

Disentangling *own*: evidence from association with focus*

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Abstract The possessive marker *own* exhibits a complicated behavior that gives rise to a wide range of subtle meaning differences. Accordingly, the theoretical literature has proposed a number of different characterizations of this element. This paper uses (primarily) data from association with focus to disentangle the various effects that *own* gives rise to and argue that there are at least two distinct homophonous items: *own_R*, a reflexivizer that operates on a syntactically derived predicate, and *own_{POSS}*, a marker of strong/inalienable possession. We provide a compositional analysis of examples with *own_R* that derives its distribution without the need to invoke any item-specific principle of Binding Theory; obligatory reflexivization follows from the lexical semantics of *own_R*, and locality restrictions follow from independent restrictions on the formation of derived predicates in the syntax. We thus provide evidence for (i) the dissociation of reflexivization and locality, and (ii) the formation of complex predicates in the syntax.

Keywords: possession, reflexivization, derived predicates, alternatives, focus theory

1 Introduction

Work on Binding Theory in different frameworks (e.g. Reinhart and Reuland 1993; Pollard and Sag 1994) converged on the idea that Binding Theory regulates relations between co-arguments of a predicate rather than the distribution of DPs. Specifically for reflexive anaphors, it was argued that they are only licensed if a reflexivization operation identifies two co-arguments. In response, cases of non-local reflexives with wider locality domains have been identified, and it has been argued that the size of the domain is a parameter of variation in Binding Theory (see, e.g., review in Büring 2005: §3); different anaphoric elements (across and within languages) can have different locality requirements and these requirements

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are written separately on the principle of Binding Theory that governs their distribution. This conclusion, however, presupposes that reflexivization is intrinsically linked to lexical predicates. The current paper argues that this is not necessarily the case and that the option exists that a reflexivization operation applies to a non-local, syntactically derived predicate, i.e. that reflexivization and locality are dissociated. In the presence of reflexivizers, co-argumenthood is always the relevant locality domain, irrespective of whether the relevant predicate is local or non-local.

Our empirical argument is based on a detailed examination of the possessive marker *own*. *own* appears with both pronominal and referential possessors in a range of syntactic environments and gives rise to a wide range of subtle meaning differences. A sample is given in (1).¹

- (1) a. Zelda painted her own room.
 b. I was betrayed by my own mother.
 c. Finally I get my own room back, no more sharing with Little Whiskey!
 d. John will never have his own key.
 e. John makes his own clothes.
 f. Your mother doesn't work here. Clean your OWN mess.
 g. Mary's own book is more important than John's.

We focus on cases in which *own* modifies a possessive pronoun. It is such cases that have been studied in the literature on Binding Theory, since examples like (1a) seem to involve obligatory variable binding, similar to cases of reflexive anaphors like English *herself*. Authors who attempt to classify *her own* as a reflexive anaphor are forced to adopt a non-unified account of the possessive marker (Fiengo and Higginbotham 1981; Safir 1996, among others). Other authors have pursued a unified account of *own*. For instance, Zribi-Hertz (1995) enriches the typology of expressions by adding Unspecified Bindable Expressions, like *her own*, which are subject to the weak principle in (2).

- (2) An Unspecified Bindable Expression may be bound.

Baker (1995) classifies *her own* as an intensive pronoun which is subject to discourse constraints that are independent of Binding Theory. In his implementation, *own* is an add-on on the possessive pronoun, which, as far as Binding Theory is concerned, behaves like any other pronominal anaphor.

This paper uses (primarily) data from association with focus to disentangle the various effects that *own* gives rise to and argue for an ambiguity account. We propose that there exist at least two distinct homophonous items: *own_R*, an arity reducer that operates on a syntactically derived predicate, and *own_{Poss}*, a marker of

¹ The examples in (1d) and (1e) are taken from Safir (1996).

strong/inalienable possession. Like English reflexive anaphors, own_R , leads to obligatory reflexivization and obeys locality restrictions. We provide a compositional analysis of examples with own_R that derives its distribution without the need to invoke any item-specific principle of Binding Theory; obligatory reflexivization follows from the lexical semantics of own_R , and locality restrictions follow from independent restrictions on the formation of derived predicates in the syntax.

The paper is organized as follows. Section 2 presents our basic assumptions about the syntax and semantics of possession and the position of own in the structure. Section 3 argues for the existence of own_R , a reflexivizer that operates on a derived predicate. Section 4 argues for the existence of own_{Poss} , a marker of strong possession. Section 5 shows that own_R cannot be reduced to own_{Poss} . Section 6 concludes.

2 Preliminaries to the syntax and semantics of possession

This section provides our basic assumptions about the syntax and semantics of possessive phrases and discusses the position of own within them. We assume with Abney (1987) that prenominal possessives like (3a) are DPs headed by a possessive determiner 's, as in (3b), and that possessive pronouns, as in (4a), are possessive determiners, as in (4b).²

- (3) a. Zelda's room
 b. $[_{DP} \text{Zelda} [_{D'} [_{D} \text{'s}] [_{NP} \text{room}]]]$
- (4) a. Her room
 b. $[_{DP} [_{D'} [_{D} \text{her}] [_{NP} \text{room}]]]$

On the semantic side, we follow Barker (1995) in assuming that the possessive determiner introduces a possessive relation R which holds between the possessor and the possessee and whose value is determined pragmatically, as in (5). In the case of relational nouns, as in (6a), the relation is determined lexically by the content of the relational noun. In this case, the entry for the determiner is the one in (6b).

