ERROR ANALYSIS IN PURELY SYNTACTIC PARSING OF FREE INPUT THE EXAMPLE OF GERMAN

Ruth Sanders

Abstract: Analysis of student errors is a welcome element of parser-based writing aids for language students; however, such analysis is by no means straightforward, given unconstrained input by student users. This paper provides a typology for analyzing grammatical errors in student-written German compositions and discusses approaches to providing helpful error messages to student users of a parser-based writing aid. Examples are drawn from the "Miami corpus" of approximately 400 pages of second-year German language students' compositions and from Syncheck, a syntactic parser of German implemented as the basis of a writing aid for language students.

Keywords: error analysis, parsing, courseware development, writing aids, artificial intelligence.

INTRODUCTION

Parsing, or the assignment of structural patterns to language input, makes it possible to design writing aids for language students that will offer not just identification of expected errors in a limited context, but specific grammatical analysis of errors in free composition. Since foreign language students at the intermediate and even advanced levels typically make many such errors, error analysis is a desirable element in parser-based writing aids.

However, syntactic parsing, which operates on the basis of structure rather than meaning, is able to identify only grammatical errors. Given, then, both the virtually unlimited grammatical capacities of syntactic parsing and its fundamental limitation in recognition of meaning, what kind of help can parser-based systems provide to users? In other words, what kind of error analysis can—or should—a parser provide to second-language learners about their writing when it doesn’t know what the learners are trying to say? The syntactic parser that will be used as an example here is Syncheck,
a writing aid for intermediate and advanced American college students of German (Sanders and Sanders 1987). Although it will be the focus of the article, the issues discussed are relevant to a wide range of instructional parsers.

SYNCHECK

Syncheck uses a Definite Clause Grammar written in Prolog for MS-DOS based microcomputers. It recognizes virtually all syntactic types of written German, while rejecting grammatically ill-formed sentences. Since it is based on a purely syntactic parser, the program has no “understanding” and cannot distinguish sense from nonsense if the nonsense is well-formed grammatically. Syncheck is tested on an ongoing basis with ‘the Miami corpus’ of approximately 400 typed pages of German compositions written by second-year Miami language students. The program, however, has not yet been used by students directly.

Syncheck analyzes input according to its extensive formal grammar and provides a parse tree for each sentence it finds correct, although this tree is for development purposes only and is not shown to the student user. For example, in parsing the input ‘Der kaffee ist stark.’, Syncheck will find that it is a correct declarative sentence and will provide the following analysis (the example and the parse tree have both been simplified for illustration):

declarative(
   subject(noun phrase(
      article(masc., nom., sg., ‘der’),
      noun(masc., nom., sg., ‘Kaffe’))),
   conjugated verb (3rd., sg., ‘ist’),
   predicate adj (‘stark’), punctuation (‘.’))

If almost the same sentence, but with a grammatical error, is input, there will be no parse tree. For example, “Das Kaffe ist stark” (which contains a gender error in the article) will simply cause the parser to fail. Syncheck’s grammar requires that noun phrases be marked by gender-number-case agreement. Where this is lacking, it attempts to match the input against all its other grammatical structures; when there is no structure which matches, the parser fails.

This is the kernel of the error analysis issue in parsing: where something is wrong, the parser has no way of knowing which (correct) structure was being attempted. By contrast, in a system in which context is constrained so that the correct answer or answers are known exactly in advance, error handling is a matter of error listing.

At this point in the state of the art, neither Syncheck nor any other parser can provide full syntactic and semantic parsing in an unrestricted context. Nevertheless, because students of German typically lack control over the grammatical (syntactic and morphological) systems of the language, Syncheck still finds many errors. The question is, what error analysis can the parser make that will be helpful to the student user? Some reference to the literature on error analysis will help to clarify the issues.
ERROR ANALYSIS IN APPLIED LINGUISTICS AND IN PARSING

Language learners' errors have been studied in order to reconstruct stages in language learning, to design teaching method, and to individualize language instruction (cf. Corder 1981, Dulay, Burt and Krashen 1982; Hull 1986; Kroll and Schaefer 1987; Schaughnessy 1977). Since the analysis of learner errors for the purpose of building parser-based language instruction is as yet a new field, it can benefit from the knowledge gained by earlier researchers.

