Logical Relations Description

The term 'Logical Relations' refers to those constructions where the verb expresses the relationship between two entities or two actions or events. In this study it is limited to those relations that are not covered by the 'Equivalence' Networks or the 'Causation' Networks.
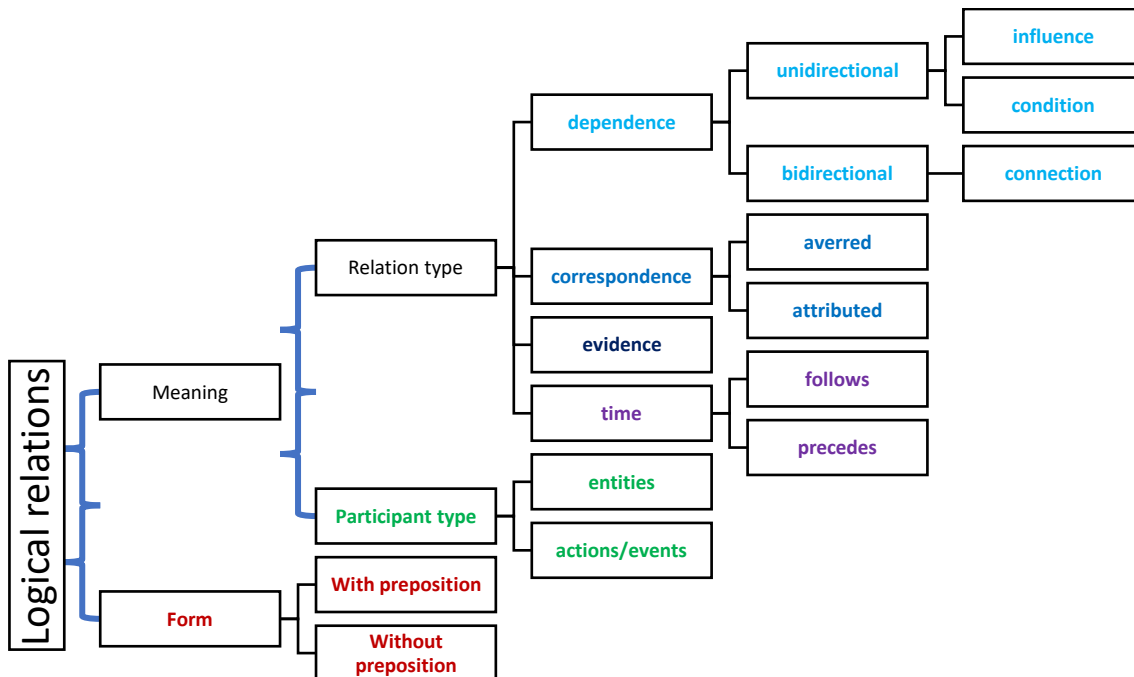
There are 22 constructions that express this meaning, drawing on 12 verb complementation patterns.

The Systemic Network. This network shows simultaneous choices in meaning and form. The form choices are simply choices between patterns. The meaning choices are more interesting. There are simultaneous choices between the type of logical relation expressed and between the type of participant.

The relation types are divided into: dependence, correspondence, evidence and time. The time relation may indicate subsequent or preceding time ('event A follows event B' or 'event A precedes event B'). Correspondence may be simply stated (averred), as in 'The arrows correspond to the decision path', or may involve an observer or construer of some kind (attributed), as in 'She based her argument on three points'. Dependence may be unidirectional (one thing influences another) or bidirectional (two things influence each other). The unidirectional dependence may work in either direction: 'Events influenced the decision' (influence) or 'The decision depended on events' (condition).

The types of participants are divided into entities and actions/events. Because all participants can be realised as nouns, however, the distinction is not absolute. At its clearest, the distinction is between examples such as 'Gloom descended over the town' (two entities) and those such as 'An explosion can result from mixing chemicals' (an event conditional on an action).

The systemic network looks like this:

The Meaning Network. In the meaning network, participant type is prioritised, which means that most of the relation types occur twice in the network. The networks are shown in the document 'Logical Relations Meaning Network'. Here the meanings and patterns are shown with examples of the constructions:

- Relations between entities
  - Influence
    - V on n Cx21 e.g. 'Stress impinged on her ability to work.'
    - V over n Cx12 e.g. 'Gloom hung over the town.' And Cx13 e.g. 'Gloom descended over the town.'
      - Condition
    - V on n Cx 22 e.g. 'They all depended on his kindness.'
  - Correspondence
    - Averred
      - V to n Cx 10 e.g. 'The arrows correspond to the decision path.'
        - Attributed
      - V n into n Cx 18 e.g. 'They built energy efficiency into the design.'
      - V n on n Cx 12 e.g. 'They based their ideas on ancient writings.' and Cs 13 'They modelled the design on Roman villas.'
    - V n in n Cx 24 e.g. 'They couched their teaching in story form.'
  - Evidence
    - V n (Relational) Cx 17 e.g. 'The evidence proved his innocence.'
    - V to n Cx 9 e.g. 'The evidence pointed to his innocence.'
- Relations between actions/events
  - Influence (unidirectional)
    - V that Cx20 e.g. 'The need to work quickly dictated that some short-cuts were taken.'
    - V n (Relational) Cx 18 e.g. 'The short-cuts they took ensured early completion of the work.'
    - V to n Cx37 e.g. 'The short-cuts they took led to early completion of the work.'
    - V wh Cx20 e.g. 'The way they worked determined how quickly the work was finished.'
  - Condition (unidirectional)
    - V n (Relational) Cx 19 e.g. 'Finishing quickly requires absolute concentration.'
    - V n -ing Cx8 e.g. 'Finishing quickly necessitates the craftsman concentrating absolutely.'
    - V from n Cx11 e.g. 'Finishing quickly results from absolute concentration.'
    - V on n Cx22 e.g. 'Finishing quickly depends on absolute concentration.'
    - V out of n Cx6 e.g. 'Her desire to succeed arose out of incidents in her childhood.'
  - Connection (bidirectional)
    - V -ing Cx15 e.g. 'Scoring goals involves working as a team.'
  - Time
    - V n (relational) Cx16 e.g. 'Celebrations followed winning the cup.'
    - V n with n Cx2 e.g. 'He prefaced his remarks with a long digression into the reasons for the meeting.'