Abstract

Subjects of stage-level predicates support either an existential or a generic interpretation, while subjects of individual-level predicates are typically taken to only support a generic interpretation. Existing analyses of this asymmetry in full clauses rely on two syntactic subject positions, proposing that an existential interpretation obtains for subjects in Spec,VP and a generic interpretation obtains for subjects in Spec,IP. These analyses also rely on a non-uniform base generation site for subjects of the two predicate types in question. The focus of this paper is adjectival small clauses and with absolutes, which support the same interpretive range as has been previously studied in full clauses. An apparent minority of speakers accepts the expletive there, in addition to a lexical subject, in these environments. This data would seem to support the two subject position strategy, on the condition that it be extended to include positions other than Spec,IP and Spec,VP, which are not taken to be present in adjectival small clauses and with absolutes. However, a simple extension of current analyses is problematic under the assumption that predication is established locally and that subjects are base generated in a uniform position in relation to their predicates. The aim of this paper is to motivate an analysis of interpretation – both of subjects as existential or generic, and of predicates as stage-level or individual-level – based on the presence and properties of the aspectual head Asp. The non-standard examples involving both an expletive and a lexical subject in small clauses and with absolutes will be taken as evidence for syntactic structure that is present even in Standard English. It will be argued that the analysis presented here covers more data and represents a simplification of the theory in that it allows for a uniform base representation of the subject-predicate relation.

1 Introduction

This paper examines the structure and interpretation of adjectival small clauses selected by epistemic verbs such as consider (1a-b) or the preposition with in absolutive constructions (1c). The central questions this paper addresses are related to the range of interpretations of bare
plural NP subjects such as firemen, the relationship between these interpretations and the type of predicate within the bracketed constituents in (1), and the syntax of small clauses that feeds these interpretations.

(1)  a. The chief considers [firemen available] even though they're not on duty. 
    b. The chief considers [firemen brave]. 
    c. [With firemen available], we can all feel safe.

These constructions are interesting because explanations of subject interpretation in full clauses do not predict the range of readings in small clauses and with absolutes, at least not without elaboration. These constructions are grammatical for some speakers with the expletive there in addition to the lexical subject, depending on predicate type. These apparently non-standard examples, given in Section 2, are at first glance promising from the perspective of existing proposals, because they seem to involve precisely the ingredients upon which these analyses are based, namely two syntactic subject positions. However, a simple extension of current proposals is problematic for a number of reasons, so there is an opportunity for a new analysis.

The goal of this paper is to provide an alternative analysis, whereby interpretation of the both the subject and the predicate is based on the presence or absence, as well as the properties, of Asp (aspect). This proposal will take as inspiration non-standard small clauses and with absolutes that include both an expletive and a lexical subject, but it will be argued that these constructions are informative for the syntax of Standard English as well. The specific proposal will be that the syntactic projection of Asp is present in constructions with stage-level predicates and existential subjects, but absent in constructions with individual-level predicates and generic subjects. Thus, it will be argued that an aspectual distinction should be made between stage-level and individual-level predicates. This proposal will be shown to cover more data than the
analyses that focus exclusively on full clauses, and it will accommodate standard as well as non-standard examples. It will also represent a simplification of the theory, as it assumes a more uniform treatment of predication.

The paper is organized as follows. Section 2 presents the relevant data and the asymmetries related to subject interpretation and the use of the expletive *there*, both in full clauses and small clauses. The section also outlines the central questions that are raised by these data and that will be treated in the remainder of the paper. Section 3 focuses on the presupposed structure of small clauses and *with* absolutes, and it presents the assumptions being made about a uniform representation of predication. Section 4 turns to full clauses and summarizes the existing explanations of the interpretive asymmetries found in this environment. Section 5, divided into three subsections, examines small clauses and *with* absolutes within the existing framework summarized in Section 4. The first subsection focuses on readings in small clause environments that are problematic for existing proposals. It will be argued that these readings must be explained locally, within the small clause. The second subsection explores the possibility of simply extending existing proposals to cover small clauses, with only minor adjustments to the theory. The central syntactic proposal of this paper will be presented in this subsection, with an extended functional architecture of (at least some) small clauses, including AspP. The third subsection will argue that although this analysis is attractive for some small clauses, it cannot be maintained for all small clauses. Furthermore, it will be suggested that there are grounds to consider a new analysis of subject interpretation that maintains a uniform account of predication. Section 6 will present that new analysis, based on the presence and properties of the syntactic projection of Asp. Section 7 will address questions regarding the base generation site of the expletive and the unavailability of expletive small clauses for most speakers of
English. Finally, Section 8 will conclude with a summary of the proposal, its motivations, and its benefits.

2 The Data and the Questions

Central to the data examined in this paper is the distinction between two different types of predicates: stage-level predicates and individual-level predicates (Carlson, 1977). Stage-level predicates typically refer to temporary or transitory states or actions (2a), while individual-level predicates refer to more permanent or inherent characteristics (2b).

(2) a. stage-level predicates: available, sick, tired, on stage, in the car, is sleeping 
b. individual-level predicates: intelligent, mortal, brave, a woman, knows French

The examples in (2a) may be predicated of entities at particular stages of time. They hold of individuals within a particular salient spatial or temporal context. The examples in (2b) on the other hand are typically predicated of individuals in the absence of any salient temporal or spatial context. This distinction has both syntactic and semantic consequences. Relevant to the current proposal are constraints on the use of the expletive element *there*, and interpretive asymmetries related to quantificational subject NPs, specifically bare plurals. As noted by Milsark (1974), existential *there* "insertion\(^1\)" is possible with stage-level predicates (3a-b), but ungrammatical with individual-level predicates (3c-d).

\(^1\) The term "insertion" was used to express the notion that *there* is a dummy element, completely void of content, which is inserted into the subject position in order to fulfill the Extended Projection Principle or the requirement that sentences have subjects (Chomsky, 1981; 1986). Questions related to the base generation site of the expletive will be discussed in Section 7.
(3)  a. There are children sick.
    b. There are carrots available.
    c. *There are children tall.
    d. *There are carrots orange.

Interpretively, these predicate types differ in that bare plural NP subjects\(^2\) of stage-level predicates may receive either a generic or an existential interpretation (4a-c), while only a generic interpretation (4d-f) is available for most speakers for bare plural NP subjects of individual-level predicates (Carlson, 1977).

(4)  a. Firemen are available.
    b. EXISTENTIAL: There are firemen who are available.
    c. GENERIC: In general, it is a quality of firemen that they are available.
    d. Firemen are brave.
    e. *EXISTENTIAL: There are firemen who are brave.
    f. GENERIC: In general, it is a quality of firemen that they are brave.

Examples from Diesing (1992)

These data have been studied predominantly in the context of full clause predication. However, the same characteristic distinctions between constructions with stage-level predicates and ones with individual-level predicates are observed outside of full clauses as well. In small clauses\(^3\), both generic and existential interpretations of bare plural NP subjects obtain in constructions with stage-level predicates (5a). In the case of individual-level predicates, though, only a generic interpretation is typically available (5b).

(5)  a. The chief considers firemen available.
    EXISTENTIAL: ...considers it to be the case that there are firemen available. (for the parade, for the next rotation, etc.)
    GENERIC: ...considers it to be a generic quality of firemen that they are available.

\(^2\) Other quantificational subjects of a stage-level predicate may also receive either a generic or existential interpretation, but this paper will focus on bare plural NPs.

\(^3\) Defined as a subject-predicate structure lacking tense. Section 3 focuses on the syntactic structure of small clauses.
b. The chief considers firemen brave.
   *EXISTENTIAL: …considers it to be the case that there are firemen who are brave.
   GENERIC: …considers it to be a generic quality of firemen that they are brave.

Despite being systematically ruled out in much of the literature, the expletive *there* in such small clauses is grammatical for some speakers (%grammatical)\(^4\). The degree of acceptability of this construction varies; a minority of speakers finds it grammatical, others find it marginal, and most find it ungrammatical. However, as in matrix clauses, the possibility of *there* is limited to small clauses with stage-level predicates, and only an existential interpretation of the subject is delivered (6a). With individual-level predicates, the expletive is ruled out as ungrammatical (6b). Similar existential constructions with infinitival rather than small clauses (6c), while apparently universally grammatical with stage-level predicates, are not relevant to the current proposal. The syntax in such construction includes Spec,TP, and therefore easily accommodates both the expletive and the lexical subject. Small clauses such as (6a), on the other hand, must include two specifier positions, neither of which is Spec,TP under the most commonly accepted definition of small clauses.