- (5) $[[\text{'s}]] = \lambda P_{et} \lambda y t x. P(x) \ \& \ R(x)(y)$
- (6) a. Zelda's brother
 b. $[[\text{'s}]] = \lambda R_{e,et} \lambda y t x. R(x)(y)$

² We focus on prenominal possessives, since own is out with post-nominal ones.

(i) *the (own) room of (own) Zelda

As Safir (1996) argues convincingly, *own* modifies the possessive determiner rather than the noun, as in (7) and (8). For one thing, *own* never occurs in the absence of a possessive determiner, as in (9) (Safir 1996: ex. 34a). Moreover, constituency tests like coordination reveal that whereas the possessive pronoun and *own* form a constituent, as in shown in (10a) (Safir 1996: ex. 35a), *own* and the noun do not, as shown in (10b) (Safir 1996: ex. 35b). The latter is confirmed by the ellipsis test in (11) (Nishiguchi 2009: ex. 25b).

- (7) a. Zelda's own room
 b. [DP Zelda [D' [D 's own] [NP room]]]
- (8) a. Her own room
 b. [DP [D' [D her own] [NP room]]]
- (9) *The own problems are the worst.
- (10) a. Every camper must deal with his own or her own problems.
 b. ??John will have his his own key and own towel.
- (11) *Jim used his own pen and Mary used her.

3 *own* and reflexivization

This section argues for the existence of *own_R*, a reflexivizer that operates on a derived predicate identifying two of its arguments. Section 3.1 provides an analysis of local reflexives as arity reducers and presents an empirical argument based on focus alternatives in favor of the analysis. Section 3.2 applies this diagnostic to examples with *own* and argues that *own* can also be an arity reducer. Section 3.3 provides a compositional analysis of the relevant examples. Section 3.4 presents additional evidence in favor the analysis by considering restrictions on the distribution of *own_R*.

3.1 Reflexive anaphors as arity reducers

Reflexive anaphors like English *herself* in (12) have been given two competing semantic analyses.

- (12) Zelda praised herself.

In one line of inquiry, they have been treated as designated bound variables subject to a syntactic co-occurrence restriction ('Principle A' in (14)) that forces the presence of a co-indexed binder index (see Heim and Kratzer 1998; Büring 2005; among others), as in (13). Notice that in some implementations of this analysis (e.g., Heim and Kratzer 1998) the binder prefix is dependent on movement of the antecedent of the anaphor, here the external argument. The

syntactic rule of Index Re-analysis forces the index of a moved DP to be separated by its host and be reattached right below it. The newly formed constituent immediately dominating the binder index is interpreted via the rule of Predicate Abstraction in (15). In a different line, mainly within Categorical Grammar, the binding requirement is built into the lexical semantics of the anaphor, so that it is treated as an arity reducing operator (see Bach and Partee 1980; Szabolcsi 1992; among others), as in (16). In this case the anaphor composes with the verb and turns a two-place relation into a reflexive predicate.

(13) Zelda₁ accused herself₁.

(14) a. *Principle A*

Reflexive anaphors must be bound in their minimal governing category.

b. *Binding*

α semantically binds β iff (i) α is binder prefix, (ii) α and β are co-indexed, and (iii) α c-commands β .

(15) *Predicate Abstraction*

If α is a branching node whose daughters are a binding operator β_1 and γ , then $\llbracket \alpha \rrbracket^g = \lambda x. \llbracket \gamma \rrbracket^{g[1 \rightarrow x]}$.

(16) $\llbracket \text{herself} \rrbracket = \lambda R_{e, \text{est}} \lambda x \lambda e. R(x)(x)(e)$

Of particular interest here is Lechner 2012, which argues for a hybrid account, i.e. one that adopts the arity reducing semantics in (16), but assumes that the operator applies at a predicate derived syntactically after movement of an argument (see Nissenabum 2000).³ As noted already in Lechner 2012, this option is forced in a framework that “severs the external argument from the verb” (Kratzer 1996) so that transitive verbs like *praise* actually denote unary relations, as in (17a).⁴ In this case, the arity reducing semantics force the anaphor to move to a position where it can combine with a two-place relation. Adopting Kratzer’s (1996) Voice head introducing the external argument, as in (17c), the first relevant position is a projection of Voice before the external argument is merged.⁵

A partial derivation for (12) is provided in (17). The anaphor cannot be interpreted in the direct object position due to type incompatibility. It moves and adjoins to VoiceP1. After Index Re-analysis and Predicate Abstraction, VoiceP2

³ Lechner’s (2012) empirical argument in favor of the arity reducing analysis is based on the distribution of *herself* in structures containing ditransitives. We do not have the space to go into such structures in this paper. We refer to Lechner 2012 for details.

