Proceedings of SALT 35: 410–436, 2025

On the scope of indefinites and underspecification*

Clemens Mayr
University of Göttingen

Abstract Sentences with indefinites inside scope islands allow for truth-conditions that seemingly require the indefinite, when viewed as an existential quantifier, to take scope outside of the island. This phenomenon of exceptional scope has given rise to numerous theories. Novel data show that what is standardly taken to be an exceptional scope construal of the indefinite should be seen as syntactically and semantically parallel to its regular scope construal. Ambiguity approaches to the scope of indefinites are incompatible with this observation. Given their very weak semantics for exceptional scope construals, competing functional approaches could be made to be compatible with the observation. The consequence of that, however, would be massive overgeneration of exceptional scope construals. To remedy this situation a novel non-ambiguity approach in terms of underspecification is sketched relying on one and the same LF for regular and exceptional scope construals. The resulting disjunctive meanings associated with such LFs are compatible with both regular and exceptional scope readings, accounting for the parallelism data. This view is shown to make desirable predictions regarding the interaction of exceptional scope construals with negation, unlike in functional approaches.

Keywords: indefinites, exceptional scope, scope islands, underspecification, alternatives

1 Introduction

Sentences with an indefinite appearing inside a scope island are known to allow for truth-conditions that seem best paraphrased by assigning scope to the indefinite outside of that island (Fodor & Sag 1982). The sentence in (1b) with the indefinite *a dog belonging to her*, for instance, is judged true in scenario 1 in (1a).

(1) a. **Scenario 1:** Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Bea is kicked out if she lets a dog belonging to her off the leash.* ✓

* I thank Gennaro Chierchia, Marco Degano, Nina Haslinger, Petr Kusliy, Zahra Mirrazi, Agata Renans, Viola Schmitt, Benjamin Spector, Patrick Wang and the audiences at SALT 35 and at the universities of Geneva and Göttingen for very helpful questions and discussion.

Assume for now that indefinites are existential quantifiers and consider the potential truth-conditions for (1b) in (2a) corresponding pre-theoretically to a reading where the indefinite takes scope inside the *if*-clause. On this reading (1b) would be false in scenario 1 as it would say that necessarily if any dog of Bea's is let off the leash she loses her apartment. Compare this to the alternative truth-conditions in (2b) corresponding to a reading of (1b) where the indefinite takes scope outside of the *if*-clause. This is true in the given scenario because it only requires there to be some dog of Bea's such that necessarily if that dog is off the leash she loses her apartment, which is guaranteed to be the case by the existence of Bea's Rottweiler. The fact that (1b) is acceptable in the scenario has been taken to suggest that truth-conditions like (2b) are available for it. I will refer to truth-conditions like (2a) as the regular scope (RS) construal and to those like (2b) as the exceptional scope (ES) construal in the following.[1][2]

(2) a. $\forall w' \in ACC_w[\exists x[x$ is a dog of Bea's in $w' \wedge$ Bea lets x off the leash in $w'] \rightarrow$ Bea is kicked out in $w']$ (false in (1a))

b. $\exists x[x$ is a dog of Bea's in $w \wedge \forall w' \in ACC_w[$Bea lets x off the leash in $w' \rightarrow$ Bea is kicked out in $w']]$ (true in (1a))

Compare (1) now to the case in (3). The sentence in (3b) with a universal instead of an indefinite in the *if*-clause is not acceptable in scenario 2 in (3a).

(3) a. **Scenario 2:** Bea has a Rottweiler, a Pitbull and a Chihuahua. Her landlord told her that she can let each individual dog run free. If something happens, he might have to terminate her contract though. If she lets all of the dogs run free at the same time, he will terminate her contract immediately.

b. *Bea might keep her lease if she lets every dog belonging to her off the leash.* ✗

The potential truth-conditions where the universal quantifier *every dog belonging to her* takes scope inside the *if*-clause in (4a), which say that it is possible that all of Bea's dogs run free and she keeps her lease, clearly yield falsity in scenario 2. The truth-conditions where it takes scope outside of the *if*-clause in (4b) output truth in

1 I assume following standard assumptions going back to Kratzer (1986) that a conditional sentence corresponds to a modal statement with the *if*-clause restricting the set of worlds quantified over. The modal itself can but need not be explicit. A bare conditional typically involves a necessity modal. ACC_w is the set of worlds accessible from w. In the case of (1) this would, arguably, be worlds that are deontically accessible.

2 I am for now ignoring the complicating issue of transparent and opaque evaluation of the predicate inside the indefinite relative to the modal component of the conditional. For simplicity, the evaluation of the predicate is assumed to be determined by the scope of the indefinite relative to the modal operator. I return to this issue below.

the same scenario. They say that for every dog it is possible that it runs free and Bea keeps her lease. The fact that (3b) is unacceptable in the scenario has been taken to indicate that universal quantifiers cannot take scope outside of the *if*-clause.

(4) a. $\exists w' \in ACC_w[\forall x[x$ is a dog of Bea's in $w' \rightarrow$ Bea lets x off the leash in $w'] \wedge$ Bea keeps her lease in $w']$ (false in (3a))

b. $\forall x[x$ is a dog of Bea's in $w \rightarrow \exists w' \in ACC_w[$Bea lets x off the leash in $w' \wedge$ Bea keeps her lease in $w']]$ (true in (3a))

This empirical situation is standardly described as follows: *if*-clauses are islands for scoping. Quantifiers, and in particular universal quantifiers such as in (3b) can therefore not take scope outside of this island if they are located in that island on the surface. Indefinites, however, are for some reason able to take ES outside of the island even when they are located inside it. This discrepancy between indefinites and other quantifiers can be replicated for other islands.

This has given rise to various different theoretical approaches to the exceptional scope phenomenon that can be largely grouped into two. The first kind of approach essentially directly adopts the description just put forward and builds a theory along its lines. That is, on such an approach a sentence with an indefinite in a scope island like (1b) can have two different representations. On the LF where the indefinite take scope inside the island the RS construal in (2a) results, and the LF where it takes scope outside the island yields the ES construal in (2b). A sentence with a universal quantifier such as (3b) instead has only the first kind of representation making only the RS construal in (4a) possible. How this difference in scope possibilities is cashed out varies from theory to theory, but what is essential for my immediate purpose here is that sentences with indefinites in scope islands have designated LFs for RS and ES construals. I call such theories *ambiguity approaches*.

The second type of approach does not directly subscribe to the description put forward above, even though they might employ LF ambiguity as well. On such an approach neither indefinites nor universal quantifiers contained inside an island can take scope outside of it, i.e., neither relies on actual scoping of the indefinite to achieve an ES construal. Crucially, though, functions of a particular kind are implicated in the interpretation of indefinites which make it possible to achieve an ES construal regardless. The precise way this result is achieved again varies with the particular functional theory considered. What is crucial for us here is that a literal scoping procedure is not necessary to achieve ES. In a certain sense, the LFs for RS and ES construals are therefore somewhat "more" parallel to each other than on ambiguity approaches. I will refer to such theories as *functional approaches*.

Arguments for both types of approaches have been given in the literature. Functional approaches, on the one hand, have been criticized for, all things being equal, overgenerating ES construals. Ambiguity approaches, on the other hand, generally

do not run into such issues. At the same time, the "reality" of the representational ambiguity assumed for sentences with indefinites by such ambiguity approaches has been, arguably, not directly demonstrated. The goal of the present paper is to test for this reality. It will become apparent that ambiguity approaches run into the issue of predicting the exact opposite of the empirical pattern observed in a novel set of data. Specifically, I will show that the RS construal must include the truth-conditional options made available by an ES construal, and vice versa. This suggests that ES is a phenomenon of underspecification rather than ambiguity. More concretely this means that the RS construal and the ES construal can be shown to exhibit syntactic and therefore also semantic parallelism, which is unexpected by ambiguity approaches. Functional approaches are, by their nature, better equipped to handle such parallelism phenomena. Adopting any of the existing functional approaches will, however, predict even further overgeneration of ES construals. This type of overgeneration cannot be dealt with by straightforward stipulation of a constraint reining in ES construals without losing the account of parallelism.

