Metaprogramming

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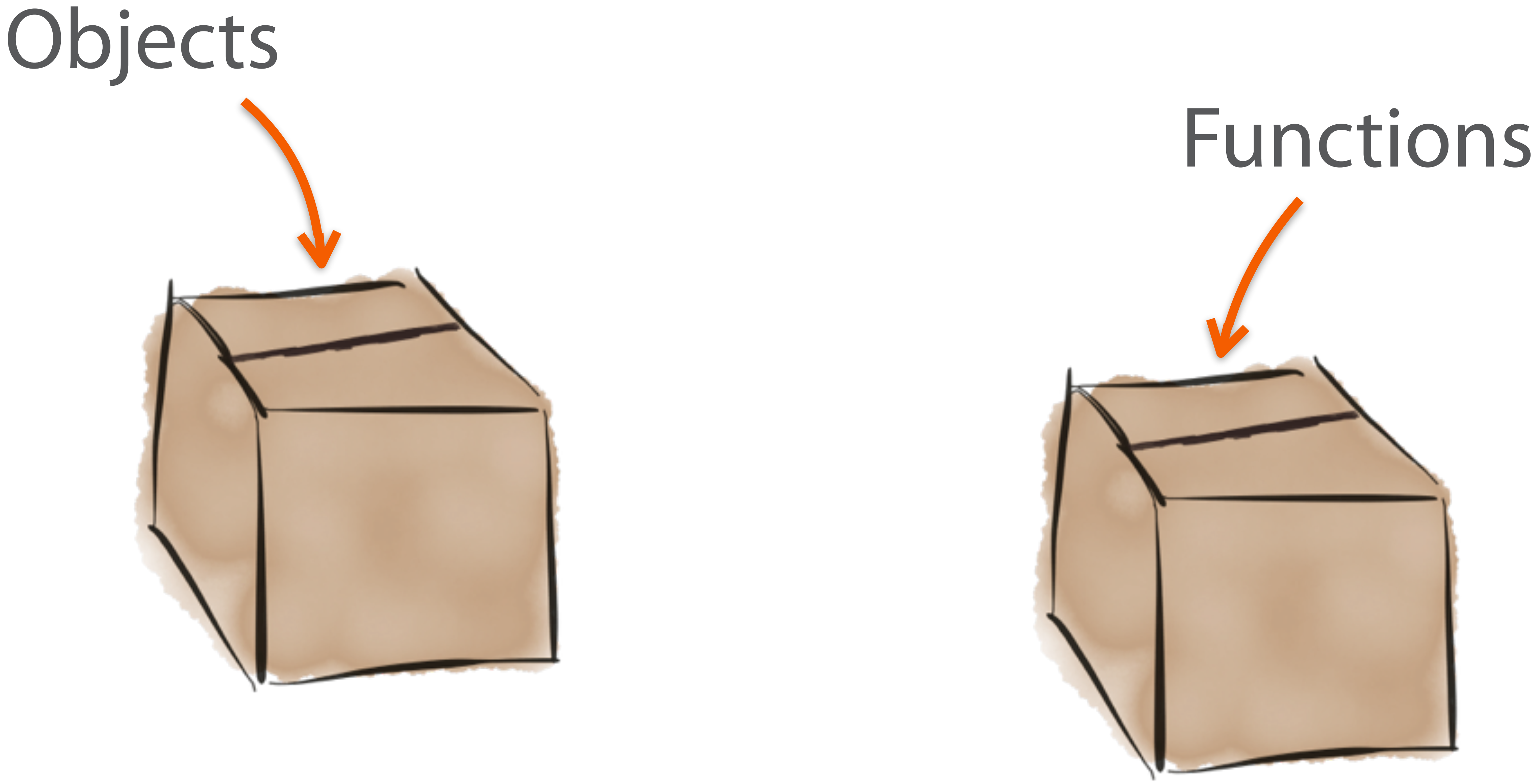