(6)  

<table>
<thead>
<tr>
<th></th>
<th>%The chief considers there firemen available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>%EXISTENTIAL: …considers it to be the case that there are firemen available.</td>
</tr>
<tr>
<td></td>
<td>*GENERIC: …considers it to be a generic quality of firemen that they are available.</td>
</tr>
<tr>
<td>b.</td>
<td>*The chief considers there firemen brave.</td>
</tr>
<tr>
<td></td>
<td>*EXISTENTIAL: …considers it to be the case that there are firemen who are brave.</td>
</tr>
<tr>
<td></td>
<td>*GENERIC: …considers it to be a generic quality of firemen that they are brave.</td>
</tr>
<tr>
<td>c.</td>
<td>The chief considers there to be firemen available.</td>
</tr>
</tbody>
</table>

*With* absolutive constructions represent another environment outside of full clauses where similar patterns of interpretation hold, and where the expletive is grammatical for some speakers.

\(^4\) Such examples with be indicated as %grammatical. See the note following the conclusion for evidence of these judgments.
With stage-level predicates, both generic and existential interpretations of the subject are possible (7a), and *there* is grammatical with an existential reading (7b). These constructions do not seem to tolerate individual-level predicates (7c), so it is impossible to test whether subjects of individual-level predicates only support a generic interpretation.

(7)  

a. With firemen available, we can all feel safe.  
(EXISTENTIAL: Because there are firemen who are available…)  
(GENERIC: Because it is a generic quality of firemen that they are available…)

b. %With there firemen available, we can all feel safe.  
%EXISTENTIAL: Because there are firemen who are available…  
*GENERIC: Because it is a generic quality of firemen that they are available…

c. *With firemen brave, we can all feel safe.

It is important to note that even though stage-level predicates support both existential and generic readings of bare plural NP subjects, a generic reading of the subject is often accompanied by a shift in meaning of the predicate. This is more apparent with a predicate like *sick* than it is with *available*. In (8a), when *firemen* is interpreted generically instead of existentially, *sick* shifts in meaning toward something more permanent, which can be applied to the subject without interruption. In other words, it loses the temporal or spatial context associated with stage-level predicates and is instead interpreted as an individual-level predicate. The same is true of *out of service* (8b) and *asleep/awake* (8c). This suggests that a predicate's status as stage-level or individual-level is not (lexically) fixed.

(8)  

a. Firemen are sick.  
"EXISTENTIAL: There are firemen who are sick."  
"?GENERIC: Firemen have a generic quality of being sick."  
(sick ≠ mentally ill)

b. Elevators are out of service.  
"EXISTENTIAL: There are elevators that are out of service."  
"?GENERIC: Elevators have a generic quality of always being out of service."
c. Children are asleep/awake.

"EXISTENTIAL: There are children who are asleep/awake."

"*GENERIC: Children have a generic quality of being asleep/awake all of the time."

(asleep ≠ inattentive, awake ≠ attentive)

Finally, despite what has been reported in the literature, it does seem possible for an existential subject reading to obtain with an individual-level predicate. The examples in (9a) and (9b), for some speakers with the correct intonation, show an existential interpretation of a subject in a matrix clause and a small clause, respectively. The example in (9c) delivers an existential interpretation without any special intonation.

\[
(9)\begin{align*}
a. & \text{ The principal thinks that there aren't any bright students in this school, but that's not true. } \% \text{Students are bright.} \\
& \text{('There are some students in this school who are bright.' )} \\
b. & \text{ The chief says that none of the firemen in this department are brave. I disagree; } \% I \\
& \text{find firemen brave.} \\
& \text{('I consider it to be the case that there are some firemen who are brave.' )} \\
c. & \text{ Every teacher finds students bright.} \\
& \[\forall x (x \text{ a teacher) } x \text{ finds } \exists y: y \text{ is a student } \land y \text{ is bright} ]
\end{align*}
\]

The data in (5) through (9) raise several questions. First, can the explanations regarding the interpretive asymmetries that have been proposed for matrix clauses carry over to small clauses (5-6) and with absolutes (7)? Second, why is there %grammatical only with predicates that are interpreted as stage-level? Third, can the syntax capture the shift in meaning of a predicate from stage-level toward individual-level in examples where subjects are interpreted generically instead of existentially? Fourth, is there a way to accommodate the possibility for some speakers of existentially interpreted subjects of individual-level predicates? And finally, what is the syntax that accommodates %grammatical there in small clauses? Can it tell us anything more generally about constructions in which predicates are interpreted as stage-level?
The structure that is minimally necessary to accommodate both an expletive and a lexical subject in a small clause is represented in (10).

\[(10)\]
\[
\begin{array}{c}
\text{XP} \\
\text{there} \\
\text{X'}
\end{array}
\begin{array}{c}
\text{YP} \\
\text{lexical subject} \\
\text{Y'}
\end{array}
\begin{array}{c}
\text{Y} \\
\text{predicate}
\end{array}
\]

In (10) YP is the small clause itself, including the predicate and its lexical subject. The following section will briefly summarize the structure of the small clause that is assumed in this paper, identifying YP as a functional projection responsible for establishing predication. When there is present along with a lexical subject and predicate, another specifier position must be available to accommodate it. Under the commonly accepted assumption that small clauses differ from full clauses in that they lack tense, this higher position cannot be Spec,TP. Therefore, the syntax in (10) must be different from the syntax of (6c), which includes an infinitival rather than a small clause. Given the relevance of the distinction between stage-level and individual-level predicates in the distribution of %grammatical there, this position must be sensitive to predicate type. It must therefore be the case that XP is a functional projection related to the distinction between stage-level and individual-level predicates.
3 The Structure of Small Clauses

A small clause is a propositional construction including a subject and a predicate of any lexical category. Prototypical small clauses are secondary predication constructions such as those in (11), with AP (11a), VP (11b), PP (11c) or NP (11d) serving as the predicate of the small clause subject firemen. Subject-predicate constructions such as the ones in (11) are small (rather than full) clauses because they do not include tense. This property can therefore be taken as the distinction between small and full clauses\(^5\). As summarized in Den Dikken (2006), the "standard definition" of a small clause is (11e).

(11)  
\begin{itemize}
  \item a. They consider [firemen brave].
  \item b. They saw [firemen in the house].
  \item c. They watched [firemen go into the building].
  \item d. They called [firemen heroes].
  \item e. A SMALL CLAUSE is a subject-predicate structure lacking tense.
\end{itemize}

The notion of a small clause as a syntactic constituent exists within a framework whereby the relationship of subject and predicate is established locally. That is, a predicate is understood to discharge its \(\theta\)-roles in a local domain, and therefore the relation between subject, or external argument, and predicate must be generated within a particular syntactic constituent\(^6\). In Stowell (1981, 1983), that syntactic constituent was taken to be the maximal projection of any lexical category, represented by the four examples in (11).

The lexical category analysis of the small clauses in (11) takes full advantage of X-bar theory in assuming that XPs may universally contain a structural subject in their specifier

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\(^5\) Iwakura (2002) offers an alternative analysis of small clauses as maximal projections of empty T with \(\varphi\)-features and an EPP feature.

\(^6\) Alternatives to this approach are taken by, for example, Williams (1980, 1983) and Bresnan (1982).
position. It also suggests that all subjects are base generated within the maximal projection of a lexical category. However, this analysis leaves no room for specifiers within small clauses other than the subject. As noted in Bowers (1993), predicate nominals in small clauses may have specifiers such as determiners (12a) or possessives (12b).

(12)  a. I consider John a fool.
     b. Mary considers me her friend.
     (examples from Bower, 1993)

Examples such as (12a-b), then, suggest that small clauses include more structure than initially proposed in Stowell (1981, 1983). Bowers' response was to postulate "a new functional category" (Bowers, 1993, pg. 593), which he labeled Pr, for predication. Under Bowers' analysis, the external argument is external to the lexical category, yet it is still internal in the sense that it enters into a local relation with the predicate. The subject is systematically base generated in Spec,PrP, and the Pr head selects a lexical category as predicate.

This analysis of predication requires a dedicated functional projection, PrP, in all instances of predication. It also requires directionality in predication; the subject is universally generated in the specifier of PrP, therefore it is universally to the left of the predicate in the base representation. The analysis of predication proposed in Den Dikken (2006), however, involves no such requirements. For Den Dikken (2006), predication is fundamentally non-directional, and both predicate-complement and predicate-specifier constructions are generated. But predication is configurational; it is universally established by means of a RELATOR, which is "an abstract functional head" rather than "a specific functional element" (Den Dikken, 2006, pg. 15). Thus, functional heads that are otherwise motivated suffice to establish the relation between subject

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7 The small clauses discussed in this paper are all "straight" or predicate-complement constructions. However, the non-directionality of predication will be shown to be relevant to the current discussion in Section 7.
and predicate, with no need for further functional architecture in many cases. The RELATOR may then be any functional head, such as T (13a) or v (13b). It may be overt, in the case of a copula (13c) or a connective such as for (13d), or it may be a null functional head R (13e).