I will therefore sketch a way to overcome this impasse. Taking the parallelism data at face value, I will suggest that RS and ES construals are not to be distinguished in their LFs at all, similar to some functional approaches. The resulting non-ambiguity approach will moreover rely on a radical form of semantic underspecification. That is, not only the LFs are identical for RS and ES construals. Also the interpretations are not different. This is made possible by disjunctive meanings, i.e., meanings encompassing both the RS and the ES construal (among many more). A welcome prediction of this is that the traditional overgeneration issues faced by functional approaches will be straightforwardly taken care of, despite the relation between the present non-ambiguity approach and certain aspects of functional approaches. I will have to leave it to another occasion to work out these suggestions in detail.

The structure of the paper is as follows. Section 2 discusses the novel data and sets them in relation to ambiguity approaches. Section 3 shows that functional approaches can better deal with these data. The following section 4 discusses a challenge to functional approaches that moreover calls the success regarding the parallelism data into question. Section 5 formulates the outlines of the non-ambiguity and shows how it can straightforwardly deal with the data discussed in the previous sections. Section 6 sums up.

2 Parallelism and ambiguity theories

2.1 Structure of the parallelism test

Ambiguity approaches to exceptional scope are characterized by the fact that a dedicated LF is made available that makes the sentence true on the ES construal. This representation is to be distinguished from the one resulting in truth on the regular scope construal.[3] More concretely, given a sentence ϕ with an indefinite occurring in a scope island, ϕ is true on the ES construal in virtue of a dedicated LF ϕ_{ES} and true on the RS construal in virtue of LF ϕ_{RS}.

Such approaches make an immediate prediction: the scope argument of a quantifier should be interpreted uniformly with regard to the scope of any indefinite in it that is itself contained inside a scope island. That is, assuming ϕ is the scope argument of quantifier Q, either $[\![\phi_{RS}]\!]$ or $[\![\phi_{ES}]\!]$ will serve as the input to Q. Thereby each entity x quantified over by Q will have $[\![\phi_{RS}]\!]$ applied to it, or each such x will have $[\![\phi_{ES}]\!]$ applied to it.

To make this more concrete, consider the standard truth-conditions for a sentence with *only* in (5a) and those for a sentence with *both* in (5b), where α and β are individual-denoting expressions and ϕ is VP. *Only* contributes an upward and a downward monotonic component to the truth-conditions, and *both* two upward monotonic ones.

(5) a. $[\![\textit{only } \alpha]\!]([\![\phi]\!]) = [\![\phi]\!]([\![\alpha]\!]) \wedge \forall x \neq [\![\alpha]\!] : \neg[\![\phi]\!](x)$
b. $[\![\textit{both } \alpha \textit{ and } \beta]\!]([\![\phi]\!]) = [\![\phi]\!]([\![\alpha]\!]) \wedge [\![\phi]\!]([\![\beta]\!])$

If the VP ϕ contains a scope island with an indefinite inside – i.e., ϕ is ambiguous between a RS and an ES construal – the situation in (6) obtains given (5). If, on the one hand, the dedicated LF for the RS construal of ϕ is fed into the quantifier, the ES construal will be irrelevant for the truth-conditions throughout. If, on the other hand, the quantifier is applied to the denotation of the dedicated LF for the ES construal, the RS construal will be irrelevant.

(6) **Uniform interpretation of potentially ambiguous scope argument:**
If ϕ is ambiguous between ϕ_{RS} and ϕ_{ES},
a. i. $[\![\textit{only } \alpha]\!]([\![\phi_{RS}]\!]) = [\![\phi_{RS}]\!]([\![\alpha]\!]) \wedge \forall x \neq [\![\alpha]\!] : \neg[\![\phi_{RS}]\!](x)$ (ES irrelevant)
ii. $[\![\textit{only } \alpha]\!]([\![\phi_{ES}]\!]) = [\![\phi_{ES}]\!]([\![\alpha]\!]) \wedge \forall x \neq [\![\alpha]\!] : \neg[\![\phi_{ES}]\!](x)$ (RS irrelevant)
a. i. $[\![\textit{both } \alpha \textit{ and } \beta]\!]([\![\phi_{RS}]\!]) = [\![\phi_{RS}]\!]([\![\alpha]\!]) \wedge [\![\phi_{RS}]\!]([\![\beta]\!])$ (ES irrelevant)
ii. $[\![\textit{both } \alpha \textit{ and } \beta]\!]([\![\phi_{ES}]\!]) = [\![\phi_{ES}]\!]([\![\alpha]\!]) \wedge [\![\phi_{ES}]\!]([\![\beta]\!])$ (RS irrelevant)

3 At this point, I am simplifying somewhat. Particular ambiguity approaches will be discussed in some more detail in section 2.3.

This in turn means that in a scenario where α makes ϕ only true on its RS construal and β only on its ES construal, as in (7), both the sentences with *only* in (7a) and (7b) should be judged as acceptable and the sentence with *both* in (7c) as unacceptable. This is so because each of α and β makes ϕ true on a reading the other one does not and the truth-values never happen to coincide. In case these predictions are borne out, this would constitute support for ambiguity approaches, as they deny syntactic and semantic parallelism between RS and ES construals.

(7) **Predictions of ambiguity approaches:**
If $[\![\phi_{RS}]\!]([\![\alpha]\!]) = 1$, $[\![\phi_{ES}]\!]([\![\alpha]\!]) = 0$, $[\![\phi_{RS}]\!]([\![\beta]\!]) = 0$, $[\![\phi_{ES}]\!]([\![\beta]\!]) = 1$,
a. $[\![\textit{only } \alpha\ \phi]\!] = 1$
b. $[\![\textit{only } \beta\ \phi]\!] = 1$
c. $[\![\textit{both } \alpha \textit{ and } \beta\ \phi]\!] = 0$

Before we turn to see if these predictions are borne out, a couple of remarks are in order. First, in the following and for most of this paper I will rely on *a(n)*-indefinites. Indefinites with *a certain* do not allow for RS construals, as shown by (8), and can thus not be used in the parallelism test. I will return to the question of *a certain*-indefinites in section 5.4.

(8) a. **Scenario 3:** Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash.
b. *Ann is kicked out if she lets a certain dog belonging to her off the leash.* ✗

Second, I will be abstracting away from whether the predicate in the indefinite is interpreted opaquely or transparently relative to the modal contributed by the conditional sentence when evaluating parallelism, assuming simplistically that evaluation of predicates coincides with scope. Classic *de re*/*de dicto* ambiguities should not matter in the crucial cases given that they do not involve attitude contexts. To be on the safe side, though, I will assume that an opaquely and a transparently evaluated instance of the same predicate count as parallel to each other independently relying on Mayr & Schmitt (2024). As a consequence of this, applying the test in the following will at the worst overpredict parallelism. The question of opaque and transparent evaluation will be taken up more directly in section 4.

2.2 Applying the parallelism test

As a first step recall example (1), repeated in (9). As we know, the scenario in (9a) makes sentence (9b) only true on its ES construal. Given the acceptability of the sentence, the designated ES representation must thus be available here assuming an ambiguity approach.

(9) a. **Scenario 1:** Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Bea is kicked out if she lets a dog belonging to her off the leash.* ✓

Compare (9) now to the example in (10). This time the scenario in (10a) makes the minimally differing sentence in (10b) only true on its RS construal. To see this more clearly, compare the RS construal paraphrased in (11a) to the ES construal paraphrased in (11b). Since Ann does not have a dog in the world of evaluation, only (11a) is a live option for the truth of (10b). This says that necessarily if a dog of Ann's – actual or not – is found off the leash, she loses her apartment, which is true in scenario (10a).