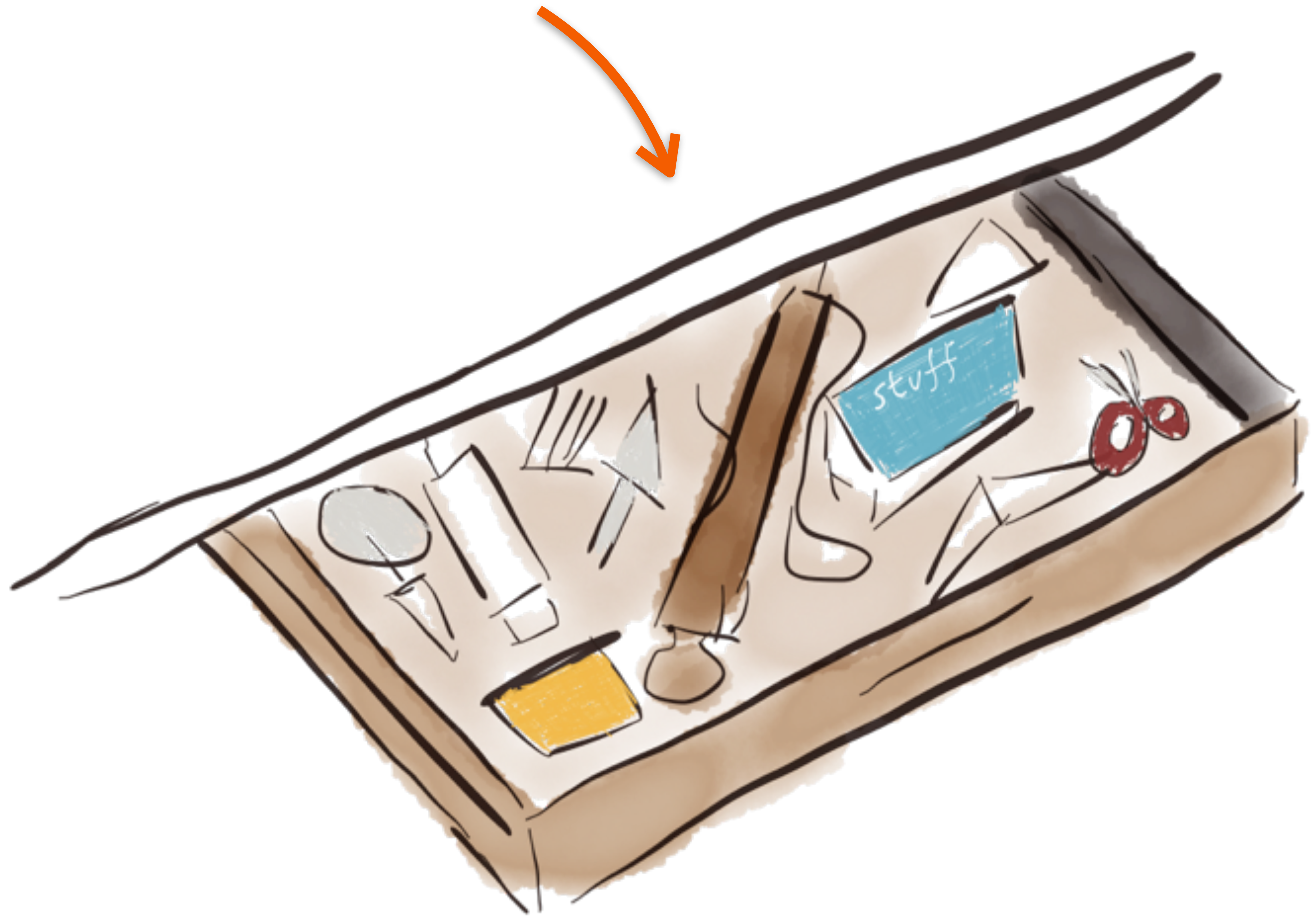
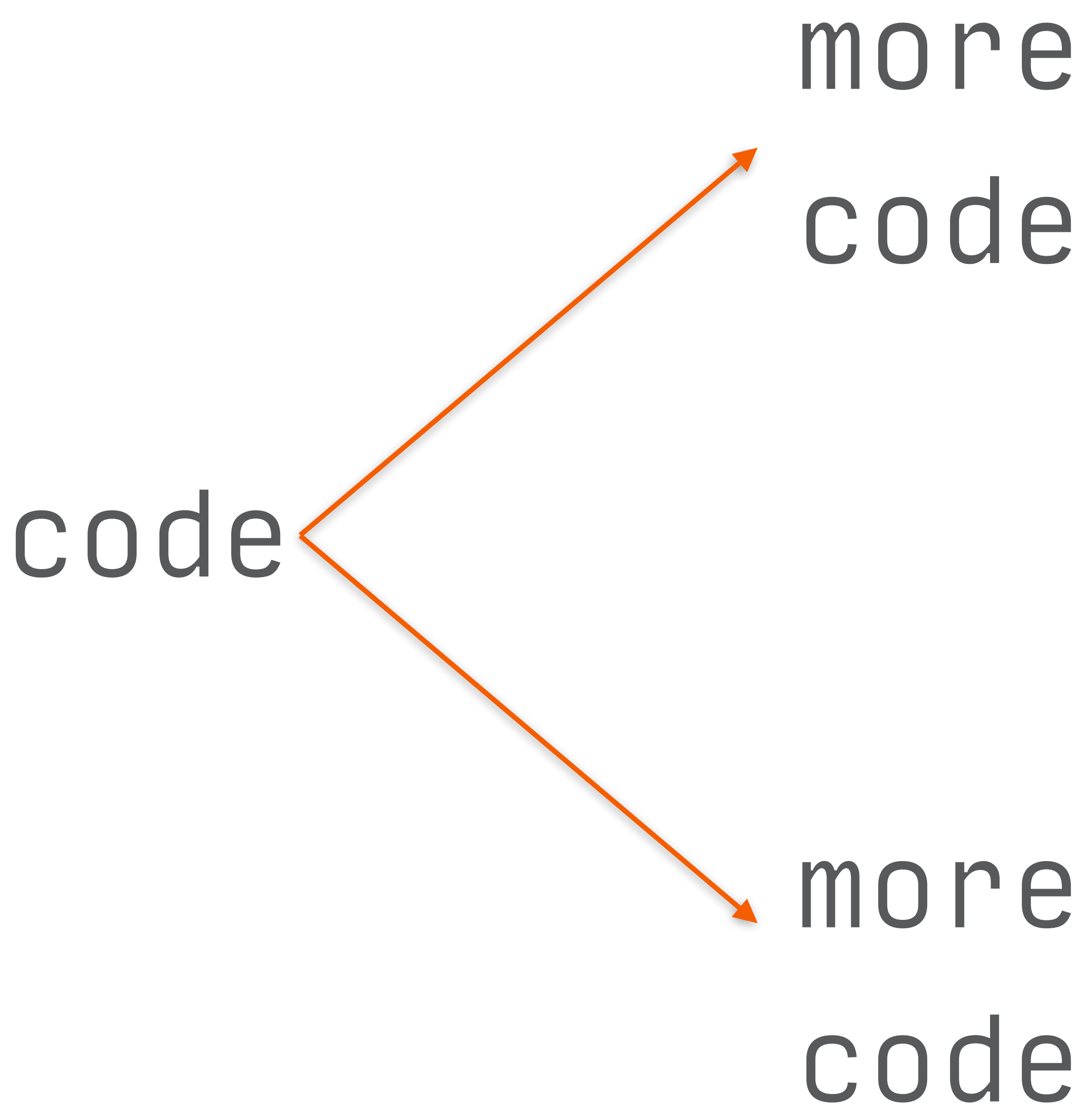