Recent work in the field has tended to emphasize writing as a holistic process, rather than the result of mastery of discrete grammar items. This has led to the development of interesting error taxonomies such as that proposed by Hull (1987), whose major categories are “intuiting”, “comprehending”, and “consulting”, named for the processes an editor uses to clarify text.

More likely to be relevant to syntactic parsing, however, are the older typologies based on traditional grammar (see Morrissey 1983 and 1979). Fehse, Nelles and Rattunde (1977), for example, have proposed a detailed “error typology” [Fehlertypologie] as a training tool for language teachers, with the major categories labeled “lexical,” “morphological,” “phonographemic,” and “syntactic” (p. 46). More adaptable to our purposes here because more oriented to an overview is the grid provided by Hendrickson (1979), which is intended for use in the evaluation of language students.

Hendrickson’s (1979:363) grid looks like this:

<table>
<thead>
<tr>
<th>Lexicon</th>
<th>Syntax</th>
<th>Morphology</th>
<th>Orthography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Areas</td>
<td></td>
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</tr>
</tbody>
</table>

The grid format allows errors to be categorized along two scales. On the horizontal scale the categories are as follows:

Lexicon = vocabulary, semantics, or errors of meaning;
Syntax = grammar, including word order, verb phrases, and other elements of structure;
Morphology = grammatical agreement of various kinds, such as subject-verb agreement, plurals, etc.;
Orthography = spelling, capitalization, and punctuation.

On the vertical scale, “global” refers to errors that affect the organization of the entire sentence (for example, missing subjects or main verbs). “Local” errors affect only the constituent in which they appear (such as a noun phrase or prepositional phrase). “Problem areas” is meant to be filled in with short descriptors of the errors.

Hendrickson’s grid was intended to characterize writing in English. Naturally, some of these categories have different scopes in German. For example, capitalization errors may confuse the parser (or the reader) as to the intended part of speech (only nouns are capitalized in German); punctuation is more frequently an element of grammar than in English; German morphology would include the extensive system of agreement within noun phrases; and syntax must encompass grammatical cases. In spite of these differences, however, Hendrickson’s grid provides a good framework on which to contrast an attempt to predict the categories of errors which will be found by the syntactic parser and to describe how that parser might be designed to provide meaningful error messages to the user.

Error analysis in parsing has usually been used to parse input despite errors rather than to communicate with the user about them. An instructional system, however, needs to attempt precisely that kind of communication (Sanders and Sanders 1989). A prototype system that is intended to address error analysis in language instruction is described in Catt (1988). This system, Scripsi, is designed for foreign learners of English. It aims to detect and analyze two kinds of learner error: transfer error (use of native language structure in the target language) and overgeneralization error (use of rules for regular word formation even in cases of irregularity, such as ‘goed’ instead of ‘went’). The program’s limited parsing of grammatical structure and lack of coverage of spelling and orthography make it unsuitable for student use. However, its principled design and its concept for a model of the grammar of the user’s native language make Scripsi’s approach worth the attention of designers of other syntactic parsers for language learning.

SYNTACTIC ERRORS

A purely syntactic parser can find only errors in grammar; errors in meaning will not be rejected as long as the sentence is correct in form. The discussion below refers to 25 examples (see Appendix A) of erroneous sentences drawn from the Miami corpus of student-written essays. These examples contain errors of the type that will cause Syncheck to reject them. The errors of these examples cluster into a few categories:
Local errors in the categories of Syntax, Morphology, and Orthography are the types which are recognizable, and hence at least potentially analyzable by the parser. Since spelling errors can be handled by a standard spell-check program, errors in morphology and syntax will be the focus here.