(10) a. **Scenario 3:** Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash.

b. *Ann is kicked out if she lets a dog belonging to her off the leash.* ✓

(11) a. $\forall w' \in ACC_w[\exists x[x$ is a dog of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w']$ (true in (10a))

b. $\exists x[x$ is a dog of Ann's in $w \wedge \forall w' \in ACC_w[$Ann lets x off the leash in $w' \rightarrow$ Ann is kicked out in $w']]$ (false in (10a))

Again, (9b) and (10b) are true in their scenarios on the ES and the RS construal, respectively, and only on those. A scenario combining (10a) and (10b), such as in (12a), is therefore one with the necessary ingredients to test for ambiguity of sentences with indefinites in scope islands between a dedicated RS and a dedicated ES construal, as discussed above. As (12b) and (12c) show, the versions of (9b) and (10b) with *only* are unacceptable in such a scenario, while the sentence with *both Ann and Bea* in (12d) is acceptable.

(12) a. **Scenario 1+3:** Ann and Bea live in different cities. Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash. Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Only Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

c. *Only Ann is kicked out if she lets a dog belonging to her off the leash.* ✗

d. *Both Ann and Bea are kicked out if they let a dog belonging to them off the leash.* ✓

This state of affairs is unexpected under ambiguity approaches. As stated in (7) above, judgments that are exactly the opposite of what we actually find would be expected. Consider (12b). We know from (9) that its upward monotonic component is true if the ES construal of the scope argument is chosen. From (10) we know that its downward monotonic component is false on that construal. Together this means that (12b) should be true and therefore acceptable. The reasoning for (12c) is just the reverse of this. (12d), finally, should be false and thus unacceptable because (9b) and (10b) are true under different construals. It is difficult to see how this situation could be reconciled with ambiguity approaches. In the following section, I discuss this in more detail.

2.3 Different ambiguity theories

Ambiguity approaches differ considerably from each other. As stated repeatedly, there are two properties that are common to all of them. First, they rely on LFs for RS construals that differ from the LFs for ES construals. Second and more concretely, for the RS construal of (10b) truth-conditions similar to those in (13a) are derived and for the ES construal of (9b) truth-conditions like those in (13b). Crucially, these truth-conditions obtain regardless of the specific lexical and syntactic assumptions made by ambiguity proposals.

(13) a. $\forall w' \in ACC_w[\exists x[x$ is a dog of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w']$ (RS for (10b))

b. $\exists x[x$ is a dog of Bea's in $w \wedge \forall w' \in ACC_w[$Bea lets x off the leash in $w' \rightarrow$ Bea is kicked out in $w']]$ (ES for (9b))

Let us consider a number of illustrative theories, somewhat simplified in the following, without going into too much detail. In each case I will compare the respective LF for the RS construal of (10b) and the one for the ES construal of (9b). These are particularly instructive because, as (12b) to (12d) show, they should be syntactically and semantically parallel to each other – modulo the individuals Ann and Bea. In ambiguity theories, where they are not parallel, one should therefore be able to, for instance, assert the former and negate the latter at the same time as required by *only*, while *both* should not be able to assert them together at all. This would yield results that are directly the opposite of what we see in (12b) to (12d) above.

Ebert & Endriss (2004) and Ebert (2010) assume that indefinites are existential quantifiers and that topic-marking allows them to take ES out of islands. The LF for the RS construal of (10b) would look as in (14a) and the one for the ES construal of (9b) as in (14b). Clearly parallelism is not observed.

(14) a. *Ann is kicked out [if [a dog of Ann's] λ_1 [Ann lets t_1 off the leash]]* (RS)
b. *[a dog of Bea's]$_T$ λ_1 [Bea is kicked out [if Bea lets t_1 off the leash]]* (ES)

Crucially this lack of parallelism is not due to the contrasting individual-denoting expressions. Abstracting over the proper-names and pronouns as in (15) – either of (15a) and (15b) could, for instance, serve as the scope argument of *only Ann/Bea* – still yields non-parallelism. Note, in particular, that given the wide scope of the existential quantifier in the function yielding the ES construal in (15b), applying this function to Ann will necessarily yield falsity in scenario 1+3 because Ann does not have any dogs there. This is the core of the problem for all ambiguity theories discussed in the following. For simplicity, I will stick with the simpler LFs without abstraction.

(15) a. λ_2 *[t_2 is kicked out [if [a dog of 2's] λ_1 [2 lets t_1 off the leash]]* (RS)
b. λ_2 *[a dog of 2's]$_T$ λ_1 [t_2 is kicked out [if 2 lets t_1 off the leash]]* (ES)

A similar situation obtains in theories assuming that pied-piping of the island allows for subsequent scoping out of the island for the existential indefinite contained in it, as proposed by Charlow (2014, 2020) and Demirok (2019) building on suggestions by Nishigauchi (1990) and von Stechow (1996). The non-parallel LFs look as in (16).[4]

(16) a. *Ann is kicked out [if [a dog of Ann's] λ_1 [Ann lets t_1 off the leash]]* (RS)
b. *[a dog of B's] λ_1 [[if [B lets t_1 off leash]] λ_2 [B is kicked out t_2]]*(ES)

Yet other ambiguity approaches rely on the idea from Kamp (1981) and Heim (1982) that indefinites are not quantificational but instead serve to introduce a variable (e.g. Abusch 1994; Jäger 2007; Onea 2015). The variable is subject to existential closure. Depending on where this closure happens, an RS construal or an ES construal follows. The resulting LFs in (17) are equally non-parallel.

(17) a. *Ann is kicked out [if $\exists x$ [x dog of Ann's] [Ann lets x off the leash]]* (RS)
b. $\exists x$ *[Bea is kicked out [if [x dog of B's] [B lets x off the leash]]]* (ES)

4 Both the topic-marking and the pied-piping approaches can and have been formulated without syntactic scoping but rather in terms of type-shifting. The argument given in the text is, however, not affected by this. Clearly, if a particular mode of composition is chosen for two expressions forming part of the argument of *only*, this mode must be used for both the upward and the downward monotonic components of *only* and both conjuncts of *both*. That is, the RS and ES construals are predicted to be non-parallel to each other on ambiguity approaches using type-shifting rather than syntactic scoping.

Finally, approaches relying on variable-dependence can be classified as ambiguity approaches as well (e.g. Brasoveanu & Farkas 2011; Aloni & Degano 2022). Here indefinites are treated as existential quantifiers where the variable introduced by them can be dependent on higher scope-bearing expressions. For the relevant RS construal in (13a) the variable of the indefinite would be dependent on the worlds quantified over by the modal, as in (18a), whereas for the ES construal it would be independent as in (18b). While the indefinite in (18b) does strictly speaking not scope out of the island it is contained in, the resulting meaning is essentially equivalent to the one in (13b). In other words, even if (18a) and (18b) could be said to be syntactically parallel, the resulting meanings are not parallel, i.e., semantic parallelism does not obtain.

(18) a. *Ann is kicked out [if$_w$ [a$_w$ dog of A's] λ_1 [A lets t_1 off the leash]]* (RS)
b. *Bea is kicked out [if$_w$ [a$_\varnothing$ dog of B's] λ_1 [B lets t_1 off the leash]]* (ES)

In the next section, I turn to functional approaches and show that they fare somewhat better than the ones just considered vis-à-vis our parallelism data.

3 Parallelism in functional approaches

3.1 Functional approaches

There are two properties uniting functional approaches. The first is that indefinites cannot take scope out of islands they are contained in. The second is that the indefinite through some functional mechanism makes, at least locally, a contribution similar to that of an individual denoting expression.

Let me illustrate this idea with an approach employing choice functions following Reinhart's (1997) and Winter's (1997) work. The indefinite article is seen as a choice function applying to the (characteristic function of the) set denoted by its predicate argument. Being a choice function, it returns a member of that set. This is what establishes the second property of functional approaches mentioned above. When applying to the denotation of *dog belonging to Ann* it returns a particular dog of Ann's. The choice function contributed by the indefinite article can then be existentially closed at different points in the structure.[5]

5 There has been debate whether choice functions contributed by indefinite articles should be existentially quantified as Reinhart and Winter maintain or not, and if yes how. Some hold that existential quantification is not necessary (e.g. Kratzer 1998; Mirrazi 2024, but also Portner & Yabushita 2001; Schwarzschild 2002), some that existential quantification happens only globally (e.g. Matthewson 1999), and some that it must be able to apply locally too (e.g. Chierchia 2001; Schwarz 2001, 2004; Schlenker 2006). The last approach is crucially informed by locality restrictions on ES construals, which I will discuss in section 5.2. For now I follow the latter approach because it is the one with the widest empirical coverage, but will occasionally comment on differences in functional approaches.