Objects
Functions

Metaprogramming




code
more code
more code

```ruby
class Post < ActiveRecord::Base
  has_many :comments
  belongs_to :user
end
```

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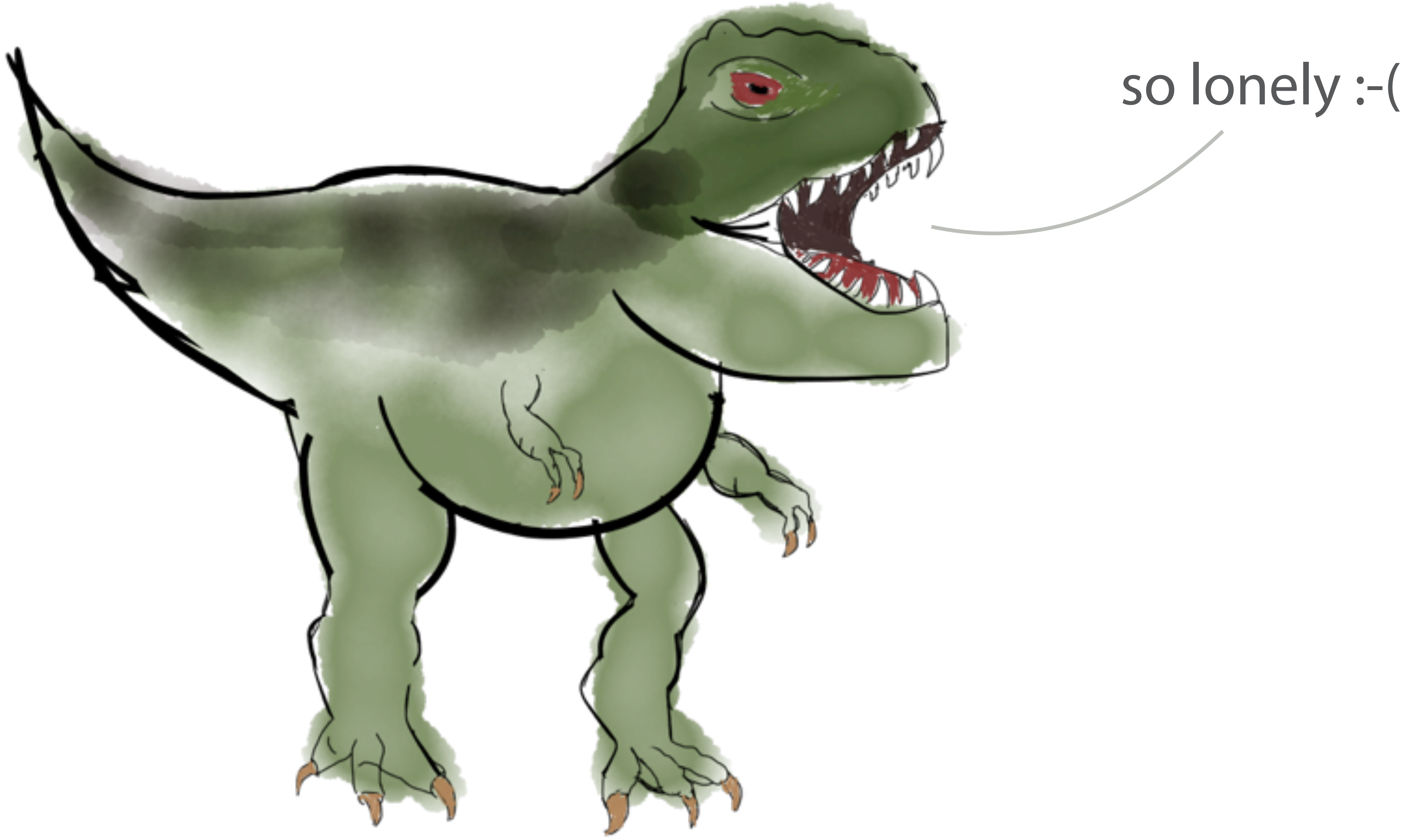
Ruby’s dynamic nature

