

### 6.1.3. Identity

Although all the connectives that figured in our analyses of logical form received special notation and had logical properties we studied, only one predicate will count as **logical vocabulary** in this sense. Other predicates and all unanalyzed individual terms will be, like unanalyzed component sentences, part of the **non-logical vocabulary** which is assigned a meaning only by an interpretation.

The predicate that is part of our logical vocabulary will be referred to as **identity**. It is illustrated in the following sentences:

*George Bush is the U.S. president*  
*The winner was Funny Cide*  
*n = 3*  
*The morning star and the evening star are the same thing.*

We will refer to such sentences as **equations**; they constitute a particular kind of predication.

In our symbolic notation, we will follow the third example and use the sign = to mark identity. As English notation, we will use the word **is**. We will represent unanalyzed individual terms by lower case letters, so we can analyze the sentences above as follows:

*George Bush is the U.S. president*  
*George Bush = the U.S. president*

g = p  
g is p

[g: *George Bush*; p: *the U.S. president*]

*The winner was Funny Cide*  
*the winner = Funny Cide*

w = f  
w is f

[f: *Funny Cide*; w: *the winner*]

*n = 3*

n = t  
n is t

[n: *n*; t: 3]

*The morning star and the evening star are the same thing*  
*the morning star = the evening star*

m = e

m **i**s e

[m: *the morning star*; e: *the evening star*]

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