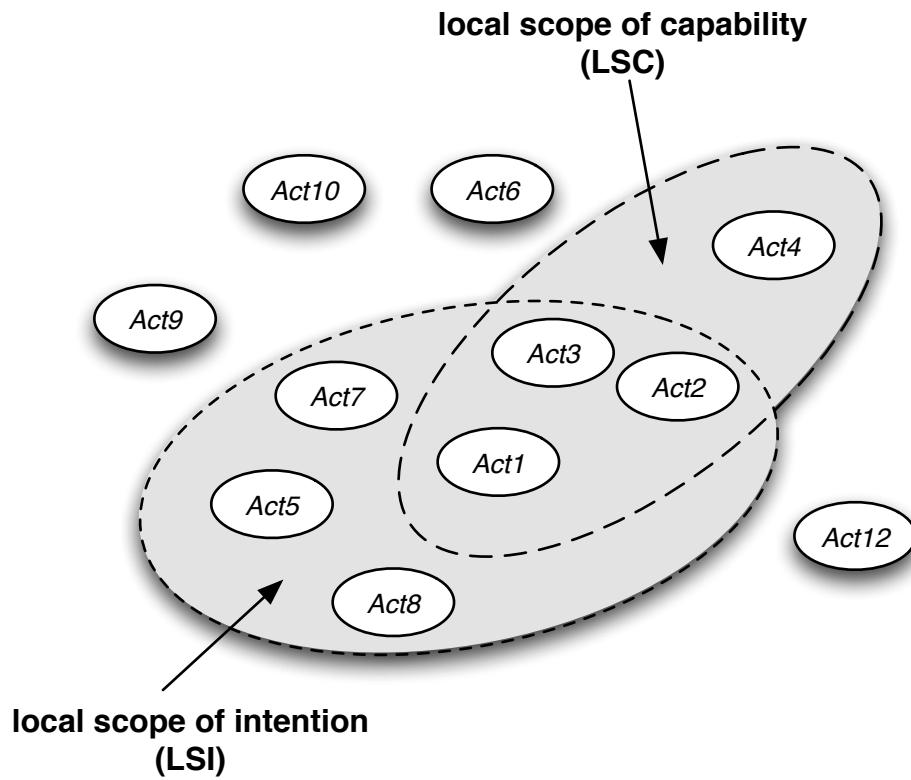
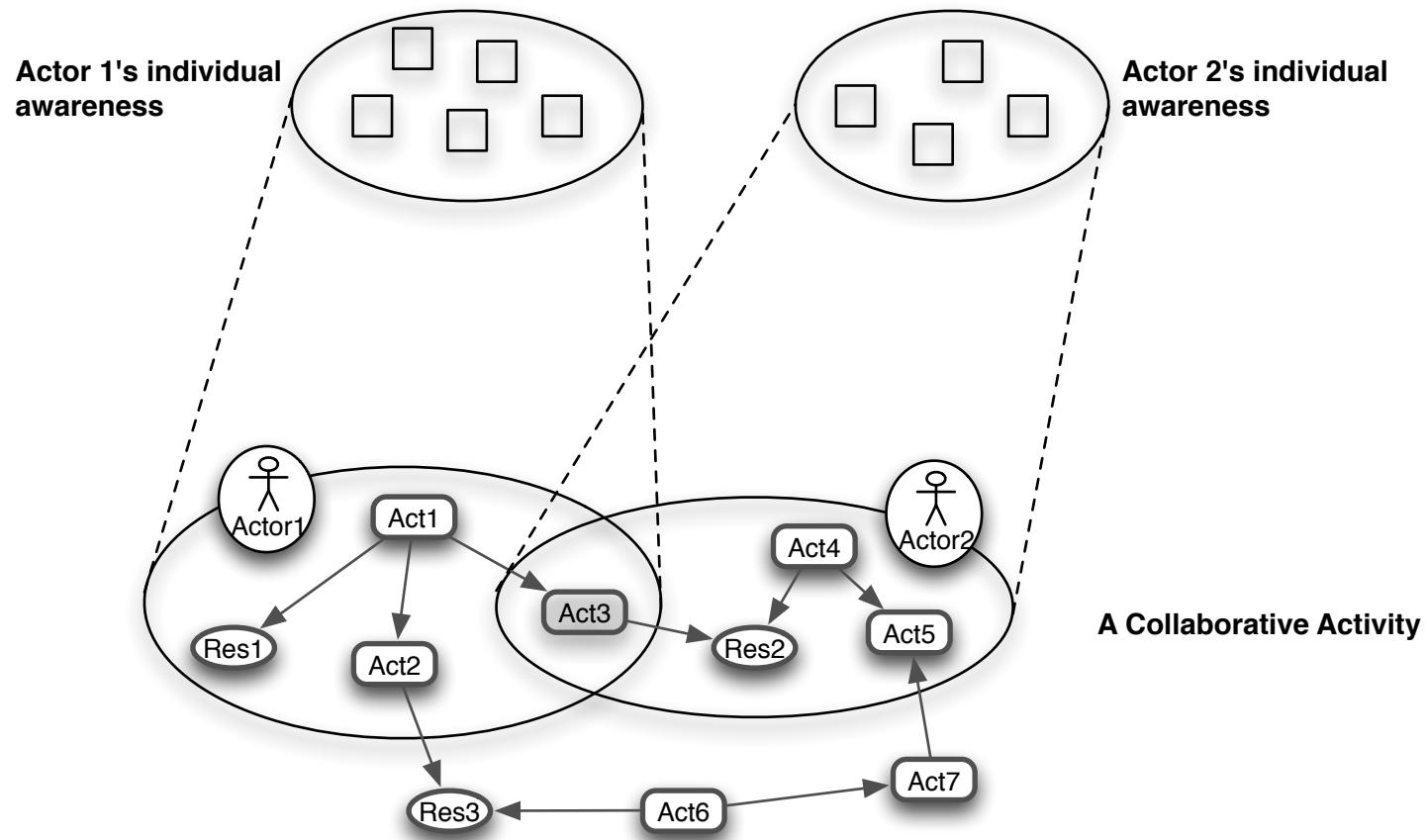