Consider the RS construal of (10b), repeated in (19b), on this view.

(19) a. **Scenario 3:** Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash.

b. *Ann is kicked out if she lets a dog belonging to her off the leash.* ✓

All things being equal, the choice function in (19b) could be existentially closed locally or globally as in (20a) and (20b), respectively. This looks a lot like an ambiguity approach after all – and in some sense it is, of course – but as will become clear the LF for the ES construal is compatible with a scenario making the RS construal true, as well. Because of this point parallelism can, in principle, be obtained in a choice function approach, hence the term functional approach.[6] [7]

(20) a. *Ann is kicked out [if* $\exists f$ *Ann lets* a_f *dog of Ann's off the leash]* (RS)

b. $\exists f$ *[A is kicked out [if A lets* a_f *dog of A's off the leash]]* (ES, RS)

(20a) yields truth-conditions as in (21a). This says that in all accessible worlds w' where there is some way of choosing from the set of Ann's dogs an individual x such that Ann let x off the leash in w', Ann is kicked out of her apartment in w'. This is equivalent to the familiar rendering of the RS construal in (21b). LF (20a) therefore makes (19b) true in scenario 3 above.[8]

(21) a. $\forall w' \in ACC_w[\exists f[$Ann lets $f($**dog of Ann's**$(w'))$ off the leash in $w']] \rightarrow$ Ann is kicked out in $w']$

b. $\forall w' \in ACC_w[\exists x[x$ is a dog of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w']$

LF (20b) yields the truth-conditions in (22) instead. These say that there is a function such that in all worlds w' where Ann lets the dog of hers in w' chosen by that function off the leash, she is kicked out of her apartment. This could make (19b) true in scenario 3.

(22) $\exists f.\forall w' \in ACC_w[$Ann lets $f($**dog of Ann's**$(w'))$ off the leash in $w' \rightarrow$ Ann is kicked out in $w']$

6 This, in a nutshell, is also the reason why there has been debate about whether existential closure is necessary in the first place (see footnote 5). Given that (20b) covers both RS and ES construals, it has been suggested, there is no need for local existential closure at all.

7 Remember that ambiguity approaches also have existential quantification at the global level in the ES construal. The difference is that there it is quantification over individuals rather than functions. This means that the former but not the latter asserts the existence of an individual, which we saw to be problematic in the face of the parallelism data.

8 I will use boldface for meanings. **dog of Ann's**(w'), for instance, stands for the set of Ann's dogs in w'.

To see why this is so assume that three worlds w_1, w_2 and w_3 are accessible from the world of evaluation w. Assume moreover that Ann's dogs in these worlds are as stated in (23). Now, any choice function applied to any of these sets of individuals returns exactly one of its members. Assume for concreteness the function f yielding the values also stated in (23).[9]

(23) a. i. **dog of Ann's**$(w_1) = \{\text{a, b, c}\}$
ii.. $f($**dog of Ann's**$(w_1)) = \text{a}$
b. i. **dog of Ann's**$(w_2) = \{\text{a, d}\}$
ii.. $f($**dog of Ann's**$(w_2)) = \text{d}$
c. i. **dog of Ann's**$(w_3) = \{\text{b, e}\}$
ii.. $f($**dog of Ann's**$(w_3)) = \text{e}$

With the model in (23), the truth-conditions in (22) could therefore be stated as in (24). Arguably, (24) is compatible with scenario 3. As a consequence, sentence (23b) is predicted to be judged true in scenario 3 on both LFs in (20).

(24) [Ann lets a off the leash in $w_1 \rightarrow$ Ann is kicked out in w_1] $\wedge$
[Ann lets d off the leash in $w_2 \rightarrow$ Ann is kicked out in w_2] $\wedge$
[Ann lets e off the leash in $w_3 \rightarrow$ Ann is kicked out in w_3]

Notice, however, that the truth-conditions in (24) are not equivalent to those in (21). In fact, the latter are strictly stronger than the former. Now, this weakness has the consequence that it allows (25b) to be judged true in scenario 1.

(25) a. **Scenario 1:** Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.
b. *Bea is kicked out if she lets a dog belonging to her off the leash.* ✓

Again, two kinds of LFs are possible for (25b) differing in where existential closure applies. With local closure we get the truth-conditions in (26a) and with global closure we get the ones in (26b), parallel to what was just discussed. This time (26a) – the truth-conditions for the RS construal – yield falsity in scenario 1, but (26b) – the truth-conditions for the ES construal – yield truth. The former is clear given the equivalence of a reading with local closure of the choice function with one

9 Notice that f could be made to vary with the worlds quantified over, i.e., skolemized, as has been argued in the literature on choice functional indefinites. This would, however, not change anything for the issue at hand given that the input to f already varies with these worlds due to the predicate being world-dependent itself. I therefore abstract away from this complication.

with local existential quantification over individuals. Regarding the latter assume for concreteness that Bea's actual Rottweiler is among her dogs in all the accessible worlds. If we now pick a function that always selects that Rottweiler regardless of which other dogs are in the set **dog of Bea's**, as in (27), then (26b) effectively says that as soon as Bea's Rottweiler is off the leash she loses her apartment, which is true in scenario 1.

(26) a. $\forall w' \in ACC_w[\exists f[$Bea lets $f($**dog of Bea's**$(w'))$ off the leash in $w'] \rightarrow$ Bea is kicked out in $w']$

b. $\exists f.\forall w' \in ACC_w[$Bea lets $f($**dog of Bea's**$(w'))$ off the leash in $w' \rightarrow$ Bea is kicked out in $w']$

(27) a. i. **dog of Bea's**$(w_1) = \{$r, c, p$\}$

ii.. $f($**dog of Bea's**$(w_1)) =$ r

b. i. **dog of Bea's**$(w_2) = \{$r, c, p$\}$

ii.. $f($**dog of Bea's**$(w_2)) =$ r

c. i. **dog of Bea's**$(w_3) = \{$r, c, p$\}$

ii.. $f($**dog of Bea's**$(w_3)) =$ r

Approaches relying on functions for domain restriction instead of choice functions also belong to the group of functional approaches for present purposes (e.g. Portner & Yabushita 2001; Schwarzschild 2002; Dayal 2019, also see the discussion in von Fintel 2000). Here indefinites exhibiting ES are taken to be existential quantifiers whose domain happens to be restricted to a singleton via a function f subject to existential closure.[10] For our immediate purposes such a view is parallel to choice functional approaches. This can be seen by comparing the meanings relying on choice functions in (26a) and (26b) to their respective parallel meanings relying on domain restriction functions in (28a) and (28b). $f(w')$(Bea) here yields a singleton set of individuals – varying with the worlds quantified over – to be intersected with the set of Bea's dogs, thereby returning, again, a singleton. The existential quantifier denoted by the indefinite for all intents and purposes therefore will behave like an individual, similar to what we saw to be the case in choice-functional approaches. Closing the domain restriction function locally as in (28a) gives the strong RS construal and closing it globally the weak ES construal compatible with RS situations as well. For our immediate purposes choice-functional and domain restriction approaches can be treated as making parallel predictions.

10 More concretely, such a domain restriction function is what it would take to achieve parallelism, as discussed in section 3.2. Existing theories of ES relying on domain restriction do not always employ functions for this.

(28) a. $\forall w' \in ACC_w[\exists f.\exists x[x$ dog of Bea's in $w' \wedge f(w')(\text{Bea})(x) \wedge x$ off the leash in $w'] \rightarrow$ Bea kicked out in $w']$

b. $\exists f.\forall w' \in Acc_w[\exists x[x$ dog of Bea's in $w' \wedge f(w')(\text{Bea})(x) \wedge x$ off the leash in $w'] \rightarrow$ Bea kicked out in $w']$

3.2 Functional approaches and parallelism

All of this taken together has consequences for our immediate concerns. The weak truth-conditions resulting from global existential closure of the choice function contributed by the indefinite article make parallelism effects possible to predict. Recall once more the crucial data from (12), repeated in (29).

