

Specification as an inter-taxonomic phenomenon*

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Abstract English specificational clauses are argued to be either equative clauses or inverse predications. This proposal, like others before it, reduces Higgins's 1979 taxonomy by analyzing specificational clauses as a special case of another taxon, but in this case, as a special case of two other taxa. The proposal is consistent with Mikkelsen's 2005 pronominalization diagnostics for the semantic type of specificational subjects, as well as Heycock & Kroch's arguments against a predicate inversion analysis (Heycock & Kroch 1998, 1999, 2002, Heycock 2012), and additionally derives the fact that specificational clauses have a fixed information structure, where specificational subjects cannot be focused.

Keywords: Specificational clauses, copula, equative clauses, predicate inversion, information structure, Question under Discussion

1 Introduction

Higgins 1979 identifies four kinds of copula clause in English, each with distinct semantic and syntactic properties. The taxa are in (1) with representative examples.

- (1) a. **Predicational clause**
Jack is happy.
- b. **Equative clause**
Cicero is Tully.
- c. **Identificational clause**
That (person) is Jack.
- d. **Specificational clause**
The president is Jack.

Much of the debate in the literature on copula clauses surrounds the status of Higgins's specificational and identificational classes.¹ The general approach is to analyze specificational or identificational clauses as special cases of one of the other more well established taxa (predicational or equative), reducing the taxonomy. Here,

* We thank . . .

¹ See Mikkelsen's 2008 survey.

I defend the claim that specificational clauses should sometimes be analyzed as predicational, and sometimes as equative.²

The predicational and equative types are well established, and predate Higgins's taxonomy. A common way of distinguishing between the clause types is by checking the semantic types of the XPs flanking the copula. For instance, in equative clauses, like that in (1b), the XPs flanking the copula are both referential (type *e*); one way of classifying a clause as equative is to establish that the XPs flanking the copula are of identical semantic type. Predicational clauses are characterized as such by virtue of having type *e* subjects and predicative ($\langle e, t \rangle$) postcopular XPs (henceforth called the 'pivot'). In the predicational clause in (1a), we have a referential subject and an unambiguously predicative pivot.

Specificational clauses have been described as "inverse predications," where the subject is predicative and the pivot referential. One motivation for this comes from alternations like that in (2).

- (2) a. Jack is the president.
b. The president is Jack.

In (2a), the pivot may be interpreted either as referential or predicative. On the predicative reading, (2a) counts as a predicational clause.³ Example (2b) has specificational word order, and seems intuitively synonymous, which would be consistent with a view where the subject could be predicative, and the pivot referential. Some approaches that adopt this view of specification are Williams 1983, Partee 1986, Heggie 1988, Moro 1997, Mikkelsen 2005.

On the other hand, in line with Heycock & Kroch 1998, 1999, many authors assume, instead, that specificational clauses are a species of equative (e.g., Heller 2005, Reeve 2010 a.o.). The strongest evidence Heycock & Kroch present for this comes from pairs like those in (3). In (3a), the pivot is what Heycock & Kroch take to be an unambiguously predicative XP. (See also the survey in Partee 2000 for discussion of this point.) The fact that inversion is impossible in (3b) strongly argues against the inversion analysis.

- (3) a. John is the one thing I have always wanted a man to be. (e.g., honest)
b. *The one thing I have always wanted a man to be is John. (e.g., honest)

² I set aside any discussion of identificational clauses here, though see Mikkelsen 2005 for the claim that identificational clauses are specificational, and Heller & Wolter 2008 for the claim that they are predicational. If identificational clauses are specificational, and I am correct that some specificational clauses should be analyzed as inverse predications, and some as equatives, it would be interesting to see what sort of specificational clause identificational clauses are, an issue I leave aside here for future work.

³ On the pivot's referential reading, (2a) counts as an equative clause.

Heycock & Kroch provide several additional arguments against a predicate inversion analysis, and argue that specification is a species of equation instead. They highlight the fact that many sentences which have been analyzed as specificational behave as expected under this assumption. For instance, example (4) is consistent with an equative analysis, since, if the preverbal subject is of type $\langle e, t \rangle$, as assumed in (3), then the fact that *honest* is a possible pivot follows straightforwardly, under the assumption that *honest*, being an adjective, is of type $\langle e, t \rangle$ itself.

- (4) a. Honest is the one thing that I have always wanted a man to be.
b. The one thing that I have always wanted a man to be is honest.

This is a strong empirical argument against a predicate inversion approach.

My claim in this paper is that both the predicate inversion and equative accounts are required in English. A sub-class of specificational sentences in English must be analyzed as inverse predications, and another sub-class as equatives. This eclectic view of specification allows us to capture evidence for inversion as well as evidence for equation, a state of affairs that is paradoxical under the view that specificational clauses have only one derivation.

I focus primarily on defending the notion that at least some specificational clauses should receive an inverse predication analysis. I independently motivate a semantic/pragmatic extension of Mikkelsen's theory, which addresses some extant issues regarding the information structure of specificational clauses, and is consistent with Heycock & Kroch's arguments for an equational analysis. In short, I propose that specificational subjects come with presuppositions about their context of utterance, which are sensitive to formal properties of the subject, with accompanying consequences for the taxonomic analysis of the clause as a whole. Some specificational subjects render a predicational analysis for the clause infelicitous in the presupposed context, whereas others do not.

Heycock & Kroch's strongest empirical arguments against inversion involve specificational subjects with a gap in a predicative position in a relative clause. A consequence of the account of specification I propose here is that such specificational subjects are incompatible with a predicate inversion analysis, deriving Heycock & Kroch's results, though there is no such consequence for other sorts of specificational subjects. We will see that we cannot extend Heycock & Kroch's equative analysis to the data motivating Mikkelsen's proposal. Since both sorts of example count as specificational, I conclude that specificational clauses in English may involve either equation or inverse predication. The semantics proposed here for specificational subjects captures the distinction.

2 The semantic types of specificational clause arguments

Regarding the more well established predicational and equative types, the distinction between them can be characterized in terms of the semantic types of the XPs flanking the copula. Mikkelsen relies on this assumption in showing that specificational clauses should be analyzed as inverse predications. To show that specificational clauses are inverse predications involves showing that the subject is type $\langle e, t \rangle$, on the one hand, and that the pivot is type e . Mikkelsen uses pronominalization tests to argue that specificational subjects are predicative. As for the type of the pivot in specificational sentences, Mikkelsen examines which types of pivots are acceptable in specificational clauses, concluding that only those XPs which may be type e are licit pivots.⁴ I review one of her pronominalization tests below.

Mikkelsen observes that neuter pronouns may refer to properties (5), but not humans (6). In (5), the pronouns and their antecedents are in bold.^{5,6}

- (5) a. They said Sheila was **beautiful**, and she is **that**.
 b. John is **considerate**. {**It/that**} is a rare thing to be.
 c. John **talks quietly**. {**It/that**} is a good thing to do.
 d. John is **president of the club**. {**It/that**} is a prestigious position.
- (6) a. I ran into **my cousin Audrey** downtown. #I saw {it/that} at the corner of Cedar and Locust.
 b. A: Have you seen **your cousin Audrey** recently?
 B: #Yes, I saw {it/that} downtown earlier today.
 c. (Upon seeing a very tall woman on the street)
 #Look how tall {it/that} is!

(from Mikkelsen, (5.16-5.18), pg. 68)

One of Mikkelsen's tests for the type of specificational subjects is to check whether an animate or inanimate pronoun is possible as a tag question subject.^{7,8} Tag question subject pronouns must agree with the subject of the clause to which they attach:

⁴ Though, importantly, Mikkelsen examines primarily specificational clauses with headed definite description subjects. We will see below that specificational pseudoclefts, and even some specificational clauses with headed subjects, have arguments of different types flanking the copula.

⁵ Inanimate pronouns may refer to a variety of abstract objects including propositions and questions (e.g., *That's a {stupid question/stupid thing to believe}*, see Asher 1993.)

⁶ See also Büring 1998, Heycock & Kroch 1999 for the observation that pronouns with specificational subject antecedents show neuter agreement.

⁷ It had already been noted in Büring 1998, Heycock & Kroch 2002 that tag question subjects showed neuter agreement in specificational clauses.

⁸ Mikkelsen cites Ross 1969 for (5a), and Doron 1988 for (5b-5c).

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(7) Jack met Sally, didn't {he/*she}?

Mikkelsen uses unambiguously referential phrases as indicators of type e status (e.g., proper nouns). When the host clause the tag question attaches to is predicational, a gendered pronoun is appropriate as a tag subject, whereas with a specificational word order, only a neuter pronoun is acceptable.

- (8) a. The winner was Jack, wasn't {it/*he}? (specificational)
b. Jack was the winner, wasn't {he/*it}? (predicational)

Mikkelsen concludes from evidence such as this that the subject type in specificational clauses is $\langle e, t \rangle$.

As for the pivot, Mikkelsen observes that only referential DPs are possible specificational pivots, whereas predicational pivots may be DPs, PPs, APs, and NPs. In (9), tag questions are used to disambiguate in favor of a specificational reading.

- (9) a. The winner was **Susan**, wasn't it?
b. The winner was **you**, wasn't it?
c. The winner was **the Mayor of Santa Cruz**, wasn't it?
d. The winner was **a blonde**, wasn't it?
e. *The winner was **Mayor of Santa Cruz**, wasn't it?
f. *The winner was **blonde**, wasn't it?
g. *The winner was **behind the screen**, wasn't it?

(From Mikkelsen 2005, (6.1a-6.1g), pg. 95)

Examples (9e-9g) are out because the pivot in each case is unambiguously predicative, which forces a type e reading for the subject.⁹ In each of (9e-9g), replacing the neuter subject with a gendered pronoun *s/he* renders the example acceptable.

In summary, Mikkelsen concludes that specificational clauses have type $\langle e, t \rangle$ subjects and type e pivots, and constitute inverse predicational sentences. Several authors have since challenged Mikkelsen's conclusions based on these diagnostics (e.g., Romero 2005, Heycock 2012), and we will review their arguments below. The above discussion nonetheless serves as an important anchoring point in understanding the sorts of empirical data that bear on the analysis of specificational clauses.

In the following section, I discuss another important property of specificational clauses, namely, their information structure. I will assume Mikkelsen's 2005 taxonomy going forward, retaining only two major taxa, namely, predicational and equative (a fairly standard assumption). Where I differ from Mikkelsen and other

⁹ This raises the question of why an equative reading is unavailable for such cases. That is, since *the winner* may be interpreted as type $\langle e, t \rangle$, why cannot, e.g., (9g) receive an equative reading where the property *the winner* is equated with the property *Mayor of Santa Cruz*? I leave this issue aside here.

authors is in placing specificational clauses as subtypes of both categories (instead of just as a subtype of predicational or, on the other hand, equative clauses).

3 Specificational word order and information structure

3.1 The syntax of specificational clauses

It has become fairly standard to analyze copular clauses as involving a small clause complement to the copula, an unaccusative light verb, here treated as little v^0 (cf. Bowers 1993). Following Rothstein 2001, Heycock & Kroch, Mikkelsen, among others, I assume small clause heads determine taxonomic status. For predicational clauses, the small clause head is Pr^0 , and for equatives, Eq^0 (as in Reeve 2010).¹⁰

I adopt Mikkelsen's analysis for predicate inversion in inverse predicational specificational clauses. Pr^0 selects the referential XP as its external argument in [Spec,PrP], and the predicative XP as its internal argument. The predicative XP raises over [Spec,PrP] into [Spec,TP] becoming the sentence subject. (See also den Dikken 2006, Citko 2007.) In (10a), we see the structure for a predicational clause, and in (10b), we see the structure for inverse predication.

- (10) a. $[_{TP} Ms. White_e [_{T'} was [_{vP} t_{was} [_{PrP} t_e [_{Pr'} Pr^0 the\ murderer_{\langle e,t \rangle}]]]]]$
 b. $[_{TP} The\ murderer_{\langle e,t \rangle} [_{T'} was [_{vP} t_{was} [_{PrP} Ms. White_e [_{Pr'} Pr^0 t_{\langle e,t \rangle}]]]]]$

Under this view, specificational clauses share a common predicational core with predicational clauses (they are a *species* of predicational clause). The difference lies in which argument of Pr^0 raises to [Spec,TP].