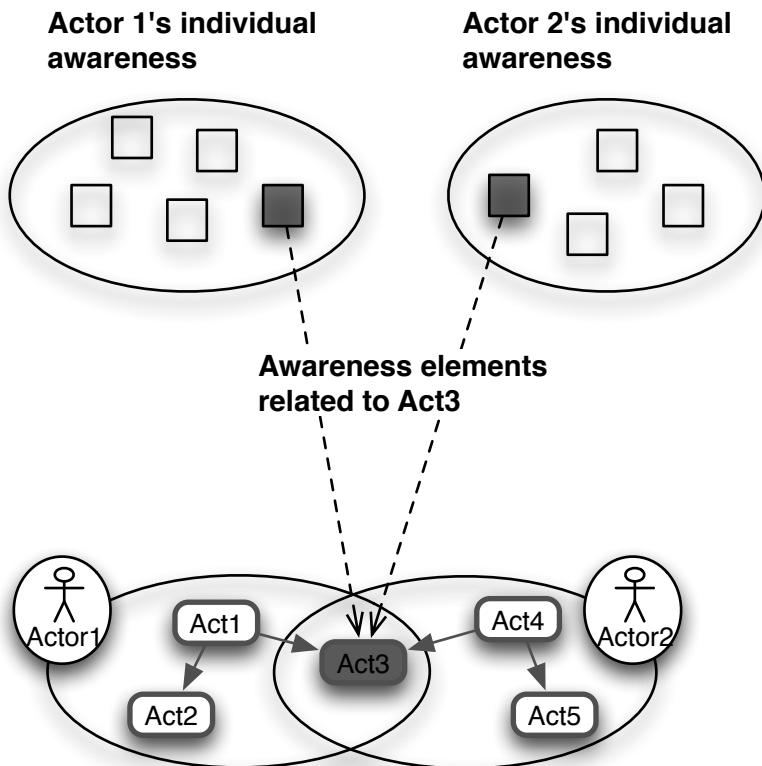


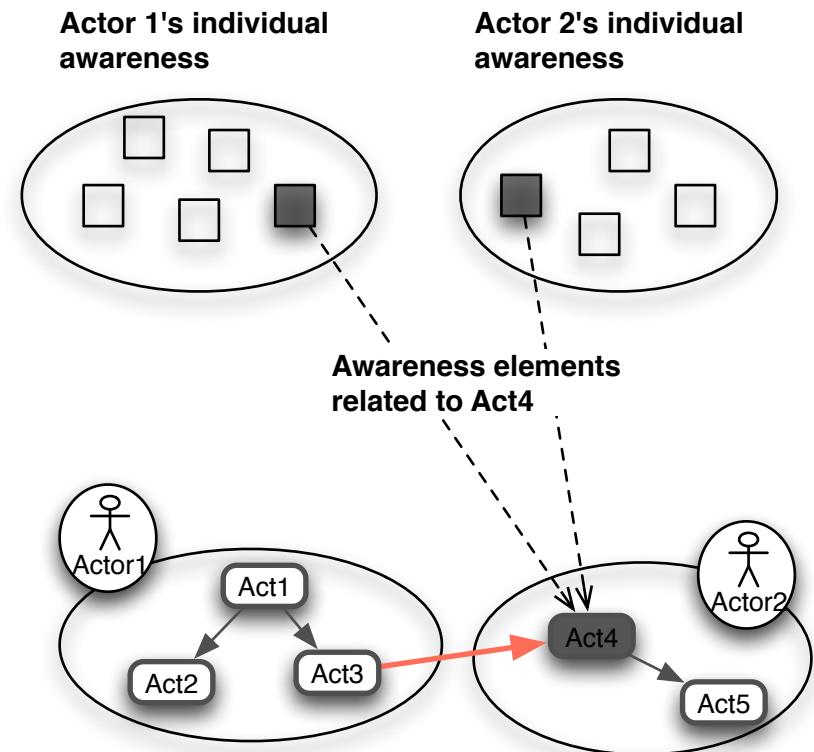
  action  