(29) a. **Scenario 1+3:** Ann and Bea live in different cities. Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash. Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Only Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

c. *Only Ann is kicked out if she lets a dog belonging to her off the leash.* ✗

d. *Both Ann and Bea are kicked out if they let a dog belonging to them off the leash.* ✓

To see why this prediction is made, consider the denotation of the scope argument necessary for the ES construal given in (30), which results from abstracting over the expressions denoting Ann or Bea. Given the discussion above, we know that (30) maps Ann to truth in scenario 3 and Bea in scenario 1. As a result the sentences with *only* in (29b) and (29c) are predicted to be false in scenario 1+3 and the sentence with *both* in (29d) is predicted to be true. This is precisely the desired pattern.

(30) $\lambda y.\exists f.\forall w' \in ACC_w[y$ lets $f(\textbf{dog of } y\textbf{'s}(w'))$ off the leash in $w' \rightarrow y$ is kicked out in $w']$

This means that we have achieved parallelism by relying on functional approaches. It is important to note that this result in itself is independent of the question whether choice functions contributed by indefinite articles should be existentially closed or not. Since the LF and denotation making parallelism possible are the ones where closure happens globally, not applying closure at all could results a comparable outcome. If (28) maps some individual to truth, then a minimally different function where the value of f is left to the context could also do so, provided the value that the context provides for f is of the right kind. For instance this would be

achievable if for any accessible world w' – with w_1, w_2 and w_3 being the accessible worlds as above – f behaved as in (23) with regards to **dog of Ann's**(w') and as in (27) with regards to **dog of Bea's**(w').[11]

I will keep using LFs with global existential closure with the understanding that all things being equal we could also do without it. This is important for the discussion of overgeneration below in the sense that what will be said about global existential closure in general equally applies to approaches without existential closure at all (e.g. Kratzer 1998; Portner & Yabushita 2001; Schwarzschild 2002; Mirrazi 2024).

4 Overgeneration of exceptional scope

We have seen in section 2 that ambiguity approaches are fundamentally at odds with the parallelism data introduced there. Section 3 showed that functional approaches fare better with respect to them because of the weak truth-conditions for ES construals predicted by them. This section shows that precisely these weak truth-conditions turn out to have undesirable consequences.

To see this consider the familiar example in (31a) in the new scenario 4 given in (31b). The sentence is unacceptable here.

(31) a. **Scenario 4:** Ann does not have a dog. Her landlord told her he might terminate her contract if she got herself a Rottweiler or a Dobermann and let it run free, but not necessarily so. It somewhat depends on the dog in question.

b. *Ann is kicked out if she lets a dog belonging to her off the leash.* ✗

Now (43b) is predicted to be true by functional approaches in scenario 4 in case an LF with global existential closure (or no existential closure at all) is assumed. The relevant truth-conditions would be as in (32) repeated from (22) above.

(32) $\exists f.\forall w' \in ACC_w$[Ann lets f(**dog of Ann's**(w')) off the leash in $w' \rightarrow$ Ann is kicked out in w']

Consider now a toy model with three accessible worlds w_1, w_2 and w_3. In each such world the set of Ann's dogs contains one Dobermann (d_1, d_2, or d_3) and one Rottweiler (r_1, r_2 or r_3). Moreover let us consider a choice function that selects the respective Rottweilers from the set of Ann's dogs in w_1 and w_2 but the Doberman from the set in w_3. This is summarized in (33).

(33) a. i. **dog of Ann's**$(w_1) = \{d_1, r_1\}$

11 Without global closure, functional approaches are arguably well equipped to account for the intuition that ES often goes hand in hand with the intuition that the indefinite in question is in some sense specific, i.e., intended to pick out a certain individual (e.g. Fodor & Sag 1982; Kratzer 1998).

ii.. $f(\textbf{dog of Ann's}(w_1)) = \mathrm{r}_1$

b. i. $\textbf{dog of Ann's}(w_2) = \{\mathrm{d}_2, \mathrm{r}_2\}$

ii.. $f(\textbf{dog of Ann's}(w_2)) = \mathrm{r}_2$

c. i. $\textbf{dog of Ann's}(w_3) = \{\mathrm{d}_3, \mathrm{r}_3\}$

ii.. $f(\textbf{dog of Ann's}(w_3)) = \mathrm{d}_3$

The model in (33) makes the truth-conditions with global existential closure given in (32) effectively equivalent to (34). Crucially, (34) is true in scenario 4, as it does not require that as soon as one of Ann's dogs is off the leash she loses her apartment. That is, with global existential closure (31b) is wrongly predicted by functional approaches to be acceptable in that scenario.

(34) [Ann lets r_1 off the leash in $w_1 \rightarrow$ Ann is kicked out in w_1] $\wedge$
[Ann lets r_2 off the leash in $w_2 \rightarrow$ Ann is kicked out in w_2] $\wedge$
[Ann lets d_3 off the leash in $w_3 \rightarrow$ Ann is kicked out in w_3]

One reaction to data such as those in (31) would be to rely on some sort of constraint to block the kind of LF leading to the truth-conditions in (32). In order not to rule out ES construals across-the-board though, one would probably have to require that global existential closure of a choice function contributed by an indefinite article is always accompanied by the transparent evaluation of the predicate in the indefinite. This would make (32), where the predicate *dog belonging to Ann's* is evaluated opaquely, unavailable. Only ES construals with transparent evaluation of the predicate, such as in (35), would be allowed. Since Ann does not have any dogs in the world of evaluation w, as specified in (31a), (35) would come out necessarily false or undefined, accounting for the unacceptability of (31b) in scenario 4.

(35) $\exists f.\forall w' \in ACC_w$[Ann lets $f(\textbf{dog of Ann's}(w))$ off the leash in $w' \rightarrow$ Ann is kicked out in w']

This might actually be a reasonable assumption to make as it goes well with intuitions regarding ES construals more generally. The problem with this kind of move is, however, that in order to predict parallelism for the quantificational data in (29), repeated once more in (36), it is necessary to allow for opaque evaluation of the predicate in the indefinite under functional approaches. First, for (36c) and (36d) to satisfy parallelism global existential closure of the choice function contributed by the indefinite article is necessary. Second, in order for them to moreover yield truth an opaque evaluation of the predicate inside the indefinite is crucial. After all Ann does not have dogs in either scenario 1+3 or scenario 4. That is, (31b) is either true or false in both scenarios.

(36) a. **Scenario 1+3:** Ann and Bea live in different cities. Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen without a leash. Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Only Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

c. *Only Ann is kicked out if she lets a dog belonging to her off the leash.* ✗

d. *Both Ann and Bea are kicked out if they let a dog belonging to them off the leash.* ✓

In other words, a constraint ruling out the combination of global existential closure and opaque evaluation would be in conflict with our assumptions regarding parallelism. It is, however, difficult to see what other constraint could be used to achieve the result of blocking (32) in scenario 4 without blocking similar ES construals throughout.

5 Underspecification as a desideratum for an account of exceptional scope

Functional accounts achieve parallelism at the cost of overgenerating ES construals. I will now sketch the outlines of an account that predicts parallelism straightforwardly but is in some sense informed by features of certain functional accounts without actually being functional in the sense used in this paper so far. Then I briefly summarize a locality restriction on ES construals that has been discussed in the literature. This restriction is known to be problematic for functional accounts. I will show that the novel account predicts these locality restrictions without any further assumptions.

5.1 Parallelism and locality through underspecification

Turning now to the sketch of the proposal, let me first make clear what the parallelism data discussed in sections 2.2 and 3.2 and the overgeneration data discussed in section 4 taken together tell us. In their weakest form, the parallelism data, repeated once more in (37) from above, demonstrate through the use of quantification that the LF for an ES construal and therefore the resulting meaning must be compatible with an RS construal. The acceptability of the sentence with *both* in (37d) straightforwardly shows that. The unacceptability of the sentences with *only* in (37b) and (37c) is the flip-side of this.