**MORPHOLOGY AND SYNTAX: AN ERROR GRAMMAR**

Errors in morphology could be handled by a separate “error grammar.” It would work on sentences that had failed the parser in order to locate the error. The error grammar would consist of a compressed version of the top-level sentence grammar, but without the constraints on agreement within noun phrases, subject-verb agreement, direct/indirect object recognition, and the like. Such a ‘relaxed’ version of grammar clauses has been used in other parsers to trap errors in morphology (see, for example, Kwasny 1982, Catt 1988).

The previously cited erroneous input, “Das Kaffee ist stark.” will serve as an example of how error grammars work. After failing the main grammar, the input goes to a grammar in which gender-number-case agreement in noun phrases was missing. Since the rest of the sentence is correct, the error grammar produces a parse tree:

```plaintext
declarative(
  subject(
    noun phrase(
      article('das'),
      noun('Kaffe'))),
```
conjugated verb (‘ist’),
predicate adjective (‘stark’),
punctuation (‘.’).

The program is instructed to print out the message “error in noun-phrase agreement” as soon as the input passes the error grammar for noun phrases. An error grammar should be able to locate the morphological errors in sentences # 2, 8, 9, 12, 13, 14, 16, 20, 23, 24, and 25 as well as the missing commas (categorized as syntactic errors) in sentences #8 and 20.

In the category “Syntax” are two examples described as ‘verb phrase.” As in the morphology category, an ‘error grammar’ could be designed to locate errors such as those in sentences #1 and #11. In both sentences the student has combined a form of the verb “sein” (“to be”) with an infinitive in an attempt to render the English form [be] + [verb] + “ing”. This is a rather common error on the part of American students, since this form is used often in English and does not exist in German. Since Syncheck’s parser has a full inventory of correct verb types, it would not be difficult to specify a verb type [sein] + [infinitive] and instruct the parser to print out a message calling attention to an error in verb combination (perhaps specifically mentioning that the English “to be...ing” is translated by the main verb conjugated in the appropriate tense). In sentences #10, 15, and 20 the student has used normal word order (conjugated verb, ..., dependent verb) in a dependent clause, where inverted word order (..., dependent verb, conjugated verb) is called for. An error in a constituent (‘dependent clause’), this could probably be made part of an ‘error grammar’ specifying the order of the verbs.

The advantage of an error grammar is that sections of it can be designed specifically to address the most numerous error types of student writing. The disadvantage is that an error grammar is potentially at least as large as the main grammar. The more complete its coverage, the more likely it is to adversely affect efficiency, i.e., parse times. Program designers would be well advised to choose carefully which errors to pinpoint in order to maximize the relationship between completeness and efficiency.

HEURISTICS

In sentence #2, the phrase “nicht ein” was classified as an error in Syntax/Local/Idiom. In fact, the phrase “nicht ein” is correct where the intended meaning is an emphatic “not a single one.” It is so frequently used by American learners to mean “not a” (which is correctly rendered by “kein”) that it would seem practical simply to list it as a production in the error grammar and print out a message stating that the phrase is often incorrect and may require replacement by a form of “kein.” This might be referred to as a “heuristic”—a rule of thumb that is usually, but not always, right.

The error in sentence #15 would be amenable to the heuristics approach as well. Here the error involves two words: “meist interessant”, correctly “am interessantesten”
(“most interesting”). Again, this is a common error for American learners because of its similarity to the English superlative. If “meist” is recognized as a root form, the analysis will not likely help the user, since the word itself doesn’t belong in this sentence at all.

Such heuristics focus on semantic errors, but these errors can be recognized by syntactic means. Since most of the heuristics, in fact, deal with interference errors, it is perhaps here that the native-language modeling described by Catt (1988) might be effective. The range of possibilities goes from several dozen rules to an extensive system of English grammar modeling.

