

- Every value is an object.
- Every operation is a method call.

- They are verbose.
- They prevent programmers from expressing themselves as they wish.
- They prohibit certain patterns of dynamic modification of software systems.

- Functions are first-class values.
- Operations should map input values to output values rather than change data in place.

They make data/operation containers fully general so that they are values that can be put in other containers, or passed as parameters to operators.

```
#!/bin/sh
```

```
exec scala "$0" "$@"
```

```
!#
```

- Some values are not objects.
- Static fields/methods are not members of any objects.

So it can be left off for type inference. If it were before, nothing would mark the definition start and a new keyword would be needed, like C# 3's `var`.

- Verifiable properties.
- Safe refactoring.
- Documentation: static types are never out of date, IDE context help.