Ruby master - Bug #7536
local variables added to TOLEVEL_BINDING in -r are broken
12/09/2012 09:41 AM - Conrad.Irwin (Conrad Irwin)

Status: Closed
Priority: Normal
Assignee: ko1 (Koichi Sasada)
Target version: 2.0.0
ruby -v: 2.0.0dev (2012-12-09 trunk 38278) [x86_64-linux]

Description
If a library that you require in the -r flag of ruby evals things in TOLEVEL_BINDING (e.g. RUBY_OPT=-rbundler/setup), then the local variables will show up in TOLEVEL_BINDING.eval("local_variables"), but they raise a NameError if you try to use them.

A minimal test case is:

$ cat b.rb
TOLEVEL_BINDING.eval("lib = 2")

$ cat a.rb
puts TOLEVEL_BINDING.eval("local_variables").inspect
puts TOLEVEL_BINDING.eval("lib").inspect

$ ruby -r./b.rb a.rb
[:lib]
[:in <main>': undefined local variable or method lib' for main:Object (NameError)
from a.rb:2
from a.rb:2

This affects ruby 1.9.3 and ruby 2.0.0, I tested with:
ruby 1.9.3p327 (2012-11-10 revision 37606) [x86_64-linux]
ruby 2.0.0dev (2012-12-09 trunk 38278) [x86_64-linux]

Ruby 1.8.7 works fine:
$ ruby -v
ruby 1.8.7 (2012-06-29 patchlevel 370) [x86_64-linux]
$ ruby -r./b.rb a.rb
["lib"]
2

This breaks debugging tools like pry or https://github.com/charliesome/better_errors, which rightly assume that it's safe to do:

any_binding.eval("local_variables").map{ |x| any_binding.eval("#{x}") }

There are two possible solutions; either remove the variable names from the list of "local_variables", make sure they don't raise a NameError.

Associated revisions
Revision f4ef96e6 - 12/21/2012 10:39 AM - ko1 (Koichi Sasada)

- ruby.c (process_options): need to acquire env from TOLEVEL_BINDING each time. bind->env may update after eval(). [Bug #7536]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@38529 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

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Revision 38530 - 12/21/2012 10:53 AM - naruse (Yui NARUSE)

Add test for r38529 [Bug #7536]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@38530 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

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History

#1 - 12/13/2012 07:35 PM - charliesome (Charlie Somerville)
  
  - Status changed from Open to Assigned
  - Assignee set to ko1 (Koichi Sasada)
  - Priority changed from Normal to 5
  - Target version set to 2.0.0

#2 - 12/21/2012 07:40 PM - ko1 (Koichi Sasada)
  
  - Status changed from Assigned to Closed
  - % Done changed from 0 to 100

This issue was solved with changeset r38529.
Conrad, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

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