**PROBLEM CASES**

The other errors classified under “Syntax” are not easily analyzed by Syncheck. In sentence #4, the analysis is either missing capitalization or a missing word. A missing word is problematic: while it is relatively easy for a person, guided by a sense of the probable intended meaning, to fill in a missing word, it is not so easy for a computer parser with no semantic element.

Further problems are presented by several other sentences. For example, in sentence #6, a seemingly straightforward error in orthography (incorrect compounding of a noun) will in fact open a Pandora’s box because of the complexity of the rules governing compounding in German (for a discussion, see Ruplin and Russell, 1988). The possibilities for noun compounding in German can be compared in number to the possibilities for combinations of noun clustering in English, which is to say they are virtually without limit. No dictionary lists even a large part of the compound nouns in the language, and students of German learn early to take advantage of the creative possibilities in this area. While a facility to recognize compounds could be designed, it is not yet clear whether it could be “relaxed” enough to be helpful as an error grammar without recognizing virtually anything as a compound noun, and hence failing in its task of recognizing learner errors in nouns.

In sentence #8, the syntactic error is a confusion in part of speech. While part of speech flexibility is common in English (many nouns can be used as verbs and vice versa, depending on context), it is rare in German. Perhaps because English speakers are accustomed to this flexibility, however, they frequently confuse parts of speech as German learners. Here a noun (“Abschnitt,” though it is not capitalized, as required of German nouns) has been used in place of a verb participle (abgeschnitten). Again, the parser, which has no access to meaning, can hardly “know” what to expect. Because the parser has no recourse to meaning, it could identify the word as an adverb or an element of a noun phrase. There seems no plausible way for an error message to be generated here.

Further, sentences #8 and #10 present a seemingly intractable problem: errors trapped by the parser for the wrong reason. In sentence #8, the noun phrase “Zweiteilung Deutschlands” makes no sense in the context; it would be rejected, however, not for this reason but because “Zweiteilung” is a count noun and requires an article. An error
message designed to notify students when they fail to include a required article would be displayed and would confuse the student. Similarly, in sentence #10 the student has used the word “Bildung” (“education”) with an erroneous ending in a context that suggests to the human reader that “Gebäue” (“building”) was meant instead. The parser, however, would reject the sentence because “Bildungen,” an illegal plural, is not in its lexicon. Any trap for erroneous plural formations would provide misleading information to the writer of this sentence.

SEMANTIC ERRORS

Semantic errors, or errors in meaning (see Appendix B), are not recognized by syntactic means, and hence could not generate error messages. They illustrate the limitations in principle of purely syntactic parsing. In terms of Hendrickson’s chart, the semantic errors in the 25 sentences can be categorized in the following manner:

<table>
<thead>
<tr>
<th>Problem areas</th>
<th>Lexicon</th>
<th>Syntax</th>
<th>Morphology</th>
<th>Orthography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

Errors the syntactic parser cannot recognize are categorized as Lexicon/Global or Local, and Syntax/Global. Some of the errors are difficult to categorize unambiguously, however. An error in word meaning may be caused by ignorance of just one word, but its effects are sometimes global: that is, the entire sentence may be affected in unpredictable ways.

For instance, in sentence #7, the learner has misused the rule governing the choice of accusative or dative following a two-way preposition. Although this case selection is typically presented in textbooks as a rule of grammar, it is in fact a rule of semantics: the accusative is correct when the prepositional phrase expresses location, and the dative when the prepositional phrase expresses destination. The rule cannot be correctly applied when the intended meaning of the sentence is not known. Hence, this error, which is a common one among learners of German (not only those whose native language is English), cannot be detected by a parser which has no semantic element. For
example, “Ich schreibe im Zimmer” (“I write in the room”) demands the dative case in the prepositional object, while a sentence using the same subject and the same verb, “Ich schreibe ins Buch” (“I write [inscribe] in the book”) demands the accusative.