Heycock & Kroch 1998, 1999 analyze specificational clauses as equatives where no inversion takes place (11a). However, Heycock 2012 defends a variant of the equational analysis where there is inversion/scrambling of EqP 's internal argument into [Spec,TP] (11b). As far as I can tell, the decision does not bear on the proposal defended here, where specificational clauses may sometimes be equative and sometimes inverse predications.¹¹

10 Compare to Moro 1997 who assumes small clauses are syntactically symmetric with both arguments as siblings.

11 See also den Dikken 2006 for an inversion view of specification/equation, though his account is similar to Mikkelsen's 2005 analysis, as he also analyzes equatives as inverse predications.

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- (11) a. $[_{TP} \text{The murderer}_e [_{T'} \text{was} [_{vP} t_{was} [_{EqP} t_e [_{Eq'} \text{Eq}^0 \text{Ms. White}_e]]]]]]$
b. $[_{TP} \text{The murderer}_e [_{T'} \text{was} [_{vP} t_{was} [_{EqP} \text{Ms. White}_e [_{Eq'} \text{Eq}^0 t_e]]]]]]$

3.2 The semantics and pragmatics of specification

It is well known that specificational clauses have fixed information structure. The subject is typically taken to be “topical/given” in some sense, and resists focus/prosodic prominence, which typically rests on the pivot (Higgins 1973, 1979, den Dikken et al. 2000, Partee 2000, Heycock & Kroch 2002, den Dikken 2008, 2009, Heycock 2012 among many others). Mikkelsen 2005 characterizes this notion of topichood in terms of Prince’s 1981 classification of information statuses XPs may be associated with, building on Birner’s 1994 work on inversion constructions in English more generally. Specificational subjects must encode Discourse-Old information, known to both speaker and hearer at the time of utterance.¹² As a precondition for inversion, this generalization is active in constraining the space of possible specificational subjects, and can be detected in certain question/answer pairs.

As Mikkelsen notes, simple indefinite descriptions cannot be specificational subjects since they resist a Discourse-Old construal.¹³

- (12) *A murderer is Colonel Mustard.

On the other hand, indefinites that contain descriptive material encoding Discourse-Old information are possible specificational subjects.

¹² See Mikkelsen 2005, Chapter 8, and Prince 1981, Birner 1994 for a more fine-grained discussion/definition of the relevant notion of “information status.”

¹³ Mikkelsen notes that this cannot be the whole story, due to data like that in (i).

- (i) a. A: Who is a doctor? B: {John is a doctor./*A doctor is John.}
b. Bill is a doctor. {John is a doctor too./*A doctor is John too.}

Under a predicate inversion account, *a doctor* in B’s response in (i-a) should have the same Discourse-Old information status regardless of specificational or predicational word order, yet the specificational word order is still mysteriously unacceptable. Similarly, in (i-b), mention of the predicate *a doctor* in the predicational antecedent likewise renders the information status of the putatively inverted predicational subject in the specificational follow up Discourse-Old. So what goes wrong?

Heycock 2012, in defending an inverse equation account of specification, suggests a connection between specificational inversion and scrambling, in which weak indefinites (in the sense of Milsark 1974), like *a doctor*, resist scrambling, in contrast to strong indefinites, like those Mikkelsen shows *can* be specificational subjects. I leave aside exploring this connection for future work, though note that whatever its nature, it should be extensible to an inverse predication account just the same.

(13) A friend of mine who I think you should meet is Mrs. Peacock.

Additionally, while either a specificational word order or a predicational word order is possible in B's response in (14a), only a predicational word order is possible in (14b). (See Mikkelsen 2008a for discussion of this point.)

- (14) a. A: Who's the murderer?
 B: {The murderer is Mr. Green/Mr. Green is the murderer.}
 b. A: Who's Mr. Green?
 B: {Mr. Green is the murderer/*The murderer is Mr. Green}

What allows for a specificational word order in (14a) is that mention of *the murderer* in speaker A's question renders that information Discourse-Old. What seems to be the problem for (14b) on the other hand is that *the murderer* corresponds to the Wh-term in the question, and bears new information focus, which seems sufficient to prevent it from serving as the subject of the specificational sentence. This is actually a surprising fact about specificational sentences, which we will return to in due time, namely, that they appear to have a fixed information structure, unlike non-specificational sentences more generally in English.

Mikkelsen's 2005 analysis attempts to derive the fixed information structure of specificational clauses by motivating inverse predicational word order via morpho-syntactic mechanisms sensitive to information structure. She posits an uninterpretable [*u*Topic] feature on T⁰ of specificational clauses which probes for an interpretable instance of Topic. A DP encoding Discourse-Old information may bear an interpretable [*i*Topic] feature which can check T⁰'s Topic feature. Under Mikkelsen's assumptions, the DP in T⁰'s C-command domain which can check the most of T⁰'s uninterpretable features gets to move into [Spec,TP] to check T⁰'s EPP feature.

This implementation provides a syntactic trigger for inversion via the need to check T⁰'s uninterpretable Topic feature. This goes some way in explaining why it is that, unlike most English sentence types, specificational clauses have a fixed information structure. Such a move additionally incorporates sensitivity to the discourses in which specificational clauses are felicitous. The optionality of inversion in (14a) follows under the assumption that the Topic feature may optionally be selected from the lexicon. Additionally, it is a precondition for merging the Topic feature with some XP, that that XP encode Discourse-Old information.

(15) [_{TP} The murderer_j^[iTopic] was_[uTopic,EPP] [_{VP} t_{was} [_{PrP} Ms. White_e [_{Pr'} Pr⁰ t_j]]]]

Mikkelsen does not provide an explicit semantics for the Topic feature. The semantics for the Topic feature I propose below is shown to capture when specificational clauses must be analyzed as equatives and when they may be inverse predications. I give a preliminary characterization of the system in the following

section, where I also review evidence in support of the claim that at least some specificational clauses in English must be analyzed as equatives, and not inverse predications (and others, as inverse predications).

4 Equation vs. Predication

4.1 The unavoidability of equation

Heycock & Kroch 1998, 1999 propose that specificational clauses are not inverse predications, but a species of equative. The strongest evidence Heycock & Kroch bring to bear on the issue comes from examples like (3) and (4), repeated below in (16) (with semantic types of arguments indicated). I depart from Heycock & Kroch in that I do not assume that *all* specificational clauses in English are equatives (the reasons for this will become clear in the following section, where I present arguments that at least some specificational clauses in English do involve predicate inversion), though I adopt their equative analysis for specificational sentences like (16d).

- (16) a. Jack_e is [the one thing that I have always wanted a man to be]_{<e,t>}
b. * [The one thing I have always wanted a man to be]_{<e,t>} is Jack_e.
c. Honest_{<e,t>} is [the one thing I have always wanted a man to be]_{<e,t>}
d. [The one thing I have always wanted a man to be]_{<e,t>} is honest_{<e,t>}

The assumptions about the semantic types of the XPs in (16) are Heycock & Kroch's, which I take to be correct. Thus (16a) is a predicational clause, and (16c) and (16d) are equatives. Heycock & Kroch choose, as control, “unambiguously predicative” XPs to illustrate the impossibility of inversion; they contend that the uninvertibility of the predicative XP in (16) over *Jack* should be taken as an indication that there is no inversion even in more run-of-the-mill cases like (17). The subject XP in (17) is a definite description. Outside of the context of specificational subject position, definite descriptions are independently known to be ambiguous between predicative and referential readings. Their claim is that, in answering the question of what the semantic type of a specificational subject is, the datum in (16b) helps us choose in favor of an equative analysis in the more general case.

- (17) The president_{e/*<e,t>} is Jack_e.

For the moment, I assume without argument that Heycock & Kroch are incorrect in analyzing specificational sentences like (17) as (necessarily) equatives (an assumption I defend in the following subsection). In this section, I focus on characterizing the difference between putative inverse predications such as that in (17) and equatives such as that in (16d). What I show is that Heycock & Kroch's use of “unambiguously predicative” XPs as a control is not without confounding

consequences. Structurally, predicative XPs like that in (16a) which are uninvertible differ from invertible XPs in having a gap in a relative clause corresponding to a predicative position. (Call them predicative gap XPs, or pgXPs for short.) Consider (18), for instance, which does not have such a gap, and is invertible.

- (18) a. [A poem about himself]_e was [what Jack wrote ___]_{<e,t>}
 b. [What Jack wrote ___]_{<e,t>} was [a poem about himself]_e

I propose to recast the distinction between pgXPs and non-pgXPs in terms of constraints they impose on specificational pivots when they serve as specificational subjects. The result is compatible with a view where both equatives and inverse predications may be specificational in English. In short, pgXPs in subject position require pivots which are properties. Since the pgXP is itself predicative, this forces an equative analysis for the specificational clause.

To capture the pattern, I propose that Mikkelsen's Topic feature on a specificational subject contributes a presupposition which indirectly imposes constraints on possible specificational pivots. The descriptive content of the subject bearing the Topic feature has consequences for the specific nature of the presupposition. I assume, following Roberts 1996, that assertions in discourses can be seen as answers to implicit or explicit *Questions under Discussion* (QuD for short). Roberts contends that a given assertion is presupposed to be congruent with the QuD at the time of utterance. (We settle on a formal definition of *congruence* later on, for now it is sufficient to note that only congruent answers are felicitous.)

I illustrate the basic idea with specificational pseudoclefts (with free relative subjects). We can heuristically reconstruct the presupposed QuD for a given specificational pseudocleft from the free relative subject itself for now.

- (19) a. [What Sally is ___]_{<e,t>}_[iTopic] is honest.
 Presupposed QuD: *What is Sally?* (a question about properties)
 b. [What Bill bought ___]_e_[iTopic] was a car.
 Presupposed QuD: *What did Bill buy?* (a question about entities)

The specificational assertion must be congruent with the QuD it addresses; this derives the ban on type *e* pivots in specificational clauses with pgXP subjects. The QuD at the time of utterance in such a case is a question about properties of Sally.

Of course, as (16a) shows, pgXPs can be predicated of type *e* arguments, since they are type $\langle e, t \rangle$, but in an uninverted predicational clause, pgXPs may not bear the Topic feature, so the QuD at the time of utterance is not necessarily dependent on the predicative argument for its content. Predicational sentences like (16a) would be licensed in contexts where the QuD was about properties of Jack (not Sally).

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(20) Plausible QuD: (If Sally is a doctor,) What is Jack?

Jack_e is [what Sally is $_ \langle e,t \rangle$] $\langle e,t \rangle$ (namely, (also) a doctor)

This analysis predicts the predicational (20) should be just as infelicitous in answer to the QuD presupposed by its inverse version, as its inverse version is “out of the blue,” and this is indeed the case.¹⁴

(21) a. Q: (If Bill is a doctor,) what is Sally?

A: #Jack is what Sally is.

b. #What Sally is is Jack.

On the other hand, English does have equative structures which can encode the right information so that the utterance will be congruent with this sort of QuD. Equatives will allow the pivot to be a property.

(22) Q: (If Bill is untrustworthy,) what is Sally?

a. A: [What Sally is] $\langle e,t \rangle$ is honest $\langle e,t \rangle$

b. A: Honest $\langle e,t \rangle$ is [What Sally is] $\langle e,t \rangle$

This proposal gives us a way of understanding *why* pgXP subjects must be analyzed as equatives. One consequence of this is that we do not have to ban inversion all around for specificational clauses; non-pgXP subjects are predicted to be compatible with pivots of type *e*, as they will not presuppose QuDs about properties, but individuals. For instance, both (23a) and (23b) are felicitous answers to the QuD *who should I talk to?*

(23) a. Jack_e is [the person you should talk to $_ e$] $\langle e,t \rangle$

b. [The person you should talk to $_ e$] $\langle e,t \rangle$ is Jack_e

Under these assumptions, (23b) may receive a predicate inversion analysis, or, instead, an equative account treating *the person you should talk to* as referential. (In short, such examples are ambiguous.)

