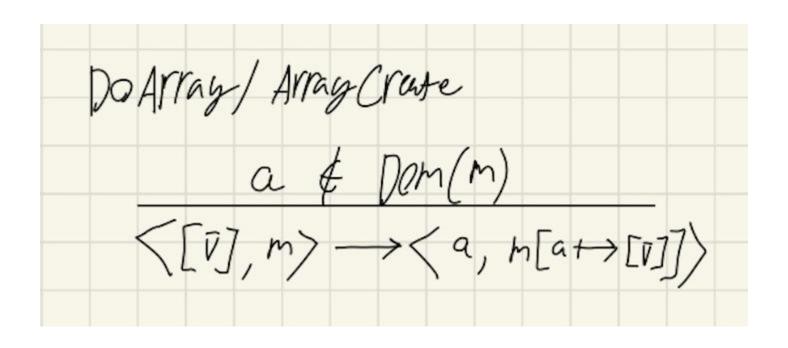
35.2.3 Big Step Operational Semantics

Search Array Index 1	Search Array Index 2
$\langle e_{i}, m \rangle \rightarrow \langle e'_{i}, m' \rangle$	$\langle e_2, m \rangle \rightarrow \langle e_2', m' \rangle$
$\langle e, [e_1], m \rangle \rightarrow \langle e, [e_2], m' \rangle$	$\langle a, [e_1], m \rangle \rightarrow \langle a, [e'_1], m' \rangle$

DoCreate (small step)



DoArrayIndex (small step)

Do ArragIndex
$$m(a) = [\bar{v}] \quad [\bar{v}][n] = V, \\
\langle q[n], m \rangle \longrightarrow \langle V, m' \rangle$$

DoArrayIndexAssignment (small step)

DO Array Index Assignment index
$$m(a) = [..., v', ...]$$

$$\langle a[h] = v, m \rangle \longrightarrow \langle v, m[a \mapsto [..., v, ...] \rangle$$

DoCreate (Big Step)

DoArrayIndex (Big Step)

DO Array Index (Big Step)
$$m(a) = [V] [V][n] = V$$

$$\langle a[n], m \rangle | | \langle v, m' \rangle$$

DoArrayIndexAssignment (Big Step)

Do Array Index Assignment index
$$m(a) = [..., v', ...] \quad \langle e, m \rangle / V$$

$$\langle a[h] = V, m \rangle \longrightarrow \langle V, m[a \mapsto [..., V, ...]] \rangle$$