Ruby 2.1 introduced the feature to make def foo return the symbol, so this could be used by things like private (see #3753):

```ruby
private def foo() end
```

You could use the same method to create your own decorators (name borrowed from Python)

```ruby
def cached(name)
  # Rewrite method to include a cache
  return name
end
```

```ruby
private cached def foo() end
```

Currently, this would work but cached private def foo() would not. private (and all other modifier functions) return the class on which it was called. It would be nice to exterminate those order-dependencies.

The attached patch fixes this. It includes three modes:

No arguments: return nil:

```ruby
private
  def foo() end
```

One argument: return the symbol. The would be the most common use case for this example.

```ruby
private def foo() end
private :bar
```

Multiple arguments: return an array of the arguments:

```ruby
private :foo, :bar
```

### Associated revisions

Revision 75ecbda4 - 11/18/2021 05:47 PM - jeremyevans (Jeremy Evans)

Make Module#{public,private,protected,module_function} return arguments

Previously, each of these methods returned self, but it is more useful to return arguments, to allow for simpler method decorators, such as:

```ruby
cached private def foo; some_long_calculation; end
```

Where cached sets up caching for the method.

For each of these methods, the following behavior is used:

1) No arguments returns nil
2) Single argument is returned
3) Multiple arguments are returned as an array

The single argument case is really the case we are trying to optimize for, for the same reason that def was changed to return a symbol for the method.

Idea and initial patch from Herwin Quarantainenet.
Implements [Feature #12495]

History

#1 - 06/16/2016 08:02 AM - herwinw (Herwin Quarantainenet)
The patch is written for Ruby 2.3.1, just because the tests were broken in trunk.

#2 - 06/16/2016 08:40 AM - nobu (Nobuyoshi Nakada)
- Status changed from Open to Feedback

Only private, not public, protected and module_function?

Herwin Quarantainenet wrote:

  The patch is written for Ruby 2.3.1, just because the tests were broken in trunk.

How broken?

#3 - 06/16/2016 09:40 AM - herwinw (Herwin Quarantainenet)

Only private, not public, protected and module_function?

private, public and protected all use set_visibility, that's where the change is implemented, private was just used as an example.
module_function.rb_mod_modfunc has not been updated, but that's an easy fix.

How broken?

Something with the openssl tests. Travis showed them red as well, but thinks it's okay by now. The comment was intended to justify any file offsets, further discussion about it would be rather irrelevant to this case.

#4 - 10/27/2021 07:42 PM - jeremyevans0 (Jeremy Evans)
- Status changed from Feedback to Open

I think it makes sense to modify private/protected/public/module_function to be like def and return the receiver. I've submitted a pull request for this that builds on herwinw (Herwin Quarantainenet)'s patch: https://github.com/ruby/ruby/pull/5037

#5 - 10/28/2021 07:45 AM - larskanis (Lars Kanis)
I stumbled several times upon this issue. The semantics as described above are OK, IMHO. It would be nice if the patch could be merged.

#6 - 10/28/2021 11:11 AM - Eregon (Benoit Daloze)
:+1:

Note there is some inconsistency with e.g. attr_reader always returning an array (#5670):

```ruby
class F
  attr_reader :a #=> [:a]
end
```

But I think it does not matter too much.

private also accepts a single Array argument since #17314, so such decorators should probably always accept either an Array or a Symbol.

#7 - 11/18/2021 06:47 AM - matz (Yukihiro Matsumoto)
Sounds OK. Accepted. The side effect should be trivial.

Matz.

#8 - 11/18/2021 06:57 AM - baweaver (Brandon Weaver)
matz (Yukihiro Matsumoto) wrote in #note-7:

Sounds OK. Accepted. The side effect should be trivial.

Matz.
Oh lovely, very fond of this idea, and had mentioned it as a warning in some of my writings around it. This will definitely be great for consistency. Give me a bit and I can have a piece out on it later, think it'll go for 3.1?

#9 - 11/18/2021 06:52 PM - jeremyevans (Jeremy Evans)
- Status changed from Open to Closed

Applied in changeset 75e7560c8a4396d0e12641d1324d0e81a52ee02e0a.

Make Module#(public,private,protected,module_function) return arguments

Previously, each of these methods returned self, but it is more useful to return arguments, to allow for simpler method decorators, such as:

```
cached private def foo; some_long_calculation; end
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Where cached sets up caching for the method.

For each of these methods, the following behavior is used:

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