(13)  
   a. Imogen fell. (RELATOR = T)  
   b. Imogen kissed Brian. (RELATOR = v)  
   c. The earth is round. (RELATOR = is)  
   b. I take him for a fool. (RELATOR = for)  
   e. I consider good teachers available. (RELATOR = null functional head R)

The example in (13e) is the type of construction being considered in this paper. Therefore, the current analysis assumes that the minimum structure necessary in an adjectival small clause complement is as represented in (14). RP establishes the local relationship of predication between lexical subject and predicate, and R₀ may be null or spelled out as a connective such as for or as. The small clause structure in (14) is taken to be present not only in the complement of epistemic verbs such as consider or find, but also in the complement of with in with absolutive constructions, following Beukema and Hoekstra (1984).

(14)  
\[ \text{RP} \]
\[ \text{subject} \]
\[ R' \]
\[ R \]
\[ \text{predicate} \]
\[ \emptyset / \text{as} / \text{for} \]

However, the grammatical examples in (6a) and (7b) show that there must be more to some small clauses than (14). As shown in (10), additional structure is necessary to accommodate both a lexical subject and the expletive. (14) identifies YP, the lower projection, as RP, and the identity of XP will be addressed in subsection 5.2, taking into consideration
constraints on the distribution of %grammatical *there* in the higher specifier position. Before addressing this question, Section 4 will summarize current analyses of generic and existential subject interpretation in full clauses.

### 4 Interpretation in Full Clauses

As discussed in Section 2, bare plural NP subjects of stage-level predicates support either a generic or an existential interpretation, while the same subjects of individual-level predicates support most naturally only a generic interpretation. This interpretative asymmetry, at least in matrix clauses, has been linked to the position that the subject occupies at Logical Form (Diesing, 1992; Kratzer, 1995). Essentially, two syntactic subject positions are mapped into different semantic partitions, and these partitions amount to two distinct interpretive domains, one generic and one existential. This analysis can be referred to as the “two subject position strategy.”

Concrete examples are provided in (15), from Diesing (1992). Using a “tree-splitting” algorithm (Kamp, 1981; Heim 1982), it is possible to represent the two available LF interpretations of stage-level predication as (15b-c), and the single available interpretation of individual-level predication as (15e).

(15) a. Firemen are available.
b. \( \exists x \) \( x \) is a fireman \( \land x \) is available
c. Gen\(_{x,t}\) \([x \text{ is a fireman } \land t \text{ is a time}] x \text{ is available at } t\)
d. Firemen are brave.
e. Gen\(_{x,t}\) \([x \text{ is a fireman } \land t \text{ is a time}] x \text{ is brave at } t\)

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8 See (9), in which an individual-level predicate seems to support an existential interpretation.
In an existential reading (15b), the clause is divided into two parts, an existential operator and a nuclear scope. The nuclear scope of the sentence is its propositional "core." A bare plural NP such as *firemen* is analyzed as having no quantificational force of its own, but instead as introducing a variable. In (15b), that variable is bound by the existential operator. In a generic reading (15c and 15e), the clause is divided into a tripartite construction, including a generic operator *Gen* (Wilkinson, 1986; Gerstner and Krifka 1987), a restriction, and a nuclear scope. The generic operator binds the variable introduced by the bare plural NP subject\(^9\), and the interpretation of the subject variable is limited by the restriction. This abstract generic operator functions in the same way as a universal quantifier (16a-b) or a quantificational adverb such as *seldom* or *always* (16c-d).

(16) a. Every fireman is brave.
    b. \(\forall x [x \text{ is a fireman}] x \text{ is brave.}\)
    c. Firemen are always available.
    d. Always\(_{x,t} [x \text{ is a fireman} \land t \text{ is a time}] x \text{ is available at } t\)

Thus, the logical representation of a clause includes two interpretive domains. Material within the domain of existential closure, bound by an existential operator, receives an existential interpretation. Material above the nuclear scope, in the restriction bound by a generic operator, receives a generic interpretation. The syntax is then taken to deliver two subject positions, a "lower" one that is mapped into the domain of existential closure, and a "higher" one that is mapped into the restriction. These positions are identified by Diesing and Kratzer as Spec,IP and Spec,VP, respectively. The mapping from the syntax to the semantics may be expressed as follows (Diesing, 1992):

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\(^9\) The generic operator also binds a variable \(t\), a "generic tense" (Carlson, 1977), and thus the statement is general not only for individuals \(x\), but also for times \(t\).
(17) Mapping Hypothesis:
Material from VP is mapped into the nuclear scope.
Material from IP is mapped into a restrictive clause.

Given the interpretive asymmetries outlined in Section 2, this means that subjects of stage-level predicates may be either in the Spec,IP or the Spec,VP position at LF. The higher position delivers a generic interpretation, and the lower position delivers an existential interpretation. Subjects of individual-level predicates, on the other hand, may only be in the higher Spec,IP position. Both Diesing (1992) and Kratzer (1995) motivate these positions with data from German. Using such phenomena as sentential particles to identify syntactic positions, it seems to be the case that German subjects are overtly found in these high and low subject positions, in keeping with the stage and individual-level predicate distinction and the relevant interpretive possibilities. The proposal is that English LF operations behave as operations in the overt syntax in German.

This is taken to indicate a fundamental difference between stage and individual-level predicates that determines subject position, and therefore interpretation. Kratzer (1995) derives this distinction through an appeal to argument structure. Stage-level predicates come equipped with a Davidsonian external argument related to spatiotemporal locations. This e variable or event argument is implicit in a language such as English. Individual-level predicates do not come equipped with this argument. The Davidsonian argument of stage-level predicates occupies the higher Spec,IP position, which entails that the lexical subject must be base generated in the lower Spec,VP position, within the domain of existential closure. If the subject introduces a variable, as in the case of bare plural NPs, that variable will be caught by existential closure, meaning that it will be bound by an existential operator. In the case of individual-level
predicates, there is no Davidsonian external argument, so the Spec,IP position is available for the lexical subject, which is bound by the generic operator. Kratzer assumes that subjects of individual-level predicates are base generated in this higher Spec,IP position, so even if they introduce a variable, there is no variable in the lower position to be bound within the domain of existential closure. Hence there is no possibility for an existential reading.

Diesing (1992) derives the same distinction through an appeal to Infl, drawing a parallel between stage-level predicates and raising constructions on the one hand, and individual-level predicates and control constructions on the other. Stage-level predicates are associated with an “unaccusative” or raising Infl that has an internal subject, base generated in Spec,VP. Since Spec,IP is neither occupied nor assigned a $\theta$-role, the subject can raise to that position. At LF, the subject may remain in the Spec,IP position, bound by the Gen operator and given a generic interpretation, or it may move via quantifier lowering (May, 1977, 1985) back into the Spec,VP position, bound by the existential operator and given an existential interpretation.

Individual-level predicates, on the other hand, are associated with a “control Infl.” Subjects of individual-level predicates are base generated in Spec,IP, where they are assigned a $\theta$-role by Infl. From this position they control a PRO in the lower Spec,VP position, which is assigned a $\theta$-role by V. Since the lower Spec,VP position is assigned a $\theta$-role by V, the subject in Spec,IP cannot lower into it, and therefore can only be bound by the Gen operator.

To summarize, Diesing (1992) and Kratzer (1995) propose that the interpretive asymmetry between subjects of stage-level and individual-level predicates reduces to subject positions. With stage-level predicates, a subject may be interpreted either in a high position, outside of the domain of existential closure, or in a low position, within the domain of existential closure. This optionality produces two possible interpretations, generic or existential. With
individual-level predicates, the lower subject position within the domain of existential closure is not available, and only a generic interpretation is possible.

There are two important points to highlight about the analyses offered by Diesing and Kratzer. First, they both propose that subjects of different types of (verbal) predicates are not uniformly base generated in the same position. Instead, subjects are base generated either in Spec,VP or in Spec,IP, depending on predicate type. This immediately raises questions about subjects in syntactic environments that lack IP and VP, including secondary predication environments. These proposals also conflict with the view of predication discussed in Section 3, whereby a subject and predicate must be linked locally by a functional relator (Den Dikken, 2006), and they are incompatible with analyses of copular sentences that take the copula to select a small clause (Stowell, 1978; Rothstein, 1995; Moro, 1997; et al.) Such analyses differ on the structure of the small clause itself, yet in all of them, the subject, regardless of predicate type, raises from within the small clause.