Given these limitations, can a purely syntactic parser be useful? A statistical study of the Miami corpus of second-year German students’ writing (Juozulynas 1991) reveals that 24.4% of the errors are morphological (with the greatest proportion of these in gender), 28.6% are syntactic, and 27% orthographic, with only 20% semantic. To the extent that this is typical of foreign language students’ errors, syntactic-only parsing offers the possibility of significant error analysis even in the absence of a semantic or world knowledge component.

THE POSSIBLE AND THE EFFICACIOUS

Error analysis in natural-language parsing is an art of the possible and the efficacious. That is, it is limited by what kind of error can be identified, localized and analyzed by purely syntactic parsing, as well as what kind of analysis is helpful to a language learner who is using the system.

The foregoing suggests that parsers that can analyze at least some kinds of errors typically made by language learners are feasible using already existing linguistic and computational techniques. It also suggests that more study of student-written text is needed in order to give developers a clearer picture of the kinds of materials parsers need to be able to deal with. So much for the possible. But what about the efficacious?

It is possible to provide too much information to language learners, who are not always eager to be analytical about the source of their errors, but who sometimes simply want to get it right. How can we differentiate in principle, then, between explanations that help a learner avoid error, and those that are merely tiresome or even misleading?

Butler (1987), for example, discussing not computer parsing but his own comments, notes that these often mean little to students. Butler writes: “My underlinings bother him but do not enlighten him. They are, for him, no more than a puzzle. Their meaning remains locked inside my head. And it is, alas, the same with nearly all my other traditional corrections. However much pleasure I may take in making them, as I dream of how much I am helping him, it is indeed a dream.” (p. 588). Butler’s comments are “a puzzle” to his student because the teacher’s mental schema of syntax does not coincide with the student’s. This is likely to prove true as well of the schema of computer parsers, at least until we know more about language learning.

Instructional parsers could provide data. For example, an instructional parser could provide an on-line “help” facility, and the number of times students asked for help could be tabulated. The end goal would be to formulate some principles for deciding how to provide students with information.
Without such research, the question posed in the introduction to this paper—what kind of error analysis can—or should—a parser provide to second-language learners—cannot be fully answered. Availability of syntactic parsers designed for language learners can help to answer pragmatically the first part of the question; the second part awaits empirical studies.

REFERENCES


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APPENDIX

Below are sample sentences from the Miami corpus of approximately 400 pages of German compositions written by second year language students at Miami University between the years 1987-1989. The original sentence is given, followed by a corrected German version, an English translation, an explanation of the error, and, finally, a categorization of the error type using Hendrickson’s grid.

Part A. Syntactic Errors

1. Sie sind ein Haus bauen.
Sie bauen ein Haus.
"They are building a house."

(sind can’t be combined with an infinitive)
Syntax/Local/verb phrase

Aber es ist kein schlechter Artikel.
"But it's not a bad article."

(nicht ein is not correct here and should be replaced by kein; incorrect adjective ending)
Syntax/Local/Idiom
Morphology/Local/Gender-case

3. Die Dampfboote trugten viele Waren zum Markt.
Die Dampfboote trugen viele Waren zum Markt.
"The steamboats carried many wares to market."

(incorrect verb inflection)
Morphology/Local/Irregular Verb

4. Dortmund ist die zweitgroßte ______(?) der Bundesrepublik.
Dortmund ist die zweitgrößte Stadt (?) der Bundesrepublik.
OR Dortmund ist die Zweitgrößte der Bundesrepublik.
"Dortmund is the second largest (city?) in the Federal Republic."

(umlaut missing; word missing OR error in capitalization)
Orthography/Local/Umlaut missing
AND (Syntax/Local/Missing Word
OR Orthography/Local/Capitalization)
5. Dortmund hat ein Opernhaus und ein Schauspielhaus.
Dortmund hat ein Opernhaus und ein Schauspielhaus.
“Dortmund has an opera house and a playhouse.”

