Output from Python Script

1 4-valued $\leqslant_4$

1.1 Unary selection operators

$S_i^\perp(x)$	$x \curlywedge \diamond \sim (x) \curlywedge \diamond \sim \diamond \sim (x)$
$S_\perp^0(x)$	$\diamond(x) \curlywedge \sim \diamond \sim \diamond \sim (x) \curlywedge \sim \diamond \sim \diamond(x)$
$S_0^0(x)$	$x \curlywedge \sim (x) \curlywedge \sim \diamond \sim (x)$
$S_1^0(x)$	$\diamond \sim \diamond \sim (x) \curlywedge \sim \diamond \sim \diamond \sim (x) \curlywedge \diamond(x)$
$S_\top^0(x)$	$\diamond \sim (x) \curlywedge \sim \diamond \sim (x) \curlywedge \diamond \diamond \sim \diamond(x)$
$S_\perp^1(x)$	$\diamond \sim \diamond(x) \curlywedge \sim \diamond \sim \diamond(x) \curlywedge \diamond \diamond (x)$
$S_0^1(x)$	$\diamond(x) \curlywedge \sim \diamond(x) \curlywedge \diamond \sim (x)$
$S_1^1(x)$	$x \curlywedge \sim (x) \curlywedge \diamond \diamond \sim \diamond(x)$
$S_\top^1(x)$	$\diamond \sim \diamond \sim (x) \curlywedge \sim \diamond \sim \diamond \sim (x) \curlywedge \diamond \diamond \sim (x)$
$S_\perp^\top(x)$	$\sim \diamond \sim (x) \curlywedge \sim \diamond \sim \diamond \sim (x) \curlywedge \sim (x)$
$S_0^\top(x)$	$\diamond \sim \diamond \sim (x) \curlywedge \diamond \sim \diamond(x) \curlywedge \diamond \diamond (x)$
$S_1^\top(x)$	$\diamond(x) \curlywedge \diamond \sim (x) \curlywedge \diamond \sim \diamond \diamond \sim \diamond(x)$
$S_\top^\top(x)$	$x \curlywedge \sim \diamond(x) \curlywedge \sim \diamond \sim \diamond(x)$

Figure 1: Normal forms for the unary selection operators

1.2 Policy decision table

p_1	p_2	p_3	p_4	P
0	t	b	1	b
b	t	0	b	b
1	0	1	1	b
b	b	b	1	b
t	1	0	t	0
1	t	0	0	1
t	0	b	b	b
b	0	t	0	1
0	1	1	t	b
0	1	0	0	b

1.3 Policy expressed using unary selection operators

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(\diamond \sim (d_1) \curlywedge \sim \diamond \sim (d_1) \curlywedge \diamond\diamond \sim \diamond(d_1) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge \sim \diamond \sim \diamond \sim (d_2) \curlywedge \diamond(d_2) \curlywedge d_3 \curlywedge \sim (d_3) \curlywedge \sim \diamond \sim (d_3) \curlywedge \diamond \sim (d_4) \curlywedge \sim \diamond \sim (d_4) \curlywedge \diamond\diamond$$

$$(d_1 \curlywedge \sim (d_1) \curlywedge \diamond\diamond \sim \diamond(d_1) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge \sim \diamond \sim \diamond \sim (d_2) \curlywedge \diamond\diamond \sim (d_2) \curlywedge \diamond(d_3) \curlywedge \sim \diamond(d_3) \curlywedge \diamond \sim (d_3) \curlywedge \diamond(d_4) \curlywedge \sim \diamond(d_4) \curlywedge$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(\diamond \sim \diamond(d_1) \curlywedge \sim \diamond \sim \diamond(d_1) \curlywedge \diamond\diamond(d_1) \curlywedge \diamond(d_2) \curlywedge \sim \diamond(d_2) \curlywedge \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge \sim \diamond \sim \diamond \sim (d_3) \curlywedge \diamond\diamond \sim (d_3) \curlywedge \diamond(d_4) \curlywedge \sim \diamond(d_4) \curlywedge$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond \sim$$

$$(d_1 \diamond \sim (d_1) \curlywedge \diamond \sim \diamond \sim (d_1) \curlywedge d_2 \diamond \sim (d_2) \curlywedge \diamond \sim \diamond \sim (d_2) \curlywedge d_3 \diamond \sim (d_3) \curlywedge \diamond \sim \diamond \sim (d_3) \curlywedge d_4 \diamond \sim (d_4) \curlywedge \diamond$$