(18) a. Firemen [are [sc \( t_i \) brave]]
    b. Firemen [are [sc \( t_i \) available]]

Second, these analyses rely on VP to introduce existential closure. This makes two important predictions. First, material within VP should always receive an existential interpretation, at least without assuming scrambling out of VP. Second, an existential interpretation should only be possible in contexts that include VP. Similar points may be made about the relationship between IP and generic interpretations. If IP is the introducer of the generic operator, then generic readings should only obtain in the presence of IP.
In the next section, these predictions will be evaluated against the small clauses and *with* absolutes under consideration. It will be shown that these constructions are problematic for both of these predictions, because they lack VP and IP, and yet they support the full range of interpretations found in matrix clauses. An attempt will be made to maintain the two subject position strategy, but it will be argued that an alternative analysis is preferable, given the incompatibility of this strategy with a uniform analysis of predication and subject base generation.

5 Extending the Analysis

It has been shown that bare plural NP subjects of small clauses and *with* absolutes show the same range of interpretive possibilities as matrix subjects, and these interpretations are similarly constrained by predicate type. Subjects of stage-level predicates may receive either a generic or an existential interpretation, and subjects of individual-level predicates may typically receive only a generic interpretation. In matrix clauses, this asymmetry has been linked to the position of the subject at LF. Subjects in Spec,VP are bound by existential closure and receive an existential interpretation, and subjects in Spec,IP are bound by a generic operator and receive a generic interpretation. Lacking both VP and IP, small clauses and *with* absolutes represent a difficulty for proposals that rely on these particular syntactic positions to explain interpretive possibilities.

This section will focus on problematic readings outside of full clause environments that are not predicted by current analyses, and it will support the need for a local explanation, within the small clause rather than the matrix clause, for those readings. A potential means of
reconciling these new data with the existing proposals for full clauses is simply to extend the two subject position strategy by identifying two subject positions that are neither Spec,IP or Spec,VP, yet which deliver the same interpretations. It will be argued that this strategy does shed light on the syntactic structure of some small clauses, but at the same time a simple extension of the two subject position strategy is not an optimal solution.

5.1 Problematic Readings

Generic readings of object NPs and of small clause subject NPs are not predicted under the proposals made by Diesing and Kratzer, at least without assuming LF scrambling. Diesing addresses this matter with examples of objects of experiencer predicates (19a) and habitual verbs (19b):

(19)  a. Cellists hate boring bass lines.
     b. Esther reads novels.
     Examples from Diesing (1992)

In both of these examples, the NP object receives a generic interpretation, despite its position within VP, the domain of existential closure. Subjects of small clauses present a similar difficulty. Because they are within matrix VP, only an existential reading of cello bass lines (20a) and Russian novels (20b) should be possible, but this prediction is not borne out.

(20)  a. I find cello bass lines boring.
     b. Esther regards Russian novels as confusing.
To account for such apparent exceptions to the mapping hypothesis, Diesing proposes that NP objects of experiencer and habitual predicates (19a-b) scramble at LF to adjoin to IP, where they are mapped into the restrictive clause and bound by the Gen operator. Scrambling facts from German (Kratzer, 1995), which show overt movement of this type, seem to support such a proposal. This proposal could be extended to small clause subjects as well. Thus, in (20a), cello bass lines may scramble at LF out of the small clause, and thereby escape existential closure.

Such a scrambling operation is necessary only if there is no generic operator present within the small clause. However, there is reason to believe that one is. It seems that at least some operators are local to small clauses. An examination of the relative scope of quantificational adverbs such as always or seldom suggests that a restriction is formed within the small clause itself. As discussed in Section 4, in examples (16c-d), repeated as (21a-b), such adverbs function as overt operators, binding the variables introduced by the bare plural subject in the same way as the generic operator does.

(21) a. Firemen are always available.
    b. $\text{Always}_{x,t}[x \text{ a fireman } \land t \text{ a time}] x$ is available at $t$

In constructions with small clause complements, it is possible to have an adverbial “mismatch” between the matrix clause and the small clause.

(22) a. They seldom consider linguists always interesting.
    b. We never find guests entertaining all the time.
In (22a), *always* does not scope over the matrix clause, but rather only the small clause complement\(^{10}\). The same is true of *all the time* in (22b). This suggests that the variables introduced by the bare plural subject and by tense are be bound locally within the small clause, which is partitioned into a tripartite structure as shown in (23a-b). The example in (20a), then, is properly represented as in (23c).

\[
(23) \quad \begin{align*}
\text{a. } & \text{…always}_{x,t} [x \text{ is a linguist } \land t \text{ is a time}] \ x \text{ is interesting at } t \\
\text{b. } & \text{…all the time}_{x,t} [x \text{ is a guest } \land t \text{ is a time}] \ x \text{ is entertaining at } t \\
\text{c. } & \text{…find Gen}_{x,t} [x \text{ is a cello base line } \land t \text{ is a time}] \ x \text{ is boring at } t \\
\end{align*}
\]

Diesing herself suggests such a possibility (Diesing, 1992, p. 140, note 17), without further elaboration, for small clause complements of epistemic verbs such as *consider*\(^{11}\). Of course, if it is the case that a restriction and generic operator are present locally within small clauses, this does not necessarily guarantee that an existential operator is present locally as well. It is conceivable that a generic interpretation is produced “low” in the tree, when a restriction is formed within the semantic representation of the small clause. When no such restrictive clause is formed, an existential reading is produced from outside the small clause, because the nearest binder of the variable introduced by the bare plural is the existential operator introduced by matrix VP. This creates an asymmetry, though, by suggesting that small clauses are able to produce a generic interpretation locally, but require outside assistance for an existential interpretation, namely from matrix VP. Conceptually, if a small clause is fully propositional,

\(^{10}\) The quantificational adverb may be scoping over the entire small clause complement, or perhaps only the adjectival constituents *interesting* and *entertaining*. Following Diesing and Kratzer's analysis of examples such as (21), which includes (full) clause-level scope of *always*, it will be assumed that there is a (small) clause-level scopal reading of examples (22a-b).

\(^{11}\) She does not address the possibility of an existential interpretation, apparently ruling this out as ungrammatical.
like a full clause but lacking tense, then it is reasonable to assume that it should constitute a "complete" interpretive domain, with both existential and generic readings locally produced.

This is, of course, only a conceptual argument in favor of a local domain of existential closure in small clauses. For empirical evidence, it is necessary to examine with absolutes, which are more problematic for the assertion that VP is the only domain of existential closure, and that small clauses lack such a domain locally. In these constructions, it becomes clear that a “higher” domain of existential closure cannot be relied upon, as no structure is present higher than the with absolute. Making the minimal assumption that there is no VP present within the with absolute, an existential reading should be entirely impossible. Yet examples such as (24a) and (24c) clearly support an existential interpretation of the subjects doctors and students.

(24)  a. With doctors available tonight, patients are well cared for.
    b. “Because there are doctors who are available…”
    c. With students out sick, the classroom wasn't full.
    d. "Because there are students who are out sick…"

McCawley (1983) showed that the scope of quantifiers is local to with absolutes (25a-c). His examples involved the universal quantifier, but it is reasonable to extend his analysis to include the existential quantifier as well (25d-e). The with absolute, then, includes its own domain of existential closure, and the syntactic node responsible for introducing it cannot be VP.

(25)  a. With everybody on strike, we're forced to close down.
    b. With [(∀x: x a person)(x is on strike)] we're forced to close down.
    c. *(∀x: x a person)[with x on strike, we're forced to close down]
    d. With doctors available tonight, patients are well cared for.
    e. With [∃x: x is a doctor ∧ x is available tonight] patients are well care for.
Thus, both small clauses and *with* absolutive clauses support interpretations that are not predicted by existing proposals. Since they are contained within matrix VP, subjects of small clauses selected by epistemic verbs such as *find* or *consider* should only support an existential reading. LF scrambling has been proposed as an explanation, but facts related to quantificational adverbs suggest that at least some operators take scope within small clauses. It is then reasonable to assume that the generic operator is no different, and that a restriction is formed within the small clause itself. On its own, this does not guarantee that existential closure must also take place locally within small clauses, because matrix VP will always be available as a "higher" domain of existential closure. It does however introduce an asymmetry, suggesting that small clauses are interpretively deficient, in that generic interpretations are formed locally, but existential interpretations are not.