(speeling)
Orthography/Local/Spelling (reversal ei/ie)

6. Dortmund ist eine Industriegroßstadt.
Dortmund ist eine Industriegroßstadt.
“Dortmund is a large industrial city.”

(speeling)
Orthography/Local/ Noun Compounding

7. Es ist der Wirtschaft sehr wichtig.
Es ist der Wirtschaft sehr wichtig.
“It is very important to the economy.”

(speeling)
Orthography/Local/Spelling (ch-sch confusion)

8. Nach 1945, war der Stadt abschnitt geworden und Deutschland war Zweiteilung Deutschlands geworden.
Nach 1945 war die Stadt abgeschnitten worden, und Deutschland war in zwei geteilt worden.
“After 1945 the city had been cut off and Germany had been divided in two.”

(erroneous comma; gender error; noun used in place of verb participle; comma lacking.
The final error, a noun phrase used in lace of a prepositional phrase, would be rejected by Syncheck but for the wrong reason: Syncheck’s grammar calls for use of an article on a noun phrase, like this one, whose had is a count noun)
Orthography/Local/Comma
AND Morphology/Local/Gender-Case
AND Syntax/Local/Part of Speech Confusion
AND Orthography/Local/Comma

9. Hamburg is in das Bundesrepublik Deutschland.
Hamburg ist in der Bundesrepublik Deutschland.
“Hamburg is in the Federal Republic of Germany.”

(gender, case of article)
Morphology/Local/Gender-Case

10. Manche Bildungen, die ich möchte sehen, sind das Theater, die Kunsthalle...
Einige Gebäude, die ich sehen möchte, sind das Theater, die Kunsthalle...
“Some buildings I would like to see are the theater, the art museum...”

(This sentence will be rejected solely because of its grammatical errors: Bildung has no plural form (this could potentially be characterized as a problem of syntax in count and non-count categories, but since noun plurals appear independently in the lexicon, it has been characterized here as morphology); the conjugated verb has been erroneously placed in the dependent clause. Semantic errors will be discussed below)
Syntax/Local/Word Order-dependent clause
AND Morphology/Local/Noun plural

11. Lübeck war Liubice nennen.
Lübeck war Liubice genannt.
“Lübeck was called Liubice.”

(war can’t be combined with an infinitive)
Syntax/Local/Verb Phrase

12. Ein Design, dem mit hohe Technik verbunden wird...
Ein Design, das mit hoher Technik verbunden wird...
“A design that is connected with high technology...”

(case/gender of article)
Syntax/Local/Gender-Case

13. Weil der CD-Player die neuen Welle in Musik ist...
Weil der CD-Player die neue Welle in Musik ist...
“Because the CD-player is the new wave in music...”

(adjective ending)
Morphology/Local/Adjective Ending

14. Sie bereiten der Whiskey...
Sie bereiten den Whiskey...
“They prepare the whiskey...”

(incorrect case-article)
Morphology/Local/Gender-Case

15. Was ist meist interessant in der Reklame...
Was in der Reklame am interessantesten ist...
“What is most interesting in the advertisement...”
16. Ich bin nicht sicher, warum Hertz diese Illustrationen wählte.
Ich bin nicht sicher, warum Hertz diese Illustrationen wählt (wählte).
“\(I\) am not sure why Hertz chooses [chose?] this illustration.”

17. Clark Kent ist ein Amerikanischer Held.
Clark Kent ist ein amerikanischer Held.
“Clark Kent is an American hero.”

18. Die Gebühren sind sehr billig.
Die Gebühren sind sehr billig.
“The charges are very small.”

19. Clark will Lois erzählen...
Clark will Lois erzählen...
“Clark wants to tell Lois...”

20. Es scheint, daß AT&T verantwortlich für frohe leute ist...
Es scheint, daß AT&T verantwortlich für frohe leute ist...
“It seems that AT&T is responsible for happy people...”
21. Sie macht die Befehlseingabe zur Einknopf-Bedienung...
   Sie macht die Befehlseingabe zur Einknopf-Bedienung...
   “She gives the order for one-button service...”

