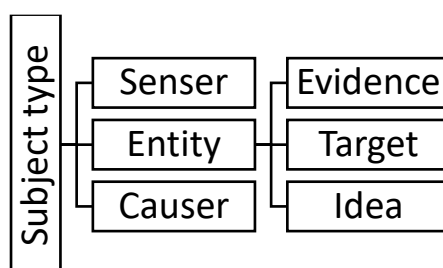# Cognition: Thought Description

The term 'Thought' refers to constructions which describe the process of thinking. It is part of the broader category of Cognition.
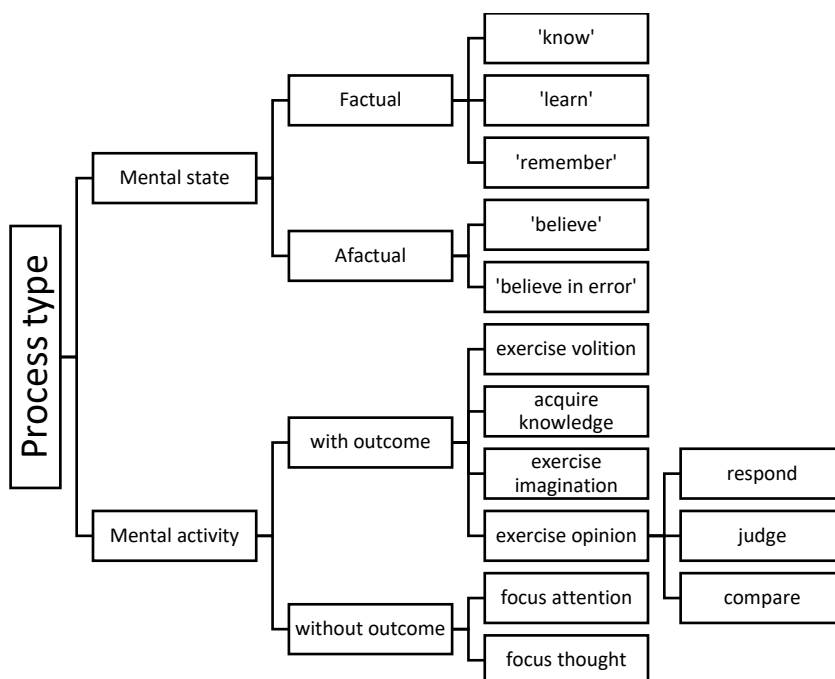
There are 92 constructions that express this meaning, drawing on 31 verb complementation patterns.

The Systemic Network. The Systemic Network suggests that there are independent choices between the Subject type, the Process type, and the Object type. In practice, however, the Process type is an issue only when the Subject is the Senser, and the Object type is an issue only when the Subject is a Causer. The most congruent Subject type is the Senser (a person thinks something). Other possible Subject types are an Entity and a Causer of thought. These express the process of thought more obliquely e.g. 'the thought struck him that…'. Three kinds of Entity Subjects are identified: evidence for an idea ('the picture suggested that…'), the Target of the thought ('the picture claimed his attention'), or a noun indicating a thought ('the thought hit him that…'). The 'Subject type' part of the network looks like this:
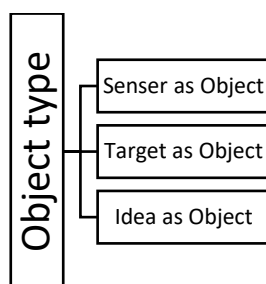

All the process types identified assume the Senser as Subject. The Process type network makes a primary distinction between verbs indicating a mental state, where there is no process of change or of mental exertion, and mental activity, which implies mental exertion of some kind. There are 5 mental state categories, divided into 'factual', implying that what is known or remembered is factually true, and 'afactual', which implies that the target of thought is either uncertain or incorrect. There are 6 mental activity categories, divided into those 'with an outcome', where the process of thought has a result, and those 'without an outcome', where the thought occurs without a result being specified. In the network, a distinction is made between 'learn', where the action of learning requires no effort and belongs to mental state, and 'acquire knowledge', which does imply exertion and belongs to mental activity. The category 'exercise opinion' is further divided into responding to another's opinion, for example through agreeing, making a judgement, and making a comparison between two things.