Heycock & Kroch propose specification in general is best analyzed as equation, whereas here I am arguing that Heycock & Kroch’s specificational equatives may live alongside Mikkelsen’s specificational inverse predications. Note that this challenges Mikkelsen’s conclusions just the same. For instance, we may attempt to save an (exclusive) inverse predicational analysis for specificational pseudoclefts like those

¹⁴ Questions like *What is Sally?* sound strange without additional context, so in (21) and (22) I have included a conditional antecedent prior to the explicit question to make it more natural. The judgements persist even in the absence of these manipulations, however.

in (22a), perhaps by entertaining higher types for the arguments of predicational clauses, as in (24).

(24) [What Sally is]_{<<e,t>,t>} is honest_{<e,t>}

The structure in (24) would be derived, under Mikkelsen's assumptions, from a predicational small clause like that in (25):

(25) [_{PrP} honest_{<e,t>} [_{Pr'} Pr⁰ [What Sally is]_{<<e,t>,t>}]]

One problem for this analysis comes from the unavailability of such predications in unambiguously predicational structures. An oft cited pattern in support of inversion involves the verb *consider*, which takes a predicational small clause complement (PrP). In (26), for instance, the referential argument must obligatorily precede the predicative argument.

(26) a. I consider [_{PrP} Jack_e the president_{<e,t>}].
 b. *I consider [_{PrP} the president_{<e,t>} Jack_e].

Inversion proponents point to the unavailability of the inverse order in the complement of *consider* as stemming from the lack of sufficient superordinate structure over PrP to host the raised predicate. (See e.g., Moro 1991.) In support of this point, note that inversion becomes possible when we replace PrP with an infinitival complement, which provides [Spec,TP] as a landing site.

(27) a. I consider [_{TP} Jack_i to be [_{PrP} t_i the president]].
 b. I consider [_{TP} the president_i to be [_{PrP} Jack t_i]].

If the analysis in (24) were correct, we would predict examples like those in (28) to be acceptable, contrary to fact.

(28) a. *I consider what Sally is to be honest.
 b. *I consider honest (to be) what Sally is.

The unacceptability of the data in (28) also argues against a “flexible types” approach, as in Partee 1986. Partee analyzes specificational pseudocleft subjects as denoting entity correlates of properties (type *e*). In (24), the subject undergoes Partee's IDENT shift, becoming type <e,t>.

(29) IDENT([what Sally is]_e) ⇒ λy_e[[what Sally is]_e=y]

The subject of predication, *honest*, undergoes Chierchia's 1984 NOM type shift, which takes a property and shifts it into the entity correlate of the property (type *e*). The pseudocleft subject may then be predicated of the pivot.

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$$(30) \quad \lambda y[[\textit{what Sally is}]_e=y](\text{NOM}([\textit{honest}]_{\langle e,t \rangle})) \Rightarrow [\textit{what Sally is}]_e = \cap \textit{honest}_e$$

If this were correct, (31) should be a possible small clause, incorrectly predicting the examples in (28) to be acceptable.

$$(31) \quad [{}_{PrP} \text{ NOM}([\textit{honest}])] [{}_{Pr'} \text{ Pr}^0 \text{ IDENT}([\textit{what Sally is}])]]$$

This is not to say that predication of the sort indicated (predicating a property of properties of a property) is unavailable in English, since it seems sentences like (32) intuitively involve a predicational relation, where the property of being smart counts as something sexy. The *consider* complementation facts support the intuition.

- (32) a. Smart is sexy.
 b. I consider smart sexy.

Perhaps what stops the free relative in (24) from functioning as a property of properties is its definite character; free relatives have been analyzed as definites (Jacobson 1995, Dayal 1995, 1997). Assuming *what Sally is* starts out as type $\langle \langle e,t \rangle, t \rangle$, an ι -type shift would yield the maximal property in its extension, resulting in a type $\langle e,t \rangle$ free relative (a property of individuals, not properties).¹⁵

I take Heycock & Kroch to be correct that specificational sentences with pgXP subjects should be analyzed as equatives, but I do not assume that all specificational clauses should therefore be analyzed thusly. In the following section, I present arguments in defense of the plausibility (and attractiveness) of a predicate inversion analysis for specificational clauses with non-pgXP subjects.

4.2 Predicates vs. Concealed Questions

The classification of specificational clauses rests, in part, on the analysis of the semantic type of specificational subjects. As noted above, it has been established that pronouns referring to specificational subject antecedents must be neuter, consistent with an inverse predicational account.

- (33) a. Cicero is Tully, isn't {he/*it}? (equative)
 b. Wadsworth was the murderer, wasn't {he/*it}? (predicational)
 c. The murderer was Wadsworth, wasn't {it/*he}? (specificational)

¹⁵ This requires assuming that $\text{NOM}([\textit{honest}])$ is a sort of entity that $\iota([\textit{what Sally is}])$ cannot be predicated of. Empirically, this seems to be correct; $\iota([\textit{what Sally is}])$ seems to be a set of individuals, not entified properties: in, e.g., *John is what Sally is*, if Sally is a doctor, this sentence means that John is also, so that the extension of $\iota([\textit{what Sally is}])$ is a set of individuals. One cannot predicate of $\text{NOM}([\textit{honest}])$ that it is a doctor, or happy, or any property $\iota([\textit{what Sally is}])$ intuitively may denote.

However, [Romero 2005](#), recalling a suggestion in [Heycock & Kroch 2002](#), proposes that specificational subjects are concealed question DPs, analyzed as intensional entities/individual concepts (type $\langle s, e \rangle$) and defends an equative analysis of specification. Importantly, [Romero's](#) equative analysis is *asymmetric*, in that, unlike the standard assumption about equation, where both arguments flanking the copula bear the same semantic type, the specificational subject differs in type from the pivot in being intensional. As [Romero](#) points out, this goes some way in accounting for the intuition about specificational clauses that specificational subjects are not referential *in some sense*, as compared to the pivot. In her account, this intuition follows from the index sensitivity of the subject's denotation.

[Romero](#) provides empirical support for this analysis by pointing out that concealed question DPs, like specificational subjects, pronominalize as neuter pronouns, regardless of the antecedent's gender.

- (34) a. The winner of the Oscar for best actress walked in. {She/*it} was wearing a dress.
 b. The girl who caused the trouble wasn't Mary. {It/*She} was Jane.
 c. John guessed the winner of the Oscar for best actress before I guessed {it/*her}.

([Romero 2005](#), examples (84-86))

[Heycock & Kroch 2002](#) suggest such an analysis of specificational subjects, but note some problems which we return to shortly. Of course, [Romero's](#) 2005 pronominalization data are compatible with either a $\langle e, t \rangle$ or $\langle s, e \rangle$ account of specificational subjects (since predicates also pronominalize as neuter pronouns). [Heycock 2012](#) provides us with an empirical difference between how concealed question DPs and predicative DPs behave with respect to pronominalization, marshaling this distinction in favor of an equative account.

[Heycock](#) argues that pronominalization with specificational subjects patterns with concealed question anaphora rather than predicate anaphora. However, there is a basic challenge to [Heycock's](#) 2012 assumptions, which I illustrate below, that puts [Mikkelsen's](#) account on equal footing with an equative approach, if not favoring the inverse predicational approach. The problem with [Heycock's](#) 2012 methodology is that it relies only on [Mikkelsen's](#) tag question pronominalization tests.

[Heycock 2012](#) extends [Romero's](#) 2005 data to plural concealed questions and specificational subjects. The basic contrast she highlights is that, while plural concealed question DPs pronominalize as plural, as in (35a), predicate anaphors, as in (35b), pronominalize as singular. In (35b), *it* in the *look it* construction is a predicate anaphor, and picks up the predicate nominal *her greatest friends* as its antecedent.

Specification as an inter-taxonomic phenomenon

- (35) a. John guessed the Oscar winners before I guessed {them/*it}.
b. Justin and Sarah are her greatest friends, even if they don't look {it/*them}.
(Heycock 2012, examples (76), (65b), respectively)

This gives us a way to determine whether specificational subjects are concealed questions or predicates. As Heycock's 2012 reasoning goes, if the predicate inversion account is correct, we expect the tag subject to be a neuter singular pronoun, just as in (35b), regardless of the antecedent's number specification. This prediction fails. In (36) (Heycock's (65a)). We have an inverse version of (35b), where *her greatest friends* is a potential inverse predicate.

- (36) *Her greatest friends are Justin and Sarah, {isn't/aren't} it?

Here, Mikkelsen's tag diagnostic diverges in its results. As we've seen, specificational sentences with singular subjects do license singular neuter pronominal subjects in tag questions. Plural specificational subjects, as in (36), on the other hand, do not. Heycock takes this to be consistent with the conclusion that *her greatest friends* in (36) is not predicative, contra Mikkelsen.

In support, note that the corresponding predicational word order licenses, as expected, a plural tag subject (Heycock's (62)):

- (37) Justin and Sarah are her greatest friends, aren't they?

However, things are not so clear once we pan out from Mikkelsen's tag question diagnostic. Consider the paradigm below, which adds to Heycock's 2012 data discussed above. We see in (38a) that, in keeping with an equative analysis, a plural pronominal tag subject is acceptable (cf. (37)). However, we see in (38b) that predicate anaphora to *her best friends* is also acceptable in the *look it* construction, in keeping with an inverse predicational analysis (cf. (35b)).

- (38) a. Her best friends are Justin and Sarah, aren't they?
b. Her best friends are Justin and Sarah, even if they don't look it.

This leaves us in an awkward position, as it seems Mikkelsen's diagnostics give us conflicting results. Caroline Heycock (p.c.) suggests that perhaps it is the *look it* diagnostic that is confounded. Assume, for the moment, that the pronominal complement of *look*, due to selectional restrictions, must be a predicate anaphor, and that a non-predicative DP may render some property salient enough to supply its value. This appears to be the case in (39) (due to Caroline Heycock, p.c.), where the argumental/non-predicative DP *the smartest couple in the class* renders the property "smartest couple in the class" salient enough to license predicate anaphora.

- (39) It turns out I was sitting next to the smartest couple in the class, even though they didn't look it.

If this is so, then the *look it* test doesn't distinguish between the analyses of specificational subjects, but the tag question diagnostic still might.

Here, I make the case that the tag diagnostic is confounded as well. Let us recap the logic of tag question pronominalization as a diagnostic for the semantic type of specificational subjects. If the tag's subject pronoun is anaphoric to a specificational host's subject, then it should pronominalize according to how things of the same type as the specificational subject pronominalize. Of course, this expectation seems to presuppose that the tag subject is, itself, of the same semantic type as the host clause's subject. As such, and considering that the tag questions in these cases are copular clauses, the tag diagnostic will only be useful if the tag question clause itself is specificational in nature. (If it were predicational, we would expect the tag question subject to be referential, and pronominalize accordingly, that is, as a gendered pronoun, and likewise, if the tag clause were a symmetric equative with a non-intensional subject.)

There is reason to believe that tag questions of the sort we have been entertaining throughout may not be specificational, after all (challenging Mikkelsen's and Heycock's assumptions). Sailor 2009 analyzes these sorts of tags as involving verb phrase ellipsis (VPE henceforth). Higgins 1973, 1979 shows that specificational clauses resist VPE.

- (40) a. Rosa is {a doctor/my neighbor}, and Matilda is ~~{a doctor/my neighbor}~~ too. (predicational)
 b. *My neighbor is Rosa, and your neighbor is ~~Rosa~~ too. (specificational)
 (Heller & Wolter 2008, examples (5-6))

If tag questions with specificational hosts are not, themselves, specificational, then how their subjects pronominalize is arguably irrelevant in determining the semantic type of the subject of the specificational host they attach to.

There is some evidence to support the conclusion that tag questions with specificational hosts may not be specificational, themselves. (And that, therefore, the tag question diagnostic is, itself, confounded.) Consider examples like (38a), repeated below. Under Sailor's analysis, the tag question involves VPE, raising the question of what structure/interpretation is elided. In (41), we see an analysis of the elided structure that is consistent with an (a-)symmetric equative analysis. Under the equative analyses represented in (41), *they* is interpreted either as a referential XP, or an intensional XP, picking up the reference of *her best friends*. In either case, the putatively elided structure is unacceptable, as indicated (strike-through represents elided material).

Specification as an inter-taxonomic phenomenon

(41) *Her best friends are Justin and Sarah, aren't they ~~Justin and Sarah~~?

Conversely, (42) shows another analysis for the ellipsis. This is a predicational clause tag question, which is not only acceptable in comparison to the hypothesis offered in (41), but consistent with our intuitions of the meaning of examples like (38a).

