ES5 / p.1

Whyte @ Webdev Club

LiveScript   # JavaScript   ~~Java~~

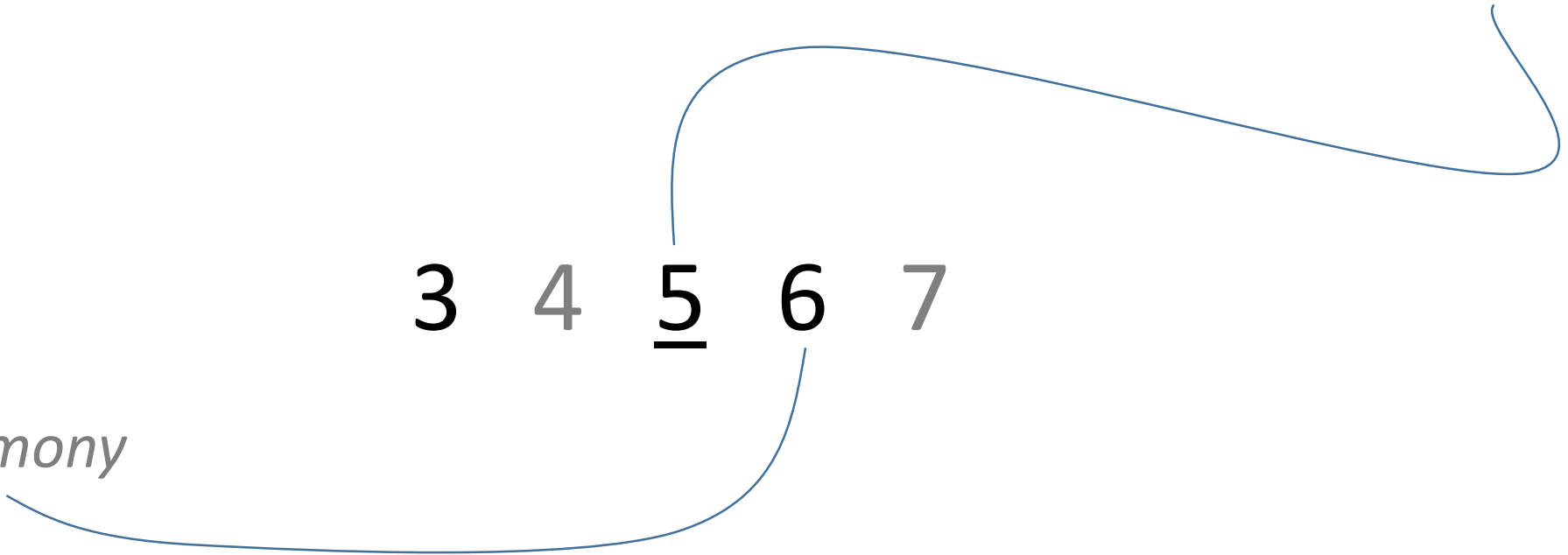ES5 / p.1

ECMAScript

Rhino
Jscript
JavaScript
ActionScript
SpiderMonkey
QtScript
Chakra
V8
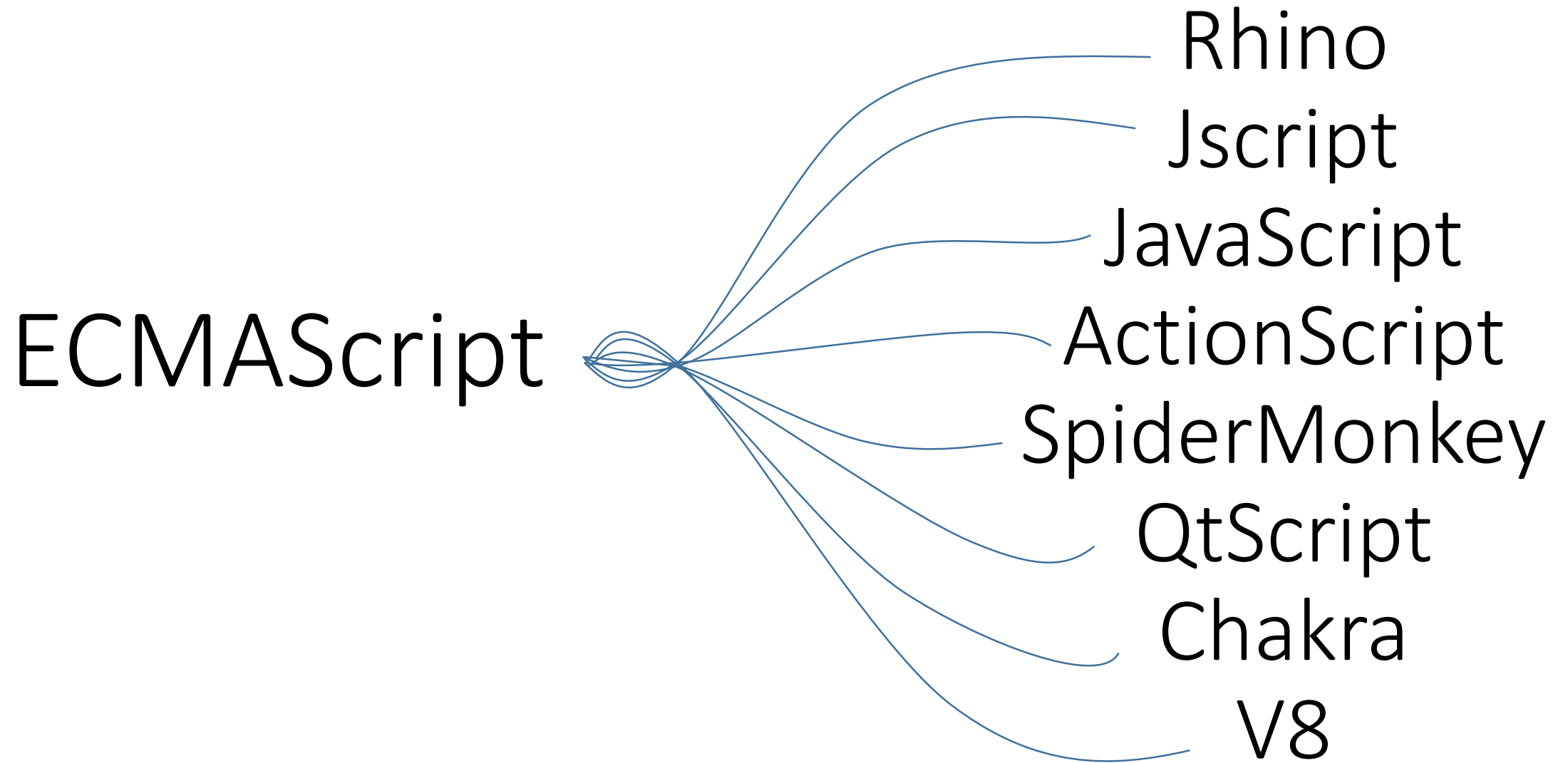
ES5 / p.1

...

ECMAScript

ECMA-262

