## 3rd Clause

```
((_ (hd . tl) literals match-value fail-value success-expr)
     (cond ((eq? match-value fail-value)
                                                                                                     failure under way
             fail-value)
            ((exists-in? 'hd 'literals)
             (if (eq? (maybe-car match-value fail-value) 'hd)
                                                                                                       hd is a literal
                  (match-pattern tl literals (maybe-cdr match-value fail-value)
                                                                                                     try matching tail (tl)
                                  fail-value success-expr)
                 fail-value))
            (else
             (let ((hd (maybe-car match-value fail-value)))
               (if (eq? hd fail-value)
                                                                                                      hd is an atom
                    fail-value
                                                                                                    try matching tail (tl)
                    (match-pattern tl literals (maybe-cdr match-value fail-value)
                                     fail-value success-expr))))))
        pattern is a list
    deconstruct it into 2 parts
          hd and tl
                               hd might be a literal, like
                                               note to self: what are the quotes in
                                            (exists-in? 'hd 'literals)
                                                [looks like a typo]
```

## 4th Clause

```
((_ non-list literals match-value fail-value success-expr)
    (cond ((eq? match-value fail-value)
                                                                                               failure under way
             fail-value)
            ((exists-in? 'non-list 'literals)
                                                                                                 pattern is a single literal
             (if (eq? 'non-list match-value)
                                                                                               succeed only if match-value
                  success-expr
                                                                                                   is the same literal
                  fail-value))
            (else (let ((non-list match-value)) success-expr)))
                                                                                                 pattern is a single
                                                                                                 atom (non-literal);
                                                                                               bind match-value to it,
                                                                                               then eval success-expr
                                                                                               (probably creating more
                                                                                                   macro output)
```

pattern is not a list
(all list cases have been weeded out at this point)
pattern is bound as "non-list"
deconstruct it into 2 parts
hd and tl