   resource  
   actor  
   local scope of work  
   → dependency



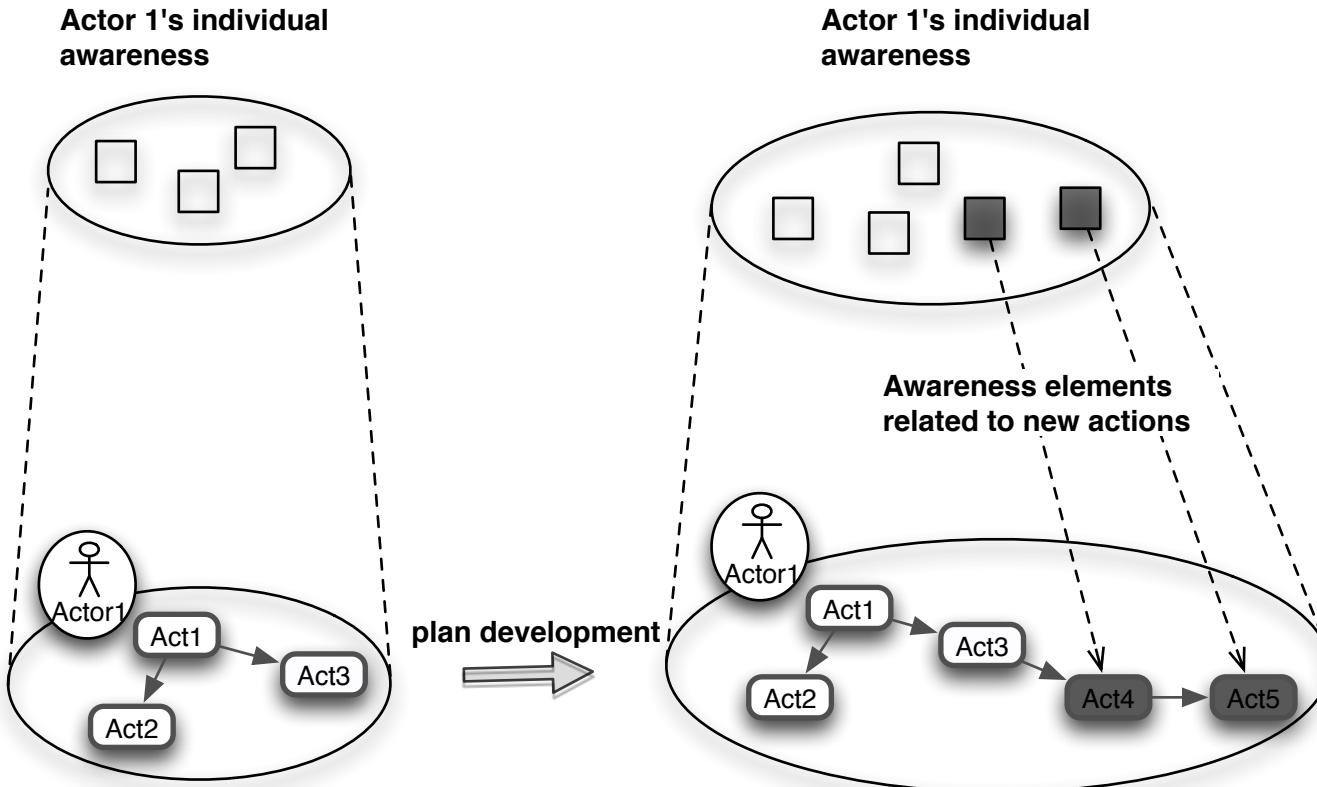


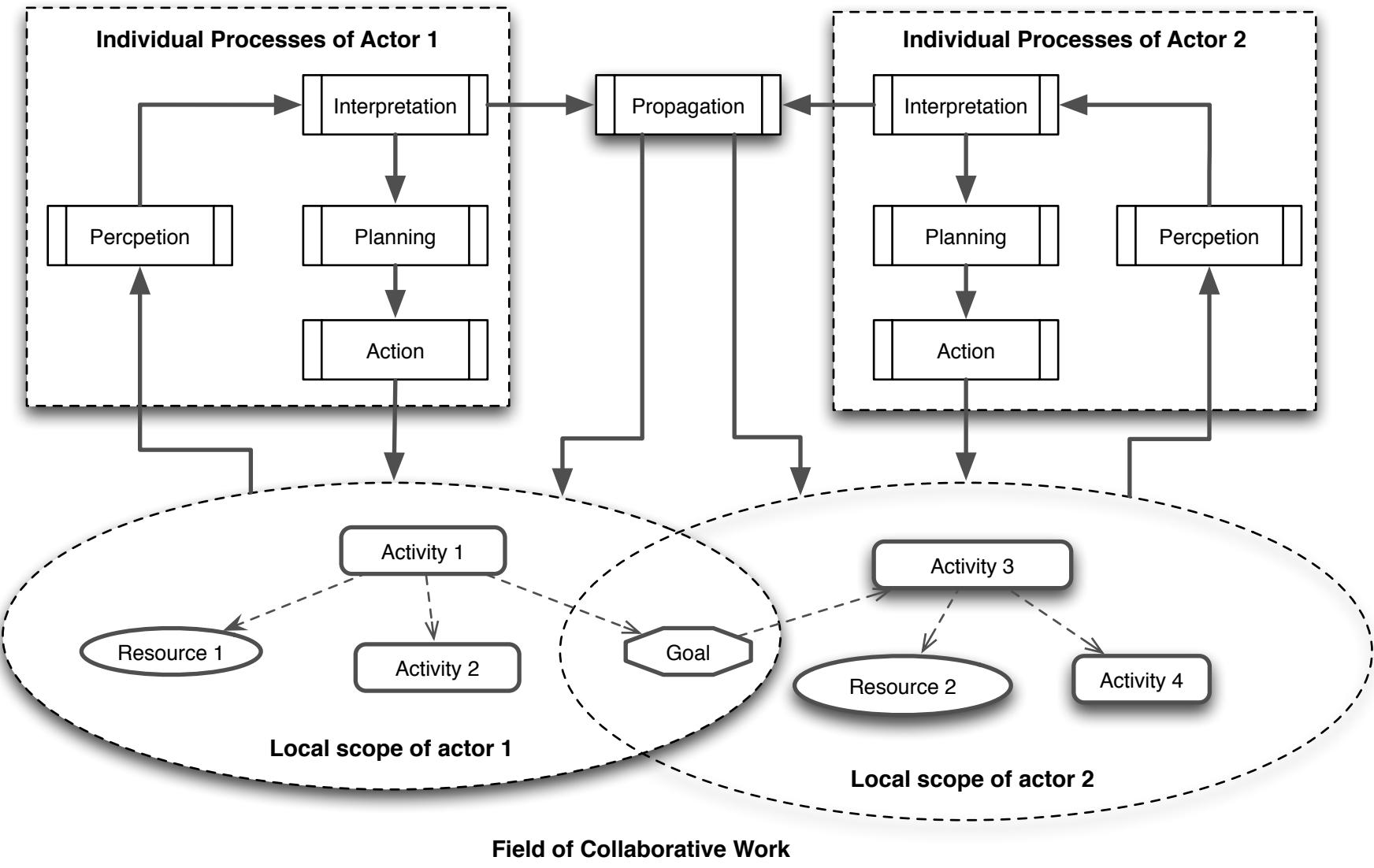


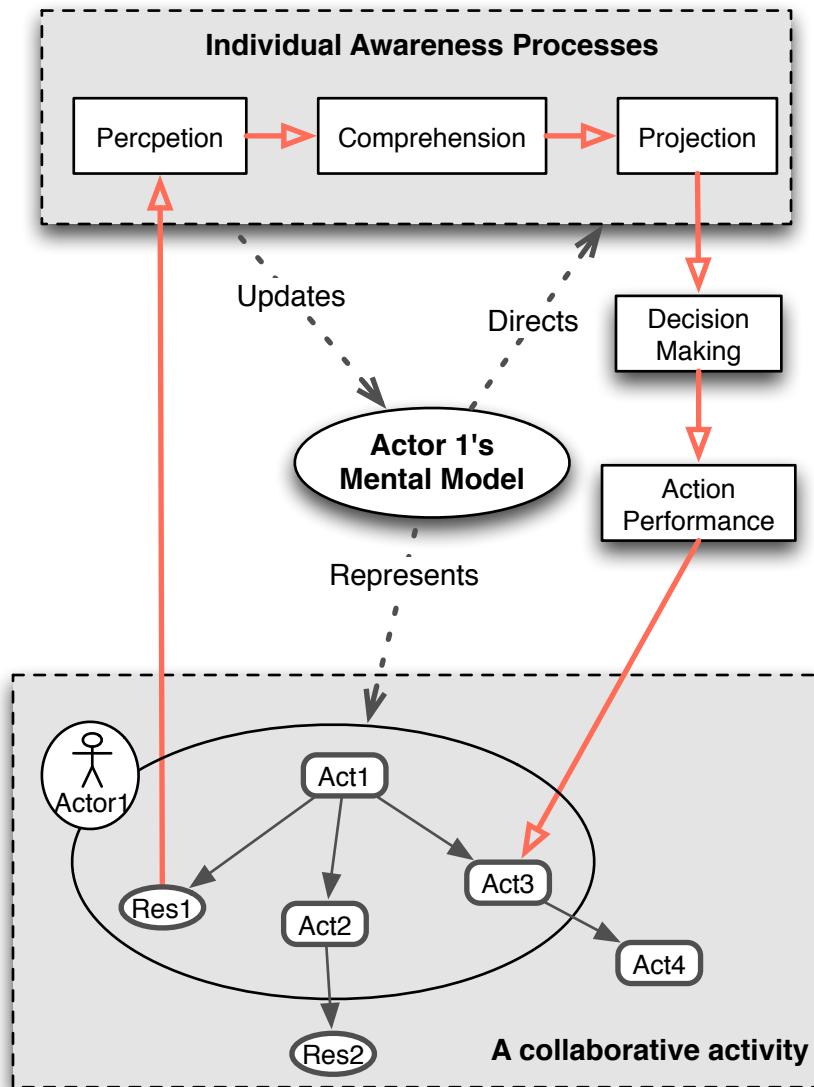
