as opposed to *general learner effects* in L2 processing, including online pronoun resolution by L2 comprehenders (see e.g. Clahsen & Felser (2006); Felser & Cunnings (2012); Patterson et al. (2014); Roberts et al. (2008)).

Ellis (2008, 353f) distinguishes five types of methodological approaches to transfer:

- (i) Type 1: Comparison of the use of a particular feature in the IL2 and L1.
- (ii) Type 2: Comparisons of the use of a particular feature in the IL2, the L1 and the L2.
- (iii) Type 3: Comparisons of the use of a particular feature in the IL2 of learners from two or more different L1 backgrounds.
- (iv) Type 4: Comparisons of the use of a particular feature in the IL of learners who have two L1s (i.e. are bilingual).
- (v) Type 5: Two-way comparisons involving learners with different L1s, each learning the other's L1 as an L2.

Our research evidently relates to type 1, type 2 as well as type 5 in Ellis' classification

The notion of transfer, its conditions and manifestations, is an object of ongoing debate, which has been made even more complicated during the later years by (more and more) seriously taking into account that L2 acquisition and fluency – the development of an IL2 – may be influenced not only by L1 but also by other languages learnt before or along with the L2 in question (De Angelis 2007; Westergaard et al. 2016). This is a complication we have neglected here (cf. footnote 5). Even so, though, we take it that empirical investigations confirming or refuting our assumptions will help understand whether and how the relationship between comparable subsystems of L1 and L2 may influence L2 acquisition by speakers of L1. Specifically, since the possessive systems differ across 'our' languages in more interesting ways than the systems of ordinary pronouns and since these two systems differ with respect to the reflexivity parameter within some but not all of 'our' languages, further research along the lines suggested above may shed new light on the division of labor between L1 influence (transfer) and general learner effects in L2 acquisition.

To that end, however, our assumptions must be spelled out in specific, testable hypotheses along the lines indicated in section [4.1], i.e. differentiating between *production* (free production and translating from L1 into L2) and *comprehension/interpretation* (including translating from L2 into L1) on the one hand, and between *product* and *process(ing)* on the other hand. Learner language studies of the more traditional kind – e.g. studies of L2 learners' use of possessives in written L2 essays and translations into L2 – belong to the production-product category while investigations of how L2 learners understand possessives occurring in L2 texts are of the interpretation-product type. Process-oriented hypotheses in their turn, whether relating to production or comprehension, call for online experiments involving or eliciting the use of possessives; see e.g. Felser & Cunnings (2012); Patterson et al. (2014); Roberts et al. (2008); Schimke et al. (2015) and further references therein for experimental studies on so-called anaphoric resolution of non-possessive anaphors (third person pronouns). In addition, testing L2 learners' explicit grammatical knowledge of L2 possessive will be needed. Relevant preliminary investigations relating to German vs. Norwegian and French vs. Norwegian are presented in Pitz et al. (2017) and Helland (2017) while Behrens (2017) looks at translation from En2 into No1.

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