Observations to concepts

Concept

Is it predicted?

Is it expected?

Observations to concepts

Concept

Is it predicted?

Is it expected?

{t}

Prediction 1

t

Prediction 2

t

Observation space

2
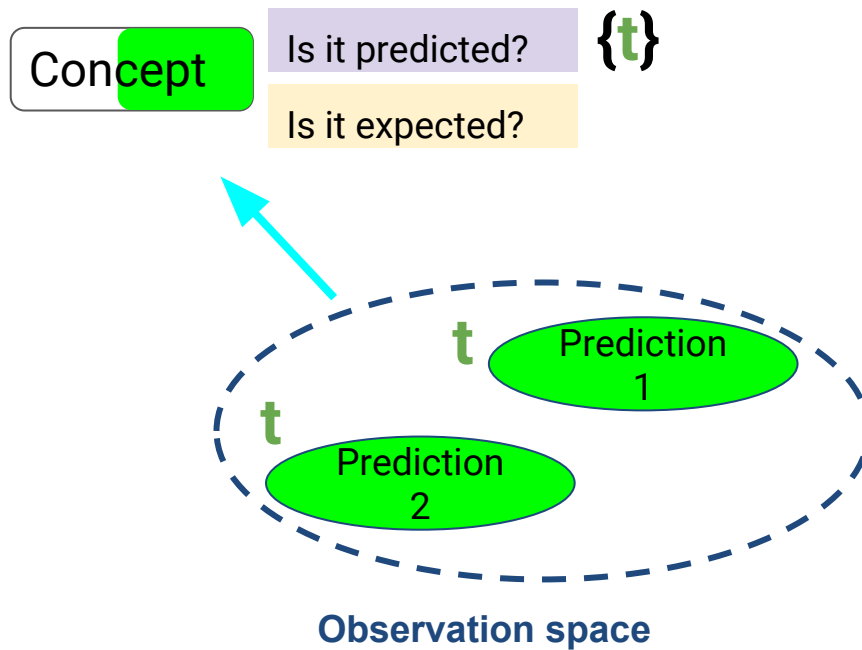
Observations to concepts

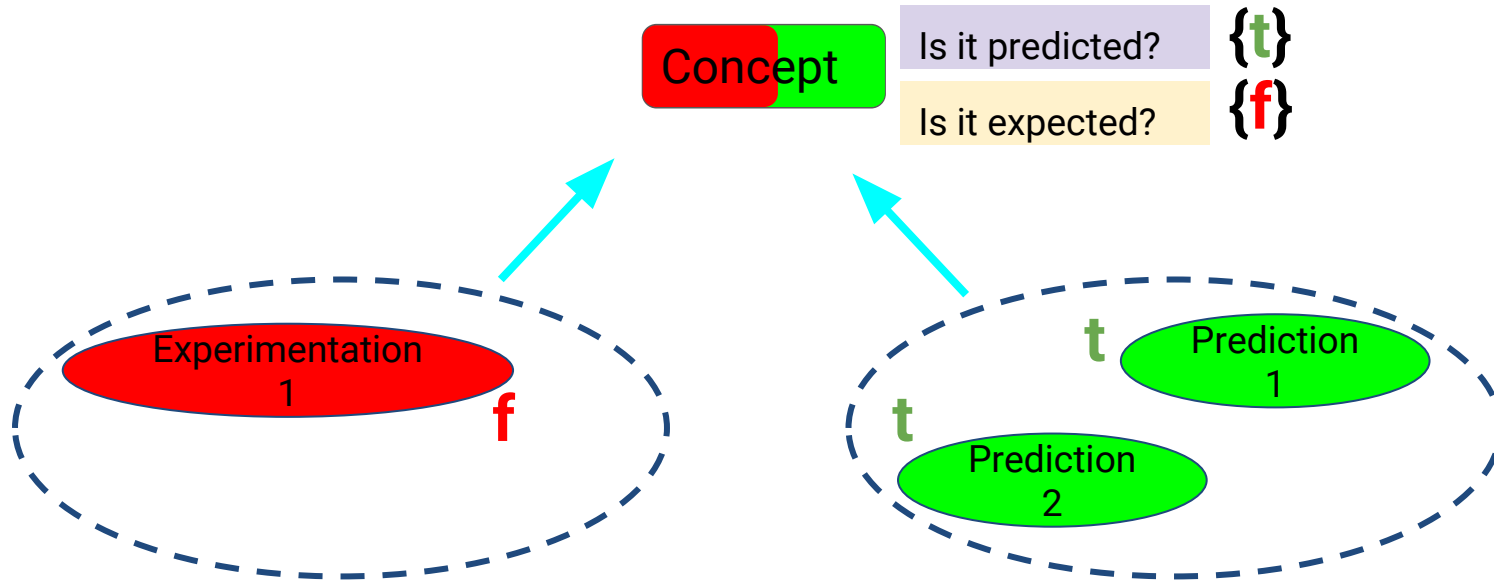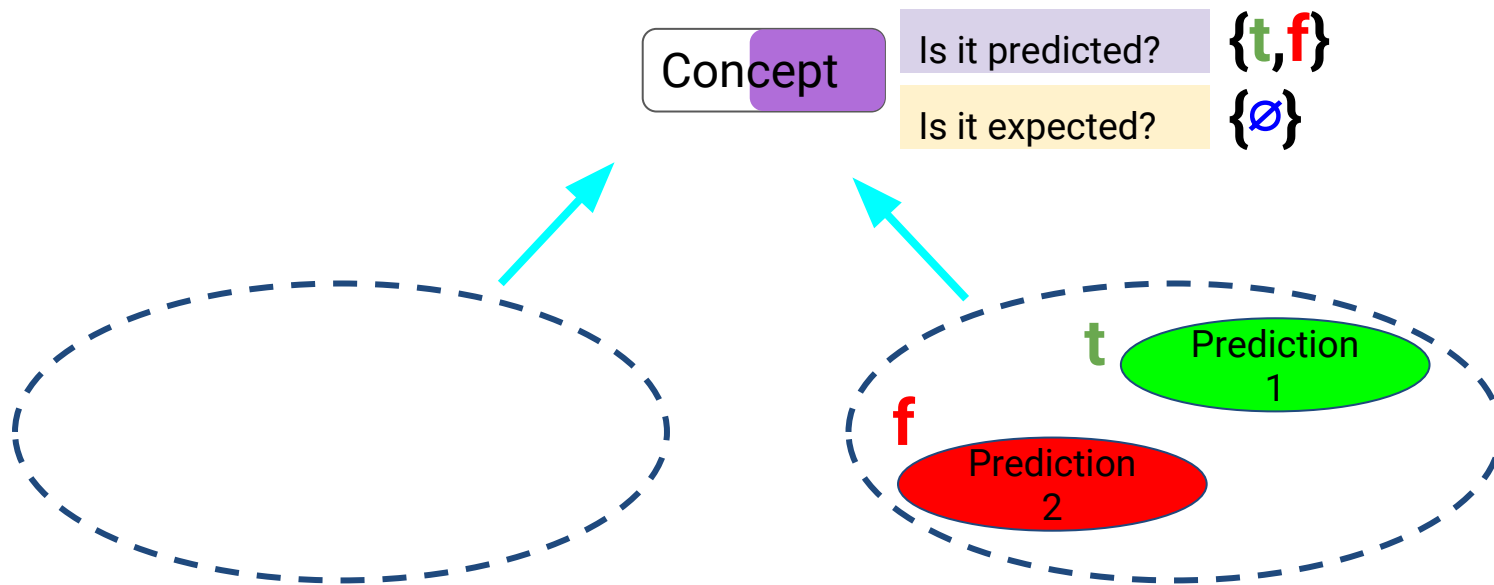# Observations to concepts

Concept

Is it predicted? $\{t, f\}$

Is it expected? $\{\varnothing\}$

t Prediction 1

f Prediction 2

4

Propagation rules

4 rules: to propagate **predictions** or **expectations** following relation types (**composition** or **generalization/specialisation**)

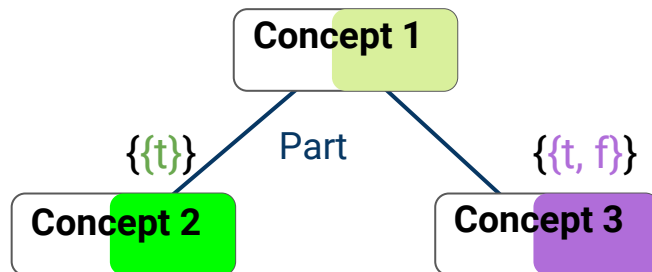# Propagation rules

4 rules: to propagate **predictions** or **expectations** following relation types (**composition** or **generalization/specialisation**)

Propagation rule for predictions with composition relations

Propagation rules

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Propagation rule for predictions with composition relations