(42) Her best friends are Justin and Sarah, aren't they ~~her best friends~~?

In (42), *they* intuitively corefers with *Justin and Sarah*, which is consistent with a predicational analysis of the tag question clause. These data support the conclusion that tag questions to specificational hosts are not, themselves, specificational, jeopardizing the relevance of the tag question diagnostic as indicative of the semantic nature of the specificational host's subject.

These considerations make it difficult to conclude anything concrete about the host clause's subject on the basis of pronominalization in tag questions (contra Mikkelsen, Heycock). Additionally, Sailor 2009 independently notes that tag question subjects are not always coreferential with their host clause's subjects. When the host (even a non-copular host) has narrow focus (represented with italics below) on some argument, an "it-cleft"-like tag is licensed.¹⁶

(43) *Jack* drove us home last night, {wasn't it?/didn't he?}

We are left with the conclusion that neither the *look it* diagnostic, nor the tag question diagnostic are foolproof in determining the semantic type of specificational subjects. Of course, we are also left with the question of why it is that Heycock's 2012 example (36) is unacceptable, or, in turn, why it is that Mikkelsen's pronominalization diagnostics work in her favor when it comes to singular specificational subjects. These questions will be left open here. I hope to have shown, in any case, that Mikkelsen's 2005 tag question diagnostic is, at least, as confounded as the *look it* diagnostic is.

It is worth noting that there is an asymmetry which is unexpected under a concealed question account of specification with respect to *look it* anaphora. In (44a), the concealed question DP *the winners* fails to license predicate anaphora, in contrast to the specificational subject in (44b). One possible explanation (which will remain unexplored and rather vague here) is that concealed question DPs have a harder time making properties salient than inverted predicates do, with consequences for the licensing of predicate anaphora downstream.

- (44) a. *Jack guessed the winners, even though they didn't look it.
b. ?The winners were Jack and Sally, even though they didn't look it.

¹⁶ Interestingly, specificational clauses always count as licensing contexts for Sailor's "exceptional" types of cleft-like tag questions, by virtue of having obligatory narrow focus on pivots, perhaps making the unacceptability of examples like (36) even more mysterious.

In support of the existence of (at least some) inverse predications, we may resort to other pronominalization data in defending a predicative analysis for specificational subjects. In (45), speaker B answers speaker A's specificational question with a truncated cleft ("truncated" in that the cleft relative clause is missing).

- (45) a. A: Is the winner Jack?
 B: No, {it's/*he's} Bill.
- b. A: Are her best friends Justin and Sarah?
 B: No, {it's/*they're} Chris and Matty.
- c. A: Was the murderer Colonel Mustard this time?
 B: No, {it/*he} was Professor Plum.

The data in (45) establish that the pronominal subjects in B's responses are, at least, not referential (type *e*). While a fine-grained analysis of the taxonomic status of the copular clauses in B's responses will remain lacking here, we can at least establish that the subjects in B's responses are also not concealed questions. Unlike concealed questions, the subject in (45b) resists plural agreement (cf. (46)).

- (46) As for the Oscar winners, Jack guessed {them/*it}, turns out {it was/*they were} Chris and Matty.

By process of elimination, this leaves a predicative analysis for the pronominal subjects in B's responses in (45). Mikkelsen 2005 concludes that truncated clefts such as these are, in fact, inverse predications. (In fact, Mikkelsen 2005 analyzes these as a sub-type of specificational clause.) If such predicate inversion is detectable independently in truncated clefts, it is not too much of a stretch to assume such a derivation is available for specificational clauses more generally (e.g., speaker A's specificational questions).¹⁷

¹⁷ Interestingly, the sort of it-cleft in these corrections resists VP ellipsis, but only when the predicate in the antecedent is plural ((i),(ii)). If tag questions involve VP ellipsis, as per Sailor, we might take this as an indication that the clauses elided in tags are of the same sort, suggesting that perhaps the tag question question diagnostic is not as confounded after all, and support Mikkelsen's conclusions about specificational subjects in the same way.

- (i) a. A: The winner was Jack.
 b. B: Yes, it was.
- (ii) a. A: Her best friends are Justin and Sarah.
 b. B: ?Yes, it's Justin and Sarah.
 c. B': *Yes, it is.
 d. B''': ?No, it isn't Justin and Sarah.
 e. B'': *No, it isn't.

Another argument against a concealed question *qua* individual concept analysis for specificational subjects, is, in fact, pointed out in Heycock & Kroch 2002. The individual concept approach to specificational subjects, as motivated via Romero 2005-style reasoning, seems to overgenerate the distribution of neuter pronouns. In their example (22), we see that individual concepts as contributed by DPs like *the pope* nonetheless pronominalize as gendered pronouns.

- (47) In the early days of the Church the pope was poor, but in the eighteenth and nineteenth century {he/*it} was typically very rich indeed.

In the context of (47), *the pope* in the first clause denotes an individual concept. The subject of the right conjunct arguably has the same status, but nonetheless must pronominalize as a gendered pronoun.

Finally, even if the challenges posed by the discussion above are surmountable by a concealed question analysis for specificational subjects, other authors have argued against such a conclusion on independent grounds. Caponigro & Heller 2007 present three compelling empirical arguments against analyzing specificational subjects as concealed questions. Briefly, they show that Macedonian is a language that lacks concealed question DPs, but nonetheless has specificational clauses. Additionally, they show that not all specificational subjects can occur in canonical concealed question environments (they show this for both free relative subjects and headed nominals), and highlight interpretive differences between concealed questions and specificational subjects, which would be unexpected under a concealed question approach. (See also Sharvit 1999, Heller 2005 for additional arguments.)

To conclude this section, I side with these authors in setting aside the concealed question analysis of specificational subjects. To reiterate the proposal defended here, I argue that specificational clauses in English must be analyzed sometimes as (symmetric) equatives, and sometimes as inverse predications (and may sometimes be ambiguous between either analysis).

Next, I flesh out the proposed extension of Mikkelsen's Topic feature that forces this state of affairs in English. Since the QuD presupposed by a pgXP subject is a question about properties, only pivots which are properties will yield copular assertions which are congruent with this QuD, and this is only possible with equative clauses. With non-pgXP subjects, the QuD is not restricted to asking for properties, allowing an inverse predicational clause with a type *e* pivot as a congruent response.

5 Specification and the Topic feature

In this section, I flesh out the theory sketched in §4.1, where specificational subjects presuppose a particular question under discussion at the time of utterance. Certain specificational clauses, namely, those with pgXP subjects, presuppose QuDs that

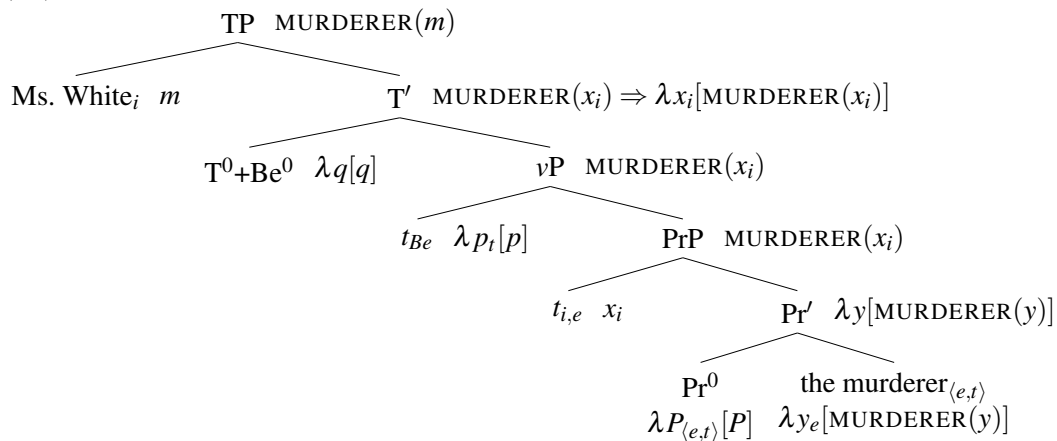
ask about properties, so that only specificational clauses with predicative pivots will be felicitous in these cases. Since the pivot in an inverse predication must be non-predicative, specificational clauses with pgXP subjects may not be inverse predications. An equative semantics is proposed for such specificational clauses, which is congruent with the presupposed QuD. The trigger for the presupposition of the specificational subject is Mikkelsen’s Topic feature, which is also responsible for triggering inversion whenever T^0 bears an uninterpretable Topic feature.

I begin by providing an illustration of Mikkelsen’s assumptions about the composition of specificational clauses that are inverse predications. I then provide a treatment of the information structure of specificational sentences in the theory of Roberts 1996, and propose an explicit semantics for Mikkelsen’s Topic feature. Next, I provide a semantics for specificational pseudoclefts with free relative subjects, and show how the Topic feature renders specificational sentences with pgXPs incompatible with predicate inversion, but compatible with an equative semantics. I conclude with some discussion of further consequences of the analysis, illustrating that it accounts for some as yet untreated properties of specificational sentences.

5.1 The semantics of inverse predications

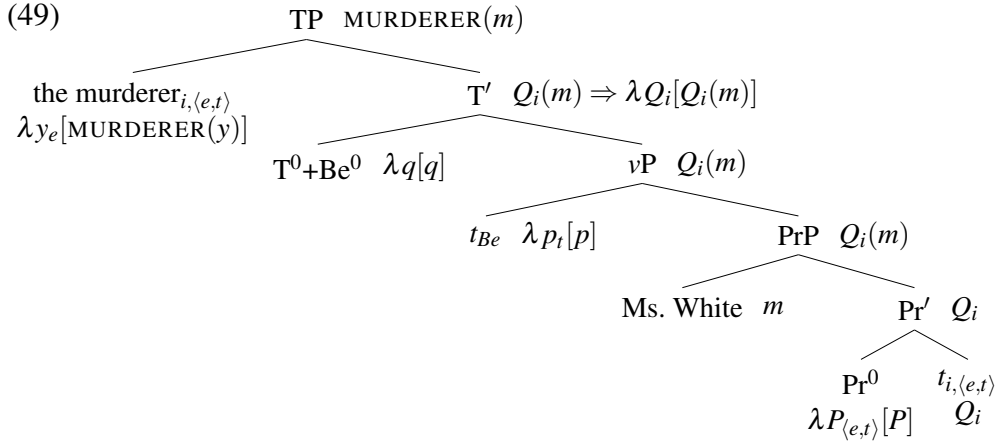
Here, I review Mikkelsen’s semantics for predicational clauses, expanding on her semantics for predicate nominals here, since the composition of the Topic feature with the semantics of specificational subjects will become important in the next section. I begin by illustrating a basic derivation for a predicational sentence below.

(48)



Following Mikkelsen, PrP is the complement to an unaccusative light verb, *be*, which heads v^0 , and raises to T^0 . The external argument of Pr^0 raises into [Spec,TP], checking T^0 's ϕ and EPP features. As is standard, following Heim & Kratzer 1998,

movement of an XP creates a λ -abstract over the trace of the extractee. Semantically, Pr^0 is an identity function on its internal argument ($\langle\langle e, t \rangle, \langle e, t \rangle\rangle$). I abstract away from the contribution of tense, and, following [Mikkelsen](#) (among others), assume the copula is semantically vacuous (an identity function on its sister). Below we see the derivation for an inverse version of (49).



Missing from the structure in (49) is any mention of the semantics of predicative definite descriptions or their derivation. I follow the standard assumption that the NP *murderer* heads the complement of *the*: [DP the [NP murderer]]. There is an important interpretive difference between predicative definite descriptions and referential definite descriptions, as discussed most recently in [Rieppel 2013](#). Specifically, the existential presupposition typically associated with definite descriptions is missing in predicative definite descriptions. Consider, for instance, the question in (50), where there is no implication that there is a King of France.

(50) Is de Gaulle the King of France?

(from [Donnellan 1966](#))

[Mikkelsen](#) encodes this in her semantics for predicative definite descriptions by only including uniqueness, which does seem to survive questioning in (50), for instance. Our entry for *the* $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ is given below; it contributes the presupposition that the bearer of the property is its maximal entity.

