1 Adding captions and attributes to figures and tables from code blocks

I have wanted for a long time to be able to add captions and attributes to figures and tables generated from code blocks. I brought this up on the mailing list (https://lists.gnu.org/archive/html/emacs-orgmode/2015-11/msg00544.html) and finally, I have figured out a way to do it that seems ok. It is based on the :wrap feature of org-babel.

The idea is to use a function that will wrap the results in additional text. We use this function that will add a caption and attributes.

```
1  (defun decorate-org-results (&optional caption attributes)
2    "A wrap function for src blocks."
3    (concat
4     "ORG\n"
5     (when attributes
6       (concat (mapconcat 'identity attributes "\n") "\n"))
7     (when caption
8       (format "#+caption: %s" caption))))
```

```
decorate-org-results
```

Now, we try it out on a figure:

```
1  import numpy as np
2  import matplotlib.pyplot as plt
3
4  x = np.linspace(0, 2 * np.pi)
5  y = np.sin(x)
6
7  plt.plot(x, y)
8  plt.savefig('images/sin.png')
9  print('[[./images/sin.png' + ']]')
```

Success. Next, on a table.

```
1  import numpy as np
2
3  x = np.linspace(0, 2 * np.pi, 5)
4  y = np.sin(x)
5
6  return [['x', 'y'], None] + list(zip(x, y))
```
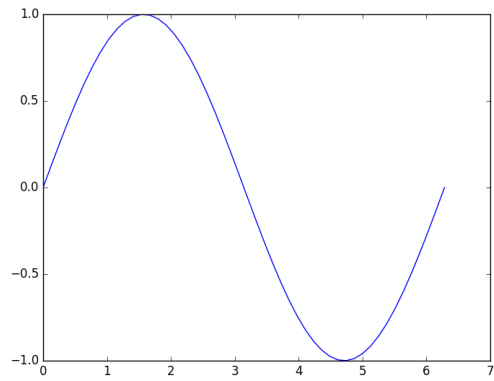
Figure 1: A sin wave.

Table 1: A table of sin data.

x	y
0.0	0.0
1.5707963267948966	1.0
3.141592653589793	1.2246467991473532 (-16)
4.71238898038469	-1.0
6.283185307179586	-2.4492935982947064 (-16)