⁴ Notice that Lechner’s (2012) discussion is independent of this issue and he does not provide a derivation based on Voice.

⁵ Lechner (2012) names movement of *herself* Anaphor Raising, and provides a detailed comparison with other type-driven movements, like Quantifier Raising.

denotes a two-place predicate. The anaphor reflexivizes this derived predicate. The subject DP, then, saturates the open argument slot that is still open.

- (17) [_{VoiceP4} Zelda [_{VoiceP3} herself [_{VoiceP2} 1 [_{VoiceP1} Voice [_{VP} [_v praised] t₁]]]]]
- [[V]] = $\lambda x \lambda e. \text{praise}(x)(e)$
 - [[VP]] = $\lambda e. \text{praise}(1)(e)$
 - [[Voice]] = $\lambda f_{s,t} \lambda x \lambda e. f(e) \ \& \ \text{agent}(x)(e)$
 - [[VoiceP1]] = $\lambda x \lambda e. \text{praise}(1)(e) \ \& \ \text{agent}(x)(e)$
 - [[VoiceP2]] = $\lambda y \lambda x \lambda e. \text{praise}(y)(e) \ \& \ \text{agent}(x)(e)$
 - [[VoiceP3]] = $\lambda x \lambda e. \text{praise}(x)(e) \ \& \ \text{agent}(x)(e)$
 - [[VoiceP4]] = $\lambda e. \text{praise}(\text{Zelda})(e) \ \& \ \text{agent}(\text{Zelda})(e)$

Spathas (2010, 2012) provides an empirical argument in favor of the arity reducing analysis. It is observed there that narrow focus on a reflexive anaphor is licensed in two rather different environments (see also Ahn 2012). For example, in the Question-Answer (QA) pairs below, the same sentence with the same intonational contour is used to answer both an object wh-question as in (18), as well as a subject wh-question as in (19).⁶

- (18) Q: Who did Zelda praise?
A: She praised herSELF.
- (19) Q: Who praised Zelda?
A: She praised herSELF.

Spathas (2010, 2012) argues that the licensing of focus in (19) forces a treatment of reflexive anaphors in terms of reflexivizing functions, rather than designated bound variables. The regular meaning of (18/19A) is, of course, the same in both cases (roughly, the proposition that Zelda praised Zelda), but under focus-sensitive rules of QA-Congruence the Focus Meanings should be rather different. Assume for concreteness the theory of Schwarzschild (1999) so that Focus Meanings are Existential F-Closures, as in (20). The distribution of focus in QA-pairs is determined by the Focus Principle in (21) (based on Beaver and Clark 2008: 37). This requires that the Existential Closure of the Question, defined informally in (22), entails the Existential F-Closure of the Answer.

- (20) *Existential F-Closure (informal)*
- Build the ‘presuppositional skeleton’ by replacing F-marked constituents with variables of the same type.
 - Existentially bind the variables.

⁶ I assume that the syntactic correlate of focus is F-marking (see Jackendoff 1972) and syntactic nodes can be freely annotated with a privative feature F(ocus). In the phonological component, F-marking is linked to prosodic prominence relative to a domain of focus (see Truckenbrodt 1995). Prominence is indicated here with small capitals.

- (21) *Focus Principle*
The Existential Closure of the Question entails the Existential F-Closure of (a part of) the Answer.
- (22) *Existential Closure for Questions (informal)*
a. Build the ‘presuppositional skeleton’ by replacing wh-constituents with variables of the same type.
b. Existentially bind the variables.

Since in (18) and (19) narrow focus falls on the anaphor, the Existential F-Closure depends crucially on its semantics.⁷ Assuming that reflexives are designated bound variables, i.e. elements of type e , the Existential F-Closure of (18A) and (19A) is as in (23). This licenses the QA-pair in (18) since QA-Congruence is satisfied, as shown in (24). However, we get the wrong result in the case of (19), since QA-Congruence is not satisfied, as shown in (25).

- (23) $\text{ExF-Clo}(\text{Zelda 1 praised } [\textit{herself}]_F) = \exists x \exists e. \text{Zelda praised } x \text{ in } e$
- (24) a. $\text{ExClo}(\text{Who did Zelda praise?}) = \exists x \exists e. \text{Zelda praised } x \text{ in } e$
b. $\exists x \exists e. \text{Zelda praised } x \text{ in } e \textit{ entails } \exists x \exists e. \text{Zelda praised } x \text{ in } e$
- (25) a. $\text{ExClo}(\text{Who praised Zelda?}) = \exists x \exists e. x \text{ praised Zelda in } e$
b. $\exists x \exists e. x \text{ praised Zelda in } e \textit{ does not entail } \exists x \exists e. \text{Zelda praised } x \text{ in } e$

Assuming, on the other hand, that reflexive anaphors are arity reducers, we get the correct result. In this case, the Existential F-Closure is as in (26). The idea is that a focused anaphor does not contrast with individuals, but with other arity reducing operations of the same type, like Passivization and Anti-passivization in (27). Given (16), QA-Congruence is satisfied for both (18), as shown in (28), and (19), as shown in (29).