The 'Process type' part of the network looks like this:

Process type

- Mental state
  - Factual
    - 'know'
    - 'learn'
    - 'remember'
  - Afactual
    - 'believe'
    - 'believe in error'
- Mental activity
  - with outcome
    - exercise volition
    - acquire knowledge
    - exercise imagination
    - exercise opinion
      - respond
      - judge
      - compare
  - without outcome
    - focus attention
    - focus thought

Finally, in those cases where the Subject of the clause is a Causer, the Object of the clause may be the Senser, the Target of thought, or a noun indicating an idea. These are exemplified by: 'The exam results decided him on a course of action' (Senser as Object); 'The size of ears distinguishes the African elephant from the Indian elephant) (Target as Object); 'The book cast doubt on the theory' (Idea as Object). The 'Object type' part of the network looks like this:

Object type

- Senser as Object
- Target as Object
- Idea as Object

The full systemic network can be found in the document 'Cognition Thought Systemic Network'.

The Meaning Network. The Meaning Network largely follows the Systemic Network, prioritising the Subject type. The meaning distinctions and examples are shown below.

- The Subject of the clause is a Senser
  - Verb describes mental state
    - Factual
      - 'know' type
        - V n (Cognitive) Cx1 e.g. 'Alice knew the facts of the case.'
        - V that Cx11 e.g. 'Alice knew that Jim had stolen the money.'
        - V wh Cx1 e.g. 'Alice knew who had stolen the money.'
        - V about n Cx14 e.g. 'Alice knew about the stolen money.'
      - 'learn' type
        - V n (Cognitive) Cx1 e.g. 'Alice learned the facts of the case.'
        - V that Cx11 e.g. 'Alice grasped that Jim stole the money.'
        - V about n Cx14 e.g. 'Alice learned about the theft.'

- **'remember' type**
  - V n (Cognition) Cx1 e.g. 'Alice remembered the theft.'
  - V that Cx11 e.g. 'Alice remembered that the money was stolen.'
  - V -ing Cx12 e.g. 'Jim remembered stealing the money.'
  - V wh Cx6 e.g. 'Alice remembered who stole the money.'
  - V n -ing Cx3 e.g. 'Alice remembered Jim stealing the money.'
- Afactual
  - **'believe' type**
    - V n (Cognition) Cx4 e.g. 'Alice believed the story.'
    - V that Cx11 e.g. 'Alice believed that Jim was innocent.' and Cx12 e.g. 'Alice doubted that Jim was guilty.'
    - Vwh Cx7 e.g. 'Alice doubted whether Jim was guilty.'
  - **'believe in error' type**
    - V wh Cx9 e.g. 'Alice misunderstood what had happened.'
    - V pron-refl Cx21 e.g. 'Alice was deceiving herself.'
    - V n that Cx7 e.g. 'Alice deluded herself that it was true.'
    - V n about n Cx7 e.g. 'Alice kidded herself about the theft.'
    - V n for n Cx15 e.g. 'Alice mistook Jim for the thief.'
- Verb describes mental activity
  - Activity has an outcome
    - **Mental action**
      - V n (Cognitive) Cx2 e.g. 'Jim intended no harm.'
      - V that Cx15 e.g. 'Jim resolved that he would do no harm.'
      - V -ing Cx11 e.g. 'Jim intended doing no harm.'
      - V n to-inf Cx2 e.g. 'Alice expected Jim to return.'
      - V wh Cx11 e.g. 'Jim decided what he would do.'
      - V to-inf Cx12 e.g. 'Jim decided to steal the money.'
      - V for n Cx3 e.g. 'Alice opted for a red dress.'
      - V n for n Cx8 e.g. 'Alice braced herself for criticism.'
      - V n from n Cx16 e.g. 'Alice chose a puppy from the litter.'
    - **Acquire knowledge**
      - Acquire knowledge through calculation
        - V n (Cognitive) Cx2 e.g. 'Alice estimated the value.'
        - V that Cx11 e.g. 'Jim estimated that the train would arrive at 2pm.'
        - V wh Cx13 e.g. 'Alice estimated what the result would be.'
        - V n at n Cx6 e.g. 'Jim estimated that vase at £20.'
      - Acquire knowledge through investigation
        - V that Cx17 e.g. 'Alice learned that the train was late.'
        - V wh Cx14 e.g. 'Alice found out when the train would arrive.'
        - V to n Cx25 e.g. 'Alice cottoned on to the truth.'
        - V n from n Cx15 e.g. 'Jim learned the facts from Alice.'
    - **Use imagination**
      - V n (Cognitive) Cx2 e.g. 'Pat could imagine the scene.'