However, *with* absolutes are clear cases in which existential closure must occur locally. With VP present neither locally nor higher in the tree, a new syntactic node must be responsible for introducing existential closure. The same must be said for the introduction of the generic operator. Since *with* absolutes are higher than matrix IP, both existential and generic interpretations must be produced locally, within the small clause selected by *with*. It is therefore reasonable to assume that existential interpretations of small clause complements of epistemic verbs like *consider* do not represent a special case, different somehow from both full clauses and *with* absolutive clauses. In other words, there must be a domain of existential closure within the small clause as well. Small clauses, then, represent complete interpretive domains, in parallel with full clauses.

\[\text{12 Under the assumption (Beukema and Hoekstra, 1984) that *with* absolutive constructions contain small clauses and are not covertly fully clausal.}\]
The evidence presented so far does not make the two subject position strategy untenable for small clauses and with absolutes, setting aside the issues related to predication and uniform base generation of subjects. It only suggests that two new syntactic subject positions, other than Spec, VP and Spec, IP, must be proposed to account for the interpretive range. Subsection 5.2 will present a potentially straightforward adaptation and extension of the proposals that rely on two subject positions. The grammatical examples including the expletive will be considered as evidence for the identity of the higher subject position in constructions with stage-level predicates. Even though the expletive is not grammatical for all speakers of English, it will be shown that there are reasons to assume this structure in such constructions even in Standard English. However, in subsection 5.3, it will be argued that the proposed syntax should not be extended to all small clauses, in particular those with individual-level predicates and generic subjects. Furthermore, as suggested, there are reasons to entertain an alternative view to the two subject position strategy as an explanation for the interpretive asymmetries, and ultimately a new proposal that maintains a more uniform analysis of predication will be offered in its place.

5.2 Attempt at Maintaining the Two Subject Position Strategy

At first glance, grammatical examples such as (6a) and (7b), repeated as (26a-b), are interesting from the perspective of the two subject position strategy.

(26)  a. %The chief considers there firemen available.
     %EXISTENTIAL: …considers it to be the case that there are firemen available.
     *GENERIC: …considers it to be a generic quality of firemen that they are available.

   b. %With there firemen available, we can all feel safe.
     %EXISTENTIAL: Because there are firemen who are available…
     *GENERIC: Because it is a generic quality of firemen that they are available…
For speakers who find these sentences grammatical, there must be two local specifier positions, a lower one for the lexical subject and a higher one for the expletive. When the expletive occupies the higher position, the lexical subject must remain in the lower one. This lower position can then be taken to be a domain of existential closure, explaining the existential interpretation of the subject. When the expletive is not present, the lexical subject may occupy the higher position, delivering a generic interpretation.

Assuming that small clauses, by definition, do not include tense, neither one of these positions can be TP. And since the small clauses under consideration are adjectival rather than verbal, it is not reasonable to propose a VP projection locally either. A simple extension of the two subject position strategy, therefore, requires the identification of two new interpretive domains other than Spec,IP/TP and Spec,VP. The remainder of this subsection will explore how a simple extension might be pursued.

As discussed in Section 3, following Den Dikken (2006), the relationship of predication between a subject and predicate is established by means of a functional RELATOR. In the non-matrix clauses under consideration, this RELATOR may be spelled out as a connective such as for (27a) or as (27b), or it may simply be null (27c).

(27) a. The nurses take doctors for fools.
    b. The nurses regard doctors as foolish.
    c. The nurses find/consider doctors foolish.

The lower subject position is therefore Spec,RP, and the core structure of the small clause can be represented as in (28).
Turning to the identity of XP in (10), the projection above RP, it is important to remember that even though the expletive seems to be ungrammatical for most speakers in Spec,XP, it is grammatical for an apparent minority of speakers in this position. These grammatical cases are therefore important evidence for the nature of XP, regardless of whether or not its specifier position is utilized. In the grammatical examples such as (6a) or (7b), the expletive there is only possible with stage-level predicates. Therefore, the nature of the distinction between stage-level and individual-level predicates is relevant to the identity of the projection above RP. This projection must be tied to some property that distinguishes stage-level predicates from individual-level predicates, and this distinction must ultimately be what allows a minority of speakers to utilize the specifier position for the expletive only in the case of stage-level predicates.

The analysis must therefore turn to the property that distinguishes these two predicate types. Following Kratzer (1995), stage-level predicates are associated with a Davidsonian e variable, related to spatial or temporal locations. Individual-level predicates lack this variable. Remaining neutral for the moment about whether the presence or absence of this e variable is in any way tied to the base generation site of subjects, this spatiotemporal specification can be taken as the basic distinction between stage-level and individual-level predicates. Stage-level predicates are specified as having some salient temporal or spatial context (29a), and individual-level predicates lack this specification (29b).
(29) a. The chief considers firemen available. (stage-level/existential)
"The chief considers it to be the case that firemen are available here/now/in some salient context."

b. The chief considers firemen brave. (individual-level/generic)
"The chief considers it to be the case that firemen are brave in general, at an unspecified time/in an unspecified context."

If a stage-level predicate is specified as having a salient temporal or spatial context, or as being temporary or transitory, it must at a minimum have a starting point and an end point, and it must be understood as holding of a subject during that temporal span, and then ending. It must have temporal bounds and some notion of terminativity, in other words. Individual-level predicates, on the other hand, seem to be unspecified for these properties. Following Husband (2006), these properties are aspectual, and the distinction between stage-level predicates and individual-level predicates should then be captured aspectually. Therefore, a likely candidate for the projection above RP is AspP.

An analysis that ties the distinction between stage-level adjectives and individual-level adjectives to Asp is an extension of the traditional role of aspect. Both stage-level adjectives and individual-level adjectives are states in the sense of Vendler's (1967) distinction among four aspectual classes, the other three classes being activities, accomplishments, and achievements. However, stage-level states and individual-level states are clearly two different kinds of states. Even if they are of the same general aspectual class, it is reasonable to propose that they are nevertheless not aspectually identical. In fact, these two types of states seem to differ from each other in precisely the way that, for example, accomplishments differ from activities. The former, but not the latter, have the property of terminativity. An accomplishment, such as draw a circle, has a beginning, holds during a certain temporal span, and terminates at a particular point. A
stage-level state, such as *available* or *sick*, has the same or similar properties, while an individual-level state, such as *intelligent* or *brave*, does not.

This is not to suggest that stage-level states *are* accomplishments. It is only meant to motivate a (further) aspectual distinction between stage-level states and individual-level states. This distinction is supported by the fact that an aspectual modifier such as *for an hour* is grammatical with stage-level states (30a), but impossible with individual-level states (30b). Again, this can reasonably be taken to suggest that these states differ from each other aspectually, despite their falling under the same general aspectual category.

(30)  
a. Professors are available for an hour every day.
b. *Basketball players are tall for an hour.*

The distinction between stage-level states and individual-level states is reminiscent of Verkuyl's (1993) aspectual feature [±ADD TO], which roughly expresses progress in time, movement, or change. This lexical aspectual feature interacts with semantic information carried by different syntactic elements in a sentence, including a predicate's arguments, to build aspect compositionally. Verkuyl does not adopt this feature for the distinction between stage-level adjectives and individual-level adjectives, and instead identifies all states as [−ADD TO]. Yet stage-level states do seem to differ from individual-level states in a very similar, if not identical, way. The former are specified for change and for beginning and end points, while the latter carry no notion of these properties whatsoever.

The notion of beginning and end points as aspectual features is behind MacDonald's (2006) syntactic treatment of Vendler's aspectual classes. MacDonald proposes that

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13 Schmitt (1992) suggests that the copula *estar* in Spanish and Portuguese, which is associated with stage-level predicates, corresponds to "the result state of an accomplishment verb."
accomplishments, activities, and achievements are all associated with Asp projections with
different combinations of these aspectual event features, while states lack AspP. The current
proposal is different in the assertion that states are equipped with AspP, and they are
distinguished as stage-level or individual-level by their specification for aspectual properties
similar to those implicated in other aspectual distinctions.

Thus, instead of Asp being radically absent in the syntax of states, it is reasonable to
identify the higher projection XP from (10) as AspP. A small clause with a stage-level predicate,
a lexical subject, and the expletive *there* can then be represented as in (31).

(31)

```
AspP
    /\    /
   /\   /\  
 there Asp'  
    /\   /\  
   /\   /\  
 Asp RP    
    /\   /\  
   /\   /\  
 (lexical) subject R' 
    /\   /\  
   /\   /\  
 R    (stage-level) predicate
```

The structure in (31) includes the two necessary specifier positions, and it seems to be a
potentially straightforward adaptation of the Diesing/Kratzer two subject position strategy. The
lower subject position is Spec,RP, and the higher position is Spec,AspP. Subjects in Spec,RP
(32a) receive an existential interpretation, which means that it is Asp that introduces existential
closure. Subjects in Spec,AspP, above the domain of existential closure, receive a generic
interpretation (32b). When grammatical, *there* is not entirely vacuous (Williams, 1984), because
it forces the lexical subject to remain low and to be interpreted existentially. The fact that *there*

---

14 Provisionally, all states, although this proposal will be refined in Section 6.
is grammatical only with stage-level predicates is tied to a proposed aspectual distinction between stage-level and individual-level states.