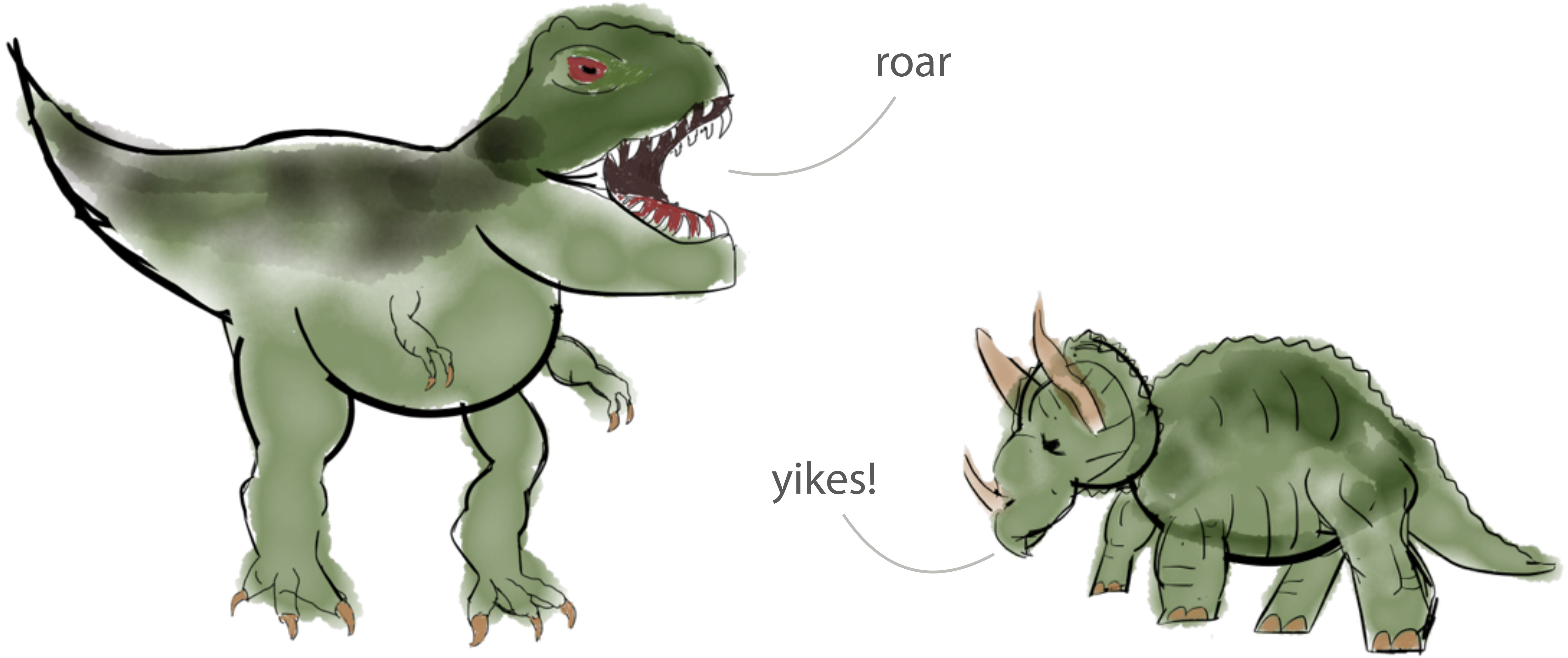
Object oriented Ruby

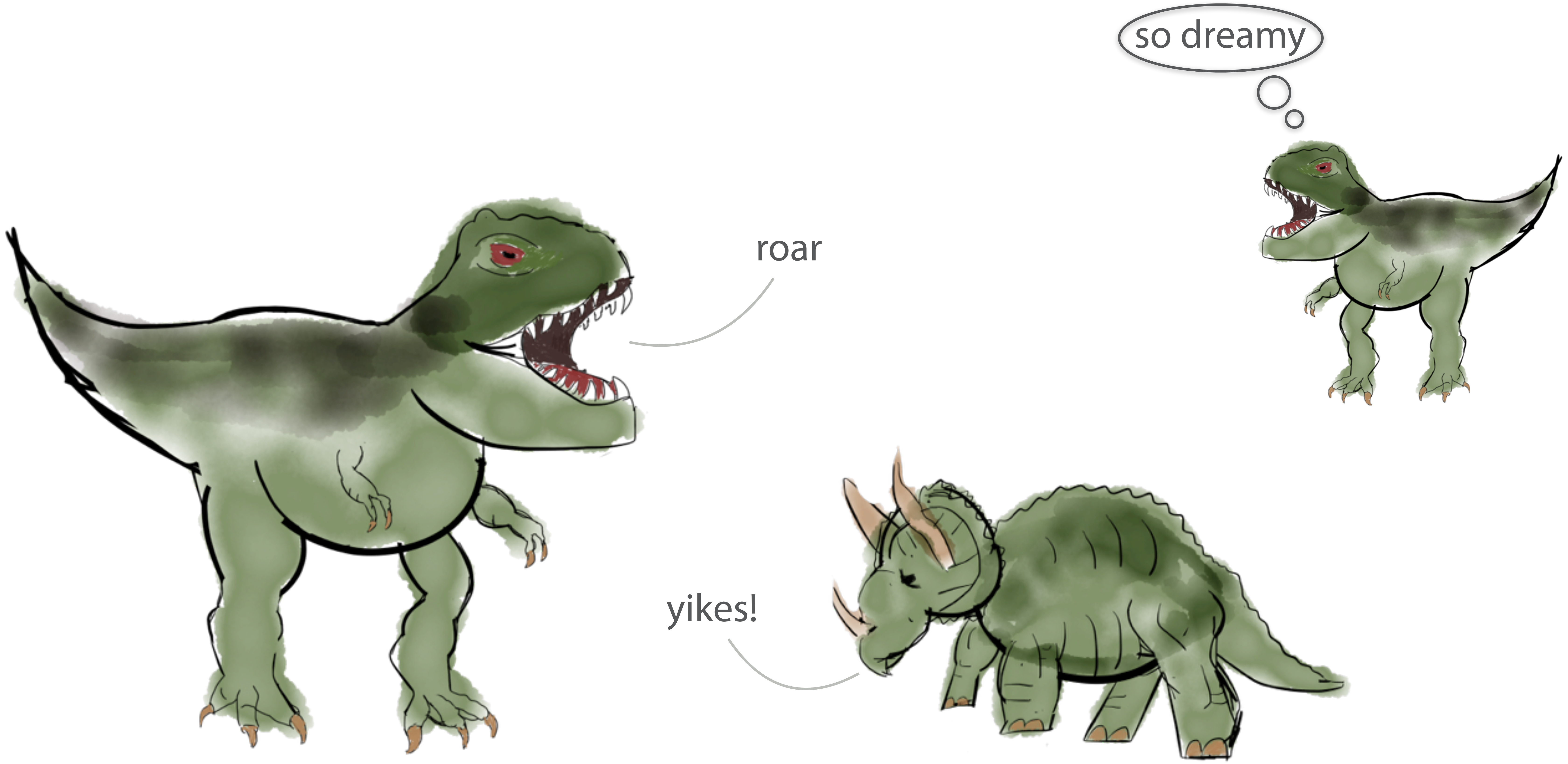
Functional Ruby

Lots of code! (hooray)


so lonely :-(

Defining Dinosaurs


roar
yikes!


so dreamy
roar
yikes!

