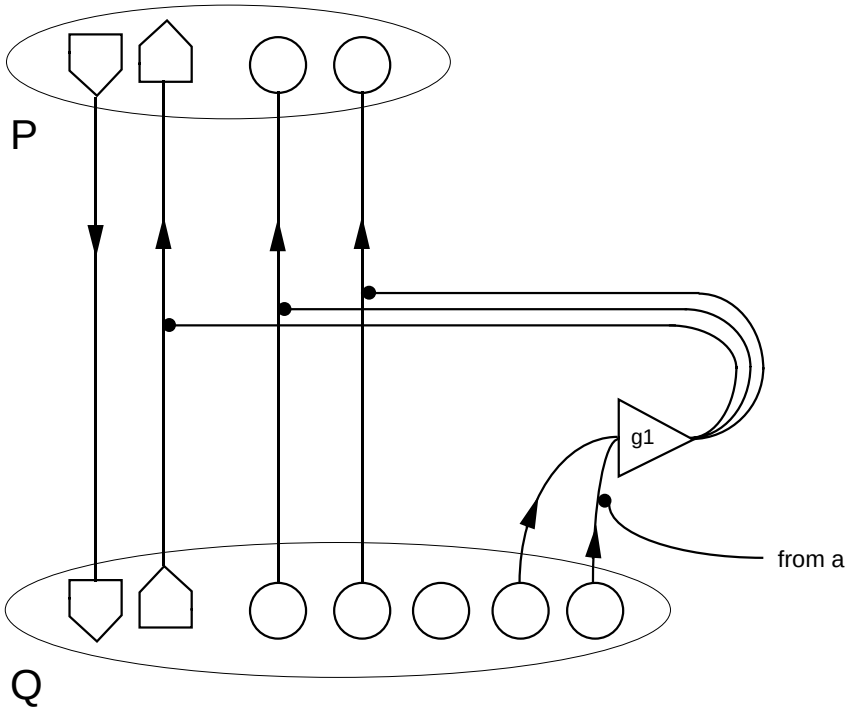
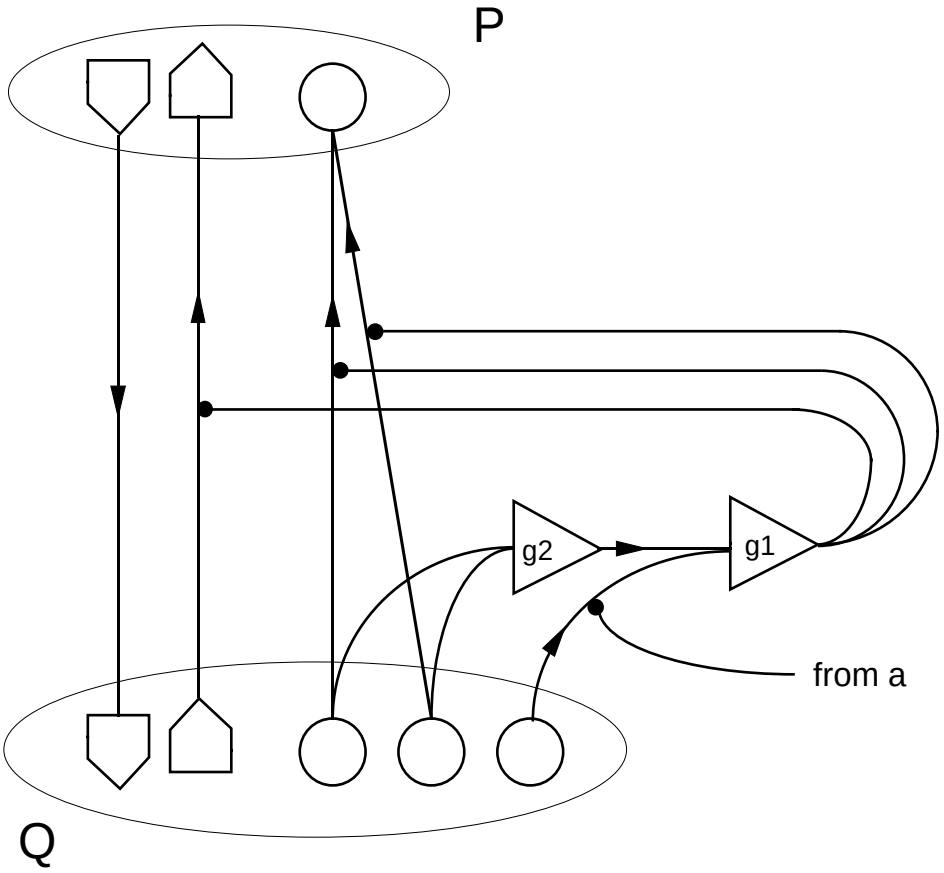