- (26) $\text{ExF-Clo}(\text{Zelda praised } [\textit{herself}]_F) = \exists Q_{\text{et,et}} \exists e. (Q(\text{praised in } e))(\text{Zelda})$
- (27) a. $\llbracket \text{Passivization} \rrbracket = \lambda R \lambda x \lambda e \exists y. R(x)(y)(e)$
b. $\llbracket \text{Anti-Passivization} \rrbracket = \lambda R \lambda x \lambda e \exists y. R(y)(x)(e)$
- (28) $\exists x \exists e. \text{Zelda praised } x \text{ in } e \textit{ entails } \exists Q_{\text{et,et}} \exists e. (Q(\text{praised in } e))(\text{Zelda})$
for $Q = \textit{AntiPass}$

⁷ Notice that prosodic prominence of a reflexive anaphor in argument position unambiguously indicates narrow focus on the anaphor; in the case of wider focus domains, such as VP focus in (ii), the reflexive anaphor necessarily prosodically subordinates to the verb. See Spathas 2010 and Ahn 2012 for alternative explanations of this pattern.

- (ii) Q: What did Zelda do?
A: Zelda [PRAISED herself]_F.

- (29) $\exists x \exists e. x \text{ praised Zelda in } e \text{ entails } \exists Q_{\text{et}, \text{et}} \exists e. (Q(\text{praised in } e))(Zelda)$
for Q=Pass

It is the licensing of focus in examples like (19), then, that can be used as a diagnostic for the arity reducing semantics. In previous work, I called Focus Meanings like (26) Subject Alternatives (SA) and showed that they arise not only in the case of QA-pairs, but also in the case of free-focus, contrast, and (with some restrictions) association with focus-sensitive operators (Spathas 2010, 2012). For example, consider the case of negation in (30).

- (30) a. Zelda did not praise herSELF. She praised OSCAR.
 b. Zelda did not praise herSELF. OSCAR praised her.

Association with a focused reflexive anaphor gives rise either to the inference that Zelda praised someone other than herself, illustrated in (30a), or to the inference that someone other than herself praised Zelda, illustrated in (30b). We assume a model of discourse according to which all utterances are answers to an explicit or implicit Current Question (i.e. the question whose answer is the immediate goal among interlocutors in a conversation) (Roberts 2012; Beaver and Clark 2008). If so, focus in (30) is also subject to the Focus Principle. Since the Current Question is not explicit, it has to be accommodated. Accommodation is driven by the Focus Principle. According to the Focus Principle, a part of *Zelda didn't praise herSELF* should entail the Existential Closure of the accommodated Current Question. This could be the form without negation, i.e. *Zelda praised herSELF*. Its focus structure allows accommodation of two CQs, as described above for (18) and (19). In (30a), the presence of *She praised Oscar* forces accommodation of *Who did Zelda praise?*. In (30b), the presence of *Oscar praised her* forces accommodation of *Who praised Zelda?*. The choice of CQ, then, determines the inference. In the next section we use this diagnostic to determine the status of *own*.

3.2 *own* as an arity reducer

In this section we apply the diagnostic based on Subject Alternatives to examples with *own*. Like in the case of the reflexive anaphor *herself*, narrow focus on *own* is licensed in two different environments. In the QA-pairs below, the same sentence with the same intonational contour can be used to answer both a possessor wh-question, as in (31), as well as a subject wh-question, as in (32).

- (31) Q: Whose room did Zelda paint?
 A: She painted her OWN room.
- (32) Q: Who painted Zelda's room?
 A: She painted her OWN room.

If *her own* was interpreted as a designated bound variable, the QA-pair in (32) would never be licensed. The Existential F-Closure of (32A) in this case would be as in (33a). If so, the Focus Principle is violated since the Existential Closure of (32Q) does not entail the Existential F-Closure of (32A).

- (33) a. $\text{ExF-Clo}(\text{Zelda 1 painted } [\text{her own}_1]_F \text{ room}) = \exists x \exists e. \text{Zelda painted } x\text{'s room in } e$
 b. $\exists x \exists e. x \text{ painted Zelda's room in } e$ *does not entail*
 $\exists x \exists e. \text{Zelda painted } x\text{'s room in } e$

Assuming, on the other hand, that *own* is an arity reducer, as in (34a), with the Existential F-Closure in (34b), the Focus Principle is licensed for both (31) and (32), as shown in (35) and (36), respectively.

- (34) a. $[[\text{own}_R]] = \lambda R_{e, \text{est}} \lambda x \lambda e. R(x)(x)(e)$
 b. $\exists Q_{\text{eest, est}}. [Q(\lambda y \lambda x \lambda e. \text{painted-}y\text{'s room}(e) \ \& \ \text{agent}(x)(e))](\text{Zelda})$
- (35) $\exists x \exists e. \text{Zelda painted } x\text{'s room in } e$ *entails*
 $\exists Q_{\text{eest, est}} \exists e. [Q(\lambda y \lambda x. \text{painted-}y\text{'s room}(e) \ \& \ \text{agent}(x)(e))](\text{Zelda})$
for $Q = \text{AntiPass}$
- (36) $\exists x \exists e. x \text{ painted Zelda's room in } e$ *entails*
 $\exists Q_{\text{eest, est}} \exists e. [Q(\lambda y \lambda x. \text{painted-}y\text{'s room}(e) \ \& \ \text{agent}(x)(e))](\text{Zelda})$
for $Q = \text{Pass}$

As in the case of *herself*, this is not an isolated fact about QA-pairs. Subject Alternatives arise in a number of other focus-sensitive environments, both in the case of so-called free focus, such as the correction in (37), and in the case of association with focus, such as negation in (38), the quantificational adverb in (39), and genericity in (40). We conclude that *own* can instantiate an arity reducer. To distinguish *own* as an arity reducer from other instances of *own*, we use the subscript R, which stands for ‘reflexivizer’.