- o V that Cx 11 e.g. 'Pat envisaged that a problem would arise.' and Cx 16 e.g. 'Pat reflected that this would be a problem.'
- o V n adj Cx 4 e.g. 'Alice imagined the tree bare of leaves.'
- o V n -ing Cx1 e.g. 'Pat imagined the tree falling.'
- o V wh Cx10 e.g. 'Alice speculated what Jim would do.'
  - Have opinion
    - o Respond to another
      - V that Cx14 e.g. 'Pat accepted that Jim had stolen the money.'
      - V about n Cx15 e.g. 'Pat agreed about the circumstances of the theft.'
      - V in n Cx 9 e.g. 'Pat believed in Jim's guilt.'
    - o Make a judgement
      - V n adj Cx3 e.g. 'Pat believed him guilty.'
      - V n n Cx13 e.g. 'Alice considered Jim a thief.'
      - V n to-inf Cx3 e.g. 'Alice believed Jim to be a thief.'
      - V n as adj Cx1 e.g. 'Pat regarded Jim as guilty.'
      - V n as n Cx1 e.g. 'Pat regarded Jim as a thief.'
      - V n in n Cx14 e.g. 'Alice found comfort in Pat's friendship.' and Cx 15 e.g. 'Alice placed trust in Pat's friendship.'
      - V n of n Cx7 e.g. 'Alice thought a lot of Jim.' and Cx8 e.g. 'Alice expected a lot of Jim.'
    - o Make a comparison
      - V between n Cx3 e.g. 'Jim differentiated between his friends.'
      - V n against n Cx1 e.g. 'Jim balanced the chance of success against the possibility of failure.'
      - V n from n Cx19 e.g. 'Alice could not tell lies from the truth.'
  - Activity has no outcome
    - A person focuses the mind
      - o V on n Cx9 e.g. 'Pat concentrated on the test.'
      - o V n in n Cx11 e.g. 'Pat immersed himself in the test.'
      - o V n on n Cx9 e.g. 'Jim directed his attention on the test.'
      - o V n to n Cx31 e.g. 'Jim accustomed himself to exam conditions.'
    - A person gives consideration to something
      - o V wh Cx12 e.g. 'Alice considered what the answer should be.'
      - o V about n Cx? e.g. 'Alice thought about the answer.'
      - o V on n Cx3 e.g. 'Alice deliberated on the answer.'
      - o V over n Cx5 e.g. 'Alice deliberated over the answer.'
- The Subject of the clause is an Entity
  - o Subject is evidence for the conclusion
    - V that Cx18 e.g. 'Fingerprints indicate that Jim was the thief.'
    - V n to-inf Cx5 e.g. 'The fingerprints showed Jim to be the thief.'
    - V wh Cx16 e.g. 'The fingerprints revealed who the thief was.'
    - V n about n Cx8 e.g. 'The evidence revealed a lot about the crime.'
    - V n as adj Cx2 e.g. 'Pat's clothes branded him as vain.'

- - - - ▪ V n as n Cx2 e.g. 'Pat's clothes marked him as a detective.'
  - o Subject is the target of thought
    - ▪ V n (Cognitive) Cx8 e.g. 'The picture claimed their attention.' and Cx9 e.g. 'The picture left a deep impression.'
    - ▪ V in n Cx5 e.g. 'The picture stuck in their minds.'
    - ▪ V n as adj Cx3 e.g. 'The picture struck her as odd.'
    - ▪ V n as n Cx3 e.g. 'The picture struck her as something unusual.'
  - o Subject is a thought or idea
    - ▪ V through n Cx5 e.g. 'A clever thought flashed through her mind.'
    - ▪ V n that Cx8 e.g. 'The idea hit Pat that Jim might have stolen the money.'
    - ▪ V to n Cx33 e.g. 'A clever thought came to Alice.'
- The Subject of the clause is a Causer
  - o The Object of the clause is a Senser
    - ▪ V n (Cognitive) Cx8 e.g. 'The new evidence convinced Alice.'
    - ▪ V n against n Cx3 e.g. 'The new evidence decided Alice against Jim's guilt.'
    - ▪ V n on n Cx9 e.g. 'The new evidence decided Alice on a course of action.'
    - ▪ V n to n Cx32 e.g. 'The new evidence awakened Alice to another possibility.'
    - ▪ V n with n Cx23 e.g. 'The new evidence confronted Alice with another possibility.'
  - o The Object of the clause is a target of thought
    - ▪ V n from n Cx18 e.g. 'The size of the ears distinguishes the African elephant from the Indian elephant.'
  - o The Object of the clause is a thought or idea
    - ▪ V n in n Cx12 e.g. 'The book fixed a new idea in Alice's mind.'
    - ▪ V n on n Cx11 e.g. 'The book cast doubt on the culprit's identity.'
    - ▪ V n out of n Cx13 e.g. 'The football match blocked all thoughts of love from Pat's mind.'
    - ▪ V n to n Cx33 e.g. 'The match drew attention to Pat's failings.'