3 4 <u>**5**</u> **6** 7

Harmony

ES5 / p.1

Babel

CoffeeScript
TypeScript
Dart

ES5 / p.1

The world's *most misunderstood* programming language has become the world's *most popular* programming language
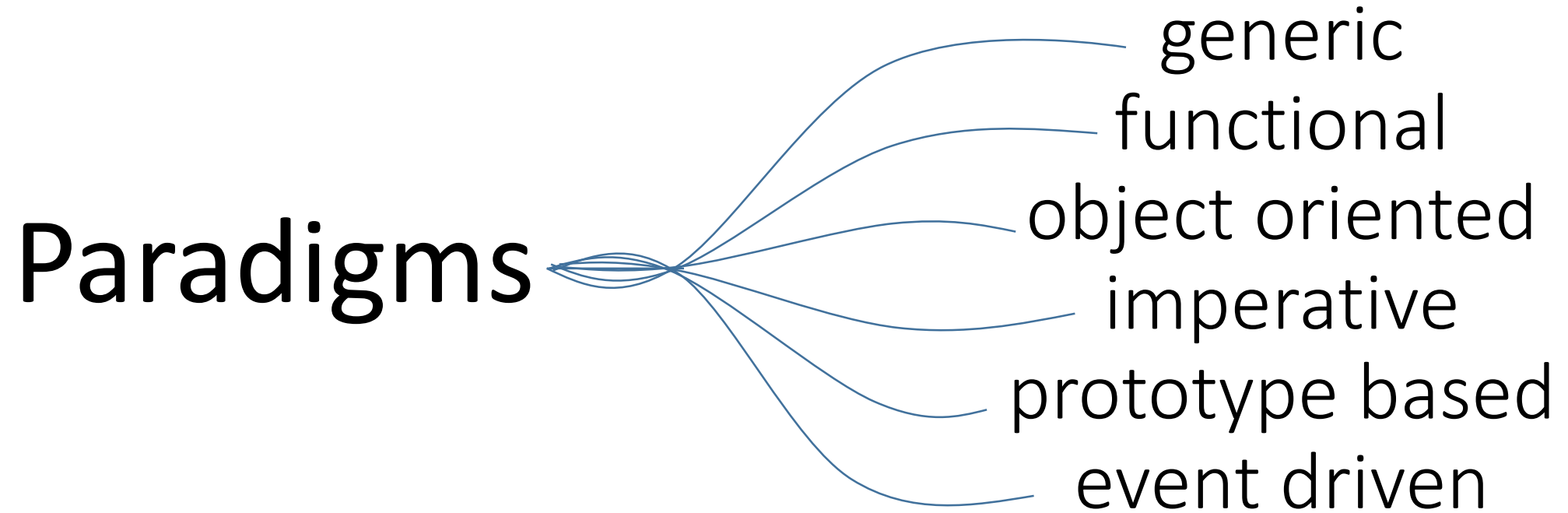
Douglas Crockford, 2008