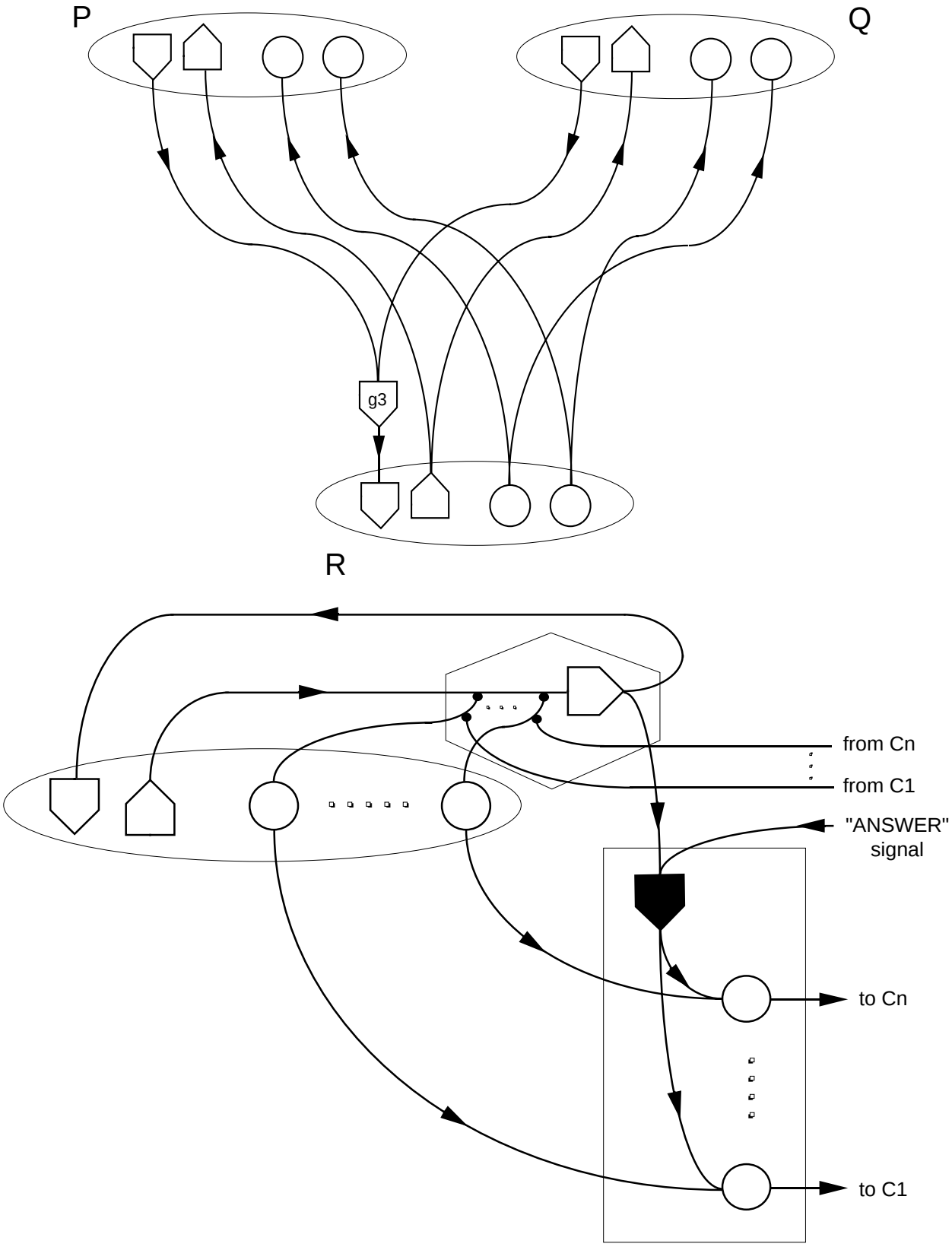
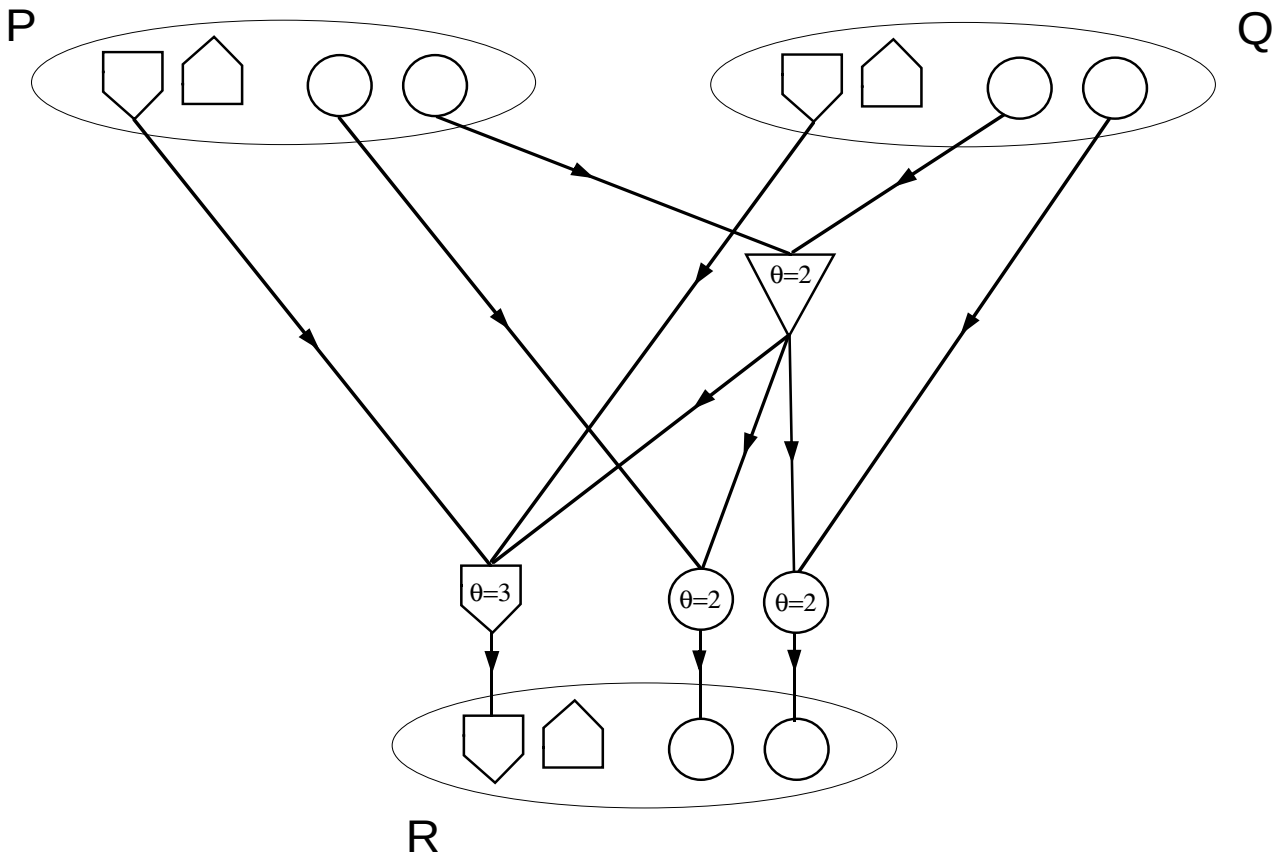