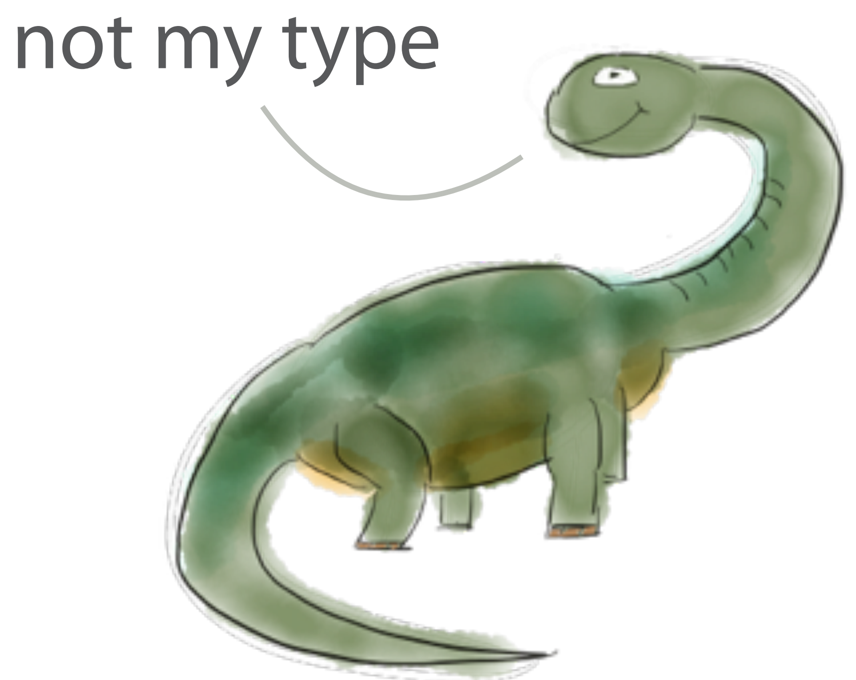
Simple Matching

Hobbies

Scaring children
Battling triceratops
Bowling

Suborder

Theropoda



Height

4500mm

seems fine

nope

Domain Specific Languages

Domain
Specific
Languages

```ruby
class Diplodocus
  def match_diet(diet)
  match :diet
    self.diet == diet
  end
end
```