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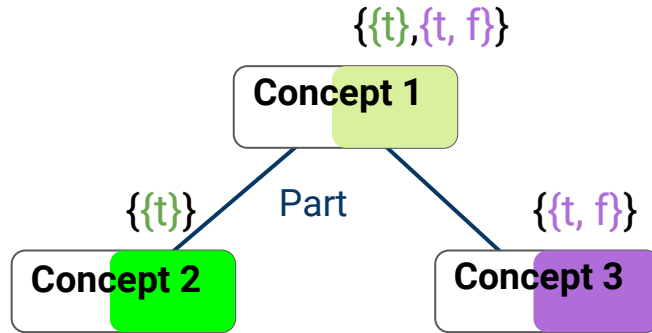
Propagation rule for predictions with generalization/specialisation relations

Propagation rules

4 rules: to propagate **predictions** or **expectations** following relation types (**composition** or **generalization/specialisation**)
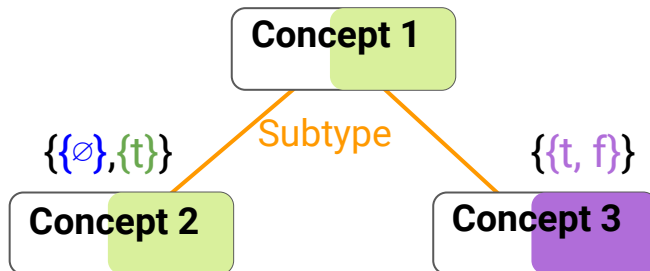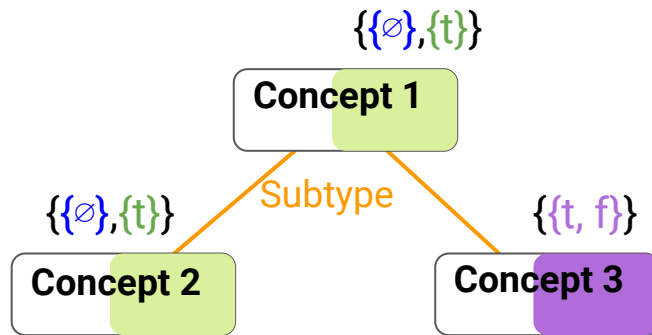
Propagation rule for predictions with generalization/specialisation relations
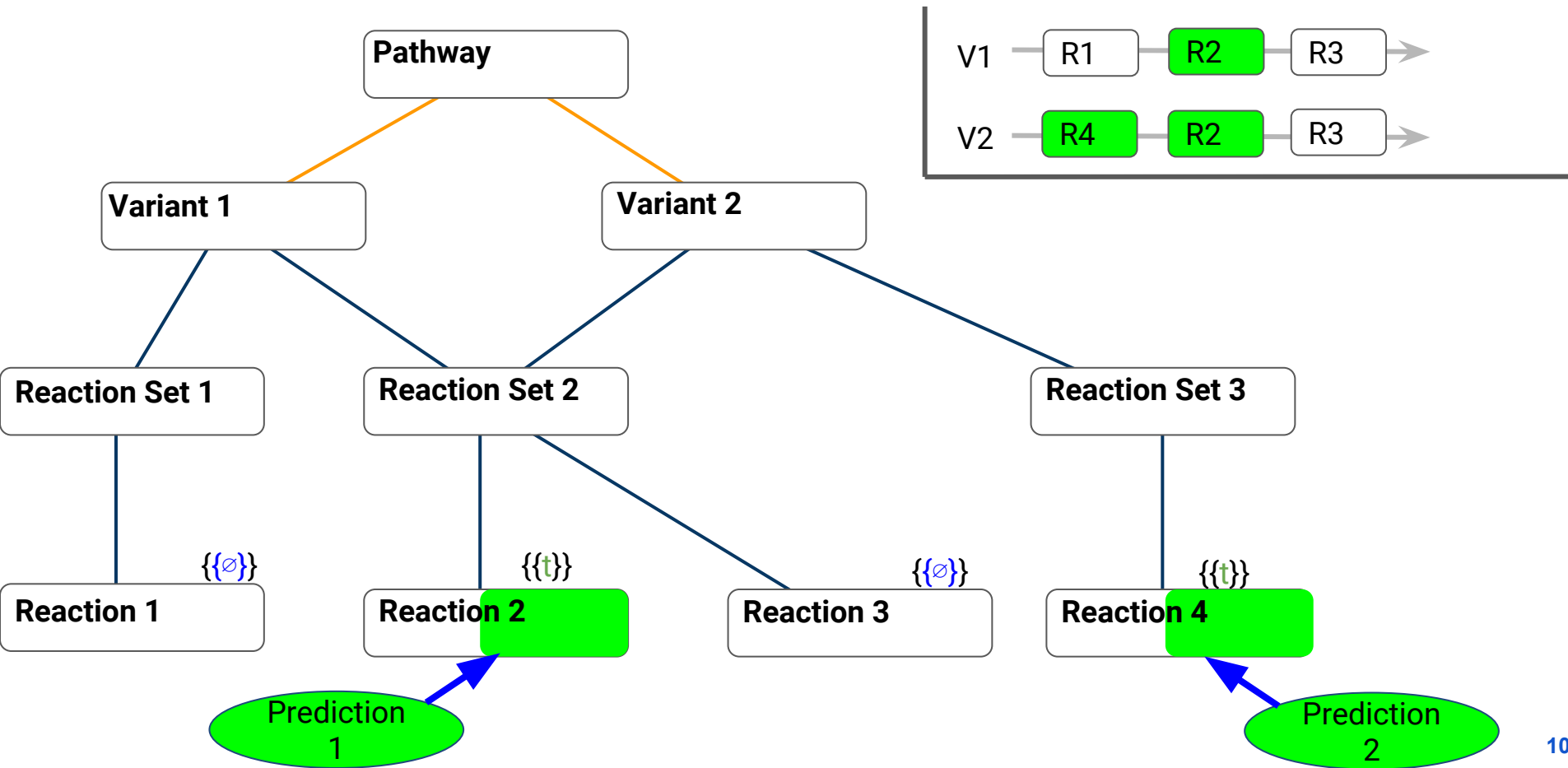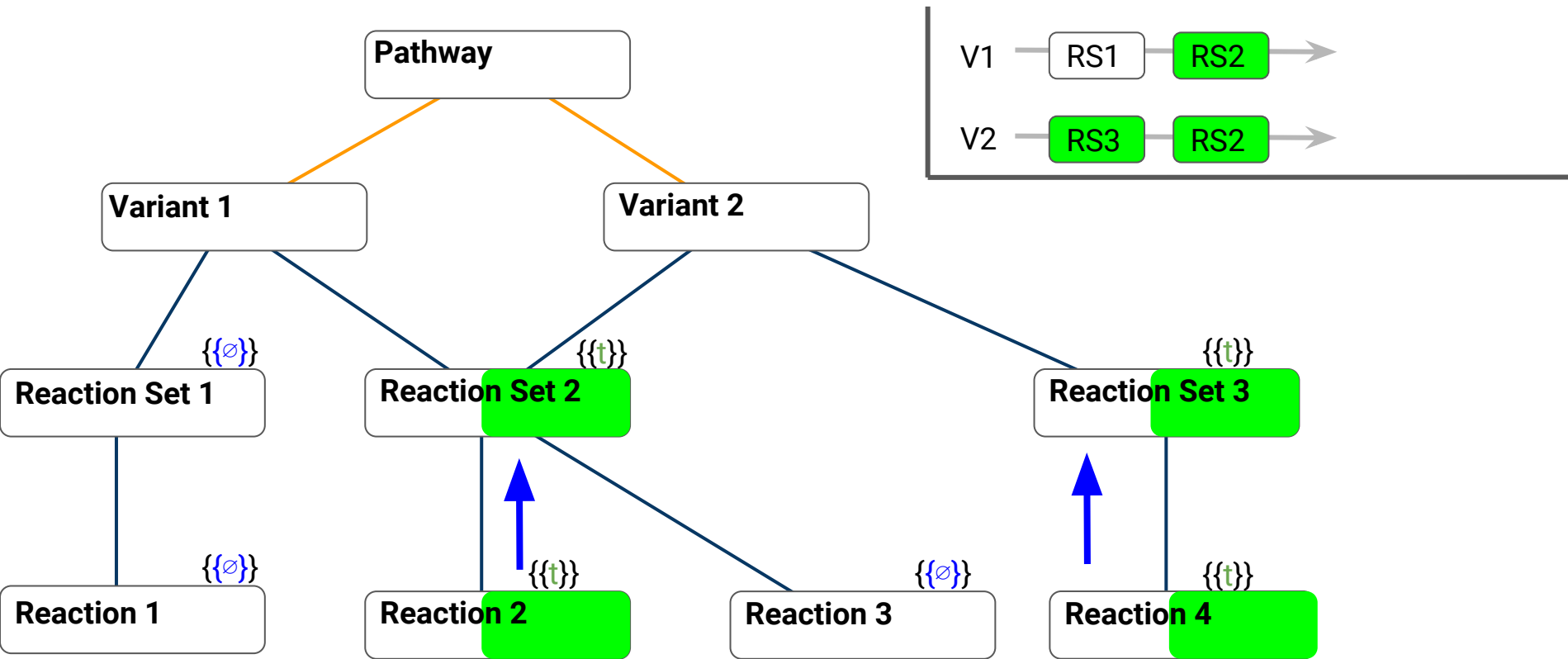
Reasoning: specific mode