(32)  a.  \([VP \text{ consider } [\text{ASPP } (%\text{there})] [\text{ASP } [\mathcal{O}]] [\text{RP firemen } [R' [R \mathcal{O}] [\text{AP available}]])]])

b.  \([VP \text{ consider } [\text{ASPP firemen}_i [\text{ASP } [\mathcal{O}]] [\text{RP } t_i [R' [R \mathcal{O}] [\text{AP brave}]])]])

There are, however, questions raised by the structure proposed in (31) and with the two subject position strategy in general. Therefore, the bracketed notations in (32) can only be taken as provisional. In the following subsection it will be argued that even though there are reasons to accept the structure in (31) for some small clauses, the same reasoning cannot be applied to all small clauses.

5.3 Difficulties with a Simple Extension of the Theory

The provisional analysis offered thus far raises important questions, both with regard to assumptions made by Diesing and Kratzer and assumptions made more generally about predication and copular sentences as raising constructions (Stowell, 1978; Rothstein, 1995; Moro, 1997, et al.).

First, in an existential reading such as (32a), there is not always present in the higher specifier position, and it is in fact ruled out entirely by most speakers. This raises an important question about the lexical subject. If the lexical subject must be in Spec,RP for an existential interpretation, either there must be some mechanism to keep it in that position even in the absence of the expletive in Spec,AspP, or there must be some mechanism that forces it to lower at LF. This first problem is of course an issue only in the Diesing analysis. For Diesing, the
subject of a stage-level predicate has the option of lowering at LF to a position within the domain of existential closure, although the exact nature of this lowering operation is unclear. Kratzer's analysis avoids this issue by assuming that the higher position is filled by the e variable in the case of stage-level predicates, and this implicit external argument is what keeps the lexical subject in the lower position.

The second question raised by the provisional analysis is a problem with regard to both Diesing's and Kratzer's analyses. In a generic reading such as (32b), there is a subject trace, and therefore a variable, in the lower Spec,RP position. With this variable in the low position, there is no way to rule out an existential interpretation of the subject. Both Diesing and Kratzer base generate subjects of individual-level predicates in the higher position. For Diesing, this is tied to the distinction between a "control" Infl for individual-level predicates and a raising Infl for stage-level predicates. For Kratzer, this is tied to the absence of the e variable in individual-level constructions, which allows the lexical subject to be base generated in the higher position. For both analyses, the result is the same. There is never any variable introduced by the subject within the domain of existential closure, and therefore an existential reading is always impossible. This option is not available, however, under an analysis that assumes a uniform base generation site of subjects and a uniform representation of predication. If the relationship between subject and predicate must be established locally within the functional projection of a RELATOR, predication between an individual-level predicate and a lexical subject in a higher "distant" position is impossible.

This concern is not limited to non-matrix small clauses. As discussed in Section 3, copular sentences are widely analyzed as involving raising of the lexical subject out of a small clause selected by BE. Such analyses assume a uniform subject base generation site, or at least a
site that is uniformly lower than Spec,IP. This is arguably a more minimal approach than positing two subject base generation sites, one for stage-level predicates and one for individual-level predicates. It is therefore worthwhile exploring an analysis that captures the interpretive distinction without resorting to two syntactic subject (base generation) sites.

Finally, it is important to ask whether it is reasonable to project two specifier positions in (32b) at all, with a generic subject and an individual-level predicate. This move is obviously necessary if one is to adopt a straightforward adaptation of the two subject position strategy. It is precisely the higher position that is implicated in a generic construction, and a higher position naturally entails a lower one. Yet this move comes at the expense of a more minimal generalization regarding subject base generation sites. Furthermore, if the distinction between stage-level and individual-level states is aspectual, as argued in the previous subsection, the aspectual "richness" is only associated with stage-level predicates. The projection of Asp seems to have no role to play whatsoever in an example with a generic subject and an individual-level predicate such as (32b), which is not associated with any sort of spatial or temporal specification and which is never grammatical with *there* in a position higher than the lexical subject. This calls into question the projection of Asp in *all* small clauses.

Given these problems with the representations in (32), there are reasons to pursue a new proposal. Any reasonable proposal must capture the interpretive asymmetries between generic and existential subjects, must provide a higher specifier position for the %grammatical expletive in small clauses with stage-level predicates, and must make the distinction between stage-level and individual-level states discussed in subsection 5.2. Section 6 outlines such a proposal, based on the presence of Asp in some, but not all, small clauses. It is simpler in that it does not require unnecessary projections and assumes a uniform base generation site of subjects and
representation of predication. However, this new proposal represents a rejection of the two subject position strategy, so it will therefore be necessary to account for the interpretation of subjects as generic or existential by different means.

6 An Aspectual Proposal

As has been discussed, the following assumptions are being made in the current proposal. First, predication is established by a local asymmetric c-command relationship between a subject and predicate within the projection of a Relator (Den Dikken, 2006). Thus, subjects of the small clauses under consideration are uniformly base generated in the same syntactic position, namely Spec,RP\textsuperscript{15}. The syntactic projection of Asp is responsible for introducing existential closure, which is desirable in light of the evidence discussed in subsection 5.1. A local existential closer must be present in small clauses, and it cannot be the case that it is VP. Asp is also responsible for supplying the spatial and temporal context associated with stage-level predicates. In other words, it also introduces the e variable.

With neither spatiotemporal context nor existential closure, generic individual-level constructions can therefore be taken to be aspectually impoverished\textsuperscript{16}. Thus, the provisional structure proposed in (31) can be simplified, in line with the assertion that aspect seems to have no role to play in examples such as (32b). This proposal is similar, at least in spirit, to Schmitt's (1992) analysis of the Spanish and Portuguese copula ser. Ser is associated with individual-level predicates, and Schmitt proposes that it is underspecified for Aspect and has no inherent

\textsuperscript{15} These constructions are of the predicate-complement variety of small clauses.

\textsuperscript{16} This does not mean that individual-level states lack Aspect in the semantic sense. They form a semantic aspectual class, and that class can be (at least partly) defined by a syntactic environment lacking the Asp projection. This is similar to the classification of unaccusative verbs, for example, which are partly defined by the absence of an external argument.
temporal structure. The copula *estar*, on the other hand, associated with stage-level predicates, is aspectually specified. An example with an individual-level predicate and a generic subject (33a) can then be represented as in (33b). The syntax lacks Asp, and the interpretation is therefore specified for neither spatiotemporal context nor existential closure.

(33)  
a. I regard firemen as brave.  
b. …[VP regard [RP firemen [R’ [R as] [AP brave]]]]

With Asp present in the syntax and introducing the e variable, the predicate is specified for spatiotemporal context and therefore interpreted as stage-level. Existential closure is also supplied by Asp, delivering an existential interpretation of the bare plural NP subject. As discussed earlier, (34a) is apparently the only grammatical option for most speakers. However, the %grammatical example in (34b) is taken to indicate the functional structure of such small clauses more generally. Thus, even when *there* is absent or ungrammatical with a stage-level predicate, Asp is still present. In (34c) then, which is the bracketed representation of (34a), the lexical subject raises from its base generation site in Spec,RP to Spec,AspP, presumably to satisfy an EPP property on (some feature) of Asp. In (34d), which is the bracketed representation of (34b), *there* is present, and can be taken to satisfy the EPP property\(^{17}\).

(34)  
a. The chief considers firemen available (in this department).  
b. %The chief considers there firemen available (in this department).  
c. …[VP consider [ASPP firemen_b [ASP’ [ASP Ø] [RP t [R’ [R Ø] [AP available]]]]]]  
d. …%[VP consider [ASPP there [ASP’ [ASP Ø] [RP firemen [R’ [R Ø] [AP available]]]]]]

\(^{17}\)This raises a question about the base generation site of the expletive, which will be discussed in Section 7.
Note that even though there are two subject positions in (34c-d), the interpretation of the subject as existential is not determined by its relative position, but rather by the presence of Asp, which introduces existential closure. In (34c), the lexical subject raises to Spec,AspP, but the deleted copy includes a variable which is existentially bound in the lower position. In (34d), the lexical subject is spelled out in this position. The fact that it is Asp, and not relative subject position, that determines interpretation can be seen by comparing the structures in (34c-d) to the one in (33b) above. In (33b), the subject is in the same position, Spec,RP, and since this is the only position, it cannot be defined as higher or lower. Instead, it is the absence of Asp, and therefore the lack of existential closure, that delivers the generic interpretation of the subject firemen in (33b).

The string in (34a) can also deliver a generic interpretation of the subject firemen. On this reading, the proposition firemen available is not specified as having any salient spatial or temporal context. Firemen simply means firemen in general, and available reduces to non-contextual property, similar to brave or tall or strong. This generic reading, then, is produced in the absence of Asp, represented as (35), which is identical to the generic individual-level example in (33b) above.