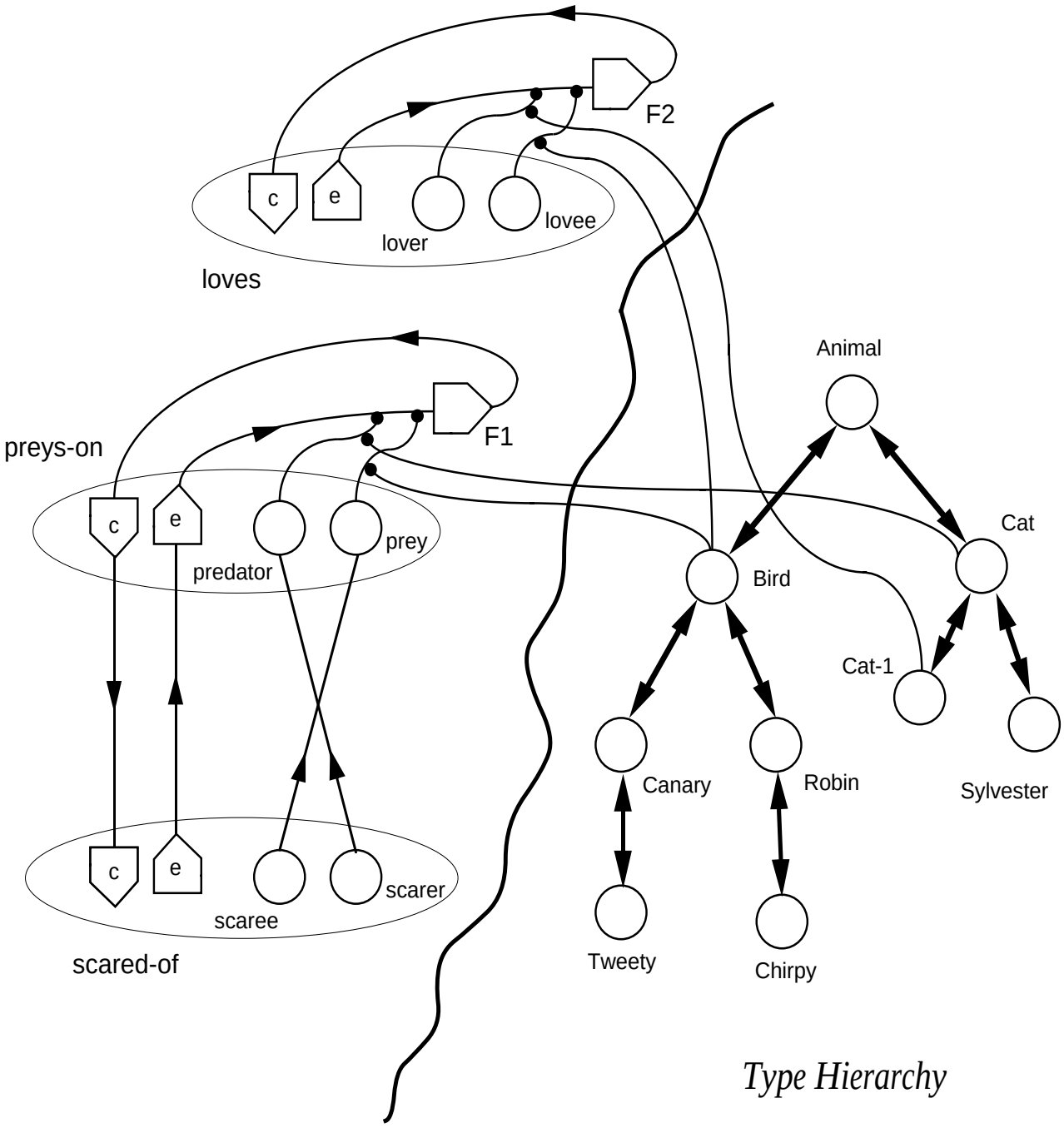
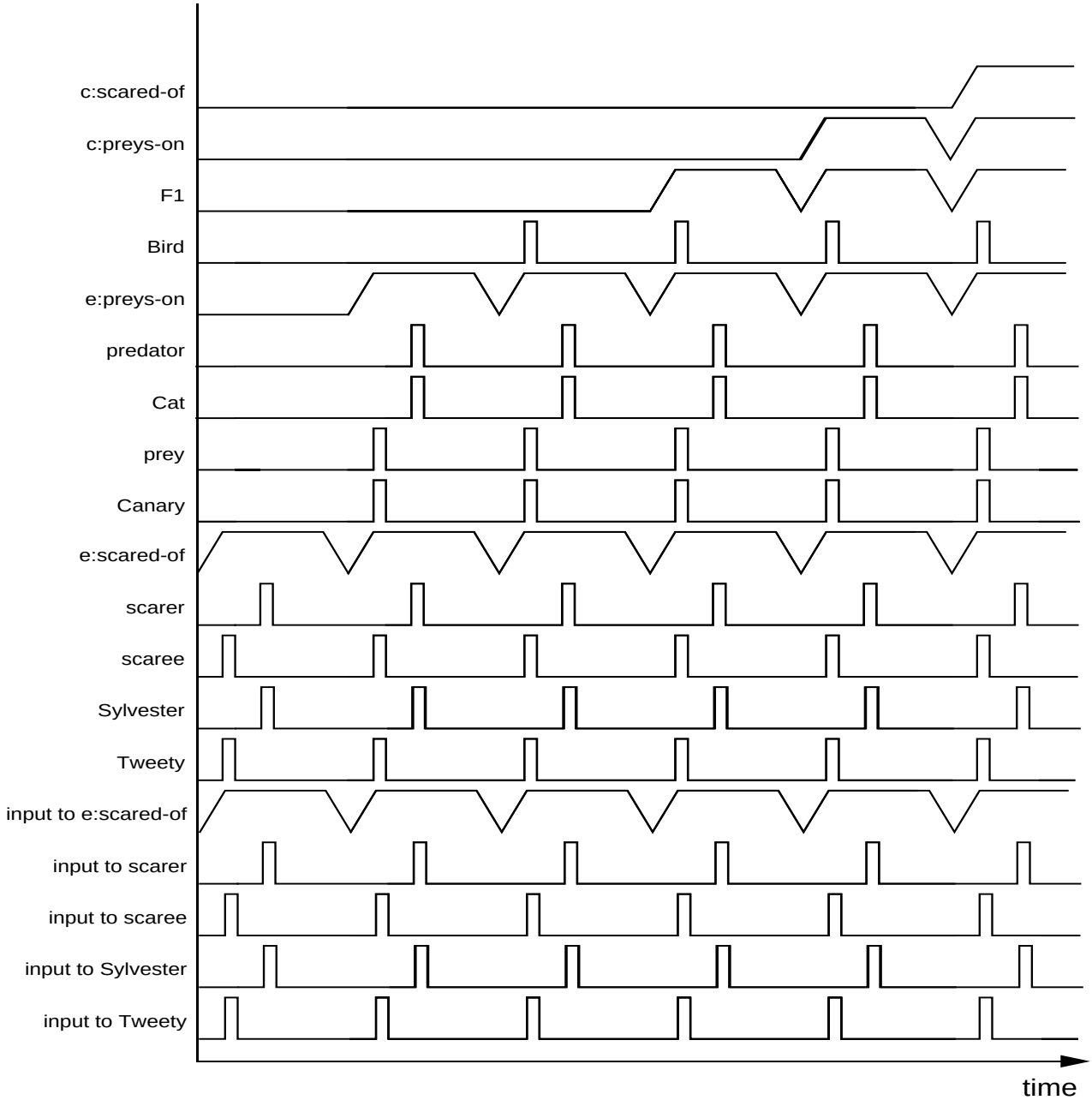