Complex Matching

Match All Attributes

```
def match_X(…)

end
```

Good match

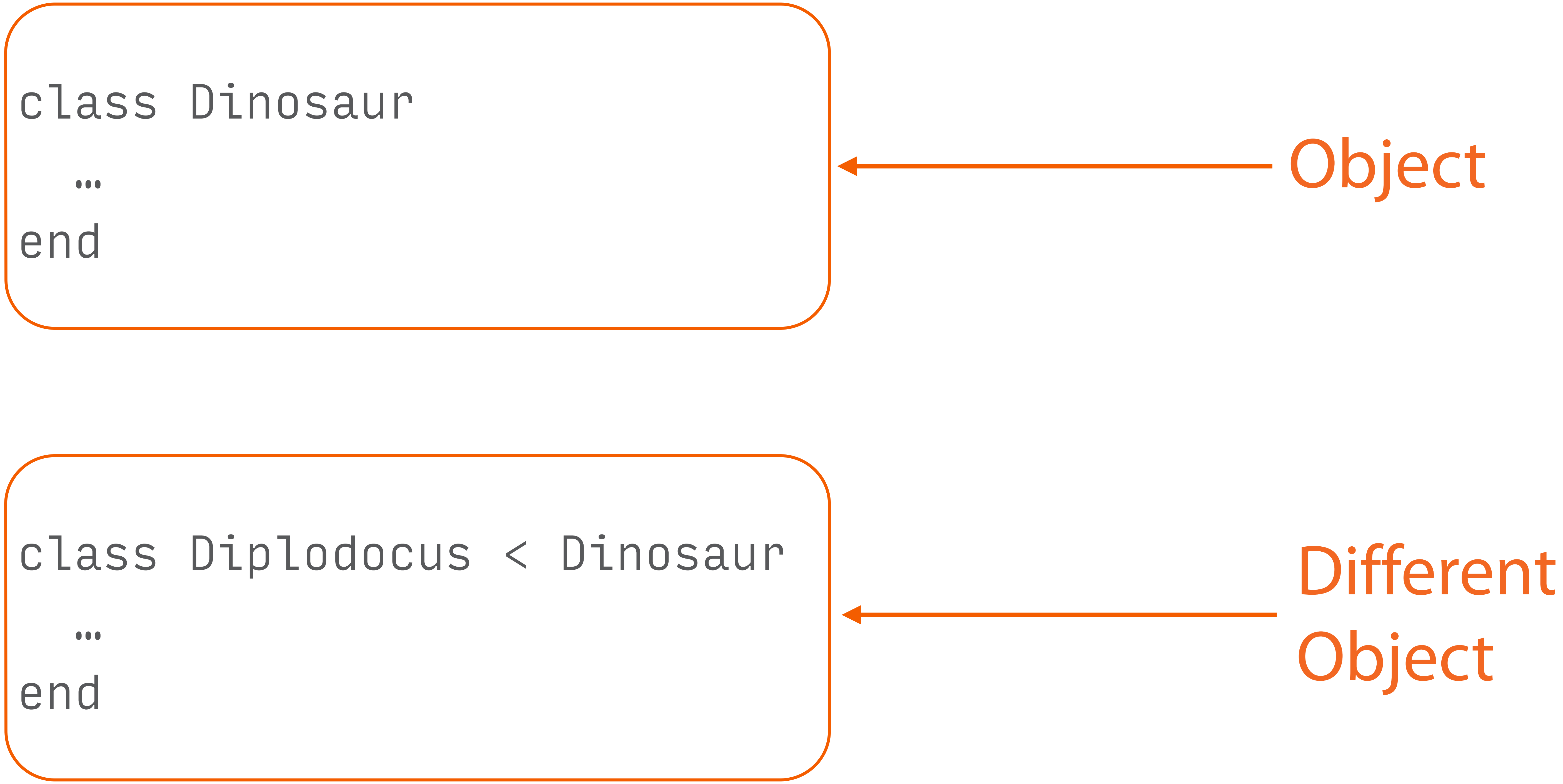
```
def match_X(…)
  1
end
```

No opinion →

```
def match_X(…)
