

Macrolop Specification

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1 EBNF Grammar

```
 $\langle evaluate \rangle ::= \text{MACROLOP\_EVAL} ( \{ \langle term \rangle \}^* )$   
 $\langle term \rangle ::= \text{call} ( \langle macro \rangle , \{ \langle term \rangle \}^* )$   
           $| \text{v} ( \langle tokens \rangle )$   
 $\langle macro \rangle ::= \langle ident \rangle$ 
```

Figure 1: Grammar rules

2 Operational Semantics

$$\frac{}{v(tokens) \rightarrow tokens} \text{ (final)}$$
$$\frac{arg_1 \rightarrow arg'_1 \quad \dots \quad arg_n \rightarrow arg'_n}{call(macro, arg_1 \dots arg_n) \rightarrow macro(arg'_1, \dots, arg'_n)} \text{ (macro-call)}$$
$$\frac{term_1 \rightarrow tokens_1 \quad \dots \quad term_n \rightarrow tokens_n}{MACROLOP_EVAL(term_1 \dots term_n) \rightarrow tokens_1 \dots tokens_n} \text{ (eval)}$$

Figure 2: Computational rules