Pathway

Variant 1

Variant 2

V1 — R1 — R2 — R3 →

V2 — R4 — R2 — R3 →

Reaction Set 1

Reaction Set 2

Reaction Set 3

{{∅}}

{{t}}

{{∅}}

{{t}}

Reaction 1

Reaction 2

Reaction 3

Reaction 4

Prediction 1

Prediction 2

Reasoning: specific mode

Pathway

Variant 1   Variant 2

V1 — RS1 — RS2 →

V2 — RS3 — RS2 →

{{∅}}
Reaction Set 1

{{t}}
Reaction Set 2

{{t}}
Reaction Set 3

{{∅}}
Reaction 1

{{t}}
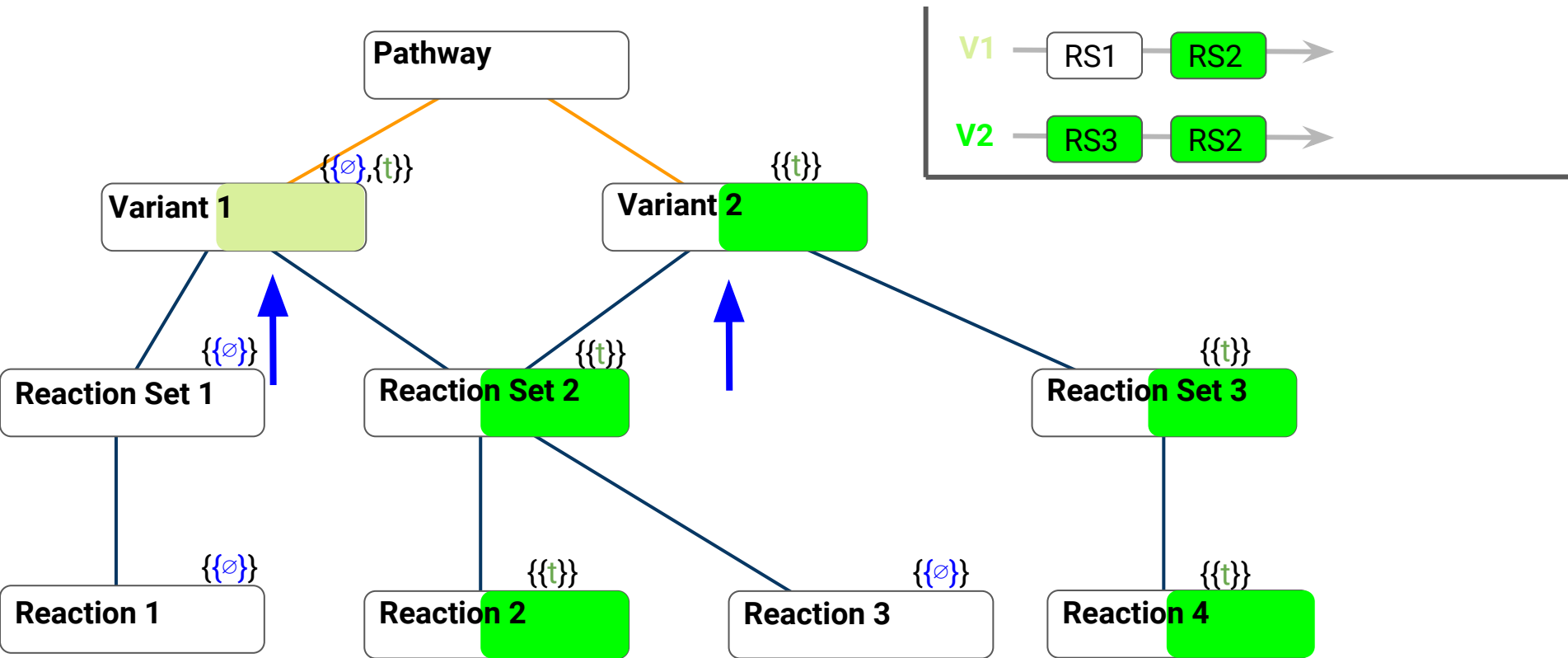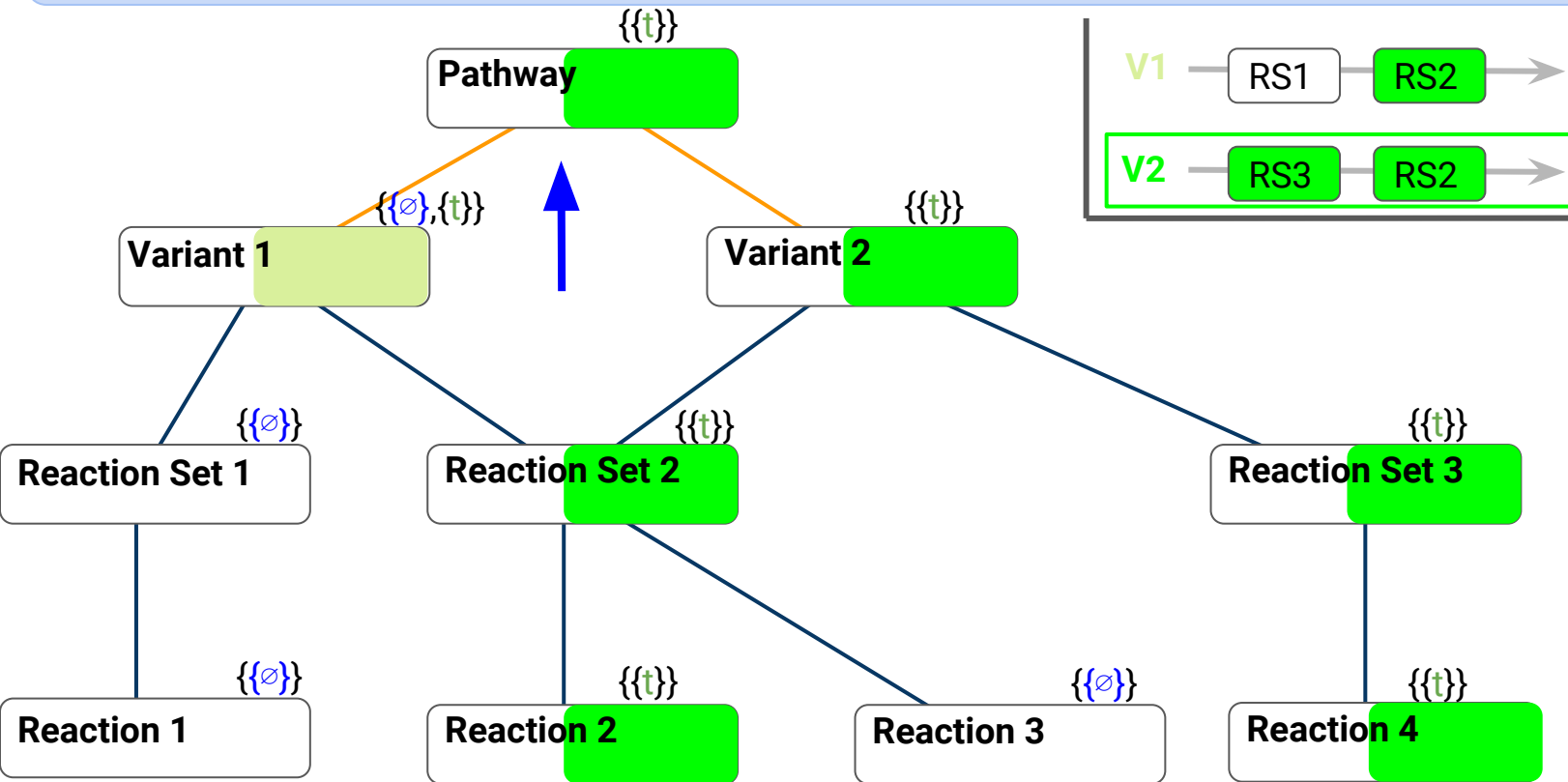Reaction 2