(51) $\llbracket \text{the} \rrbracket_{\langle\langle e, t \rangle, \langle e, t \rangle\rangle} = \lambda P \lambda x [P(x)]$

Presupp: defined only for x such that $\forall y [P(y) \rightarrow y \leq x]$

To avoid stating uniqueness repeatedly, I use $\lambda P \lambda x [\text{THE } P(x)]$ to convey maximality/uniqueness.

An important challenge to the predicate inversion account is the observation that, unlike the predicational (non-inverse) word order in (50), specificational sentences do come with an existential presupposition associated with the subject. I preview how my semantic proposal for Mikkelsen’s Topic feature meets this challenge. As Donnellan 1966 notes, while the existential presupposition appears to be missing in (50), it is not missing when the definite description is in subject position (i.e., in specificational clauses). If inversion is truly behind the derivation of specificational clauses, this is unexpected. It would be strong evidence in support of an inversion approach if this were not the case. Consider (52), for instance.

(52) Is the King of France de Gaulle?

In (52), there is an existential presupposition that survives questioning (i.e., that there is a King of France). Recall, however, that what I propose here takes specificational subjects (including, of course, inverted predicates) to presuppose a QuD about the specificational subject. A plausible QuD for (52) would be “*Who is the king of France?*” As is commonly assumed, Wh-questions come with an existence presupposition, so the fact that an inverse predication should come with one as well is not surprising under this view.

Note that the same existential presupposition can be detected with a predicational word order if we assign emphasis to the subject and deaccent the predicate nominal (italics indicate prosodic focus, and small font indicates prosodic reduction).

(53) Is *de Gaulle* the king of France?

In Roberts’s 1996 theory, prosody triggers the presupposition that an utterance is congruent with the prevailing QuD at the time of utterance (which may be implicit or explicit). The particular QuD that a given utterance is congruent with may be reconstructed from the prosody in the utterance by making reference to Roberts’s definition of congruence (which we will return to shortly). For (53), focus on the subject renders the utterance congruent with precisely the same QuD as the specificational sentence in (52) (*who is the King of France?*), so that the fact that (52) and (53) share the same existential presupposition is unsurprising under this view.

To summarize, I adopt Mikkelsen’s compositional semantics/syntax for predication and inverse predication as illustrated above, along with Rieppel’s semantics for the definite article in predicative definite descriptions. The existential presupposition detectable in inverse predications comes, not from the semantics of the definite article, but from the prosody/information structure of specificational sentences.

5.2 Information structure and the Topic feature

5.2.1 QuDs and the presupposition of prosodic focus

In [Roberts](#)'s theory of focus, assertions are answers to implicit or explicit QuDs. The goal of a conversation is to exchange information in the cooperative effort to address the prevailing QuD at the time of utterance. An important characteristic of the Q/A relation in a discourse concerns the realization of prosodic focus in the answer; in a felicitous (congruent) answer to a question, the constituent that corresponds to the Wh-phrase in the question will bear focus. This is behind the felicity of the response in (54b) as an answer to A's question in (54a), and the infelicity of (54c) and (54d).

- (54) a. A: What did Bill buy?
 b. B: Bill bought *a cake*.
 c. B: #*Bill* bought a cake.
 d. B: #Bill *bought* a cake.

I adopt a standard [Hamblin/Karttunen](#) semantics for questions, where questions denote a set of propositions which are possible answers to the question, and Wh-phrases are existential quantifiers. For the question *who left?*, in a toy model with just Jack and Bill, we get a set of propositions like that in (55).

$$(55) \quad \llbracket \text{who left?} \rrbracket = \lambda p \exists x [\text{HUMAN}(x) \& p = \wedge \text{LEFT}(x)] \\
= \{ \wedge \text{LEFT}(j), \wedge \text{LEFT}(b), \wedge \text{LEFT}(j + b) \} \\
\text{Or more perspicuously: } \{ x \text{ left: } x \in D_e \}$$

[Roberts](#)'s characterization of congruence is given in (56). Adopting the analysis of focus in [Rooth 1992](#), for an utterance, U, $\llbracket U \rrbracket^f$ is a 'focus value' for U, in the way it is usually understood (i.e., a set of alternative meanings differing with respect to values substituted for a variable replacing the F(ocus)-marked element). As is standard, I represent F-marking in the syntax with an F feature, which, under standard (e.g., Principles and Parameters or Minimalist) assumptions instructs PF to assign relative prosodic prominence to the syntactic object bearing F (see [Selkirk 1996](#), [Schwarzschild 1999](#)). $\llbracket U \rrbracket^o$ constitutes the 'regular semantic value' of an utterance.¹⁸

¹⁸ In [Rooth 1992](#), Q/A congruence is a subset relation: $\llbracket Q \rrbracket^o \subseteq \llbracket A \rrbracket^f$. In [Roberts](#)'s theory, congruence is equivalence. As far as I can tell this difference will not matter here.

(56) **Congruence (Roberts 1996)**

An utterance, U, is *congruent* to a question, Q, iff $\llbracket U \rrbracket^f = \llbracket Q \rrbracket^o$

- a. $\llbracket U \rrbracket^f$ = a set of interpretations varying with respect to values for variables replacing F-marked parts of U.¹⁹
- b. $\llbracket Q \rrbracket^o$ = a set of possible answers to Q.

In (54), (54b) is a congruent response to A's question in (54a), since the focus semantic value of (54b) is equivalent to the regular semantic value of (54a). This is not the case, for instance, in (54c), where the F-marked constituent does not correspond to the Wh-phrase in the question.

(57) $\llbracket (54a) \rrbracket^o = \llbracket (54b) \rrbracket^f$, but $\llbracket (54a) \rrbracket^o \neq \llbracket (54c) \rrbracket^f$

- a. A: $\llbracket \text{What did Bill buy?} \rrbracket^o = \{ \text{Bill bought } x : x \in D_e \}$ (54a)
- b. B: $\llbracket \text{Bill bought } [_{DP} \text{ a cake }]_F \rrbracket^f = \{ \text{Bill bought } x : x \in D_e \}$ (54b)
- c. B: $\# \llbracket [_{DP} \text{ Bill }]_F \text{ bought a cake} \rrbracket^f = \{ x \text{ bought a cake} : x \in D_e \}$ (54c)

In Roberts's theory, F-marking presupposes congruence with the (possibly implicit) QuD at the time of utterance.

(58) **Presupposition of prosodic focus in an utterance U:**

U is congruent to the QuD at the time of utterance.

The unacceptability of (54c/57c) can be seen as stemming from presupposition failure; the QuD required to render (54c) a felicitous response, then, would be *What did Bill buy?*

Specificational clauses have fixed information structure; the pivot is focussed and the subject encodes old information. An inverse predicational clause like that in (59b), for instance, would be a congruent answer to the question in (59a). Importantly, the same is true for the uninverted predicational alternant in (59c); since inverse predications have the same at-issue contribution as non-inverse predications, I represent the proposition in the set notation for the focus semantic values of the answers with the same predicational word order to emphasize their equivalence.

- (59) a. $\llbracket \text{Who is } [\text{ the president }]_{\langle e,t \rangle} ? \rrbracket^o =$
 $\lambda p \exists x [\text{PERSON}(x) \& p = \wedge \text{THE PRESIDENT}(x)] =$
 $\{x \text{ is the president} : x \in D_e\}$
- b. $\llbracket [\text{ the president }]_{\langle e,t \rangle} \text{ is } [\text{ Jack }]_F \rrbracket^f =$
 $\{x \text{ is the president} : x \in D_e\}$

¹⁹ Importantly, Roberts assumes Wh-phrases are F-marked for purposes of calculating $\llbracket U \rrbracket^f$ when U is a question.

$$\text{c. } \llbracket [\text{Jack}]_F \text{ is } [\text{the president}]_{\langle e,t \rangle} \rrbracket^f = \\ \{x \text{ is the president: } x \in D_e\}$$

An important asymmetry between the specificational and predicational word orders in (59) concerns the nature of the QuD. Heycock & Kroch 2002, Mikkelsen 2008b note that a specificational subject cannot be focussed, despite the fact that if it were, the specificational clause would be congruent to the QuD. For instance, in (60), all else being equal, a specificational response to A's question is congruent, but the specificational word order itself is infelicitous (assume *what* is an existential quantifier over properties).

$$\begin{aligned} (60) \text{ a. } & \text{A: } \llbracket \text{What is Jack? (The president or the vice president?)} \rrbracket^o = \\ & \lambda p \exists P_{\langle e,t \rangle} [p = \wedge P(\text{Jack})] = \\ & \{ \text{Jack is } P : P \in D_{\langle e,t \rangle} \} \\ \text{b. } & \# \text{A: } \llbracket [\text{The president}]_F \text{ is Jack} \rrbracket^f = \\ & \{ \text{Jack is } P : P \in D_{\langle e,t \rangle} \} \\ \text{c. } & \text{A: } \llbracket \text{Jack is } [\text{The president}]_F \rrbracket^f = \\ & \{ \text{Jack is } P : P \in D_{\langle e,t \rangle} \} \end{aligned}$$

Something special must be said about the specificational word order to rule it out. Mikkelsen suggests her 2004, 2005 theory as a solution. Inversion is syntactically mediated by the Topic feature on a specificational predicate. Since the Topic feature is only compatible with XPs encoding Discourse Old information, it would not be compatible with an F-marked XP, correctly ruling out inversion in (60b).

The account I present below differs from Mikkelsen's in that, instead, it treats the infelicity associated with (60b) as stemming from presupposition failure; the Topic feature on the specificational predicate presupposes that the QuD at the time of utterance is distinct from that in (60a). Earlier, I illustrated what the QuD for a specificational sentence was by using specificational pseudoclefts with free relative subjects. This was because it was fairly easy to go from the free relative to a Wh-question version of it, which was posited to be the QuD at the time of utterance. With non-free relative subjects, I argue that the QuD is formed on the NP property. Thus, in (60b), [*i*Topic] on [_{DP} the president] presupposes a QuD paraphrased as *who is the president?* Since this is not the QuD at the time of utterance in (60) (rather, speaker A's explicit Q is), (60b) is out by presupposition failure.

This is not at odds with Mikkelsen's claim that specificational subjects must encode Discourse Old information. There is a close relationship between a Topic-marked XP's Discourse Old status, and the QuD it presupposes; in order for the QuD

to be about the descriptive content of the Topic marked XP, that descriptive content necessarily encodes Discourse Old information at the time of utterance.

However, there is an empirical advantage to the account defended here. In short, observe that the DP *the president* in (60) easily counts as Discourse Old — a status which can be forced in the short discourse in (60) by having A’s parenthesized continuation be overt. Under Mikkelsen’s reasoning, this should improve (60b), a prediction which is not borne out. Thus, it is incorrect to state a generalization that accounts for the pattern in (60) in terms of the notion of Discourse Old vs. Discourse New. Under Mikkelsen’s account, we would be stuck with a descriptive generalization that the specificational subject cannot be the focussed term in answer to a Wh-question. This is a problem that the QuD approach sketched above (and fleshed out in more detail in the following section) avoids.²⁰

5.2.2 The presupposition of the Topic feature

The Topic feature and inverse sentences Following Mikkelsen, I assume the Topic feature is on the head of the predicative argument in a specificational sentence (this is how it can check T⁰’s uninterpretable Topic feature, driving inversion). For a predicate nominal like *the president*, D⁰ bears [*i*Topic]. The Topic feature contributes the presupposition that the QuD at the time of utterance is a question formed on the property argument of the predicative head. (I.e., it takes a predicative argument and contributes the presupposition that the QuD is “about” the content of the predicate.) The semantics of a D⁰_[*i*Topic] is given below along with its presupposition.

$$(61) \quad \llbracket \text{the}_{[i\text{Topic}]} \rrbracket \langle \langle e,t \rangle, \langle e,t \rangle \rangle = \lambda P \lambda x [\text{THE } P(x)]$$

Topic’s presupp: The current QuD is $\lambda p \exists x [p = \wedge P(x)]$

It will be crucial, in order to capture the distinction between pgXPs and other sorts of specificational subjects, that the QuD that the Topic feature presupposes only make reference to the complement of the head that bears it (NP for headed definites). We will see that this is necessary in what follows once we spell out the semantics of pgXPs. Of course, this introduces a challenge to the account defended here, in that, in a specificational sentence like (62), below, the Topic feature presupposes a QuD of the form *Who’s a president?*, which is unintuitive. First, if this were the QuD at the time of utterance, a predicational response like (62c) would be felicitous, though it intuitively counts as a non-answer to speaker A’s explicit QuD (regardless

20 A possible fix for Mikkelsen 2008b’s theory is to stipulate that Topic and Focus features may not co-exist on the same XP. That XPs encoding Discourse Old information may be F-marked is easily observable in (60c), but Discourse Oldness does not entail Topic marking (as the Topic feature may optionally be selected from the lexicon). Though see Büring 2003 for a theory of contrastive topic intonation that assumes that contrastive topic marked XPs are also F-marked.

of explicitness, A's Q would be the relevant QuD (62b) would be calculated to be congruent with in the theory in Roberts 1996. See, e.g., the derivation in (59b)).