**(1) Overlaps between local scopes**

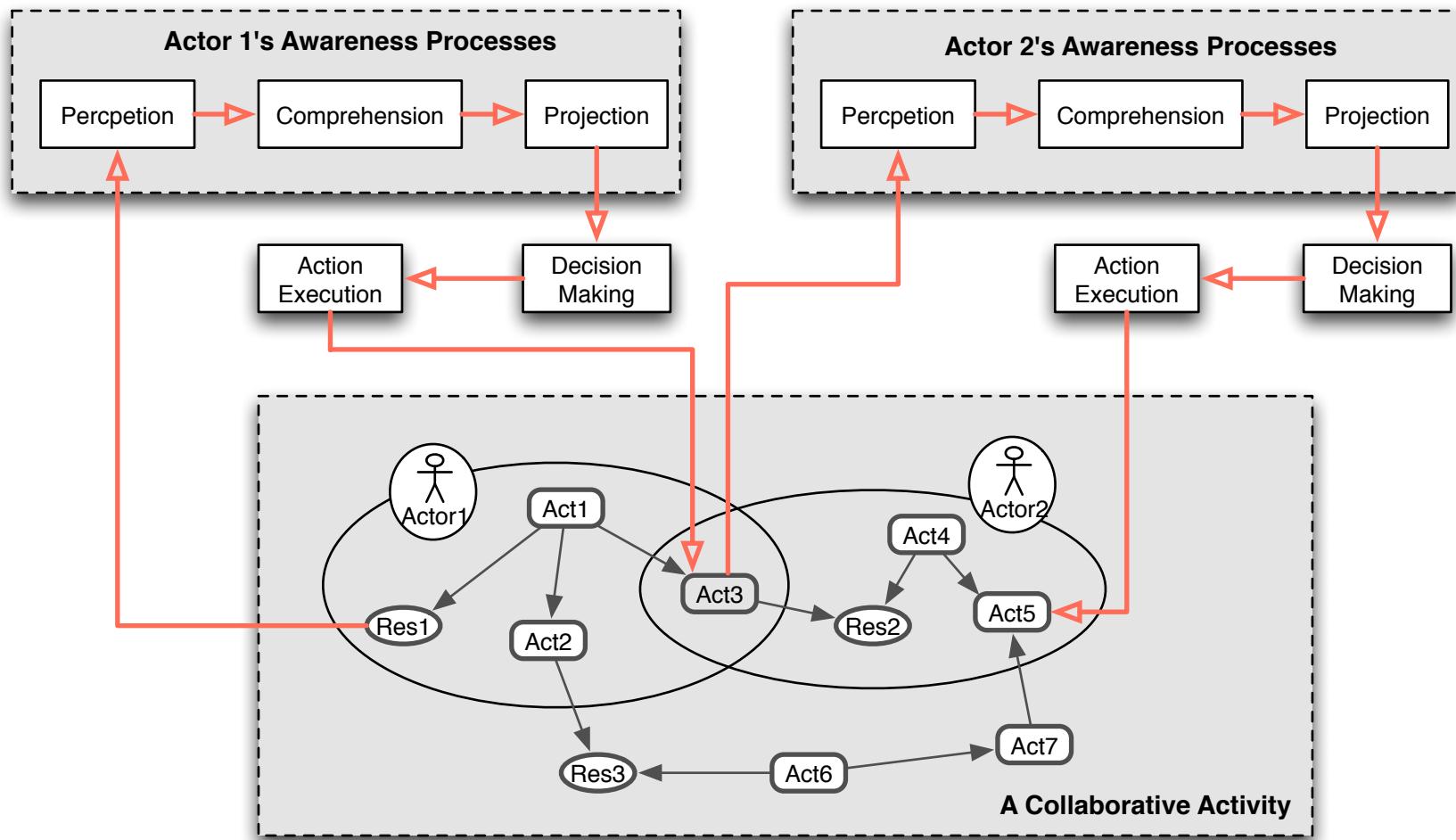