   (mistyping)
   Orthography/Local/Misspelling-mistyping

22. Der Mann liest eine Zeitung unter einem Baum.
   Der Mann liest eine Zeitung unter einem Baum.
   “The man reads a newspaper under a tree.”

   (wrong verb; confusion of lesen with lassen)
   Orthography/Local/Misspelling

23. Ich bin nicht sicher, daß er ein guter Bauunternehmer sein wird.
   Ich bin nicht sicher, daß er ein guter Bauunternehmer sein wird.
   “I am not certain that he will be a good building contractor.”

   (case)
   Morphology/Local/Gender-case (acc. after “sein”)

24. Dextro Energen sind Tafelchen, die den Leuten Energie geben.
   Dextro Energen sind Tafelchen, die den Leuten Energie geben.
   “Dextro Energen are wafers that give people energy.”

   (case)
   Morphology/Local/Gender-Case

25. Ich glaube, daß Dextro Energen schlecht für man ist.
   Ich glaube, daß Dextro Energen schlecht für ist.
   “I believe that Dextro Energen is bad for a person.”

   (pronoun man exists in nominative only; use einer for others)
   Morphology/Local/Case (“man” in non-nominative)
Part B. Semantic Errors

The following are examples of semantic errors from the Miami corpus which cannot be recognized by Syncheck. Where there are also grammatical errors (e.g., in #1), the sentence will be failed by the parser; nevertheless, because the error is fundamentally one of meaning, there is no potential for an accurate error analysis.

1. Ich hatte nicht genau Geld.
   Ich hatte nicht genug Geld.
   “I didn’t have enough money.”
   (“genau” = “exact” but lacking here the required adjective ending; “genug” = “enough”)
   (Lexicon/Local/Meaning)
   Die Reklame, die ich wählte, handelt von der Hertz Business Club-Karte.
   “The ad I chose is about the Hertz Business Club Card.”
   (erroneous literal translation of “is about”)
   (Lexicon/Global/Idiom)
3. Es zeigt... einen Kuhhirt...
   “It shows...a cowherd...”
   (teacher comment: there is no cowherd)
   (Lexicon/Global/Meaning)
4. Unter dem Bild erklärt es...
   Unter dem Bild steht
   “Under the picture it explains...”
   (erroneous literal translation of English)
   (Lexicon/Global/Idiom)
5. Ich weiß nicht, was die zwei Verzierungen meinen.
   Ich weiß nicht, was die zwei Verzierungen bedeuten.
   “I don’t know what the two decorations mean.”
   (confusion of “meinen” (have an opinion) with its English cognate “mean”)
   (Lexicon/Local/Meaning)
6. Man soll nur gut essen und gesund bleiben, und er wird genug Energie bekommen.
Man soll nur gut essen und gesund bleiben, und man wird genug Energie bekommen. 
“One should just eat well and stay healthy, and he will get enough energy.”

(“Man (“one”) may not serve as antecedent of “er” (“he”))
(Syntax/Global/Pronoun reference)

7. Viele Dampfboote segelten auf den Fluß.
   Viele Dampfboote segelten auf dem Fluß.
   “Many steamboats sailed on the river.”

(use of accusative case where dative is required)
(Syntax/Global/Prepositional phrase attachment)

8. Für dieser Grund hieß Cincinnati...
   Aus diesem Grund hieß Cincinnati...
   “For this reason Cincinnati was called…”

(wrong preposition, wrong case)
(Lexicon/Local/Preposition)

9. Ich kannte nichts...
   Ich wußte nichts...
   “I knew nothing…”

(wrong word)
(Lexicon/Local/Meaning)

10. Ich möchte durch Europäer reisen und studieren.
    Ich möchte durch Europa reisen und studieren.
    “I would like to travel through Europe and study.”

(“Europäer” (“Europeans”) has been used where “Europa” (“Europe”) is called for.)
(Lexicon/Local/Meaning)