Supplementary Text

Three conditiions for all logic types used in Logicome Profiler

logic 1
  (a) C is associated with $A \wedge B$
  (b') C is associated with $A \wedge B$ rather than A
  (c') C is associated with $A \wedge B$ rather than B
logic 2
  (a) $\neg C$ is associated with $A \wedge B$
  (b') $\neg C$ is associated with $A \wedge B$ rather than A
  (c') $\neg C$ is associated with $A \wedge B$ rather than B
logic 3
  (a) $\neg C$ is associated with $\neg A \wedge \neg B$
  (b') $\neg C$ is associated with $\neg A \wedge \neg B$ rather than $\neg A$
  (c') $\neg C$ is associated with $\neg A \wedge \neg B$ rather than $\neg A$
logic 4
  (a) C is associated with $\neg(A \vee B) = \neg A \wedge \neg B$
  (b') C is associated with $\neg A \wedge \neg B$ rather than $\neg A$
  (c') C is associated with $\neg A \wedge \neg B$ rather than $\neg B$
logic 5
  (a) C is associated with $A \wedge \neg B$
  (b') C is associated with $A \wedge \neg B$ rather than A
  (c') C is associated with $A \wedge \neg B$ rather than $\neg B$
logic 6
  (a) $\neg C$ is associated with $A \wedge \neg B$
  (b') $\neg C$ is associated with $A \wedge \neg B$ rather than A
  (c') $\neg C$ is associated with $A \wedge \neg B$ rather than $\neg B$