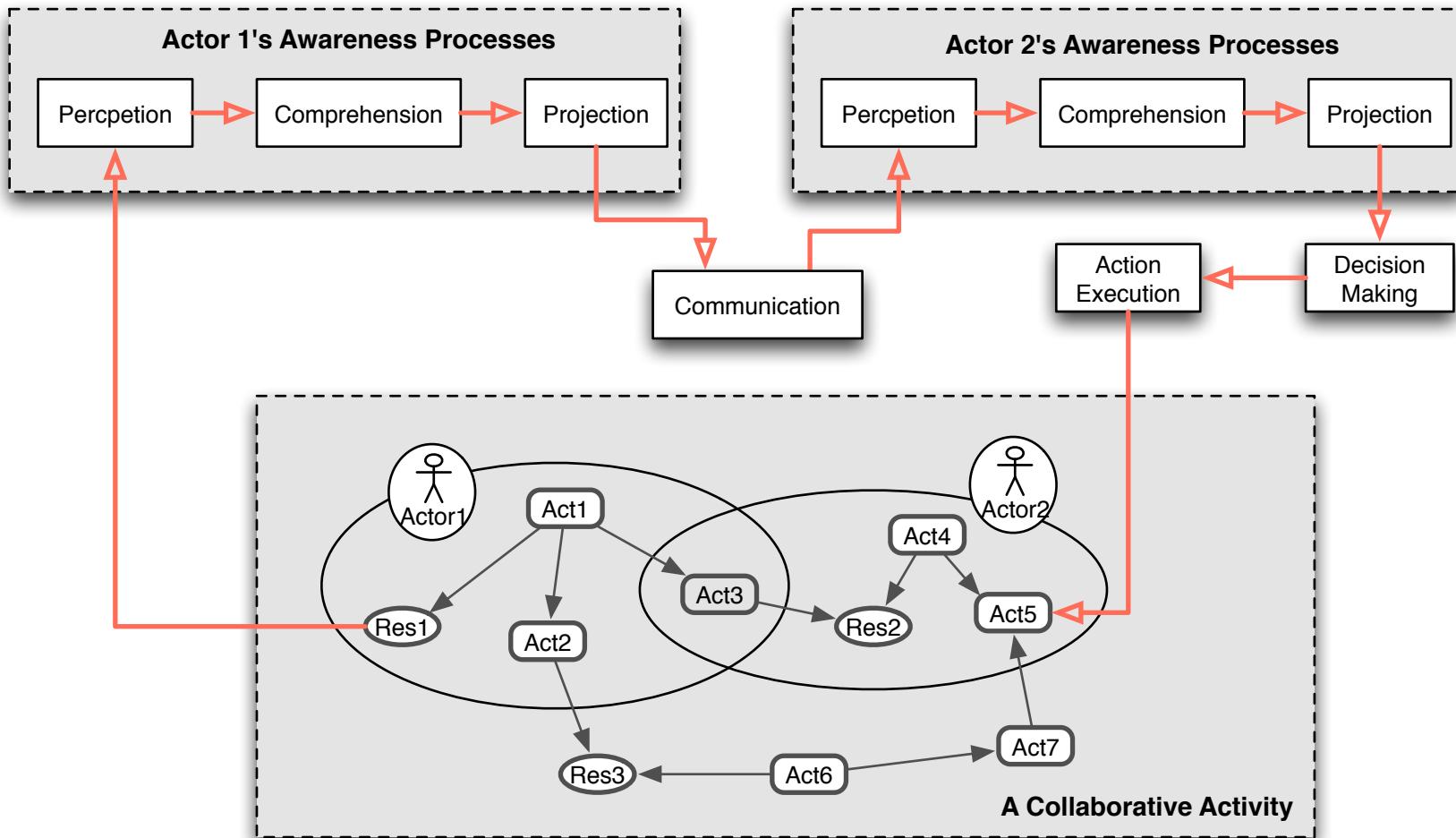
**(2) Dependencies across local