(35) …[vp consider [rp firemen [r′ [r ∅] [ap available]]]]

This representation is also relevant to the examples in (8), repeated below as (36). These examples involve the typically stage-level predicates sick, out of service, asleep, and awake, which under an existential interpretation of the subject behave as stage-level predicates. They denote a temporary or transitory property, and they are grammatical with there (36d). However, under a generic interpretation of the subject, the predicates may lose their temporary or transitory
properties, and *there* is ungrammatical (36e). This can be explained if it is assumed that the syntax in the two interpretations is different in that the generic readings lack Asp. Without Asp, again, there is neither spatiotemporal context nor existential closure, so the predicates are interpreted as individual-level rather than stage-level. The structure of these examples under that reading is identical to (33b) or (35).

(36) a. Firemen are sick.
   "There are firemen who are sick."
   "Firemen have a generic quality of being sick all the time."
   (sick ≠ mentally ill)
b. Elevators are out of service.
   "There are elevators that are out of service."
   "Elevators have a generic quality of always being out of service."
c. Children are asleep/awake.
   "There are children who are asleep/awake."
   "Children have a generic quality of being asleep/awake all of the time."
   (asleep ≠ inattentive, awake ≠ attentive)
d. There are firemen sick / elevators out of service / children asleep / children awake.
   (existential reading, stage-level interpretation of predicate only)
e. *There are firemen sick / elevators out of service / children asleep / children awake.
   (generic reading, sick = mentally ill, out of service = permanent, asleep = inattentive, awake = attentive)

Thus far, the current analysis has presented a two-way division in which interpretation of both subjects and predicates is linked to the syntactic projection of aspect. Generic readings of subjects are associated with predicates that are interpreted as individual-level, and the syntax that feeds these interpretations is impoverished in that it lacks Asp. Existential readings of subjects are associated with predicates that are interpreted as stage-level, and the syntax that feeds these interpretations is richer. It includes Asp, which introduces both existential closure and the e variable. Under the current proposal, then, interpretation of a subject as generic or existential is
not linked to its (relative) position, and interpretation of a predicate as stage-level or individual-level is tied to functional structure rather than being lexically encoded.

The interpretive combinations stage-level predicate/existential subject and individual-level predicate/generic subject are only two of the four logically possible combinations of subject and predicate, represented in (37).

<table>
<thead>
<tr>
<th>(37)</th>
<th>individual-level predicate</th>
<th>stage-level predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>generic subject</td>
<td>√</td>
<td>?</td>
</tr>
<tr>
<td>existential subject</td>
<td>?</td>
<td>√</td>
</tr>
</tbody>
</table>

The question that must be considered is whether the two remaining logically possible combinations are attested: existential subjects of individual-level predicates and generic subjects of stage-level predicates. As discussed in Section 2, examples such as (9), repeated below in (38), seem to suggest that the first of these two combinations, existential subjects of individual-level predicates, is possible. Examples (38a-b) support an existential interpretation of the subject of an individual-level predicate, at least for some speakers and with proper intonation. The intonation used by speakers who accept these interpretations is the same one that is used to show strong disagreement with a preceding statement (38c). However, example (38d) does not require any special intonation.

(38)  

a. The principal thinks that there aren't any bright students in this school, but that's not true. %Students are bright.  
('There are some students in this school who are bright.')  
b. The chief says that none of the firemen in this department are brave. I disagree; %I find firemen brave.  
('I consider it to be the case that there are some firemen who are brave.')  
c. A: There are no good restaurants in this city.  
B: What?! There are good restaurants!
d. Every teacher finds students bright. 
\[ \forall x (x \text{ a teacher}) \land \exists y: y \text{ is a student} \land y \text{ is bright} \]

It is of course possible that it is the intonation that is delivering the existential interpretation in (38a-b). The intonation, as in (38c), may simply be introducing a presupposition that includes the existence of particular students or firemen. However, something other than intonation is required in (38d). A second possibility, assuming that there is some syntactic introducer of existential closure in (38d), is to look to the matrix clause rather than the small clause. The node in question would be VP under Diesing and Kratzer's analyses, or perhaps (matrix) Asp under the current proposal. The only difficulty with this explanation, though, is that this node is always present in such matrix clauses, so an analysis along these lines seems to predict that existential interpretations within small clauses should be far more common than they apparently are, regardless of small clause predicate type. They would, in fact, be the "default" reading. If, instead, a local explanation for interpretation in both full and small clauses is assumed, as discussed in subsection 5.1, the issue of "default" existential readings is avoided.

Asp must then be present as a local introducer of existential closure in small clauses with existentially interpreted subjects of individual-level predicates. Example (38b) therefore has the structure in (39a) below. However, the representation in (39a) raises two immediate questions. First, (39a) appears to have a structure identical to ones with stage-level predicates, and it does not seem reasonable to propose that brave is stage-level, even with an existentially interpreted subject. Second, (39a) would appear to predict the possibility of the expletive in Spec,AspP for some speakers, which is also incorrect. As (39b) shows, the expletive is ruled out for all speakers.
To account for the first question, it must be the case in (39a) that existential closure is introduced by Asp, but the e variable is missing. This leads to the conclusion that there are two varieties of Asp\(^0\). One, Asp\(^+e\), introduces the e variable, and the other, Asp\(^{-e}\), does not. Because the variable is present and valued, existential closure is possible with both varieties. However, a negative value for the e variable will not introduce the spatiotemporal context necessary to interpret a predicate as stage-level. This delivers one of the missing interpretations, an existentially interpreted subject with an individual-level predicate.

Before considering the fourth and final logically possible combination in (37), it is important to address the other question raised in (39b) above, the ungrammaticality of the expletive in Spec,AspP when the Asp head is valued Asp\(^{-e}\). If existential there is thought of as a spatiotemporal locative, it is reasonable to propose that it is licensed not only by the spatiotemporal e variable, but also only by a positive value for that variable, Asp\(^+e\) in other words. When the spatiotemporal e variable is absent or negatively valued, the spatiotemporal locative element there is not licensed. This has the effect of admitting there only with existentially interpreted subjects of stage-level predicates. This proposal is similar to a suggestion made in Svenonius (2001) that there is "an overt expression of the event variable." The proposal being pursued in this paper is not that there is an expression of the variable itself, which is instead a property of Asp\(^0\), but that there is nonetheless an intimate connection between the two.

The fourth and final logically possible combination in (37) may now be addressed, generically interpreted subjects of stage-level predicates. Thus far, the argument has suggested
that whenever a subject is interpreted generically, the predicate is interpreted as individual-level. This was the case with examples such as (8/36). If all generically interpreted subjects in fact force a predicate to be interpreted as individual-level, without any spatial or temporal context, there would be no need for an analysis of the fourth logically possible combination in the grid in (37). But this doesn't appear to be the case. In an example such as (40), the small clause subject *patients* is interpreted as generic, and *sick* carries a stage-level interpretation.

(40) That (quack) doctor considers patients sick even when they're perfectly healthy.

Examples such as (40), then, show generic subjects of stage-level predicates. This combination is admitted by the current proposal once the third possible value for the e variable is considered. As discussed, the e variable may have a positive value, Asp\(_{+e}\), which introduces existential closure and the spatiotemporal event variable. Or it may have a negative value, Asp\(_{-e}\), which also introduces existential closure, but which does not supply spatiotemporal context. The third possibility is for an unvalued e variable, Asp\(_{e}\).

The presence of the event variable on Asp\(_{e}\), as long as it does not have a negative value, will supply spatial and temporal context. The predicate will therefore be interpreted as stage-level. However, because the e variable is unvalued, existential closure is not possible. Put differently, existential closure is possible only when Asp introduces the e variable *with some value*, either positive or negative. At the same time, spatiotemporal context is supplied whenever Asp introduces the e variable without a negative value.

Thus, all logical possibilities in the grid in (37) seem to be available, and they can all be explained through an appeal to Asp. The presence or absence of Asp, as well as the values positive, negative, or unvalued for the e variable introduced by Asp, produce different
interpretations of both subjects and predicates. For some speakers, %grammatical *there* is licensed only when Asp has a positive value for the e variable. This can be summarized as in (41).

