In the beginning there was set

```
(set (quote 'A) 100)
```

```
100
```

```
A
```

Set begat setq
```
(setq a 100)
```
```
(setq b 200)
```

```
(set (quote 'A) 100)
```
```
A
```

Side Effects

Rplaca and rplacd
```
(setq list '(a b c d))
```
```
(a b c d)
```
```
(rplaca list 'foo)
```
```
((foo b c d) b c d)
```
```
(list)
```
```
(rplacd list '(2 3))
```
```
((foo 2 3) 2 3)
```
```
(list)
```
```
(rplacd list '(2 3))
```
```
((foo 2 3) 2 3)
```
```
(list)
```
Setf as a generalized assignment

(setf <place1> <val1>
   <place2> <val2> . .
   <placeN> <valN>)

Where <place> is either
- a variable name
- an expression referring to part of a larger structure
  (e.g. a list, property list, structure, or array).
- <val>: any LISP expression.

Setf examples

(setf crew (list 'picard 'riker 'worf 'crusher))
(setf (first crew) 'captain)
(setf (second crew) 'commander)
(setf (third crew) 'lieutenant)
(setf (fourth crew) 'ensign)

(setf (get 'picard 'rank) 'captain)
(setf (starship crew) (list 'enterprise))
(setf (starship enterprise) (list 'picard))