scopes**

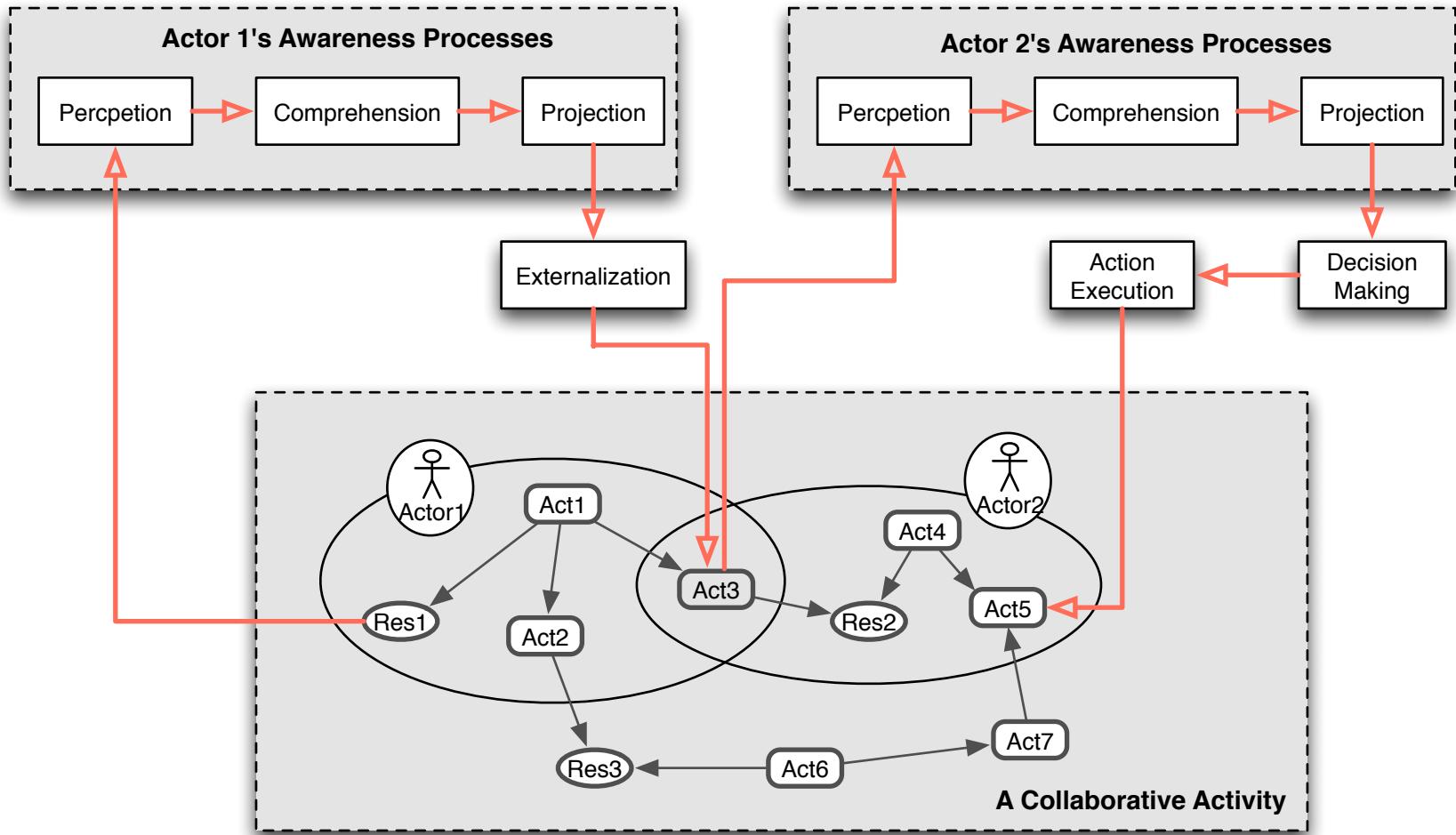


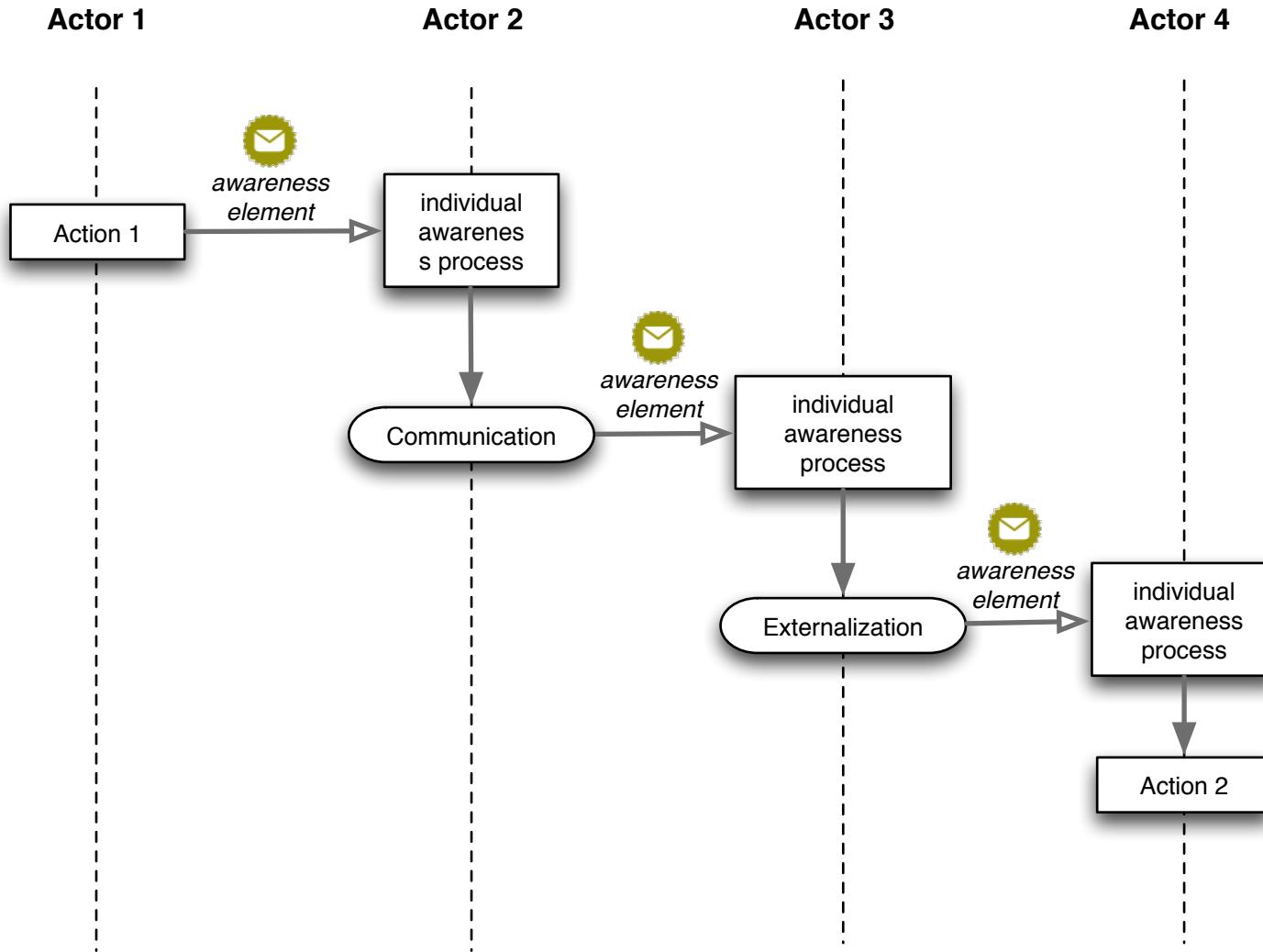