(37) a. **Scenario 1+3:** Ann and Bea live in different cities. Ann does not have a dog. Her landlord terminates any contract as soon as a tenant's dog is seen

without a leash. Bea has three dogs including a Rottweiler. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The other dogs need not be kept on a leash.

b. *Only Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

c. *Only Ann is kicked out if she lets a dog belonging to her off the leash.* ✗

d. *Both Ann and Bea are kicked out if they let a dog belonging to them off the leash.* ✓

This situation would, in principle, be compatible with a situation where the ES construal of a sentence has such a weak interpretation that it cannot fail to be true in situations verifying the RS construal, as in functional approaches with global closure of choice functions or no closure at all. The overgeneration data, however, show that such radical weakness should not be seen as the source of the ES construal. Otherwise, ES construals would be massively overgenerated by the grammar.

This all suggests that the LFs for RS and ES construals should not differ from each other at all. This in turn means that the LF for the scope argument of the quantifiers in (37) would look something like in (38). In order to allow for truth in situations verifying the RS construal, the indefinite must stay inside the island.

(38) λ_2 *[* t_2 *is kicked out [if 2 lets a dog of* t_2*'s off the leash]]*

With just one kind of LF available, only one meaning will be available, which automatically guarantees parallelism. In order for that meaning to be compatible with situations making both – what so far have been described as – ES and RS construals true in the respective situations, it must be radically underspecified. This can be achieved by making the meaning disjunctive as in (39). Note that in a worked out system of this sort, the eventual meaning would be entailed by the right side in (39), i.e. would be even more underspecified and thus weaker than what is explicitly discussed here.

(39) $[\![(38)]\!]^c \supseteq \lambda y.\forall w' \in ACC_w[\exists x[x$ dog of y's in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ Rottweiler of y's in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w']$

The resulting truth-conditions in (40) – or more precisely entailed by (40) – for sentence (37d) with the lexical meaning for *both* in (5b) yield arguably truth in scenario 1+3. This is so because Ann makes (39) true in virtue of its first disjunct and Bea in virtue of its second one. Assuming that the set of Bea's dogs in the worlds accessible from the world of evaluation are the same as in the latter, the second

disjunct in (39) applied to Bea effectively says that if Bea's actual Rottweiler is off the leash she is kicked out, which is true in scenario 1+3.[12] [13]

(40) $[\![(37d)]\!]^c \supseteq [\forall w' \in ACC_w[\exists x[x$ dog of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ Rottweiler of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w']] \wedge$ $[\forall w' \in ACC_w[\exists x[x$ dog of Bea's in $w' \wedge$ Bea lets x off the leash in $w'] \rightarrow$ Bea is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ Rottweiler of Bea's in $w' \wedge$ Bea lets x off the leash in $w'] \rightarrow$ Bea is kicked out in $w']]$ (true in (37a))

What (40) in effect amounts to is a disjunction of predicates differing in the position contributed by *dog*. This could be worked out in a compositional fashion by adopting the framework of alternative semantics following Rooth's (1985) theory of focus semantics (also see Rooth 1992).The idea would be that **Rottweiler** among other predicates here serves as an alternative to the standard meaning **dog**. Which alternatives are available is context dependent, here indicated by the context parameter c on the interpretation function. Given such a view and given that (40) only partially represents the meaning of (39) there could also be a disjunct where a predicate individuating Bea's actual Rottweiler serves as an alternative for **dog**, as in (41). When (41) is applied to Bea truth would, again, result in scenario 1+3. Given that the result would be true in virtue of the second disjunct, the meaning would come close to what is often called a specific interpretation of the indefinite.

(41) $[\![(38)]\!]^c \supseteq \lambda y.\forall w' \in ACC_w[\exists x[x$ dog of y's in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ is y's Rottweiler in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w']$

Considering now (37b) and (37c) it is clear that they come out as false with the meanings in (39) and (41) for the scope argument and the lexical semantics for *only* in (5a). For concreteness, let us consider (37b) using the scope argument in (39), which yields the truth-conditions in (42). With *Bea* an alternative to Ann, this results in falsity in scenario 1+3, as (42) directly contradicts (40).

(42) $[\![(37b)]\!]^c \supseteq [\forall w' \in ACC_w[\exists x[x$ dog of Ann's in $w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ Rottweiler of Ann's in

12 In a system like Mayr & Schmitt's (2024) where the transparent/opaque evaluation distinction is itself a form of underspecfication a non-trivial interaction would be predicted at this point. Investigation of this must be left for the future.

13 It should also be noted that given the choice to treat indefinites as existential quantifiers – which might in itself not be necessary for the kind of system envisioned here – the approach shares some similarities with Schwarzschild's (2002) approach. In particular, the second disjunct in (39) is very close to the meaning he would have for the scope argument in (38) as such.

$w' \wedge$ Ann lets x off the leash in $w'] \rightarrow$ Ann is kicked out in $w']] \wedge$
$[\forall y \neq$ Ann: $\forall w' \in ACC_w[\exists x[x$ dog of y's in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w'] \vee \forall w' \in ACC_w[\exists x[x$ Rottweiler of y's in $w' \wedge y$ lets x off the leash in $w'] \rightarrow y$ is kicked out in $w']]$ (false in (37a))

5.2 Locality restriction on exceptional scope

I now turn to the discussion of a well-known locality constraint on the availability of ES construals. Consider example (43), which is odd in scenario 5. The pronoun bound by the negative quantifier ensures that the indefinite does not take syntactic scope over that quantifier. An ambiguity approach to ES based on literal scope-taking of the indefinite therefore predicts that an ES construal should be unavailable for (43b), as in order to achieve an ES construal the indefinite would have to literally take scope over the negative quantifier, which would clash with the requirements on binding. That is, only a RS construal, as given in (44), should be available, which is false in scenario 5 (see in particular Charlow 2014 for discussion, but see also Ebert & Endriss 2004; Ebert 2010; Demirok 2019; Charlow 2020 among others).

(43) a. **Scenario 5:** Ann, Bea and Cate each have one Rottweiler and one Chihuahua. Each of them fed her Chihuahua but not her Rottweiler.

b. *No woman fed a dog belonging to her.* ✗

(44) $\neg\exists x[x$ a woman in $w \wedge \exists y[y$ dog belonging to x in $w \wedge x$ fed y in $w]]$ (RS)

All things being equal, functional approaches make the prediction that an ES construal should be available for (43b) and that the sentence should as a consequence be acceptable in its scenario. With global existential closure they essentially assign to (43b) a meaning paraphrasable as saying that no woman fed all of her dogs. A meaning that is clearly unavailable for (43b) but would make it true in scenario 5. To see this more clearly, consider the LF in (45a) with global existential closure and its accompanying truth-conditions in (45b). As we know, it is not necessary here for the indefinite to take scope for an ES construal to emerge, unlike in ambiguity approaches with literal scope taking. That is, it can be interpreted in-situ with the pronoun bound by the negative quantifier, while global existential closure contributes existential quantification over the choice function contributed by the indefinite article.[14] [15]

14 Again, the problem discussed here applies equally to functional approaches without existential closure, for the same reasons as discussed already above in the text. In fact, as will become clear, data such as (43) are one of the motivating factors for adopting local existential closure in the first place.

15 Ambiguity approaches where the indefinite need not take scope itself (e.g. Abusch 1994; Jäger 2007; Brasoveanu & Farkas 2011; Onea 2015; Aloni & Degano 2022), all things being equal, face issues similar to those described in the text for functional approaches. That is, also for these one needs to have independent ways of reining in ES.

(45) a. $\exists f$ *[no woman* λ_2 *[* t_2 *fed* a_f *dog belonging to 2]]*
b. $\exists f.\neg\exists x[x$ a woman in $w \wedge x$ fed $f($**dog of**$(x)(w))$ in $w]$ (ES)

The availability of a function f as specified in (46) – mapping each woman's set of dogs to her respective Rottweiler – would make (45b) effectively equivalent to (47). (47) is, however, true in scenario 5. This means functional approaches indeed predict (43b) to be acceptable in this scenario.