P
g1
from a
Q

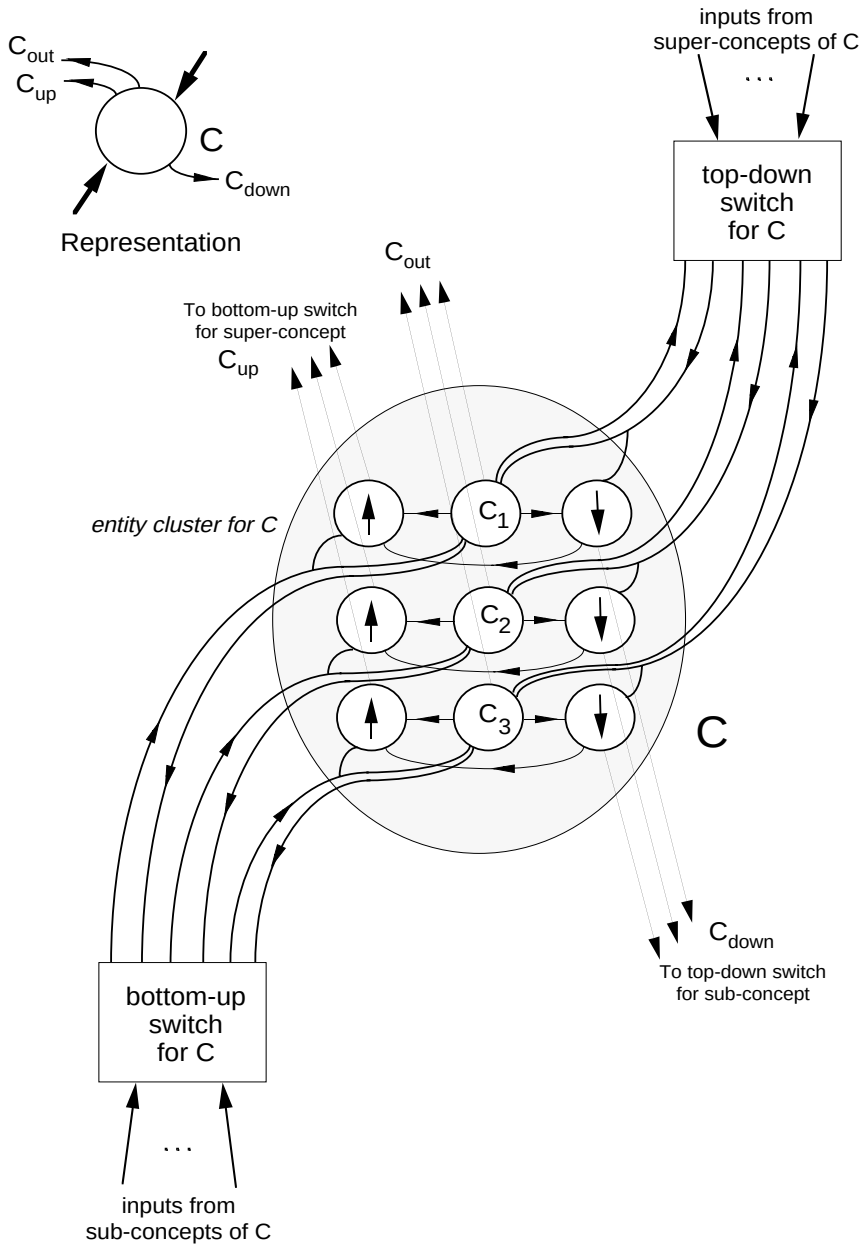

P
g2
g1
from a
Q

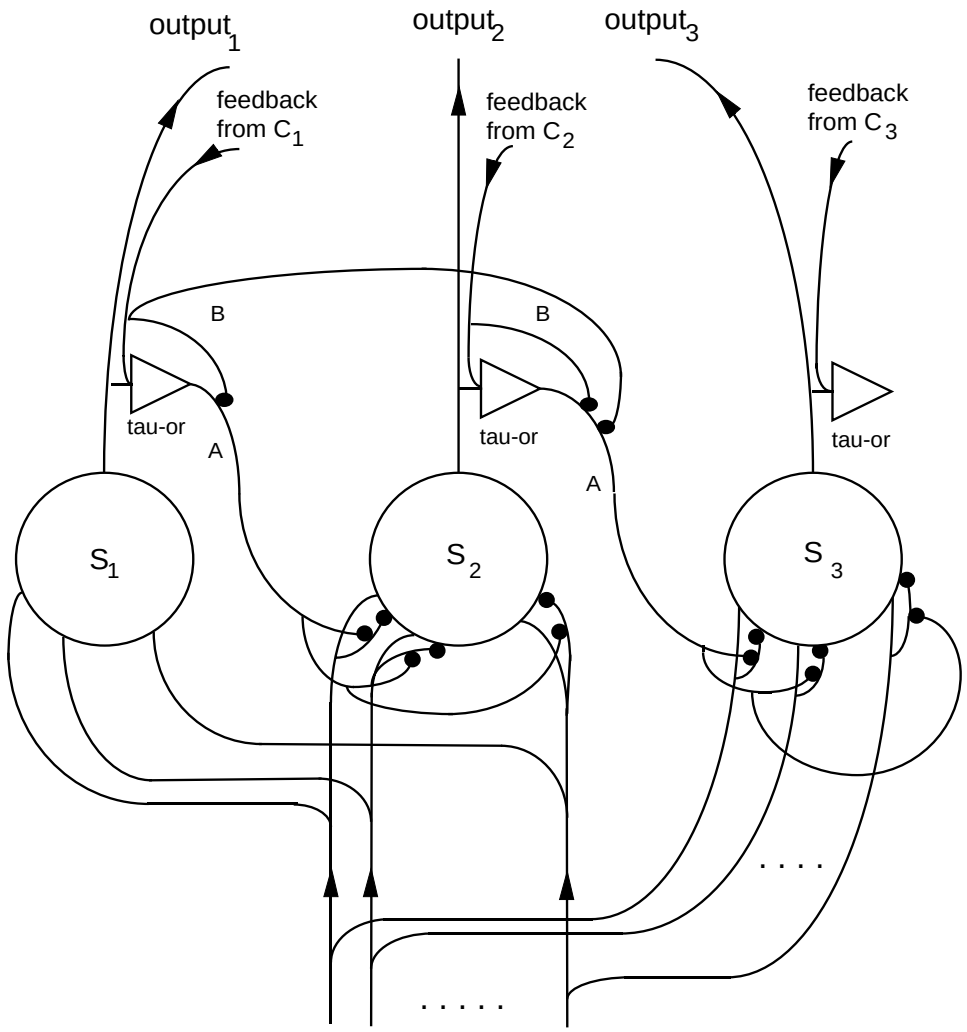

P
Q
g3
R
from Cn
from C1
"ANSWER"
signal
to Cn
to C1

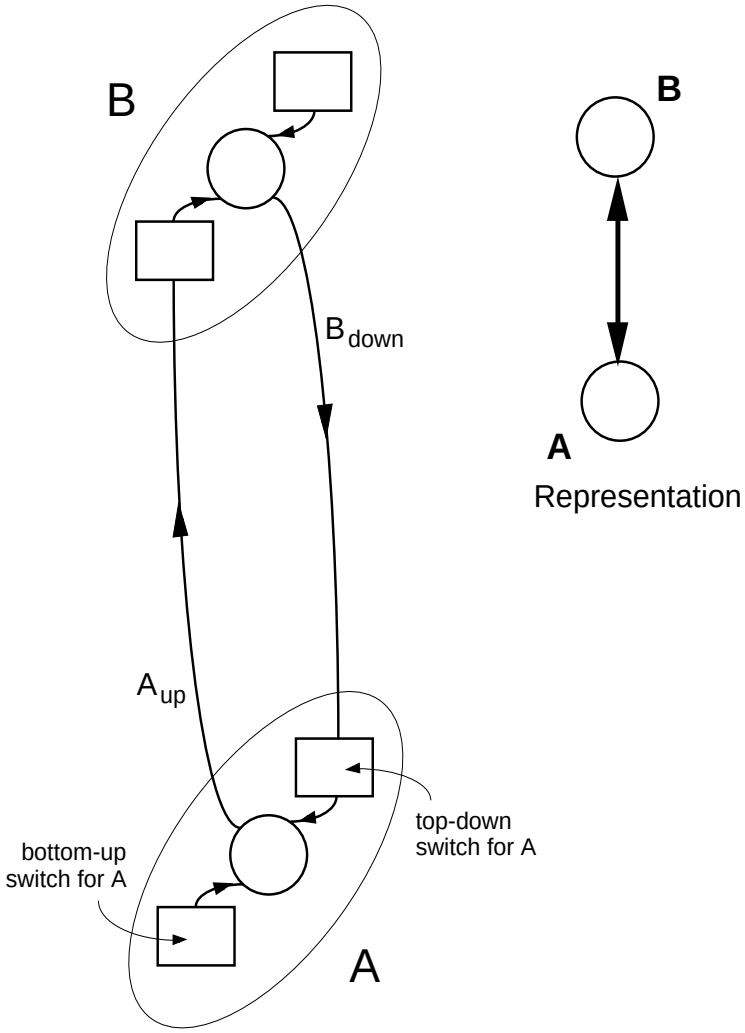

P
Q