- (62) a. A: Who's the president?
 b. B: The president is Jack.
 c. B: (Well,) {Jack's a president/One president is Jack}.

Here, I make use of Roberts's characterization of the relation between questions in discourses; questions must also be congruent to some QuD, just as assertions must be. An important observation is that the question presupposed by the topic feature in (62b) (namely, *Who's a president?*) is a *superquestion* of the question *Who's the president?* As we saw in (59), a specificational assertion like *the president is Jack* is congruent with the QuD *Who's the president?*; it is also congruent with any of its superquestions, which follows from Roberts's definition of superquestion.²¹ The presupposition of the Topic feature, then, is met at the time of utterance, provided that whenever some subquestion of a superquestion is salient, the superquestion's relevance is simultaneously implied.

Eventually, we will have to generalize the Topic feature's presupposition in order to capture the behavior of pgXPs. pgXPs are predicative (type $\langle e, t \rangle$), but this denotation is shown below to be derived from a higher type, where a subconstituent denotes a set of properties (i.e., a property of properties, $\langle \langle e, t \rangle, t \rangle$). In such cases, the existentially bound variable in the question denotation in (63b) for Topic's presupposition will have to be a variable over properties. This is also true for headed definite pgXPs. A more general formulation for the definite article of predicate nominals is given below in (63a), where Π is a property variable (i.e., properties at any type, $\langle X, t \rangle$, with X a variable over types), and α/β are variables over arguments of Π . (I.e., if $\Pi = \langle X, t \rangle$, then $\alpha/\beta = \langle X \rangle$.)

- (63) a. $\llbracket \text{the} \rrbracket_{\langle \langle e, t \rangle, \langle e, t \rangle \rangle} = \lambda \Pi_{\langle X, t \rangle} \lambda \alpha_{\langle X \rangle} [\Pi(\alpha)]$
 Uniqueness presupp: Defined only for α such that $\forall \beta [\Pi(\beta) \rightarrow \beta \leq \alpha]$
 Shorthand: $\lambda \Pi_{\langle X, t \rangle} \lambda \alpha_{\langle X \rangle} [\text{THE } \Pi(\alpha)]$
- b. $\llbracket \text{the}_{[\text{Topic}]} \rrbracket_{\langle \langle e, t \rangle, \langle e, t \rangle \rangle} = \llbracket \text{the} \rrbracket_{\langle \langle e, t \rangle, \langle e, t \rangle \rangle}$
 Topics presupp: The current QuD is $\lambda p \exists \alpha [p = \wedge \Pi(\alpha)]$

For an inverse sentence like that in (64), we get the QuD below:

21 A question Q1 is a subquestion of its superquestion Q2 if Q1 entails Q2. Q1 entails Q2 iff every proposition that answers Q1 also answers Q2. Any (complete) answer to Q1 *who's a murderer?* also answers Q2 *who's the (relevant) murderer?*

(64) [DP The_{[iTopic],\langle\langle e,t\rangle,\langle e,t\rangle\rangle}] [NP murderer]_{\langle e,t\rangle}]_{\langle e,t\rangle} was [DP Sally_e]_F

What is asserted: \wedge THE MURDERER(Sally)

Topic's presupposition: The current QuD is $\lambda p \exists x [p = \wedge$ MURDERER(x)]

To recap, the above analysis gives us a solution to the puzzle outlined in [Mikkelsen 2008b](#). There, Mikkelsen showed how [Roberts's](#) 1996 theory, all else being equal, predicts, by itself, that specificational clauses *qua* inverse predications should be just as congruent responses as predicational clauses are even when there is focus on the specificational subject (i.e., the presupposition of prosodic focus is met), and won't help us understand why it is that specificational subjects cannot be focused. [Mikkelsen](#) posits that there is a morphosyntactic reason, appealing to her 2004/2005 Topic feature that drives inversion, namely, the Topic feature cannot be associated with a Focused XP, since such XPs encode new information, and Topic is only compatible with Discourse Old information. As we saw, this won't work because Discourse Old things may, in fact, bear focus in answers and correspond to the Wh-phrase in questions (see (60) for such a case).

Here, we have built on Mikkelsen's proposal and fixed this problem, by giving the Topic feature a specific presupposition about the QuD at the time of utterance. In the contexts like (60b) where the specificational subject corresponds to the Wh-term in the question, Roberts's 1996 presupposition of prosodic focus is met, as shown in [Mikkelsen 2008b](#) (i.e., the semantics of inverse predications is technically congruent with the explicit question), but the Topic feature's presupposition is not met because the explicit question is the QuD, not the QuD presupposed by the topic feature, so such examples are ruled out by presupposition failure. This derives why it is that specificational clause information structure is fixed, and why specificational subjects may not serve as "answers" corresponding to Wh-terms in questions.²²

In the next section, I provide a treatment for free relatives in specificational and predicational pseudoclefts, illustrating how the Topic feature gives us a QuD which is roughly paraphrasable as a question version of the free relative. Then, I provide an account of pgXP subjects which derives their incompatibility with inverse predication (both free relative and definite description pgXP specificational subjects). We will also see why it is crucial that the Topic feature's presupposed QuD can only make reference to the syntactic complement of the head that bears it.

²² Note that it is not entirely true that specificational subjects resist focus altogether, as contrastive focus (which [Büring 2003](#) analyzes as a Topic/Focus hybrid) is compatible with specificational subjects:

(i) A: Who are our neighbors?

B: *My* neighbor is *Bob*, and *Your* neighbor is *Jack*.

Exploring how such specificational sentences are licensed is left for future work here.

The Topic feature and specificational pseudoclefts I am not committed to a particular structural analysis of free relative clauses. Here, for convenience, I adopt the approach in [Caponigro 2004](#) where free relatives are CPs. This raises many interesting questions about categorial selection; free relatives have the syntactic distribution of DPs, but appear to have the syntax of CPs, with Wh-movement in a clause to the left periphery (presumably, to [Spec,CP]). There are attempts in the literature which collapse free relatives with DPs to capture the pattern. There are a variety of ways to do this. For instance, [Donati 2006](#) posits that Wh-movement in free relatives is movement of a Wh-D⁰ head to a head position, specifically, the head of CP; C⁰ possesses both D and C features after this incorporation, and is capable of satisfying categorial selection for DP.

[Caponigro 2000](#) proposes that free relatives in English involve a silent DP shell over the free relative CP to capture the pattern. In [Caponigro 2004](#), this assumption is abandoned in favor of treating free relatives as set denoting CPs (predicates); type shifting handles satisfaction of semantic selectional restrictions under this view. This is essentially the view proposed in [Jacobson 1995](#), [Dayal 1997](#), where free relatives are interpreted as definites; ι -type shifting the set denotation of the free relative gives a referential interpretation. (I.e., the free relative denotes the unique maximal entity in the set.)

What is crucial to my account is that pgXP free relatives (and headed definite descriptions that are pgXPs) are, at some point in their derivation properties of properties. In sentences like (65), we have a pgXP predicate nominal, which must, nonetheless, be interpreted as a property of individuals in order to be predicable of the predicational subject, *Jack*.

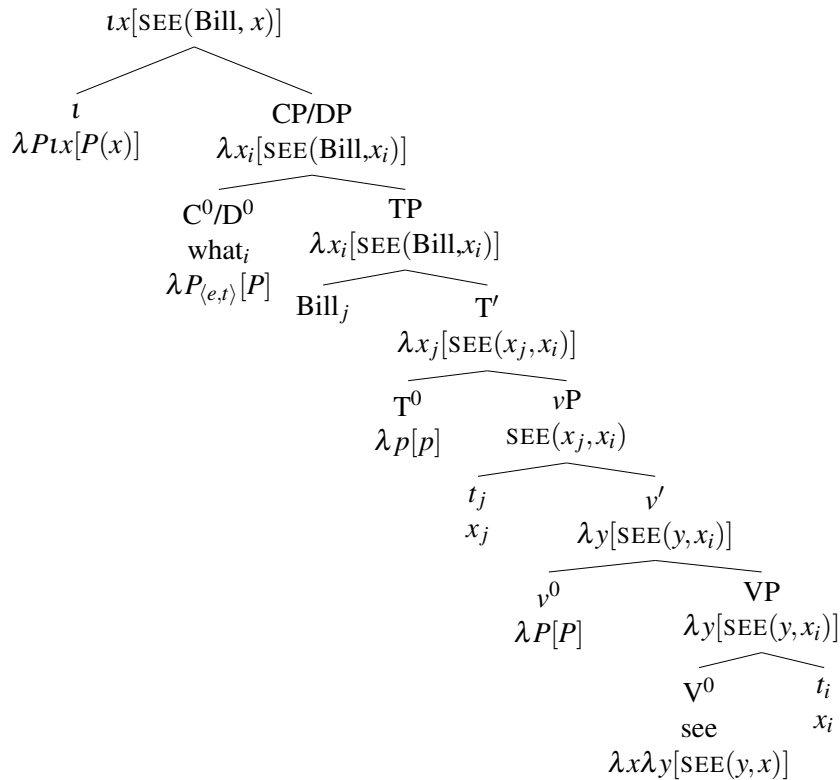
(65) Jack is what Sally is.

What I argue is that, following, e.g., [Dayal 1997](#), a pgXP free relative's type $\langle\langle e,t \rangle, t\rangle$ denotation is ι -type shifted to type $\langle e,t \rangle$ prior to composing with the rest of the structure. I assume the ι -type shift takes place at the free relative's maximal node (CP), and that the Topic feature rests on the Wh-phrase itself, taking its $\langle\langle e,t \rangle, t\rangle$ sister as the XP responsible for providing the presupposed QuD's content. This will, as we will see below, ensure that a pgXP subject in a specificational clause will presuppose a QuD about properties, and not individuals; if the Topic feature had access to the ι -type shifted meaning of the free relative, on the other hand, we would end up with a QuD about individuals, erroneously predicting that pgXPs may invert.

Structurally, I adopt a hybrid of [Caponigro's](#) and [Donati's](#) view. That is, I assume, following [Caponigro](#), that free relatives are CP-sized objects. Free relatives denote sets, and free relative Wh-pronouns are set-forming operators. Following [Donati 2006](#), I assume free relative pronouns are D⁰ heads incorporated into C⁰; the maximal projection has both C⁰ and D⁰ features. The derivation of a (non-pgXP) free relative

is given below. The Wh-operator receives Caponigro's 2004 semantics indicated in the structure, which is an identity function on its complement (Wh-movement in the free relative forms a predicate abstract binding the trace of the moved element on the complement of the landing site, as in Heim & Kratzer 1998). ι -type shift is represented structurally, but only for clarity's sake. (One could simply assume ι -type shift applies at CP/DP.)

(66) "I saw [_{CP} what Bill saw]" (the unique thing that Bill saw, type e)



Turning now to pgXPs, pgXP free relatives are predicative, though the nature of the uniqueness presupposition is different than from non-pgXP free relatives. For a non-pgXP free relative, the uniqueness presupposition pertains to individuals. In (67), we have a pgXP free relative which is interpreted as a property.

Specification as an inter-taxonomic phenomenon

(67) Sally is a doctor, and Bill is [what Sally is]. (i.e., also a doctor)

$$\llbracket \text{What Sally is} \rrbracket = \lambda x[\text{DOCTOR}(x)]$$

In order for (67) to mean what it does, the property *what Sally is* stands for cannot contribute the same uniqueness presupposition associated with a non-pgXP free relative, since both Sally and Bill must be doctors.