- (37) A: Oscar painted Zelda’s room.
 B: No, she painted her OWN room.
- (38) Zelda did not paint her OWN room. OSCAR painted her room.
- (39) Zelda always paints her OWN room. She never lets other people paint her room.
- (40) Hard-working people paint their OWN room. They never let other people paint their room.

3.3 Reflexivizing non-local predicates

This section provides the derivation of examples with *own_R* and discusses the fact that the possessive pronoun is predicted to be interpreted as a bound variable. The derivation proceeds as follows. As discussed in section 2, we assume that *own_R* is the sister of a possessive D. In this position, however, it is uninterpretable. We assume that *own_R* moves to the first available position where it can be interpreted. This is VoiceP1. After Index Re-analysis and Predicate Abstraction, VoiceP2 denotes a two-place predicate. *own_R* reflexivizes this derived predicate. The subject DP, then, saturates the argument slot that is still open. Notice that, unlike in the case of *herself* in (17), the trace of *own_R* cannot be interpreted. We will tentatively assume that the trace of *own_R* is semantically vacuous.

- (41) [_{VoiceP4} Zelda [_{VoiceP3} *own_R* [_{VoiceP2} I [_{VoiceP1} Voice [_{VP} painted [_{DP} [_{D'} [_D her₁ t₁] room]]]]]]]]]]
- [[VP]] = λe . painted-1's room(e)
 - [[VoiceP1]] = $\lambda x \lambda e$. painted-1's room(e) & agent(x)(e)
 - [[VoiceP2]] = $\lambda y \lambda x \lambda e$. painted-y's room(e) & agent(x)(e)
 - [[VoiceP3]] = $\lambda x \lambda e$. painted-x's room(e) & agent(x)(e)
 - [[VoiceP4]] = λe . painted-Zelda's room(e) & agent(Zelda)(e)

We have also crucially assumed in (41) that the possessive pronoun *her* is co-indexed with *own_R*. This is why Predicate Abstraction leads to abstraction over the possessor. If *her* and *own_R* were contra-indexed, the derivation would fail, as VoiceP1 would not have a meaning of the right type. We assume that indexing is free, so that only derivations in which *own_R* and *her* are co-indexed are interpretable.⁸ The account predicts, then, that the presence of *own_R* is contingent on the presence of a possessive pronoun and that the pronoun will always be interpreted as a bound variable. Indeed, examples with *own_R* seem to allow sloppy but not strict identity in cases like (42) (Nishiguchi 2009: ex. 44d) and (43).

- (42) Mary called her own mother and so did Sally.
 'Mary called Mary's mother and Sally called Sally's mother.'
 #'Mary called Mary's mother and Sally called Mary's mother.'

⁸ The same type of analysis could be given for *herself* if one wishes to decompose the anaphor into a pronominal part and the arity reducer *self*. Some evidence that a decomposition of this type is on the right track comes from the fact that the pronominal part can be independently focused in examples like (iii). See Sauerland (2008) for discussion of such cases.

(iii) Zelda praised herself, and LUCIE praised HERself.

- (43) Only ZELDA painted her own room.
 ‘Zelda painted Zelda’s room and no one else painted their own room.’
 ‘#Zelda painted Zelda’s room and no one else painted Zelda’s room.’

Ellipsis and the interpretation of the exclusive *only* are focus-sensitive phenomena. Under current assumptions we expect them to be sensitive to the CQ. We follow Roberts (2012) and Beaver and Clark (2008) in assuming that *only* associates with the CQ, as in (44) (adapted from Coppock and Beaver 2011). The restrictor of *only* is, thus, determined by the CQ. In case the CQ is not given, as in (43), it has to be accommodated on the basis of the Focus Principle. The Existential F-Closure of the prejacent of *only* is as in (45a). Strict identity requires accommodation of the CQ ‘Who painted Zelda’s room?’. The Existential Closure of this question is as in (45b). Accommodation is not possible, since (45b) does not entail (45a). Sloppy identity requires accommodation of the CQ ‘Who painted their room?’. Accommodation in this case is possible, since (45c) does entail (45a). A similar account can be given of the ellipsis example in (43) if we assume that ellipsis is also sensitive to the CQ, i.e. that both the elided and the antecedent clause are answers to the same CQ.