θ=2
θ=3
θ=2
θ=2
R

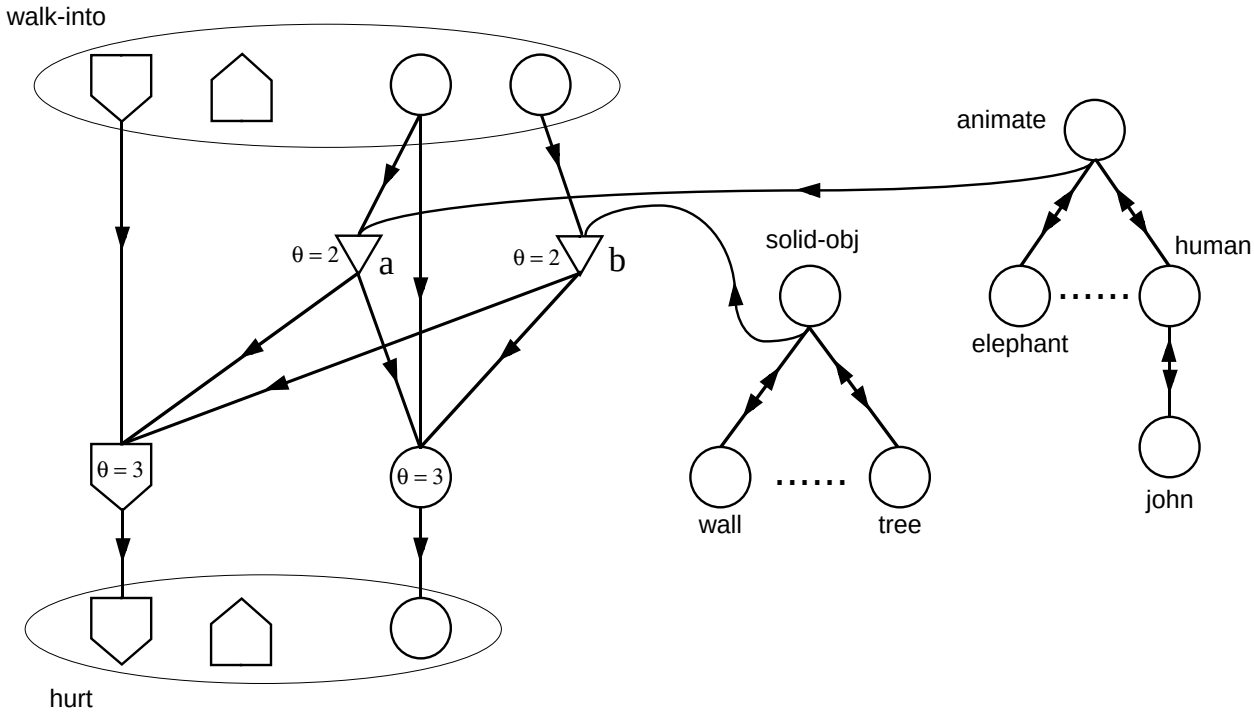

F2
c
e
lover
lovee
loves
Animal
F1
preys-on
c
e
predator
prey
Cat
Bird
Cat-1
Canary
Robin
Sylvester
c
e
scaree
scarer
scared-of
Tweety
Chirpy
Type Hierarchy

