

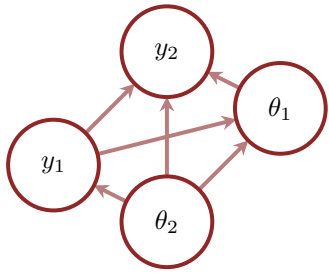
```

graph TD
    theta1((theta_1)) --> y2((y_2))
    theta2((theta_2)) --> y1((y_1))
    theta1((theta_1)) --> y1((y_1))
    theta2((theta_2)) --> y2((y_2))
    theta1((theta_1)) --> theta2((theta_2))

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graph TD
    theta1((theta_1)) --> y1((y_1))
    theta2((theta_2)) --> y1
    theta1 --> y2((y_2))
    theta2 --> y2
    theta1 <--> theta2
  
```



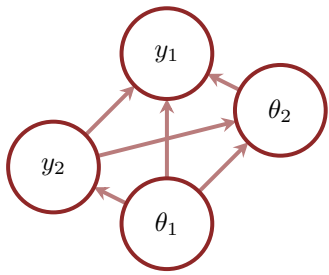
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graph LR
    y1((y1)) --> theta1((θ1))
    y1((y1)) --> theta2((θ2))
    theta1((θ1)) --> y2((y2))
    theta2((θ2)) --> y2((y2))

```

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graph TD
    y2((y2)) --> y1((y1))
    y2((y2)) --> theta2((theta2))
    y1((y1)) --> theta1((theta1))
    theta2((theta2)) --> y1((y1))
    theta1((theta1)) --> y2((y2))
  
```



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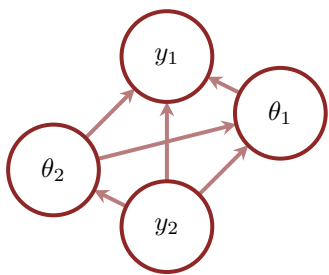
graph LR
    y1((y1)) --> y2((y2))
    y1((y1)) --> theta1((theta1))
    y1((y1)) --> theta2((theta2))
    theta1((theta1)) --> y2((y2))
    theta1((theta1)) --> theta2((theta2))

```

```

graph LR
    y1((y1)) --> theta2((theta2))
    y1((y1)) --> y2((y2))
    theta1((theta1)) --> y2((y2))
    theta1((theta1)) --> theta2((theta2))
    theta2((theta2)) --> y2((y2))

```



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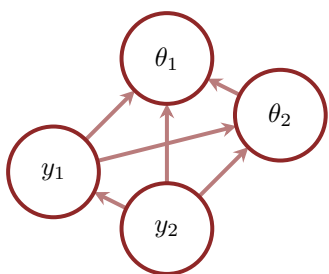
graph TD
    theta2((theta_2)) --> theta1((theta_1))
    theta2((theta_2)) --> y1((y_1))
    y2((y_2)) --> theta1((theta_1))
    y2((y_2)) --> y1((y_1))
    y2((y_2)) --> theta2((theta_2))

```

```

graph LR
    theta1((theta_1)) --> y1((y_1))
    theta1((theta_1)) --> y2((y_2))
    y1((y_1)) --> theta2((theta_2))
    y2((y_2)) --> theta2((theta_2))
    y1((y_1)) --- y2((y_2))

```



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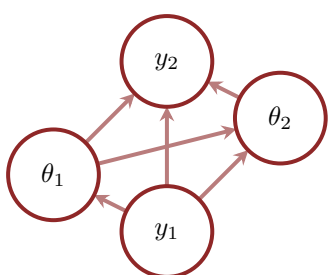
graph TD
    theta1((theta_1)) --> theta2((theta_2))
    theta1 --> y1((y_1))
    theta1 --> y2((y_2))
    theta2 --> y1
    theta2 --> y2

```

```

graph TD
    y2((y2)) --> theta2((theta2))
    y2((y2)) --> theta1((theta1))
    y1((y1)) --> theta2((theta2))
    y1((y1)) --> theta1((theta1))
    theta2((theta2)) --> y1((y1))

```



```

graph TD
    theta1((theta_1)) --> y1((y_1))
    theta1((theta_1)) --> y2((y_2))
    theta2((theta_2)) --> y1((y_1))
    theta2((theta_2)) --> y2((y_2))
    y1((y_1)) --> y2((y_2))
  
```

$$\pi(y_1, y_2, \theta_1, \theta_2) = \pi(\theta_2 \mid \theta_1, y_2, y_1) \pi(\theta_1 \mid y_2, y_1) \pi(y_2 \mid y_1) \pi(y_1)$$