{{∅}}
Reaction 3

{{t}}
Reaction 4

Reasoning: specific mode

Reasoning: specific mode

Reasoning: specific mode

Reasoning: specific mode

Propagation of expectation on child concept with the greatest degree of belief for prediction

Pathway {{t}} {{t}}

Variant 1 {{∅},{t}}

Variant 2 {{t}} {{t}}

Reaction Set 1 {{∅}}

Reaction Set 2 {{t}}

Reaction Set 3 {{t}}

Reaction 1 {{∅}}

Reaction 2 {{t}}

Reaction 3 {{∅}}

Reaction 4 {{t}}

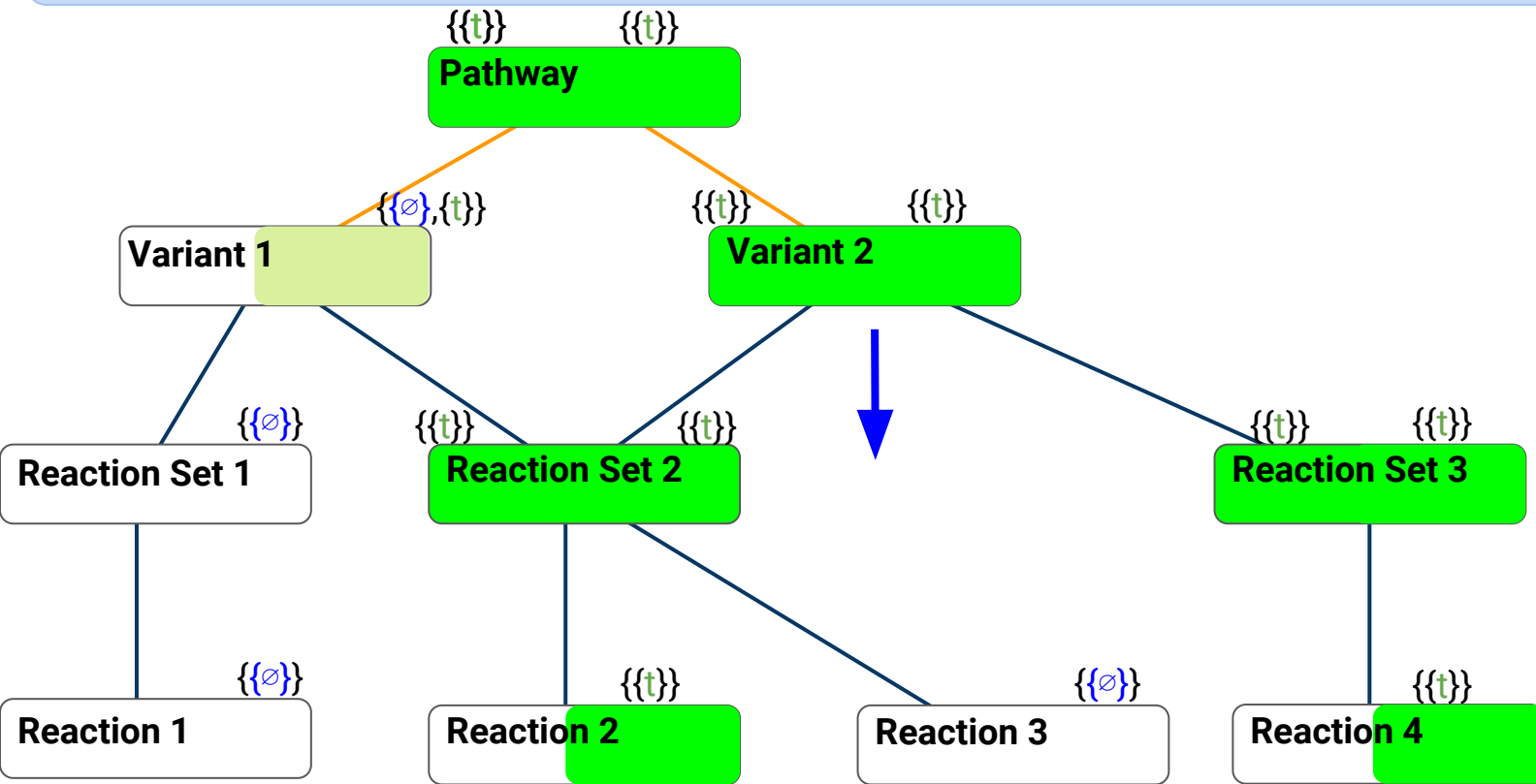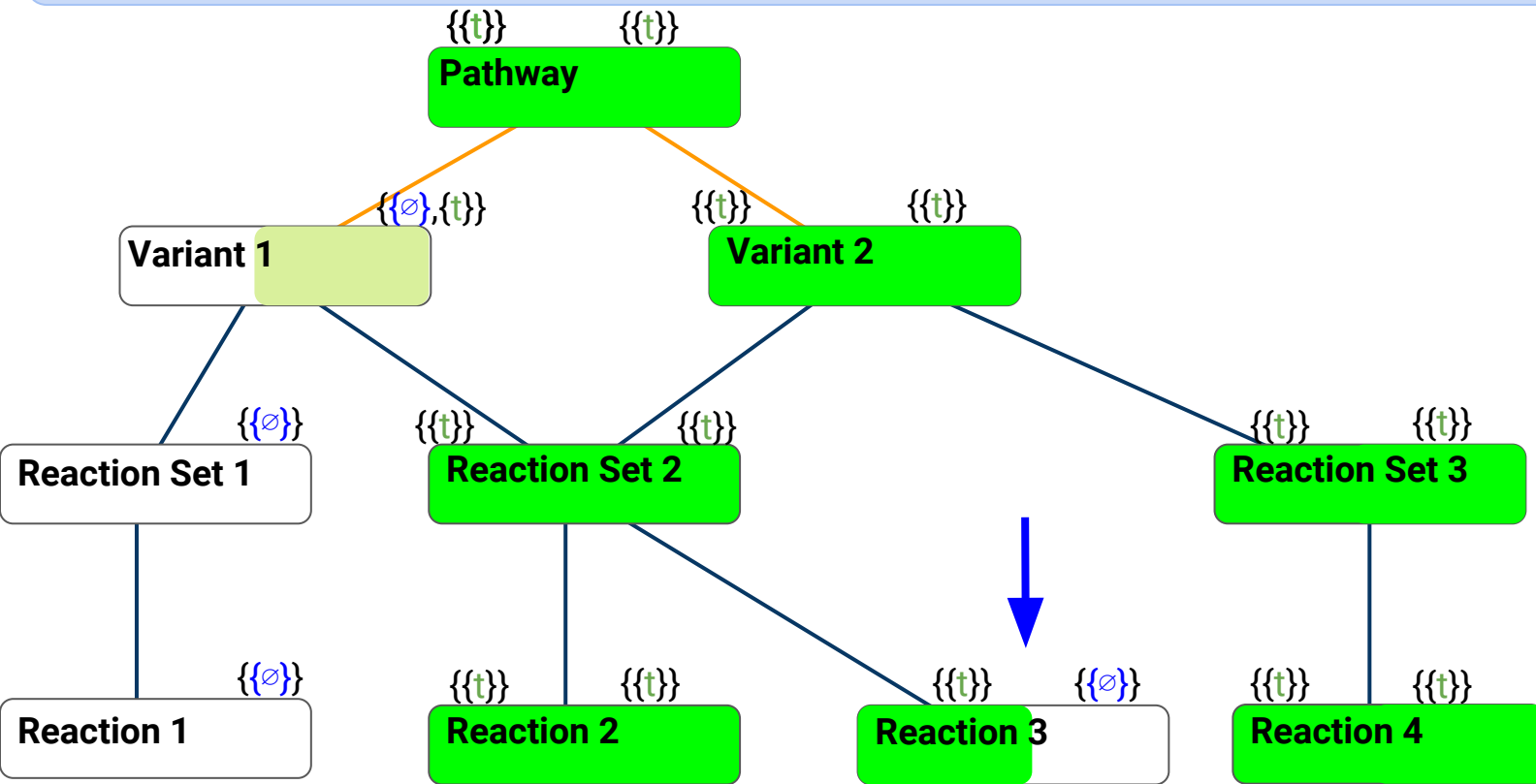# Reasoning: specific mode

Reasoning: specific mode

Reasoning: conclusions

{{t}} {{t}}
Pathway

Confirmed Presence

{{∅},{t}}
Variant 1

{{t}} {{t}}
Variant 2

{{∅}}
Reaction Set 1

{{t}} {{t}}
Reaction Set 2

{{t}} {{t}}
Reaction Set 3

{{∅}}
Reaction 1

{{t}} {{t}}
Reaction 2

{{t}} {{∅}}
Reaction 3

{{t}} {{t}}
Reaction 4

Unexplained

Confirmed Presence

Missing

Confirmed Presence