

Inheritance and Lookup

4: Does Not Understand

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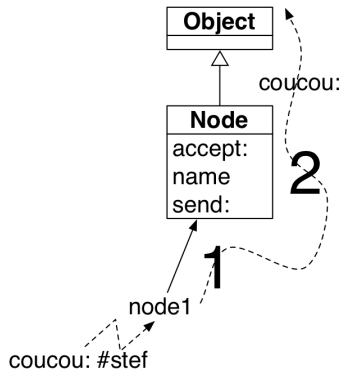
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Goal

- A hook message is sent when the lookup fails
- Code can implement the dedicated method to customize the reaction to this failure

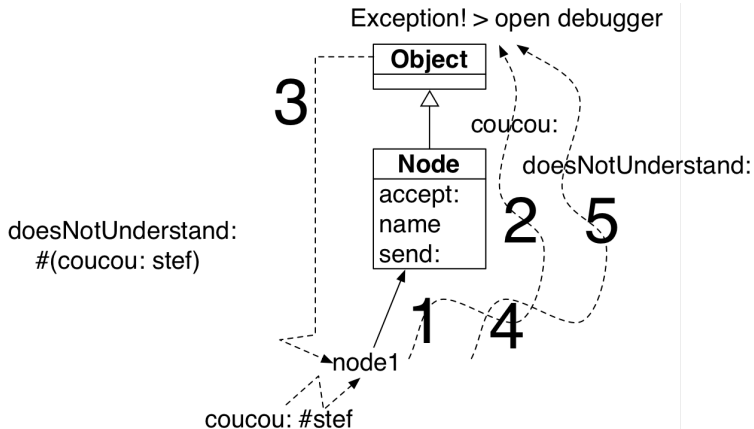
When No Method is Found

If no method is found in the hierarchy, a new message `#doesNotUnderstand:` is sent to the receiver, with the initial message as parameter.



When No Method is Found

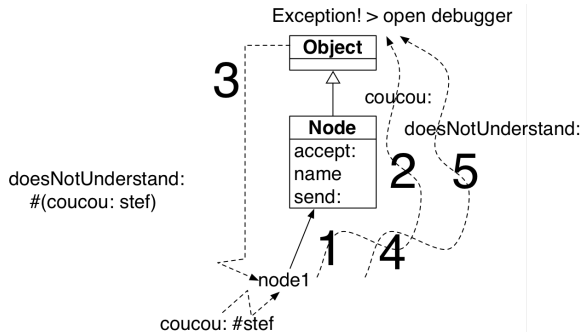
A new message `#doesNotUnderstand:` is sent to the receiver, with the initial message as parameter. `doesNotUnderstand:` is looked up as a normal message.



Step by Step...

■ node1 coucou: #stef

- 1 coucou: is looked up in Node
- 2 not defined in Node -> lookup continues in Object
- 3 not defined in Object => system sends doesNotUnderstand: to node1
- 4 doesNotUnderstand: is looked up in Node
- 5 not defined in Node -> lookup continues in Object
- 6 Object>>doesNotUnderstand: is found and executed



doesNotUnderstand: is a Message

- `doesNotUnderstand:` is a message
- every class can customize handling of this error
- important hook for automatic delegation

doesNotUnderstand: and the Debugger

What happens when a message is not understood can be customized:

- the message `doesNotUnderstand:` is looked up
- when no class redefines the message `doesNotUnderstand:`
 - ▶ a `MessageNotUnderstood` exception is raised
 - ▶ when there is no handler of that exception, the default is to open a debugger
- this behavior can be customized to hide/control/log errors

```
SomeClass>>doSomething  
[ anObject nonExistingMethod ]  
on: MessageNotUnderstood  
do: [ Transcript show: 'Something went wrong with a message' ]
```

`${slide:What you should Know}`

`==#doesNotUnderstand:==` is sent when a method is not found by the lookup; -each class can implement this hook method; -the default implementation of `==#doesNotUnderstand:==` raises a `==MessageNotUnderstood==` exception that can be handled.