

# All I have is a hammer, now give me your nails!

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“If all you have is a hammer, everything looks like a nail.”  
– Every programmer ever

But: is it always bad to see the world through a particular lens?

“It is better to have 100 functions operate on one data structure than 10 functions on 10 data structures.”

– Alan Perlis

What do you get if you try to make everything one data structure?

Lisp

```
(defmacro and [:rest args]  
  (list 'if (first args)  
    (list 'and (rest args))  
    false))
```

Listing 1: A definition of and.

SmallTalk



```
True >> ifTrue: trueBlock ifFalse: falseBlock [  
    ^ trueBlock value  
]
```

```
False >> ifTrue: trueBlock ifFalse: falseBlock [  
    ^ falseBlock value  
]
```

Listing 2: Booleans as objects.

Forth

```
: ( 41 WORD DROP ; IMMEDIATE
```

Listing 3: Comments on the stack.

APL

`+/ι15` A add, reducing over the numbers to 15

`∘.,~ι10` A outer product of the numbers to 15 to themselves

So what?

## Conclusion?

This is neat, but what is the appeal, really?

What do we gain?

Basing all of your thinking on one axiom answers a lot of questions.



It also asks a lot of questions.

Beyond pure novelty, there is a liberating quality to seeing the world through a particular lens.

Constraints can be liberating!

Thank you!