- (44) $\llbracket \text{only} \rrbracket = \lambda p. \text{MIN}(p). \text{MAX}(p)$
 a. $\text{MIN}(p) = \exists q \in \text{CQ} [\text{true}(q) \wedge q \geq p]$
 b. $\text{MAX}(p) = \forall q \in \text{CQ} [\text{true}(q) \rightarrow p \geq q]$
- (45) a. $\text{ExFClo}(\text{Zelda}_F \text{ painted her own room}) = \exists x. x \text{ painted } x\text{'s room}$
 b. $\text{ExClo}(\text{Who painted Zelda's room}) = \exists x. x \text{ painted Zelda's room}$
 c. $\text{ExClo}(\text{Who painted their room}) = \exists x. x \text{ painted } x\text{'s room}$

3.4 Restrictions on the distribution of *own_R*

The account in the previous sections sides with previous literature on *her own*, which claims that it is in some sense comparable to reflexive anaphors. We have argued that the semantic contribution of *own* is that of an arity reducer and that obligatory binding of the possessive pronoun is the result of those semantics—albeit in an indirect way. The identification of *own* as a reflexivizer has been debatable because of a complicated empirical picture. Whereas in some cases *her own* appears to exhibit the basic effects usually associated with reflexive anaphors (‘Principle A effects’) like obligatory reflexivization, the restriction to c-commanding antecedents, and various locality restrictions, in other cases it appears to violate them. As has been noted before (e.g., Baker 1995; Zribi-Hertz 1995), discourse anaphoric readings are possible at least in some cases, as in (46). Zribi-Hertz (1995) notices that although examples with non-c-commanding antecedents are judged deviant out of context, as in (47a) (Zribi-Hertz 1995: ex.

5b), they are fine if more context is given, as in (47b) (Zribi-Hertz 1995: ex. 77). In the same work it is argued that under the right circumstances, *her own* can also be associated with a non-local antecedent, as in (48) (Zribi-Hertz 1995: ex. 67).

(46) All errors are my own.

(47) a. *John₁'s sister₂ hates his₁ own dog.

b. My friend John₁ already knew that Mary₂ disliked animals, but he has been taking tranquilizers since he heard the awful news: John₁'s sister₂ hates his₁ own dog as well.

(48) The developers₁ were encouraging people₂ to buy their_{1/2} own houses.

The diagnostic of Subject Alternatives allows us to target directly reflexivizer *own*. It turns out that Subject Alternatives can only be generated in a subset of environments in which *own* is licensed. Example (49) shows that SA cannot arise with a non-c-commanding antecedent. Examples (50) and (51) show that, whereas SA arises with a local antecedent, it does not arise with a non-local antecedent. Examples (52) and (53) show that SA cannot arise when *own_R* finds itself within islands of movement like the complex-NP-island or a coordination.

(49) Q: Whose brother/ Who painted Zelda₁'s room?

A: #Zelda's brother painted her OWN room.

(50) Q: Who asked Oscar to paint Zelda's room?

A: #She asked him to paint her OWN room.

(51) Q: Who did Oscar ask to paint Zelda's room?

A: He asked her to paint her OWN room.

(52) Zelda did not paint the door of her OWN room.

#OSCAR painted the door of her room.

(53) Zelda did not paint her OWN room and her OWN kitchen.

#OSCAR painted her room and her kitchen.

The restrictions can be explained based on the current account as follows. The restriction to c-commanding antecedent follows directly from the derivation in (41); after movement of *own_R* to VoiceP1, which reflexivizes the relevant predicate, the subject DP is merged and saturates the unique open argument slot. This amounts to saying that *own_R* is 'subject-oriented'. The restriction on local antecedents follows from the general observation that, like other type-driven movements (e.g., Quantifier Raising), movement of *own_R* targets the first

available position that leads to an interpretable outcome.⁹ Lastly, since movement of *own_R* is obligatory, it is predicted to show sensitivity to islands.

Restrictions on movement might also help explain a further restriction on the distribution of *own_R*. Whereas SA arises with a number of focus-associating operators, it does not arise with the operators that Beaver and Clark (2008) categorize as Conventionally Associating Operators (CAOs), like *only* and *too* in (54) and (55) respectively.¹⁰

(54) Zelda only painted her OWN room. #No one else painted her room.

(55) At 8, Oscar painted Zelda's room. #At 9, she painted her OWN room too.

Beaver and Clark (2008) claim that association with focus in the case of CAOs is subject to stricter syntactic conditions than association with focus in the case of other focus operators. One possible way to account for this generalization is to assume that only CAOs are subject to a movement theory of association with focus (Tancredi 1990; among others). According to movement theories of association, the restrictor of *only* is determined by covert movement of the focus constituent to the complement position of the operator. If so, *own_R* in (54) and (55) needs to move twice: once to VoiceP1 and, subsequently, to the complement position of *only/too*. We tentatively assume that after the first movement *own_R* ‘freezes’ so that subsequent movements are not possible.¹¹ It remains to be seen whether such a restriction on a two-step movement of *own_R* can be independently motivated.