Nonetheless, it can still be shown that pgXP free relatives like that in (67) behave as referential expressions (definites) just like non-pgXP free relatives, though instead of denoting individuals they denote properties. Just like the corresponding definite description pgXP in (68a), the pgXP free relative in (68b) takes the join of Sally's properties as its antecedent. This is then predicated of Bill in the right conjunct.

(68) a. Sally is a doctor and a police officer, and Bill is the same thing.

$$\llbracket \text{the same thing}_{\langle e,t \rangle} \rrbracket = \text{a police officer or doctor}$$

(#But he's not a police officer.)

b. Sally is a doctor and a police officer, and Bill is what Sally is too.

(#But he's not a police officer.)

Since it is predicated of Bill that he has the same properties as Sally, it is infelicitous to then deny that he lacks one of them.

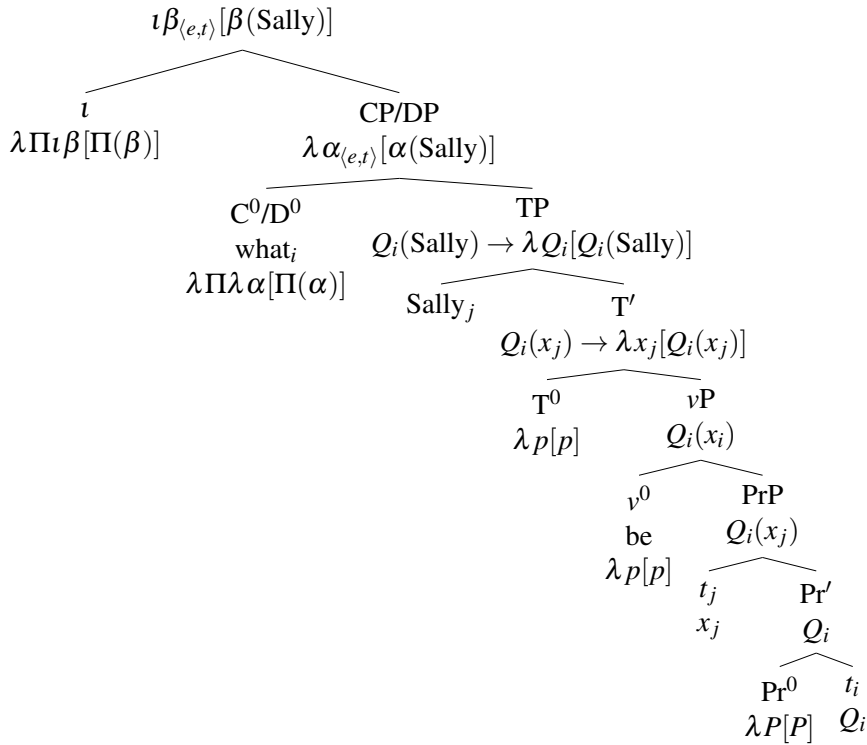
To capture the above patterns, I assume pgXP free relatives denote sets of properties (a property of properties, type $\langle\langle e,t \rangle, t\rangle$). Thus, the free relative: *what Sally is* denotes a set of properties such that Sally has them. ι -type shifting a set of properties yields the unique maximal property in the set, which may then be predicated of individuals.

$$(69) \quad \iota(\text{pgXP}_{\langle\langle e,t \rangle, t\rangle}) = \iota P_{\langle e,t \rangle}[\text{pgXP}(P)]$$

I assume the same is true for non-free relative pgXPs that are definite descriptions like *the thing I think a man should be*. The NP *thing I think a man should be* would be the same type as the corresponding pgXP free relative, and would undergo ι -type shifting prior to composing with the determiner.

Below, I illustrate how the property interpretation of a pgXP free relative is derived. pgXPs have a gap in a predicative position, which contributes a variable over properties, type $\langle e,t \rangle$, which is lambda bound, yielding a set of properties. I assume the free relative pronoun may take a property of any type $\langle X,t \rangle$ as an argument, returning the property. For a property of properties, the ι -type shift picks the unique maximal property in the set as the final denotation of the free relative.

(70)



“the maximal property that Sally has.”

As with DPs bearing Topic, I assume the Topic feature is on the head of the relative clause (C^0/D^0) (on the relative pronoun). For a non-pgXP free relative, it is the Topic marked node’s sister that supplies the property used to arrive at the presupposed QuD. The presupposition for the Topic feature is repeated below. Since the sister of *what* in (73) (boxed) denotes a property of individuals, α stands for variables over things of type e , and Π over property variables of type $\langle e, t \rangle$.

(71) Topic’s presupp: The current QuD is $\lambda p \exists \alpha [p = \wedge \Pi(\alpha)]$

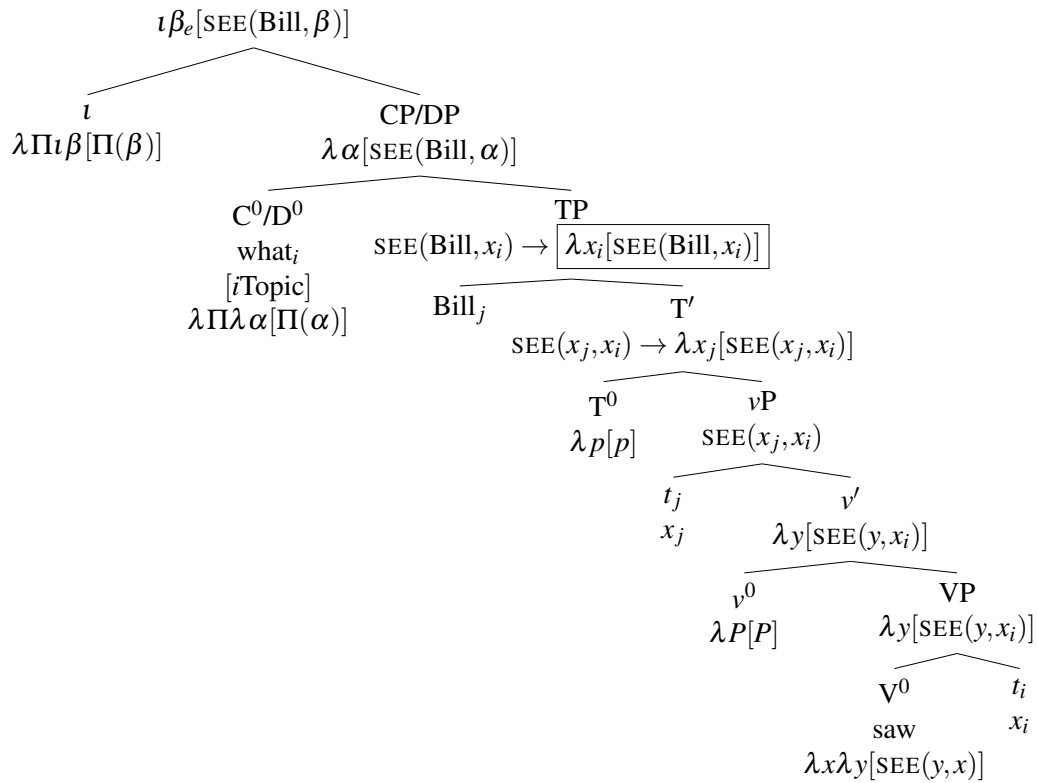
(72) Presupposition of [what Bill saw]_[iTopic]

The QuD at the time of utterance is: $\lambda p \exists x [p = \wedge \text{SEE}(\text{Bill}, x)]$

(“what did Bill see?”)

Specification as an inter-taxonomic phenomenon

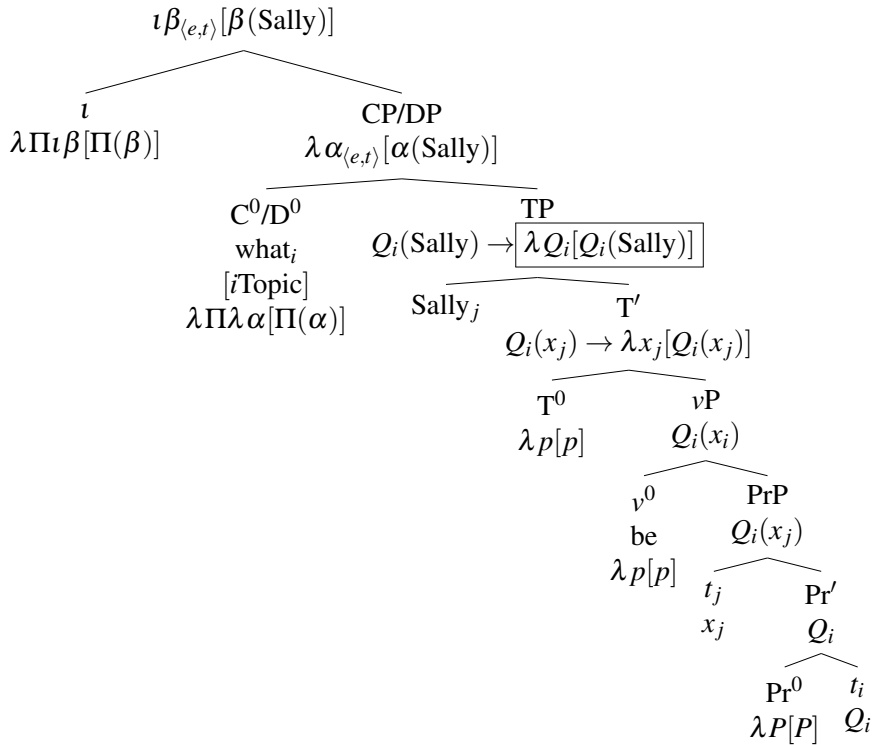
(73) What Bill saw



“the maximal entity that Bill saw.”

For pgXP free relatives, the Topic feature presupposes a question about properties. The structure from (70) is repeated below, but augmented with the Topic feature on the relative pronoun, and its sister boxed as above. Just as with non-pgXP free relatives, it is the sister of the relative pronoun which provides the property on which the presupposed QuD is constructed.

(74)



“the maximal property that Sally has.”

For *what Sally is* as a specificational subject, we get the following QuD:

(75) $\lambda p \exists \beta_{\langle e, t \rangle} [p = \wedge \lambda Q_i [Q_i(\text{Sally})](\beta)]$ which reduces to:

$\lambda p \exists \beta_{\langle e, t \rangle} [p = \wedge \beta(\text{Sally})]$

It is important that the Topic feature have access to the meaning of the free relative before it is ι -type shifted. This is because once a pgXP is ι -type shifted into a property at type $\langle e, t \rangle$, the resulting QuD would then be about individuals and not properties (“who shares the property the free relative refers to with Sally?”). Thus, it is the semantic type of the predicate which is fed as an argument to the head bearing Topic that determines what sort of QuD we end up with. If the predicate is a property of properties, as it is in pgXPs, we end up with a QuD about properties, whereas if the predicate is a property of individuals, as it is with non-pgXPs, we end up with a QuD about individuals, as we do in (73).

We are now ready to see how the above system rules out inverse predicational specificational clauses with pgXP subjects. The basic claim, as previously mentioned, is that the semantic type requirements PrP imposes on its external argument (which will be the pivot in an inverse predication) renders the assertion an incongruent

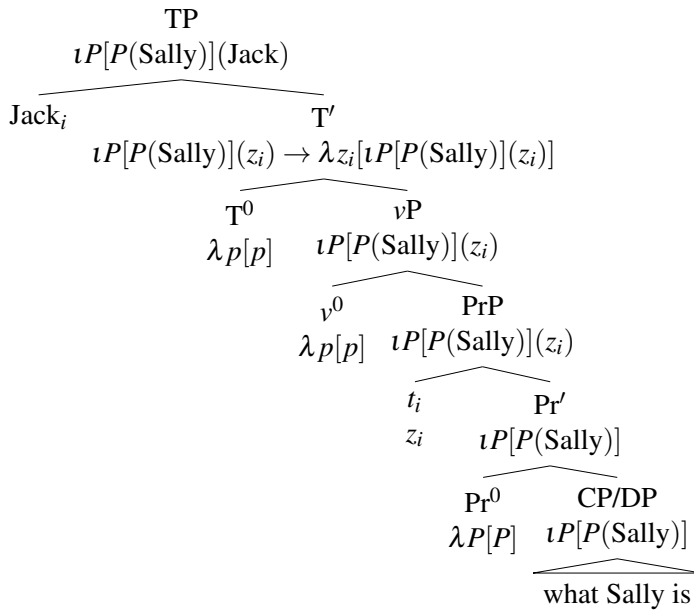
Specification as an inter-taxonomic phenomenon

answer to the QuD presupposed by the inverted predicate. Thus, the Topic feature on the predicate has the effect of imposing constraints on the set of possible pivots in a specificational clause. An equative assertion with the right sort of pivot, on the other hand, will count as a congruent response to the QuD.