(46) a. i. **dog of Ann's**$(w) = \{c_1, r_1\}$
ii.. $f($**dog of Ann's**$(w)) = r_1$
b. i. **dog of Bea's**$(w) = \{c_2, r_2\}$
ii.. $f($**dog of Bea's**$(w)) = r_2$
c. i. **dog of Cate's**$(w) = \{c_3, r_3\}$
ii.. $f($**dog of Cate's**$(w)) = r_3$

(47) Ann didn't feed $r_1 \wedge$ Bea didn't feed $r_2 \wedge$ Ann didn't feed r_3

It should be noted that the unavailability of the ES construal for (43b) is neither an artifact of the pronominal binding involved nor of the negative quantifier. (48b) with sentential negation is similarly odd in its scenario 6. Scenario 6 is a more specified version of scenario 1 making two dogs available that could serve as values for the globally closed choice function in the truth-conditions in (49) for the ES construal of (48b) whereby truth would result in scenario 6.

(48) a. **Scenario 6:** Bea has three dogs: a Rottweiler, a Chihuahua and a Poodle. Her landlord told her he would terminate her contract if the Rottweiler is seen without a leash. The Chihuahua and the Poodle need not necessarily be kept on a leash.
b. *It is not the case that Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

(49) $\exists f.\neg\forall w' \in ACC_w[$Bea lets $f($**dog of Bea's**$(w'))$ off the leash in $w' \rightarrow$ Bea is kicked out in $w']$

(50), finally, shows again the same thing with the negative attitude predicate *doubt*.

(50) a. **Scenario 7:** Bea has three dogs: a Rottweiler, a Chihuahua and a Poodle. Ann knows Bea's landlord would terminate her contract if the Rottweiler is seen without a leash. As far as the Chihuahua and the Poodle are concerned, Ann thinks they need not be kept on a leash.
b. *Ann doubts that Bea is kicked out if she lets a dog belonging to her off the leash.* ✗

5.3 Avoiding a stipulative locality constraint

Locality constraints on ES construals for data such as those in section 5.2 are one of the main reasons for why existential closure of choice functions has been argued to be indispensable in functional approaches (e.g. Chierchia 2001, 2005; Schwarz 2001, 2004; Schlenker 2006).[16] With closure available, one can define constraints on it such as in (51).

(51) **Constraint on existential closure:** The choice function contributed by an indefinite article *a* occurring in the scope of negation must be existentially closed within the scope of negation.

With (51) only an RS construal, as in (52a) would now be allowed for (43b). Since this is false in scenario 5 – as becomes immediately clear when we look at the equivalent formulation in (52b) – (43b) would be correctly judged as unacceptable there.

(52) a. $\neg\exists x[x \text{ a woman in } w \wedge \exists f[x \text{ fed } f(\textbf{dog of}(x)(w)) \text{ in } w]]$ (RS)
b. $\neg\exists x[x \text{ a woman in } w \wedge \exists y[y \text{ a dog of } x\text{'s in } w \wedge x \text{ fed } y \text{ in } w]]$

Any constraint such as (51) would also work for the other examples with negation discussed above, i.e., (48) and (50), as long as the notion of negation is suitably generalized.

Clearly, a constraint such as (51) is in need of explanation. For instance, one would like to know why negation has the effect that we saw it has. Ideally the consequence that negation has on ES construals should follow from independent sources. Indeed, the stipulative nature of constraints like (51) has been taken by some as major issue for functional approaches (e.g. Charlow 2014), as it is not easy to see how the constraint could be naturally implemented in such theories. Since the closure operation is free and not part of the compositional interpretative process as such its most likely source would be considerations of logical strength (cf. e.g. the strongest meaning hypothesis following Dalrymple, Kanazawa, Kim, Mchombo & Peters 1998 a.o.). The idea would be that local closure in the scope of negation is forced because that would lead to a stronger meaning than with global closure. The problem with that reasoning would be that the examples for which ES construals have been shown to exist are generally cases where the truth-conditions in question

16 To be sure there are other reasons for assuming local closure in functional approaches. The relevant kind of data show that only having access to an ES construal – i.e., a reading achievable through global closure or leaving the value of the choice function up to the context – is not enough. For instance, intermediate ES construals are a case in point (see Schlenker 2006; Ruys & Spector 2017 a.o). Descriptively the indefinite here takes scope out of an island but its scope can be shown to be limited to a position between the island and the root.

are weaker than what would be available under a RS construal effected by local closure. In other words, considerations of logical strengths of resulting meanings run into danger of essentially blocking ES altogether.

The underspecification account sketched in section 5.1, on the other hand, does not run into such problems. It predicts the data considered in section 5.2 without having to stipulate a constraint similar to (51). The meaning predicted for the scope of the negative quantifier in (43b), for instance, would be as in (53b) given the LF in (53a). Recall that scenario 5 makes both a Rottweiler and a Chihuahua contextually salient, which is reflected in (53b) by the last two disjuncts.

(53) a. λ_2 *[t_2 fed a dog belonging to 2]*

b. $[\![(53a)]\!]^c = \lambda x.\exists y[y$ a dog of x's in $w \wedge x$ fed y in $w] \vee \exists y[y$ a Rottweiler of x's in $w \wedge x$ fed y in $w] \vee \exists y[y$ a Chihuahua of x's in $w \wedge x$ fed y in $w]$

The truth-conditions resulting for (43b) are then as in (54). This says that every woman makes the disjunctive predicate in (53b) false. That is, (43b) yields falsity in scenario 5 because all of Ann, Bea and Cate fed their respective Chihuahua.

(54) $[\![(43b)]\!]^c \supseteq \neg\exists x[x$ a woman in $w \wedge [\exists y[y$ a dog of x's in $w \wedge x$ fed y in $w] \vee \exists y[y$ a Rottweiler of x's in $w \wedge x$ fed y in $w] \vee \exists y[y$ a Chihuahua of x's in $w \wedge x$ fed y in $w]]]$

5.4 Variation among indefinites

It is sometimes implied that locality restrictions like the one discussed in section 5.2 are not real given that ES construals involving indefinites with *a certain* or similar indefinite expressions appear to be less impacted by negation than those with simple *a*. If that were the case the system sketched immediately above would be, arguably, too restrictive.[17]

The example in (55) is a case in question. The idea would be that given the existence of examples like (55) unconstrained versions of functional approaches seem to carve out the correct space of possibilities.

(55) a. **Scenario 7:** Bea has three dogs: a Rottweiler, a Dobermann and a Poodle. Her landlord told her he would terminate her contract if the Rottweiler or the Dobermann is seen without a leash. The Poodle need not necessarily be kept on a leash.

b. *It is not the case that Bea is kicked out if she lets a certain dog belonging to her off the leash.* ✓

17 Also stipulative constraints like the one in (51) for functional approaches would not be called for in that case.

Such suggestions are, however, not entirely convincing. The fact that ES construals with *a certain*-indefinites are somewhat less constrained than with *a*-definites does not even begin to address the issues faced by functional approaches towards the latter. Rather the following descriptive generalization suggests itself: all else being equal, ES construals of indefinites under negation are constrained along the lines discussed. There are, however, designated lexical expressions – e.g. *a certain* – that allow grammar to circumvent this restriction. This could be achieved under the present underspecification account if *a certain* reduced the alternatives for the predicate in the indefinite that are used in the computation to one that is salient in the context. Reinforcing this line is the fact that *a certain*-indefinites do not seem to allow for RS construals at all, as was shown in (8) above.[18] [19]

6 Conclusion

I argued for and sketched an underspecification approach to ES. On this approach one and the same LF is used for what have traditionally been assumed separate readings, namely RS and ES construals. The account relied on massively underspecified meanings. This was shown to make the correct predictions for data demonstrating parallelism between RS and ES construals.

Obviously many questions remain open. For instance, we need to ask how alternatives of the sort discussed above would be introduced into the compositional process. Unlike what is usually assumed for focus (Rooth 1985, 1992), it is not obvious that expressions should be assumed to be formally marked for alternatives relevant for ES phenomena. This in turn suggests that underspecification of the kind discussed might be a much more pervasive phenomenon in natural language meaning than is standardly assumed and acknowledged. It remains to be seen which other phenomena support such a view, but Mayr & Schmitt (2024) argue that various *de re*-phenomena exhibit similar empirical properties.

