A 2Dv Gassner Representation?

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(150412) Deriving Gassner: $[a_{ij}, a_{ik}] = 0$, $[a_{ik}, a_{jk}] = -[a_{ij}, a_{jk}] = b_j a_{ik} - b_i a_{jk}$, b_i central. Acts on $V = \langle x_i = a_{i\infty}\rangle$ by $[a_{ij}, x_i] = 0$, $[a_{ij}, x_j] = b_i x_j - b_j x_i$. Hence $e^{\operatorname{ad} a_{ij}} x_i = x_i$, $e^{\operatorname{ad} a_{ij}} x_j = e^{b_i} x_j + \frac{b_j}{b_1}(1 - e^{b_i}) x_i$. Renaming $y_i = x_i / b_i$, $t_i = e^{b_i}$, get $[e^{\operatorname{ad} a_{ij}}]_{y_i, y_j} = \begin{pmatrix} 1 & 1 - t_i \\ 0 & t_i \end{pmatrix}$.

Problem. There's "tail Gassner" but no "heads Gassner".

(150409) 2Dv: b: bracket trace; c: cobracket trace; $\langle b, c\rangle = \delta \in \{0, 1\}$. Relations: locality, $[a_{ij}, a_{ik}] = c_k a_{ij} - c_j a_{ik}$, $[a_{ik}, a_{jk}] = b_j a_{ik} - b_i a_{jk}$, $[a_{ij}, a_{jk}] = (c_j - b_j) a_{ik} + b_i a_{jk} - c_k a_{ij}$, $[b_i, a_{ij}] = -[b_j, a_{ij}] = -[c_i, a_{ij}] = [c_j, a_{ij}] = b_i c_j - \delta a_{ij}$, $[b_i, c_i] = 0$.

$V = \langle x_i = a_{i0},\ y_{ij} = c_0 a_{ij}$

$[a_{ij}, x_i] = y_{ij} - c_j x_i$

$[a_{ij}, x_j] = (c_j - b_j) x_i + b_0 x_j - y_{ij}$

$[b_i, x_i] = c_0 b_i - \delta a_{ij}$