ES5 / p.1

640+ APIs

Application Programming Interface

https://developer.mozilla.org/en-US/docs/Web/API

ES5 / p.1

Tendencies

adherence of standards
features of desktop apps
less bugs & faster

ES5 / p.1

Paradigms
- generic
- functional
- object oriented
- imperative
- prototype based
- event driven

ecmascript.org
developer.mozilla.org
help.dottoro.com
caniuse.com

Examples

src="my-script.js"

type="text/javascript"
language="javascript"

Utf-8

ES5 / p.1

```
<script src="1.js">
                            </script>
<script src="2.js" defer>
                            </script>
<script src="3.js" async>
                            </script>
```

ES5 / p.1

Syntax

Statements vs Expressions

action value

; {} , ()

semicolon curly brackets comma operator brackets

ES5 / p.1

Statements

side effects

var, for, if, switch, throw, return, try...

Expressions

returns value

2 + 3, 'webdev club'

Statements

statement

var a = 'webdev';

expr

ES5 / p.1
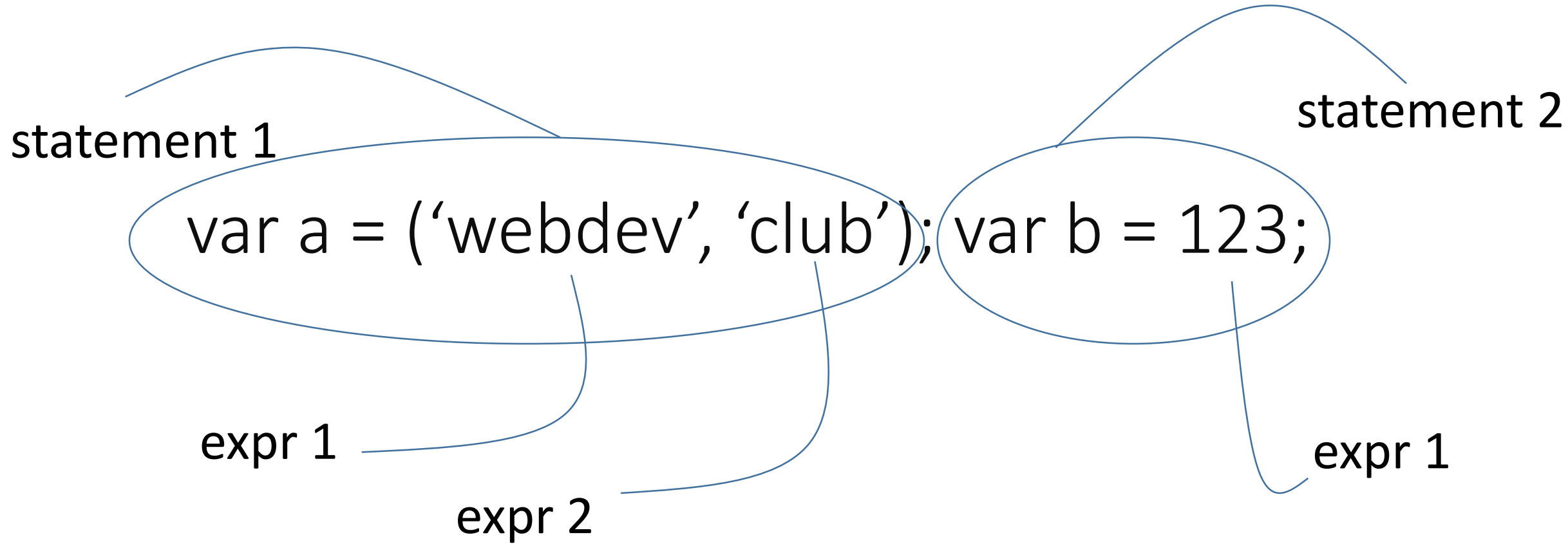
Statements

statement

var a = ('webdev', 'club');

expr 2

expr 1

Statements

statement 1

statement 2

var a = ('webdev', 'club'); var b = 123;

expr 1

expr 2

expr 1

ES5 / p.1

Comments

/*

// comment

A lot
Of
Comments

*/

Variables
variable statement

var rok = 2015;
var dalsiRok = rok + 1;
var rok;
var tentoRok = rok = 2016;
var minulyRok = 2014, dalsiRok = 2016;

