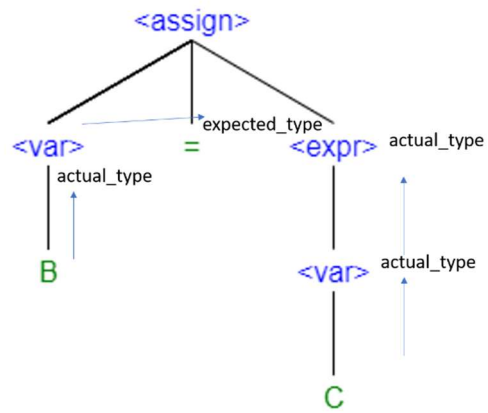
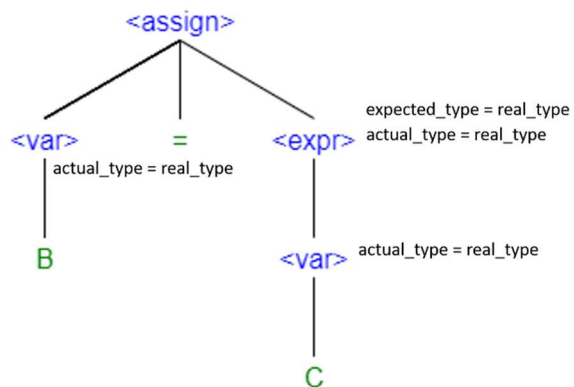


1.

Parse Tree



Attribute Flow



Fully attributed tree (assuming both B and C are real_type)

2. C++ While Loop

```
While (expr1) {  
    Expr2;  
}
```

Operational Semantic

Loop: if expr1 == 0 goto out
 Expr2;
 Goto loop

Out: ...

3. These are two unique parse trees for “a+b+c”, and the fact that there is more than one unique parse tree proves that this grammar is ambiguous

