

## Part IV

# Relational and Causal Models

The fourth and last part of the book describes two interesting extensions to probabilistic graphical models: relational probabilistic models and causal graphical models. Relational probabilistic models increase the representational power of *standard* PGMs, by combining the expressive power of first-order logic with the uncertain reasoning capabilities of probabilistic models. Causal graphical models go beyond representing probabilistic dependencies, to express cause and effect relations, based on the same framework of graphical models.