(41)

<table>
<thead>
<tr>
<th>Asp</th>
<th>predicate interpretation</th>
<th>subject interpretation</th>
<th><em>there</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>not present</td>
<td>individual-level</td>
<td>generic</td>
<td>not licensed</td>
</tr>
<tr>
<td>Asp_e</td>
<td>stage-level</td>
<td>existential</td>
<td>licensed</td>
</tr>
<tr>
<td>Asp_e</td>
<td>individual-level</td>
<td>existential</td>
<td>not licensed</td>
</tr>
<tr>
<td>Asp_e</td>
<td>stage-level</td>
<td>generic</td>
<td>not licensed</td>
</tr>
</tbody>
</table>

This paper has focused on small clause complements of epistemic verbs and with absolutes, but the analysis may be extended to cover copular full clauses as well. The proposal, as summarized in (41), has the benefit of maintaining a uniform subject base generation site, and therefore a local and uniform syntactic representation of predication. If the copula is taken to select a small clause complement (Stowell, 1978; Rothstein, 1995; Moro, 1997, et al.), the syntax of copular sentences is parallel to the syntax of sentences with epistemic verbs and small clause complements. For example, in a copular sentence with an individual-level predicate and a generic subject (42a), the subject can be taken to raise out of the small clause complement, which is aspectually impoverished (42b). In the case of a stage-level predicate and an existential subject (42c), the small clause includes AspP, which supplies existential closure. The expletive *there* is licensed in a certain syntactic environment, one with Asp present and positively valued for the e variable. Matrix existentials with stage-level predicates (42e) can be assumed to involve the structure in (42f). The expletive in (42g), with an individual-level predicate, is simply not possible, because the licensing requirements are not met.
7 Questions Concerning the Expletive

The base generation site of the expletive in small clauses with %grammatical there has not been addressed up to this point. There are numerous analyses of the expletive in full clauses, and therefore a number of potential ways of accounting for it, when grammatical, in small clauses. Perhaps the simplest possible assumption is that the expletive is inserted in Spec,AspP to fulfill an EPP property, which according to the current proposal is otherwise satisfied by movement of the lexical subject from Spec,RP. Such an analysis of the expletive is in line with Hazout (2004), who, following Williams (1994), argues that the expletive in matrix existential sentences raises to Spec,IP from the subject position of a small clause. If one were to take this approach, in a small clause in which %grammatical there is licensed, the proposition expressed by RP, including the lexical subject and predicate of the small clause, would be predicated of the expletive subject. The structure in (43a) would then be analyzed as in (43b). This is, however, problematic. Because existential there is presumably related to locative there, it is more likely to be generated as a predicate rather than a subject. Even with this consideration, the structure in (43a) is acceptable once a configurational but fundamentally non-directional representation of predication is adopted (Den Dikken, 2006). If (43a) is a predicate-specifier rather than a predicate-complement construction, it may be analyzed as in (43c), with there the predicate of an
RP/propositional subject. Asp, being a functional head, is sufficient to establish the predication relation between the expletive and its RP subject.

(43)  
a.  ...[ASPP there [ASP' [ASP Ø = RELATOR] [RP firemen [R' [R Ø] [AP available]]]]]

b.  ...[ASPP there_subject [ASP' [ASP Ø = RELATOR] [RP RP proposition_predicate]]]

c.  ...[ASPP there_predicate [ASP' [ASP Ø = RELATOR] [RP RP proposition_subject]]]

A possible objection to (43a), which base generates the expletive in Spec,AspP, is that the EPP feature associated with Asp is being satisfied by direct merge of the expletive. In similar examples without the expletive, the lexical NP subject raises from Spec,RP to Spec,AspP, in line with arguments made by Richards and Biberauer (2005) that only movement, and not direct merge, may satisfy the EPP. If this is correct, the expletive must be base generated in a lower position, and then raise to Spec,AspP. Chomsky (1995, 1998/2000) argues that there can only be merged in T. Richards and Biberauer (2005), on the other hand, propose that direct merge of the expletive is a property of phase heads, C and v. All three of these heads are absent in the adjectival small clauses under consideration. However, as argued in Den Dikken (2006), if propositionality is (one of) the defining property of phases (Chomsky, 2001), then small clauses are phases. Thus, merger of the expletive within RP is compatible with the argument advanced by Richards and Biberauer. This analysis requires a second RP, other than the one containing the lexical subject and the predicate. For the sake of clarity, the RP with a lexical subject can be labeled RP₁, and the RP with the expletive predicate can be labeled RP₂. The expletive is merged in Spec,RP₂ in a predicate-specifier construction, and it then raises to Spec,AspP (44). This is similar to the analysis of there sentences with propositional subjects.
proposed in Belvin and Den Dikken (1997), who take *there* to be predicated of a small clause subject, and then to raise to the specifier of a higher functional head.

\[(44) \ldots\text{[ASPP there}_{1} \text{[ASP' [ASP }\emptyset ] [RP}_{2} \text{ }t_{1} \text{[R}_{2}' \text{[R}_{2} \emptyset ] [RP}_{1} \text{[lex. subject] [R}_{1}' \text{[R}_{1} \emptyset ] [AP ]]]]}\]

The proposal argued for in this paper has taken inspiration from examples with both a lexical subject and an expletive within a small clause. As discussed in Section 2, such examples are by no means universally accepted as grammatical. It should be emphasized once again that these constructions have only served as a point of departure that is taken to be indicative of the syntax in some small clauses. Nothing in the current proposal hinges on these grammatical examples being acceptable in Standard English, and all of the arguments in favor of an aspectual account of interpretation hold even when the expletive is ungrammatical in small clauses, as it apparently is for a majority of speakers.

However, it is worth asking why the expletive is ungrammatical – and often severely so – for most speakers of English in the constructions under consideration. Unfortunately, the amount of data collected can only be taken as preliminary and suggestive. With that caveat in mind, it does seem to be the case that speakers who reject *there* in small clauses also have a difficult time accepting an existential interpretation of the subject. In other words, there seems to be a correlation between rejection of *there* and a preference for generic interpretation of small clause subjects. More work needs to be done to establish this correlation, but to the extent that it is real, it is expected under the current proposal. An existential interpretation of the subject (of any predicate type) requires the projection of Asp, with either a positive or negative value for the event variable. And only Asp_{e} licenses the expletive. It is of course also possible that there are
other licensing conditions on the final landing site of the expletive for most speakers. After all, if the representation of the matrix existential in (32f) is correct, the expletive in Standard English must pass through the position in which it surfaces in the %grammatical examples. This remains an open question.

8 Conclusion

This paper has argued that small clauses and with absolutes support interpretations that are parallel to those of full clauses, yet that are not predicted by current analyses of interpretation in full clauses. These analyses rely on two syntactic subject positions, whereby a subject in a higher position receives a generic interpretation, and a subject in a lower position receives an existential interpretation. Examples of small clauses and with absolutes with both an expletive and a lexical subject, only grammatical for an apparent minority of speakers, seem at first glance to support the two subject position strategy, as long as the interpretive domains are extended to include syntactic subject positions that are present in these constructions. However, a simple extension of this strategy is problematic, both for assumptions made in the relevant frameworks, and for larger issues regarding the uniformity of predication and subject base generation.

The alternative analysis pursued in this paper has relied on the syntactic projection of Asp. It has been argued that the presence or absence of Asp, along with properties of the Asp head, can explain both the distinction between stage-level and individual-level predicates, and the distinction between existential and generic readings of subjects. The interpretation of the subject, then, is not linked to its relative syntactic position, but rather to the functional structure
of the small clause. Similarly, the distinction between a stage-level predicate and an individual-level predicate is not lexically encoded, but rather determined by functional structure.

This proposal is offered as a simplification of the theory, in that it assumes a more uniform hypothesis regarding the base generation site of subjects. Specifically, it allows all subjects, regardless of ultimate interpretation, to be base generated in a local syntactic configuration that establishes predication. While this paper has focused on small clauses and with absolutes, the analysis may be extended to copular sentences as well, under the widely accepted assumption that the copula selects a small clause complement. The proposal also has the advantage of avoiding questions of LF lowering and double listing of predicates in the lexicon, and it treats small clauses as complete propositional domains, in parallel with full clauses. More data is covered by this analysis, including the full range of interpretations available in small clauses and the observed meaning shifts with typical stage-level predicates whose subjects are interpreted generically instead of existentially. Finally, this proposal admits the possibility in apparent non-standard varieties of English of the use of expletives in small clauses and of existential readings of subjects of individual-level predicates.

Note
The assertion regarding %grammatical there is supported both by a survey and by internet searches. In the survey, 21 native speakers of English were asked to scale several examples from 1 (completely grammatical) to 5 (completely ungrammatical). The survey included examples of the constructions under consideration, as well as control examples. As demonstrated below, four speakers judged the relevant construction completely grammatical with a stage-level predicate, and the same number judged it only slightly or moderately degraded. By contrast, the same
construction with an individual-level predicate was judged severely degraded or completely ungrammatical by nearly all speakers surveyed.

<table>
<thead>
<tr>
<th>gram. (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>ungram. (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Complaining about the problems in the school, one of the parents said, “I consider there good teachers available, so let’s assign them to the empty classrooms.”</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>B. One student said to another, “I consider there good teachers intelligent, so we can count on them to figure this out.”</td>
<td>1</td>
<td>5</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Internet search engines also produced relevant examples. Searches for strings such as "consider there many," "consider there a," "consider there several" "believe there many," and so on, consistently returned a number of results, from sites as varied as American blogs and UK government agencies. Corrections were made to filter out false returns such as "…consider. There…", clearly non-native speakers, or speakers who had obviously misspelled "there are" or "there're" as "there."

References