Variables
variable statement

var rok = 2015;
...
rok = 808;

Variables

Utf-8

$ _

~~1semester~~

no whitespace

case sensitive

\u0072\u006F\u006B

Variables

let
const

Variables

hoisting
scope

'use strict';

Output

environment console
console.log()
alert()

ES5 / p.1

Output

console.log(1 + 2);

console.log('webdev');

var a = 123; console.log(a);

Output

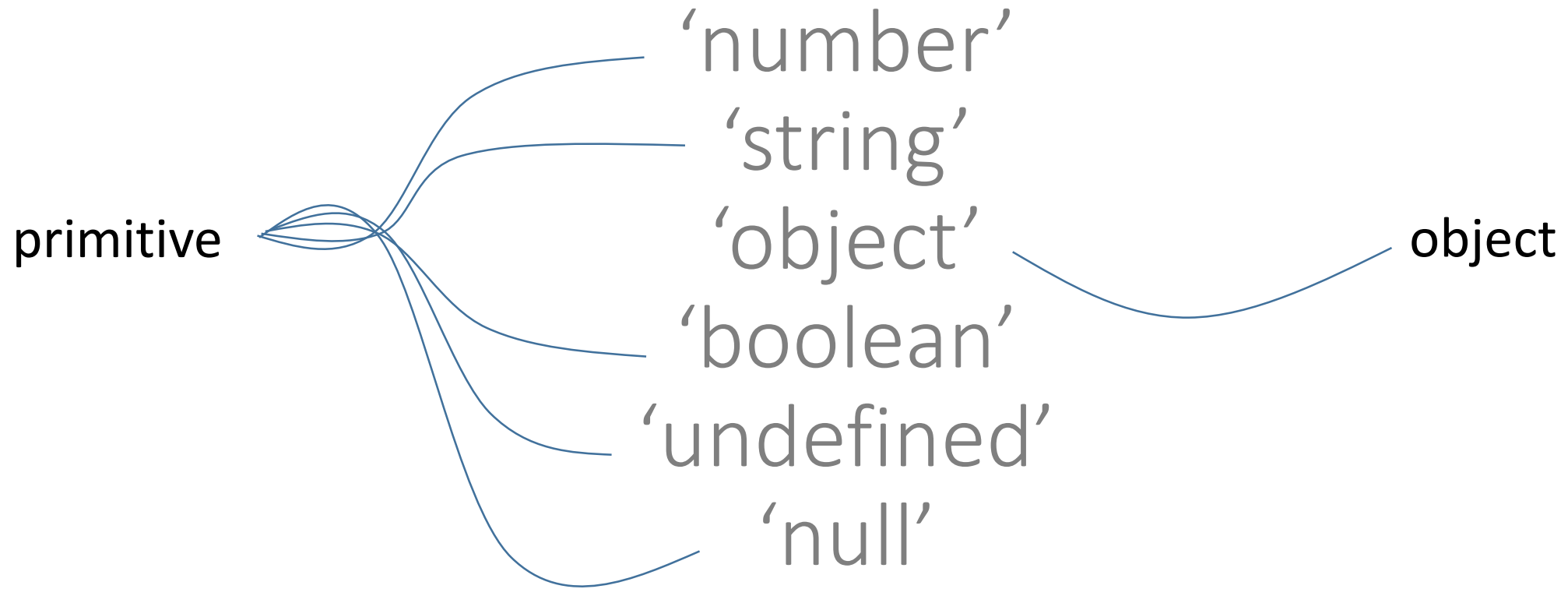var clog = console.log.bind(console);

clog(123 + 321);

Data Types

typeof

Data Types

```
console.log(typeof 123);
var wd = 'webdev'; console.log(typeof wd);
```

Data Types

'number'

'string'

primitive   'object'   object

'boolean'

'undefined'

'null'

ES5 / p.1

Data Types

'symbol'
'function'

arrays

Data Types

Number
String
Object
Boolean
Function
Array
Symbol

ES5 / p.1

Data Types

Casting
Auto-boxing

123 vs '123'
0 vs ''

Data Types

/* 2016 is number */

var rok = String(2016);
var dalsiRok = new String(2017);

/* rok is string ('2016'), dalsi rok is object */

Data Types

I don't like this :\

WAT

www.destroyallsoftware.com/talks/wat

ES5 / p.1

Data Types - *undefined*

default variable value
default property value
typeof returns 'undefined'
void 42
{}.u
undefined == null
function args

ES5 / p.1

Data Types - *null*

empty value
undefined == null
semantic diff
object
GC

// end