5.3 Topical pgXPs and constraints on pivots

For a pgXP in predicative position, there need be no Topic feature on the predicative pgXP; in such a situation, there is no presupposition about the QuD at the time of utterance aside from that contributed by the intonational contour of the clause as a whole. For a predicational clause like that in (79), the composition is as indicated (taking the meaning of the free relative from (74)).

(76) Jack is what Sally is.



The semantics of the inverse version is the same, of course, though with an inverse predication, the Topic feature of *what Sally is* will presuppose the QuD *What is Sally?* Neither a predicational word order nor an inverse predication will be a congruent response to such a QuD.

(77) A: What is Sally? (a doctor?)
 B: #*Jack* is what Sally is.
 B': #What Sally is is *Jack*.

The presupposed QuD here is the set of propositions given in (78a), and focus on the pivot in either answer yields the set of propositional alternatives given in (78b). Since these are not equivalent, the presupposition of prosodic focus is not met.

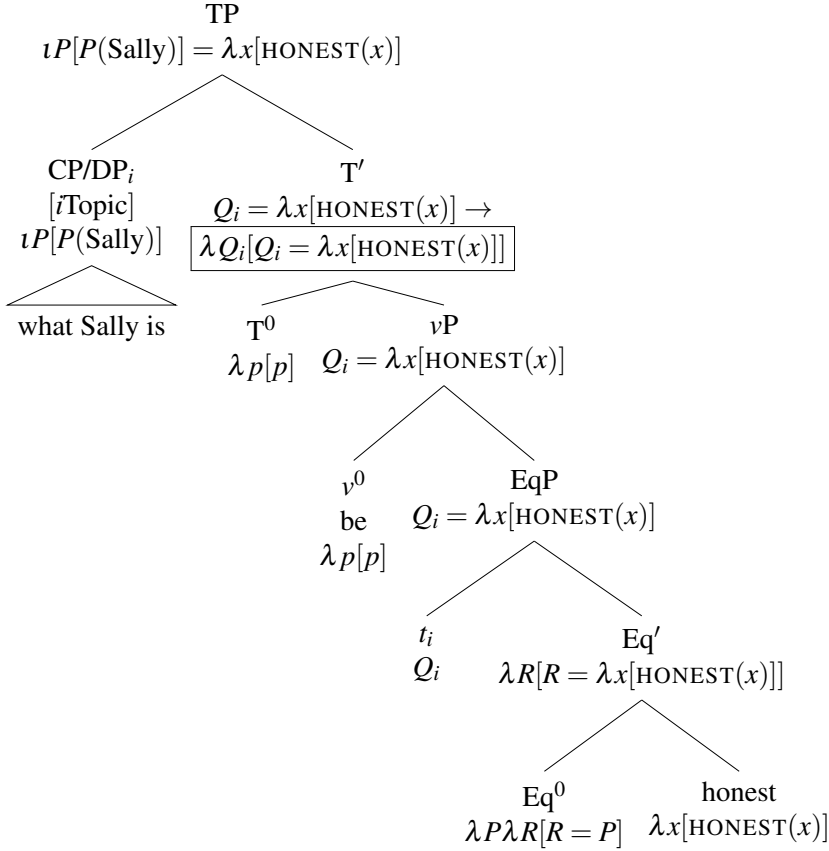
- (78) a. $\llbracket \text{What is Sally?} \rrbracket^o =$
 $\lambda p \exists P [p = \wedge P(\text{Sally})]$
 $\{ P(\text{Sally}) : P \in D_{\langle e,t \rangle} \}$
 (These are propositions like “Sally is a doctor,” “Sally is American,” etc.)
- b. $\{ \llbracket \text{What Sally is is } [\text{Jack}]_F \rrbracket^f / \llbracket [\text{Jack}]_F \text{ is What Sally is} \rrbracket^f \} =$
 $\{ \iota P [P(\text{Sally})](x) : x \in D_e \}$
 (These are propositions like “Bill is what Sally is,” “Jack is what Sally is,” etc.)

In the absence of the set up question in (77), the predicational word order is perfectly acceptable. This is simply because the predicational word order does not imply a presupposition about the prevailing QuD at the time of utterance. Thus, *Jack is what Sally is*, could, for instance be a congruent response to an implicit QuD such as *what is Jack?* We also automatically have an explanation for why the inverse predication is out as an answer to the same question (since the inverse predication’s Topic presupposition is not satisfied).

An equative clause, however, allows for the pivot to be a property. If we assume pgXP arguments in equatives may bear the Topic feature, then we can claim that equatives may also be specificational. In fact, the majority of the data discussed in Higgins 1979 can be said to be of this ilk, since he typically used connectivity effects in specificational pseudocleft constructions with predicative pivots as a disambiguating method favoring the specificational reading. Following Heycock & Kroch, assume that equatives, just as inverse predications, have a small clause core, which is the complement of the semantically vacuous copula. I remain agnostic as to whether equatives require inversion here, though some authors have argued they do (den Dikken 2006, Heycock 2012). In (79), I give the structure I assume for equatives, along with the semantics I adopt for Eq^0 , which I take to be cross-categorical in that it may take internal and external arguments of any semantic type, provided they are of the same semantic type as each other. (This is a “symmetric” equative analysis in contrast to Romero’s asymmetric analysis where the external argument would be intensional.)

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(79) What Sally is is honest.



The QuD presupposed by the specificational subject in (79), given in (78a), repeated below, is a set of predicational propositions of the form “Sally is P,” with P a variable over properties of type $\langle e, t \rangle$ ($\{ \wedge \text{Sally is honest}, \wedge \text{Sally is tall}, \dots \}$).

$$(80) \quad \llbracket \text{What is Sally?} \rrbracket^o = \\ \lambda p \exists P [p = \wedge P(\text{Sally})] \\ \{ P(\text{Sally}) : P \in D_{\langle e, t \rangle} \}$$

If we F-mark the pivot in the specificational sentence in (79), we get a set of focus alternatives that is, in fact, equivalent to the question denotation for *What is Sally?* The focus semantic value of the equative *what Sally is is [honest]_F* gives us the following set of alternatives ($\{ \wedge \text{what Sally is is honest}, \wedge \text{what Sally is is tall}, \dots \}$):

$$(81) \quad \{ \iota P [P(\text{Sally})] = Q : Q \in D_{\langle e, t \rangle} \}$$

That (80) and (81) are, in fact, equivalent, requires some unpacking, as this fact is obscured by the contribution of the ι operator. What makes these two sets of alternatives equivalent is the observation that whenever the equative pseudocleft *what Sally is is P* is true, its corresponding “unclefted” predicational version *Sally is P* will also be true, and vice versa for any value of P. (e.g., if “what Sally is is honest” is true, then so must “Sally is honest” be true, and vice versa, and so on for any predicate.) As such, each propositional alternative in the question’s denotation has a truth conditionally equivalent member in the focus semantic value of the specificational assertion, and vice versa. In short, such equative pseudoclefts avoid the problem posed by inverse predication in allowing the specificational sentence to be congruent with the QuD its subject presupposes.

It is admittedly curious that uniqueness is not more of a problem for this analysis. We might expect uniqueness as contributed by the free relative subject to interrupt equivalence between the focus semantic value of the specificational sentence as a whole, and the QuD presupposed by its subject. Paraphrasing the contribution of the ι operator in the meaning of a pgXP free relative, its denotation is supposed to be that of the unique property, P, such that Sally has P. We might take this to mean that free relatives like *What Sally is* are supposed to denote some unique property of Sally’s and no one else, but as (82) shows, this is simply not the case.

(82) Sally is a doctor, and Jack is what Sally is. (i.e., he’s a doctor too.)

Interestingly, with non-pgXPs, it seems that uniqueness does intuitively come with the consequence that an equative will not be congruent to the QuD its subject presupposes. Consider (83) below, where *what Jack watched last night* is type e , and, as a specificational subject, presupposes a QuD paraphrasable as *What did Jack watch last night?*

(83) What Jack watched last night was Stephen King’s *The Shining*.

Our Hamblin/Karttunen semantics for questions means such a QuD consists of non-exhaustive alternative propositions of the form \wedge *Jack watched x last night*, whereas the propositional alternatives in the focus semantic value of the specificational sentence, on the other hand, necessarily encode uniqueness and exhaustivity as contributed by the definiteness of the free relative subject (\wedge *the unique thing that Jack watched last night was x*). Thus, it is not the case that for any value of x , there will be matching propositions in both the QuD and focus value of the clause. (i.e., if “Jack watched *The Shining*” is true, than it is not necessarily true that “what Jack watched, i.e., the unique/only thing he watched, was *The Shining*.”)

It is not clear that we should take this result too seriously, however, as this appears to be a consequence of our theoretical commitments about question semantics, which I have not taken very seriously throughout. We could, for instance, follow many

authors who argue that constituent interrogatives are typically interpreted as Strongly Exhaustive (in the sense of Groenendijk & Stokhoff 1984), a move which would exhaustify the propositional alternatives in the QuD's meaning, circumventing the problem just noted for specificational equatives with non-pgXP subjects.

6 Conclusion and prospects

To summarize, in this paper I defended a view where specificational clauses should be analyzed sometimes as predicational clauses, and sometimes as equatives. Heycock & Kroch make many compelling arguments motivating an equative analysis for specificational clauses. This was possible to do, not because all specificational copular clauses should be analyzed as equatives, but because some must. The pronominalization diagnostics that Mikkelsen relied on primarily in arguing for the predicative status of specificational subjects prove challenging for an equative analysis of specificational clauses with headed nominals as subjects. We have seen here, however, that the pronominalization diagnostics are tricky, and it is not always clear what to conclude from them. One empirical contribution of this paper, in fact, is the observation that tag questions to specificational clauses cannot, themselves, be specificational. Interestingly, this observation throws a wrench into the tag question pronoun diagnostic, insofar as it is a diagnostic for the semantic type of the host clause to which the tag attaches.

As mentioned at the start of this paper, many authors have attempted to reduce Higgins's taxonomy by analyzing specificational clauses as a special case of one or another more well established taxon (predicational or equative). The approach defended here is still reductionist in the same way in that we demote specificational clauses as a major category in the taxonomy. An important difference between the proposal here and others before it is that specificationality under my account is an inter-taxonomic notion. The particular implementation defended here, or the way in which I derive why it is that some specificational clauses *must* be analyzed as equatives, while others may be ambiguous between an equative or inverse predicational analysis, directly tackles the issue of why it is that specificational clauses have a fixed information structure.

The reason specificational clauses have a fixed information structure is because Mikkelsen's Topic feature is a presupposition trigger. The reason why specificational subjects cannot be answer terms in response to Wh-questions is because specificational subjects themselves presuppose prevailing QuDs at the time of utterance to which they are not answers. Such QuD's, in turn, constrain the space of taxonomic analyses for the specificational clause, so that sometimes inverse predications are doomed to be incongruent assertions.

The analysis defended here can also be seen as a novel take on the notion that specificational subjects are somehow “question-like.” One implementation of this intuition assumes that specificational pseudocleft subjects are, in fact, interrogative clauses at some level of representation, and that the pivot in a specificational sentence is a short answer standing in for a full clause that has undergone ellipsis (Ross 1972, den Dikken et al. 2000). Romero’s concealed question proposal can be seen as another implementation of this intuition. Sharvit 1999, Heller 2005, Caponigro & Heller 2007 present a battery of arguments against such proposals, at least as a general account of specification, arguments which I will not recap here, though I point out that the approach defended here avoids such criticisms altogether, in that it does not treat specificational subjects as interrogative clauses, or as concealed questions. Instead, specificational subjects trigger the presupposition that they are congruent with a specific sort of QuD at the time of utterance, a QuD about the specificational subject’s content.

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