Ruby master - Bug #12106

Behavior of double splatting of hashes with non symbol key is different according to splatted hash position

02/24/2016 04:29 AM - pabloh (Pablo Herrero)

Status:	Closed		
Priority:	Normal		
Assignee:	nobu (Nobuyoshi Nakada)		
Target version:			
ruby -v:	ruby 2.3.0p0 (2015-12-25 revision 53290) [x86_64-linux]	**Backport:**	2.0.0: UNKNOWN, 2.1: UNKNOWN, 2.2: UNKNOWN, 2.3: UNKNOWN

Description

When doing double splatting with hash with non symbols keys you get different behaviors according to the position of the hash been splatted:

```
{a: 3, **{b: 1}, **{'b' => 1}}      # Works fine
{a: 3, **{1 => 1}, **{b: 1}}        # Works fine
{3 => 3, **{b: 1}, **{'b' => 1}}    # Works fine
{**{}, a: 3, **{b: 1}, **{1 => 1}} # Works fine

{**{b: 1}, a: 3, **{1 => 1}}        # TypeError: wrong argument type Fixnum (expected Symbol)
{**{'b' => 1}, **{c: 4}}            # TypeError: wrong argument type Fixnum (expected Symbol)
{**{c: 4}, **{'b' => 1}}            # TypeError: wrong argument type Fixnum (expected Symbol)
{**{c: 4}, a: 3, **{'b' => 1}}      # TypeError: wrong argument type Fixnum (expected Symbol)
```

Same thing happens when you double splat inside a message send:

```
puts(a: 3, **{b: 1}, **{'b' => 1})      # Works fine
puts(a: 3, **{1 => 1}, **{b: 1})        # Works fine
puts(3 => 3, **{b: 1}, **{'b' => 1})    # Works fine
puts(**{}, a: 3, **{b: 1}, **{1 => 1}) # Works fine

puts(**{b: 1}, a: 3, **{1 => 1})        # TypeError: wrong argument type Fixnum (expected Symbol)
puts(**{'b' => 1}, **{c: 4})            # TypeError: wrong argument type Fixnum (expected Symbol)
puts(**{c: 4}, **{'b' => 1})            # TypeError: wrong argument type Fixnum (expected Symbol)
puts(**{c: 4}, a: 3, **{'b' => 1})      # TypeError: wrong argument type Fixnum (expected Symbol)
```

What's basically going on is this: you can double splat hashes with no symbol keys all you want, only if the first value of the hash is a regular key (symbol or not) and not a splatted hash, or also a double splatted empty hash.

It feels strange that building the same hash in different orders yields so different behaviors.
Anyhow, I personally feel it should be a bug if you cannot splat a hash with no symbol keys into another one, whichever are the remaining values of the hash.

History

#1 - 02/24/2016 04:33 AM - pabloh (Pablo Herrero)

Small correction: for the 2nd, 3rd and 4th examples on each code block the error actually is "TypeError: wrong argument type String (expected Symbol)"

#2 - 03/16/2016 09:41 AM - shyouhei (Shyouhei Urabe)

- Status changed from Open to Assigned

- Assignee set to nobu (Nobuyoshi Nakada)

#3 - 10/21/2019 04:56 PM - jeremyevans0 (Jeremy Evans)

- Status changed from Assigned to Closed

With the changes in #14183, TypeError is no longer raised in any of the examples, as non-Symbol keys can be used inside a hash that is double splatted.