  0
end
```

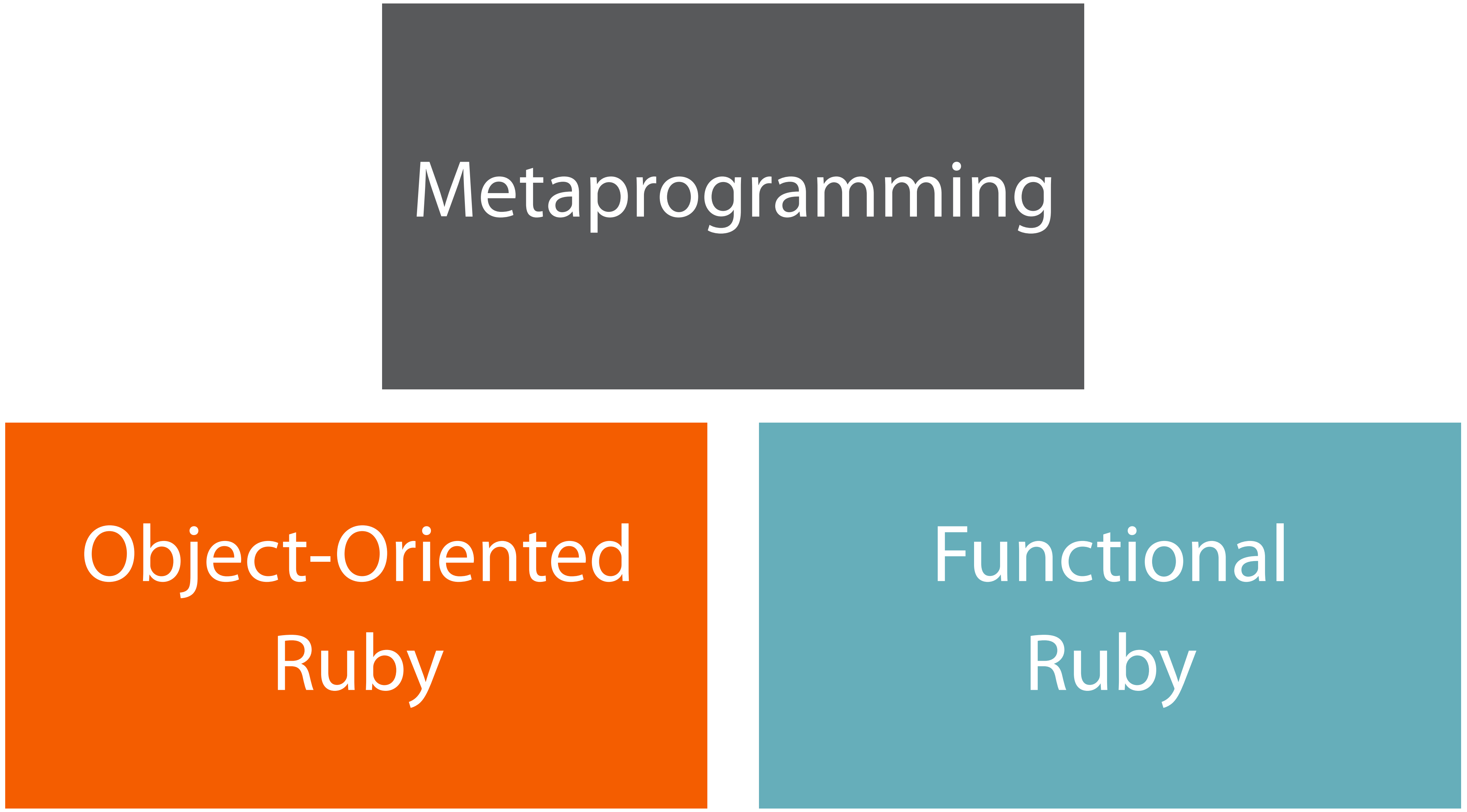
Bad match

```
def match_X(…)
  -1
end
```



```
class Dinosaur
  …
end
```

```
class Diplodocus < Dinosaur
  …
end
```