We take the distribution of SA to constitute strong evidence against unified accounts of *own* and in favor of an ambiguity account. In a syntactic configuration that licenses it, *own_R* is strongly preferred as in (42) and (43). In other cases, it is

⁹ Consider a derivation of (47) in which *Zelda* QRs out of the DP, as in (iv). Movement does create a target node of the right type for *own_R*, namely TP3, albeit one that requires ‘tucking-in’ of *own_R* between *Zelda* and the binder prefix. We assume that such a derivation is also ruled out by the locality of type-driven movement, since the target node is higher than VoiceP1.

(iv) $[_{TP5} \text{Zelda} [_{TP4} \text{own}_R [_{TP3} \text{2} [_{TP2} [_{DP} \text{t}_2\text{'s brother}]] [_{TP1} \text{T} [_{\text{VoiceP2}} \text{t}_1 [_{\text{VoiceP1}} \text{Voice} [_{\text{VP}} \text{painted} [_{\text{DP}} \text{her}_{t_1} [_{\text{D}} [_{\text{D}} \text{'s t}_1] \text{room}]]]]]]]]]]]]]]]]]]]$

¹⁰ Roger Schwarzschild (p.c.) first suggested to me that the restriction with regard to CAOs might be due to the syntax of association with focus.

¹¹ As is well known, association with focus is not sensitive to islands, as in (v). Wagner (2006), following previous literature, argues that in such cases movement applies to a bigger constituent that contains the focus, so that (v) constitutes no counter-evidence to a movement theory of association. Notice that no such ‘pied-piping’ derivation is possible for the examples with *own_R*, since *own_R* must first vacate the DP independently for interpretative reasons.

(v) I don't know anyone who grows bananas, I only know a guy who SMOKES them.

interpreted as *own_{Poss}*, the second instance of *own*. The next section makes a specific proposal about the contribution of *own_{Poss}*.

4 *own* and strong possession

This section makes a specific proposal about the meaning of *own_{Poss}*. We intend this meaning to capture all instances of *own* other than *own_R*, both with and without possessive pronouns, although we do not have the space to discuss all environments in which *own_{Poss}* appears.

Perhaps the most prominent intuition about the contribution of *own* in the literature is that it excludes alternative possessors. Thus, authors that pursue a unified analysis of *own* and do not classify it as an anaphor describe it as ‘emphatic’/‘intensive’ (e.g., Baker 1995) or claim that it marks a focused possessor (e.g., Nishiguchi 2009). Importantly, Possessor Alternatives are even licensed in environments in which Subject Alternatives are excluded, as in (56), so that they cannot always be attributed to *own_R*.¹²

- (56) a. Zelda₁’s brother painted her₁ OWN room (not HELEN’s room).
b. Zelda₁ painted the door of her₁ OWN room (not HELEN’s room).
c. Zelda₁ only painted her₁ OWN room. She didn’t paint HELEN’s room.

However, the availability of alternative possessors is not a necessary condition to license *own_{Poss}*. Consider for example Zribi-Hertz’s (1995) example repeated in (57).

- (57) My friend John₁ already knew that Mary₂ disliked animals, but he has been taking tranquillizers since he heard the awful news: John₁’s sister₂ hates his₁ own dog as well.

The context in (57) does not make available alternative possessors, but rather alternative animals with which John could have been in some fleeting relation with. Charnavel (2012), who pursues a unified account of the French *propre* ‘own’, describes its meaning as paraphrasable with adjectives like *personal*, *individual*, *specific*, *characteristic*, *intrinsic*.¹³

We propose to capture this intuition with the entry in (58). According to (58), the result of modifying the possessive determiner with *own_{Poss}* is to restrict the

¹² This is another reason why the most reliable diagnostic for *own_R* is Subject rather than Possessor Alternatives.

¹³ In fact, Charnavel (2012) claims that French *propre* is an adjective. As we have seen in section 2, it cannot be so in the case of *own*.

type of possession relation; it turns it into a strong relation R that is true across worlds.¹⁴

$$(58) \llbracket \text{'s own} \rrbracket = \lambda P \lambda y \lambda e \lambda w \lambda x. P(x)(w) \ \& \ R(x)(y)(e)(w) \ \& \ \forall e' \forall w'. R(x)(y)(e') \\ (w') = 1$$

- (59) a. Mary came with her own car.
b. Mary came with her car.

The meaning of a DP like *her own car* in (59a), then, is as in (60).¹⁵ As Nishiguchi (2009) points out (59a) is false if Mary came with a car she borrowed, i.e. a car that is not permanently/ intrinsically hers, whereas (59b) can be true in the same scenario.¹⁶

$$(60) \llbracket \text{her own car} \rrbracket = \lambda x. \text{car}(x)(w) \ \& \ R(x)(\text{mary})(e)(w) \ \& \ \forall e' \forall w'. R(x)(\text{mary})(e') \\ (w') = 1$$

Notice that narrow focus on own_{Poss} signals alternatives to possessive determiners that introduce different relations R that are not strong. In e.g., (59a), the DP contrasts with DPs introducing other cars that Zelda is not in a strong/intrinsic relation to. These include rooms with possessors other than Zelda. The entry in (58), then, can capture Possessor Alternatives. For more environments which license own_{Poss} and a unified account, we refer to Charnavel's (2012) treatment of French *propre*, which seems to have the same distribution as own_{Poss} .

