

Basic JavaScript Part 9: Reusing Methods of Other Objects

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In [one of my previous posts](#), I mentioned that functions in JavaScript are plain objects that can have their own properties and methods. One of these methods that are available for every function object is a method named `call()`, which is defined on the prototype of `Function`. This method allows you to 'reuse' a method from another object. Let's talk code. Suppose we have an object called `podcast` which has a `download()` function:

```
var podcast = {  
  name : 'Astronomy podcast',  
  download : function(episode) {  
    console.log('Downloading ' + episode + ' of ' + this.name);  
  }  
};
```

```
podcast.download('the first episode');
```

The output we get by executing this function is exactly what we expect it to be:

```
"Downloading the first episode of Astronomy podcast"
```

Now suppose we bring on another object called `screencast` :

```
var screencast = {  
  name: 'Node tuts'  
};
```

Wouldn't it be nice if we could somehow reuse the `download()` method of the `podcast` object so that we can download a `screencast` as well. We can do this by invoking `call()` on the `download()` method like so:

```
podcast.download.call(screencast, 'the last episode');
```

This gives us the following output:

```
"Downloading the last episode of Node tuts"
```

What exactly happened here? Well, we just invoked the `call()` method on the `download` function object, specifying a reference to the `screencast` object and a string argument that describes the particular episode. The `download()` method got invoked with the `screencast` object bound to `this`. Therefore, the `download()` method uses the `name` property of the `screencast` object instead of the `name` of the `podcast` object.

There's also another method with similar functionality defined on the Function prototype named `apply()`. This method behaves exactly the same as the `call()` method, except that the arguments passed to the underlying method in question need to be passed as an array.

```
podcast.download.apply(screencast, ['the last episode']);
```

Utilizing the `call()/apply()` methods is a very powerful way to reuse features of objects that are built into JavaScript (like Array, String, etc. ...) or from third-party libraries. But I don't recommend applying this

technique when you own the code of the method you want to reuse. A simple refactoring like extracting the particular method into another object is a much better approach.

Until next time.