18 Largely parallel considerations would hold for reports of unconstrained ES construals of indefinites in languages other than English (see in particular Matthewson 1999; Renans 2018; Mirrazi 2024 a.o.).

19 Presumably, however, more than that would need to be said with regards to *a certain*. For instance, (ib), which forms a minimal pair with (43b) is not straightforwardly acceptable in scenario 4 either. (ib) somewhat suggests that the three women together own one dog which none of them fed.

(i) a. **Scenario 5:** Ann, Bea and Cate each have one Rottweiler and one Chihuahua. Each of them fed her Chihuahua but not her Rottweiler.

b. *No woman fed a certain dog belonging to her.* ✗

References

Abusch, Dorit. 1994. The scope of indefinites. *Natural Language Semantics* 2(2). 83–136. doi:https://doi.org/10.1007/BF01250400.

Aloni, Maria & Marco Degano. 2022. (Non-)specificity across languages: constancy, variation, *v*-variation. In *Semantics and Linguistic Theory (SALT) 32*, 185–205. doi:https://doi.org/10.3765/salt.v1i0.5337.

Brasoveanu, Adrian & Donka F. Farkas. 2011. How indefinites choose their scope. *Linguistics and Philosophy* 34. 1–55. doi:10.1007/s10988-011-9092-7.

Charlow, Simon. 2014. *On the semantics of exceptional scope*. New York, NY: New York University PhD dissertation.

Charlow, Simon. 2020. The scope of alternatives: indefiniteness and islands. *Linguistics and Philosophy* 43. 427—472. doi:https://doi.org/10.1007/s10988-019-09278-3.

Chierchia, Gennaro. 2001. A puzzle about indefinites. In Carlo Cecchetto, Gennaro Chierchia & Maria Teresa Guasti (eds.), *Semantic interfaces: reference, anaphora and aspect*, 51–89. Stanford, California: CSLI.

Chierchia, Gennaro. 2005. Definites, locality, and intentional identity. In Greg Carlson & Francis Jeffry Pelletier (eds.), *Reference and Quantification: The Partee Effect*, 143–177. Stanford, California: CSLI Publications.

Dalrymple, Mary, Makoto Kanazawa, Yookyung Kim, Sam Mchombo & Stanley Peters. 1998. Reciprocal expressions and the concept of reciprocity. *Linguistics and Philosophy* 21. 159–210. doi:https://doi.org/10.1023/A:1005330227480.

Dayal, Veneeta. 2019. Singleton indefinites and the privacy principle: *Certain* puzzles. In Daniel Altshuler & Jessica Rett (eds.), *The Semantics of Plurals, Focus, Degrees, and Times: Essays in Honor of Roger Schwarzschild*, 57–80. Cham: Springer. doi:https://doi.org/10.1007/978-3-030-04438-1_4.

Demirok, Ömer. 2019. *Scope Theory Revisited: Lessons from pied-piping in wh-questions*. Cambridge, MA: Massachusetts Institute of Technology PhD dissertation.

Ebert, Christian & Cornelia Endriss. 2004. Topic interpretation and wide scope indefinites. *North East Linguistic Society (NELS)* 34(1). 203–214.

Ebert, Cornelia. 2010. *Quantificational Topics: A Scopal Treatment of Exceptional Wide Scope Phenomena*. Berlin: Springer.

von Fintel, Kai. 2000. Singleton indefinites (re. Schwarzschild 2000). Ms. MIT.

Fodor, Janet Dean & Ivan Sag. 1982. Referential and quantificational indefinites. *Linguistics and Philosophy* 5. 355–398. doi:https://doi.org/10.1007/BF00351459.

Heim, Irene. 1982. *The Semantics of Definite and Indefinite Noun Phrases*: University of Massachusetts, Amherst PhD dissertation.

Jäger, Gerhard. 2007. Partial variables and specificity. In Uli Sauer-

land & Penka Stateva (eds.), *Presupposition and implicature in compositional semantics*, 121–162. Basingstoke, New York: Palgrave Macmillan. doi:https://doi.org/10.1057/9780230210752_5.

Kamp, Hans. 1981. A theory of truth and semantic representation. In J. Groenendijk (ed.), *Formal Methods in the Study of Language*, Amsterdam: Mathematical Center.

Kratzer, Angelika. 1986. Conditionals. *Chicago Linguistics Society (CLS)* 22(2). 1–15.

Kratzer, Angelika. 1998. Scope or pseudo-scope? Are there wide-scope indefinites? In Susan Rothstein (ed.), *Events in Grammar*, 163–196. Dordrecht: Kluwer.

Matthewson, Lisa. 1999. On the interpretation of wide-scope indefinites. *Natural Language Semantics* 7(1). 79–134. doi:https://doi.org/10.1023/A:1008376601708.

Mayr, Clemens & Viola Schmitt. 2024. Non-*de dicto* construals as a unified phenomenon. *Semantics and Linguistic Theory (SALT)* 34. 411–432. doi:https://doi.org/10.3765/as9aqj95.

Mirrazi, Zahra. 2024. Indefinites in negated intensional contexts: An argument for world-skolemized choice functions. *Semantics and Pragmatics* 7. 1–44. doi:https://doi.org/10.3765/sp.17.7.

Nishigauchi, Taisuke. 1990. *Quantification in the Theory of Grammar*, vol. 37. Dordrecht, The Netherlands: Kluwer Academic Publishers. doi:https://doi.org/10.1007/978-94-009-1972-3.

Onea, Edgar. 2015. Why indefinites can escape scope islands. *Linguistics and Philosophy* 38. 237–267. doi:10.1007/s10988-015-9167-y.

Portner, Paul & Katsuhiko Yabushita. 2001. Specific indefinites and the information structure theory of topics. *Journal of Semantics* 18. 271–297. doi:https://doi.org/10.1093/jos/18.3.271.

Reinhart, Tanya. 1997. Quantifier scope: How labor is divided between QR and choice functions. *Linguistics and Philosophy* 20(4). 335–397. doi:https://doi.org/10.1023/A:1005349801431.

Renans, Agata. 2018. Two types of choice-functional indefinites: Evidence from Ga (Kwa). *Topoi* 37. 405–415. doi:10.1007/s11245-017-9479-3.

Rooth, Mats. 1985. *Association with Focus*. Amherst, Massachusetts: University of Massachusetts, Amherst PhD dissertation.

Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1(1). 117–121. doi:https://doi.org/10.1007/BF02342617.

Ruys, Eddy G. & Benjamin Spector. 2017. Unexpected wide-scope phenomena. In Martin Everaert & Henk van Riemsdijk (eds.), *The Wiley Blackwell companion to syntax*, Wiley and Sons. doi:doi.org/10.1002/9781118358733.wbsyncom089.

Schlenker, Philippe. 2006. Scopal independence: A note on branching and wide

scope readings of indefinites and disjunctions. *Journal of Semantics* 23. 281–314. doi:10.1093/jos/ffl005.

Schwarz, Bernhard. 2001. Two kinds of long-distance indefinites. *Amsterdam Colloquium* 13. 192–197.

Schwarz, Bernhard. 2004. Indefinites in verb phrase ellipsis. *Linguistic Inquiry* 35(2). 344–353. doi:https://doi.org/10.1162/ling.2004.35.2.344.

Schwarzschild, Roger. 2002. Singleton indefinites. *Journal of Semantics* 19. 289–314. doi:https://doi.org/10.1093/jos/19.3.289.

von Stechow, Arnim. 1996. Against LF pied-piping. *Natural Language Semantics* 4(1). 57–110. doi:https://doi.org/10.1007/BF00263537.

Winter, Yoad. 1997. Choice functions and the scopal semantics of indefinites. *Linguistics and Philosophy* 20(4). 399–467. doi:https://doi.org/10.1023/A:1005354323136.

Clemens Mayr
Department of English Philology
Georg-August-Universität Göttingen
Käte-Hamburger-Weg 3
37073 Göttingen
clemens.steiner-mayr1@uni-goettingen.de