5 Agentive *own*

Previous literature has identified a reading of *own* that comes very close to the effect derived by the emergence of Subject Alternatives. Consider the examples in (61).

- (61) a. John makes his own clothes.
b. Bob Dylan writes his own songs.

Example (61a) (Safir 1996: ex. 42a) carries the inference that no agent other than John is involved in the making of John's clothes, i.e. that John does not buy ready-made clothes. Similarly, in (61b), the sentence states that Bob Dylan writes his songs himself, and doesn't have other people write songs for him. Safir (1996) calls *own* in such examples "agentive *own*". The natural question that arises is

¹⁴ The idea expressed by the entry in (58) is reminiscent of a recent proposal in von Prince (2012) according to which the semantic correlate of inalienability is temporal reference.

¹⁵ Most probably the restriction must be treated as a presupposition. I disregard this complication here.

¹⁶ Crucially, own_{Poss} does not determine the content of the relation R in any way; R can be resolved to possession, as in (59a), but also to any other contextually prominent relation.

whether agentive *own* and SA are one phenomenon, and, if so, whether own_R can be reduced to whatever mechanism derives agentive *own*. We argue in this section that this cannot be the case.

In fact, there is an intuitive way to understand the inferences in (61) based on own_{Poss} . Suppose *own* in (61a) is own_{Poss} . Then the issue arises of why own_{Poss} is used, i.e. what justifies characterizing the clothes as intrinsically John's? A natural reason is that Oscar is the sole creator of the clothes, i.e. he and no one else creates the clothes. Charnavel (2012) expresses an almost identical intuition for the 'agentive reading' of French *propre* 'own', which is only possible with creation verbs and does not give rise to SA in the examples discussed in section 3.2. There are several reasons to reject a unification of SA and agentive *own*. First of all, SA, as described in section 3.2, shows no restriction to creation verbs, unlike agentive *own*. Second, agentive *own* requires no focus on *own*, unlike SA. Lastly, in the case of agentive *own* in (61) the possessive DPs are necessarily interpreted non-referentially. This is not the case with SA in section 3, where the possessive DPs refer to specific individuals.

As noted above, several authors have claimed that *own* is an intensifier. Safir (1996) explicitly makes the claim that agentive *own* can be paraphrased with the adverbial intensifier *herself*, as in (62).

- (62) a. John makes his clothes himself.
b. Bob Dylan writes his songs himself.

Spathas, Alexiadou and Schäfer (to appear) propose the semantics of anti-assistive intensifiers in (63) and discuss how 'SA readings' arise on the basis of such semantics.

$$(63) \llbracket \text{own/ himself}_{aa} \rrbracket = \lambda P_{e, st} \lambda y \lambda e. f(y)(e) \ \& \ \forall e' \forall x. (e' \leq e \ \& \ \text{agent}(x)(e')) \rightarrow x=y$$

Assuming that *own* in (62a) is an anti-assistive intensifier own_{aa} with the meaning in (63), (62a) and (62b) assert that there is no agent other than John in all sub-events of events of making John's clothes. Although own_{aa} could in principle explain the restrictions on SA noted in section 3.3 since the meaning in (63) would force own_{aa} to move and attach to a projection of Voice, like own_R , it is not possible to reduce SA to own_{aa} . Anti-assistive intensifiers show aspectual/ Aktionsart restrictions; they are only possible with activities and accomplishments, but not with achievements, as shown in (64). SA, however, can also arise with achievements, as in (65).

- (64) ??John noticed his painting himself_{aa}.
(65) Q: Who noticed John's painting?
A: He noticed his OWN painting.

In addition, Howell (2010) points out that anti-assistive intensifiers license modification by degree expressions that measure the level of involvement of the external argument, as in (66). No such reading is licensed in the case of *own*, however, as shown in (67).¹⁷

(66) John built the house almost/ partly/ half/ completely himself_{aa}.
‘John built the house almost/ partly/ half/ completely without help.’

(67) John almost/ partly/ half/ completely built his OWN house.
‘#John built the house almost/ partly/ half/ completely without help.’

6 Conclusions

This paper examined the status of a non-local reflexivization strategy based on the possessive marker *own* modifying a possessive pronoun. Using an independently established diagnostic based on focus alternatives, it has been argued that *own* is, in such cases, an arity reducer operating on a predicate and identifying two of its arguments. The predicate is a non-lexical predicate derived by syntactic means. In the proposed analysis, obligatory binding is the result of the lexical semantics of *own*, and locality restrictions are the result of the syntactic mechanism deriving the predicate, here movement. We thus derive the effects usually associated with ‘Principle A’ without the need to assume any such principle as a primitive of the theory. Importantly, the distribution of reflexivizer *own* forces us to adopt an ambiguity account of the possessive marker. In its second instance, *own* is a marker of strong/inalienable possession.

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¹⁷ As Bert LeBruyn (p.c.) points out, similar inferences are generated every time the possessive DP contains a noun that favors the relation *R* to be resolved to the agentive quale (Pustejovsky 1995, Vikner and Jensen 2002). In, e.g., (vi), there is an inference that I am the sole writer of the book.

(vi) My own book is more popular than McCarthy’s.

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