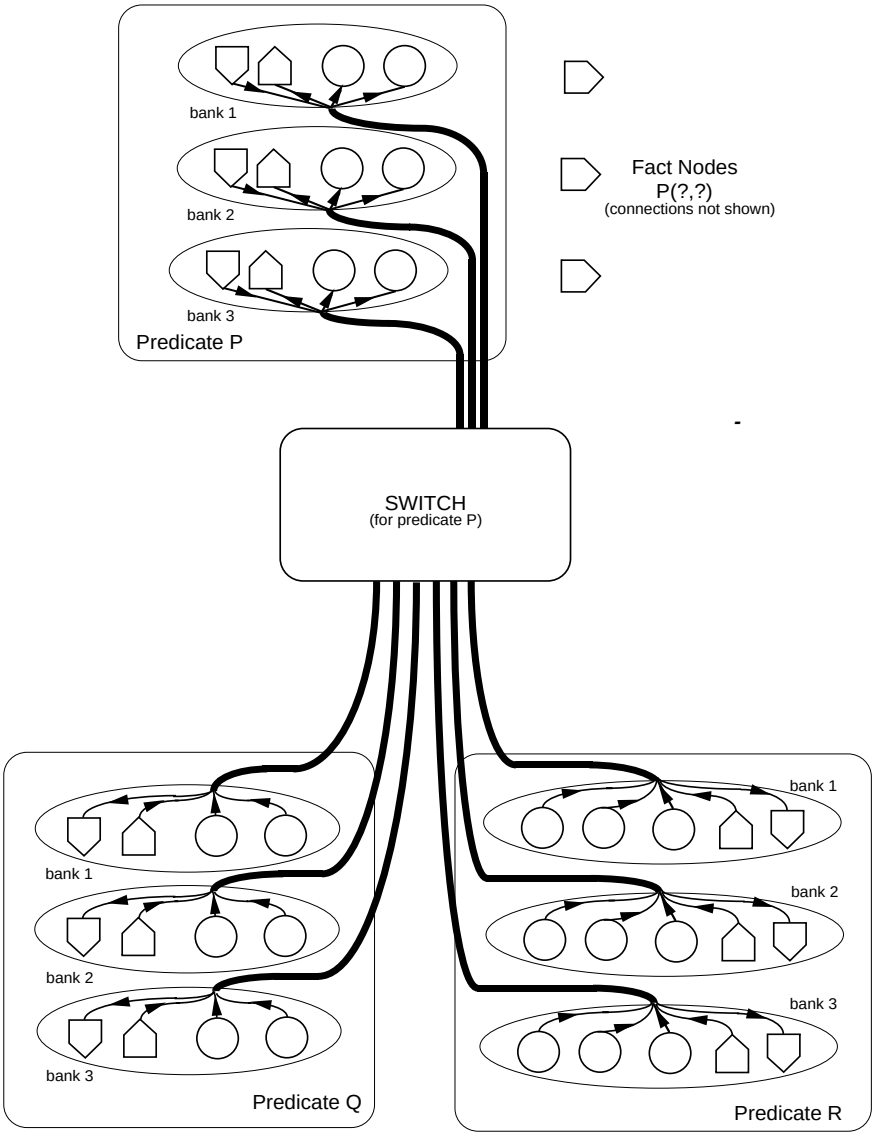

c:scared-of
c:preys-on
F1
Bird
e:preys-on
predator
Cat
prey
Canary
e:scared-of
scarer
scaree
Sylvester
Tweety
input to e:scared-of
input to scarer
input to scaree
input to Sylvester
input to Tweety
time