Metaprogramming
Object-Oriented Ruby
Functional Ruby

Everything Else is Just Detail

Thinking in Ruby

We are all language designers

```ruby
class Diplodocus < Dinosaur
  reject_if :diet => “carnivore”
  match_on :suborder
end

class TyrannosaurusRex < Dinosaur
  match_on_any :hobbies
end
```

Need to Understand Ruby

Dynamic Nature | Objects | Functions

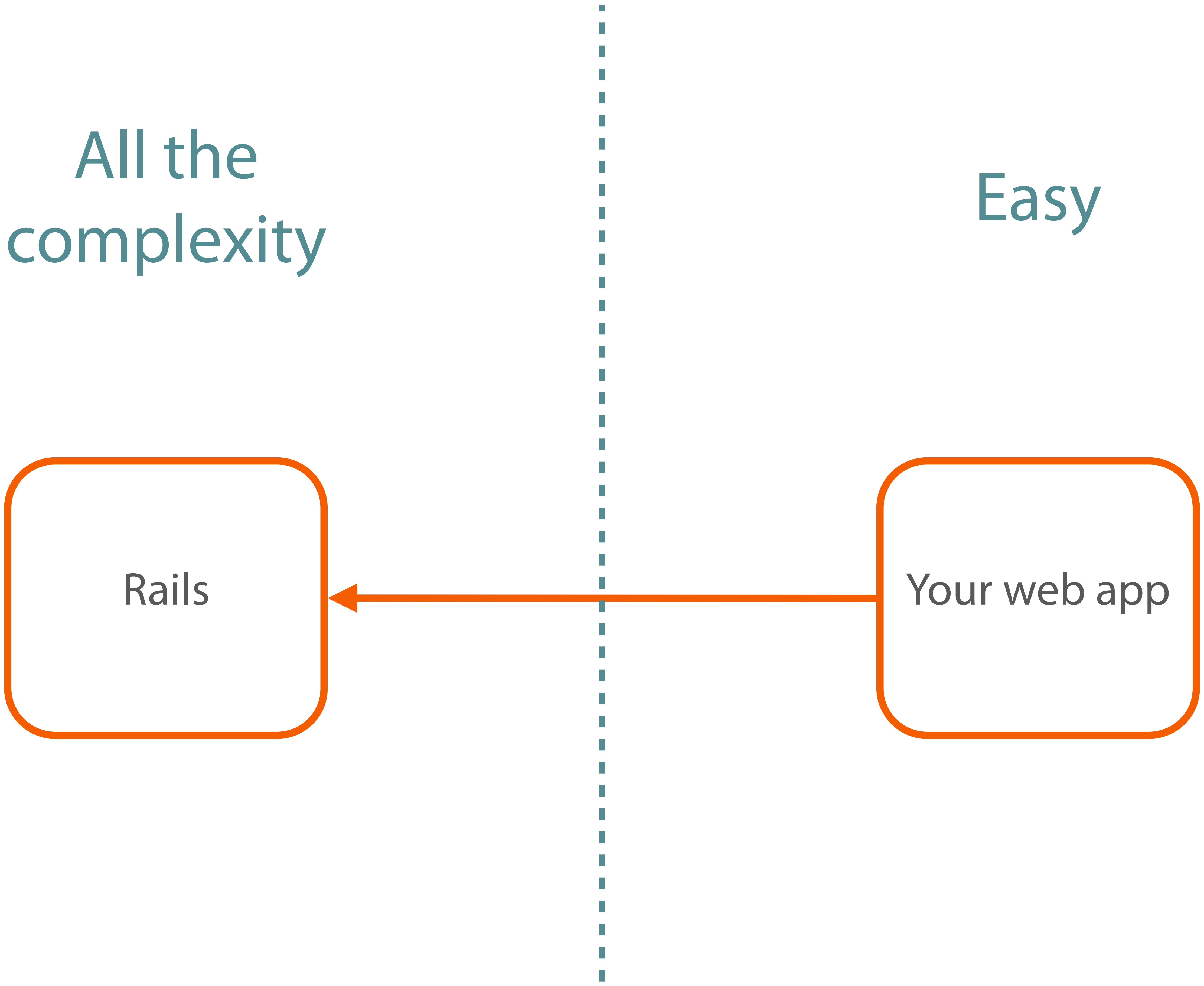
```
class Diplodocus < Dino
  reject_if :diet            arnivore”
  match_on                 uder
end
```

Easy

```
class Dinosaur
  def self.match_attributes
    @match_attributes || []
  end

  def self.a        ibute(name, value)
    de        method(name) do
      value
    end
  end
```

aargh!


All the complexity
Easy
Rails
Your web app

Ruby is not a simple language

Ruby is powerful

Objects

Functions

Metaprogramming

Ruby

Beyond the Basics