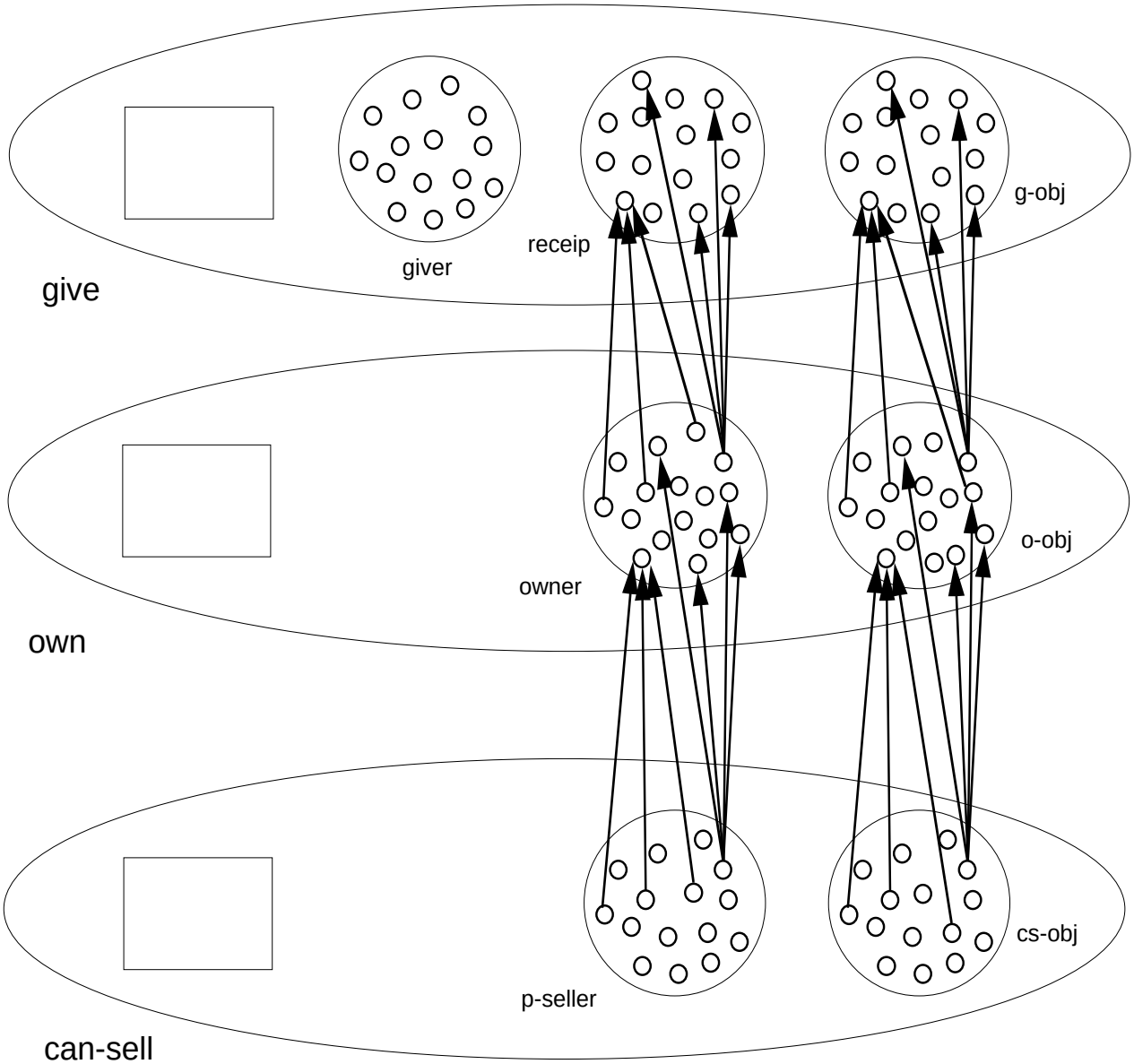

C_{out}
C_{up}
C
C_{down}
Representation
inputs from
super-concepts of C
...
top-down
switch
for C
C_{out}
To bottom-up switch
for super-concept
C_{up}
entity cluster for C
C_1
C_2
C_3
C
C_{down}
To top-down switch
for sub-concept
bottom-up
switch
for C
...
inputs from
sub-concepts of C

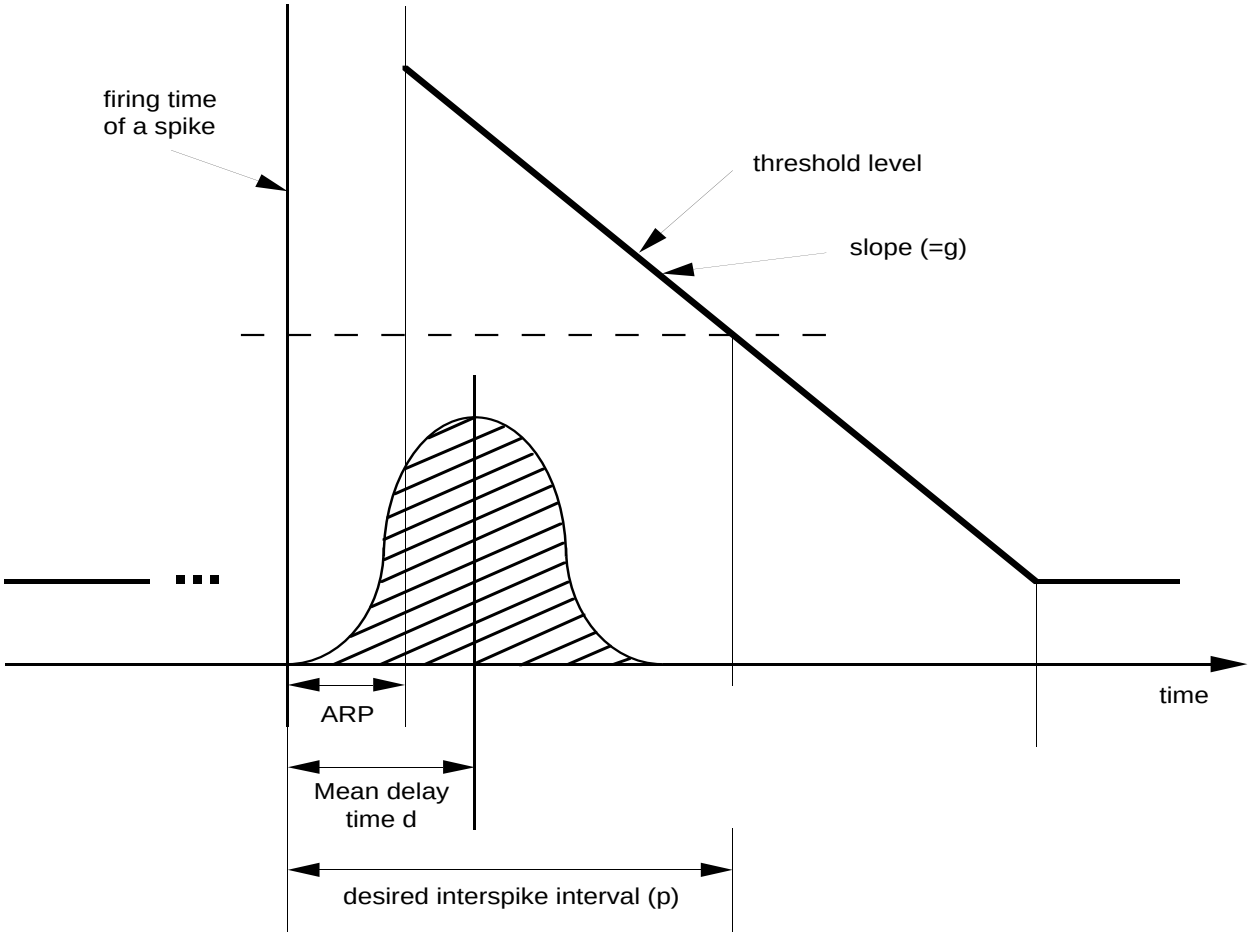

output1
output2
output3
feedback from C1
feedback from C2
feedback from C3
B
B
tau-or
tau-or
tau-or
A
A
S1
S2
S3
. . . .
. . . . .


B
B down
A up
top-down
switch for A
bottom-up
switch for A
A
B
A
Representation


walk-into
θ = 2
a
θ = 2
b
θ = 3
θ = 3
hurt
animate
solid-obj
human
elephant
wall
tree
john


bank 1
bank 2
bank 3
Predicate P
Fact Nodes
P(?,?)
(connections not shown)
SWITCH
(for predicate P)
bank 1
bank 2
bank 3
Predicate Q
bank 1
bank 2
bank 3
Predicate R


give
giver
receip
g-obj
own
owner
o-obj
can-sell
p-seller
cs-obj


firing time
of a spike
threshold level
slope (=g)
ARP
time
Mean delay
time d
desired interspike interval (p)

Please contact authors for this figure.