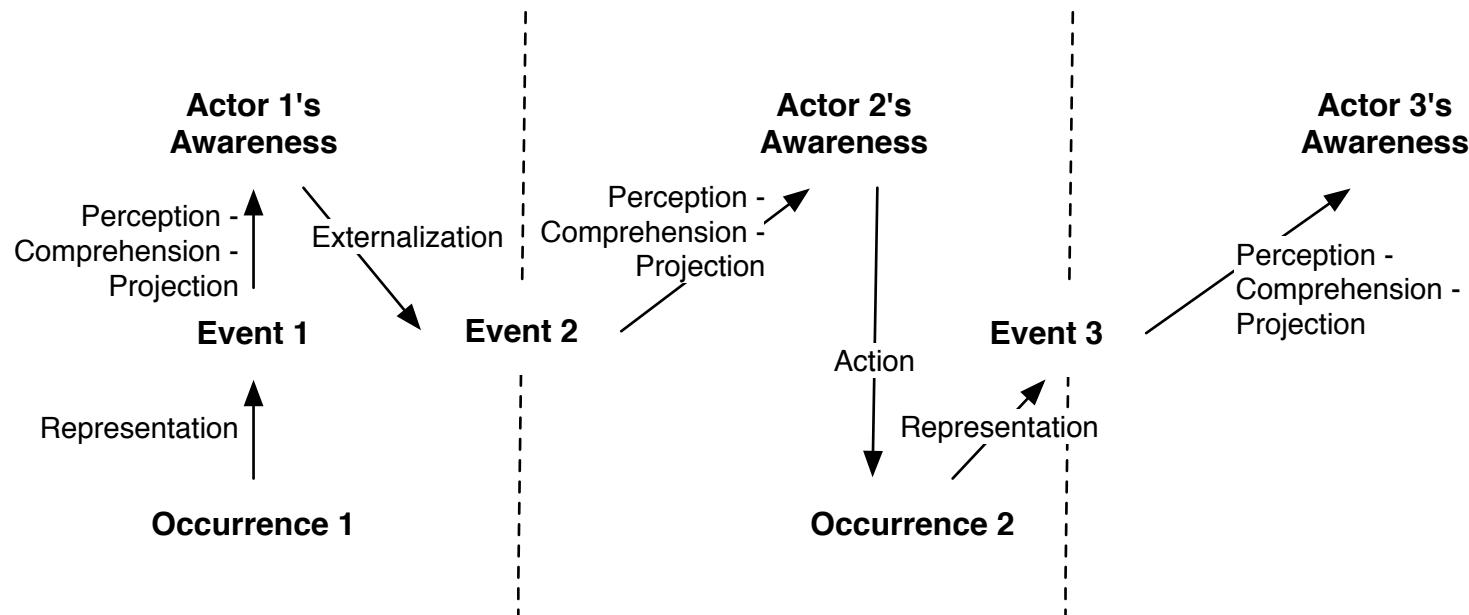
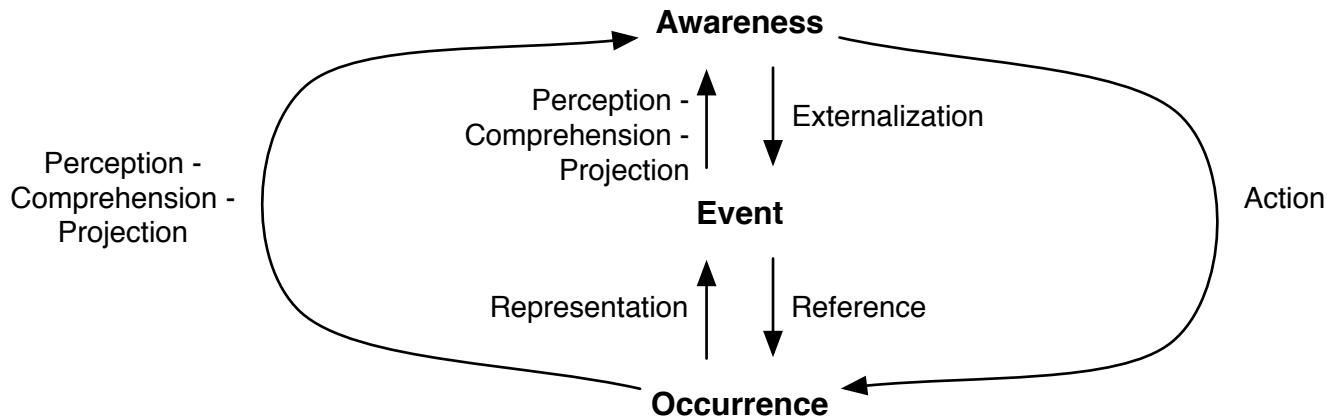


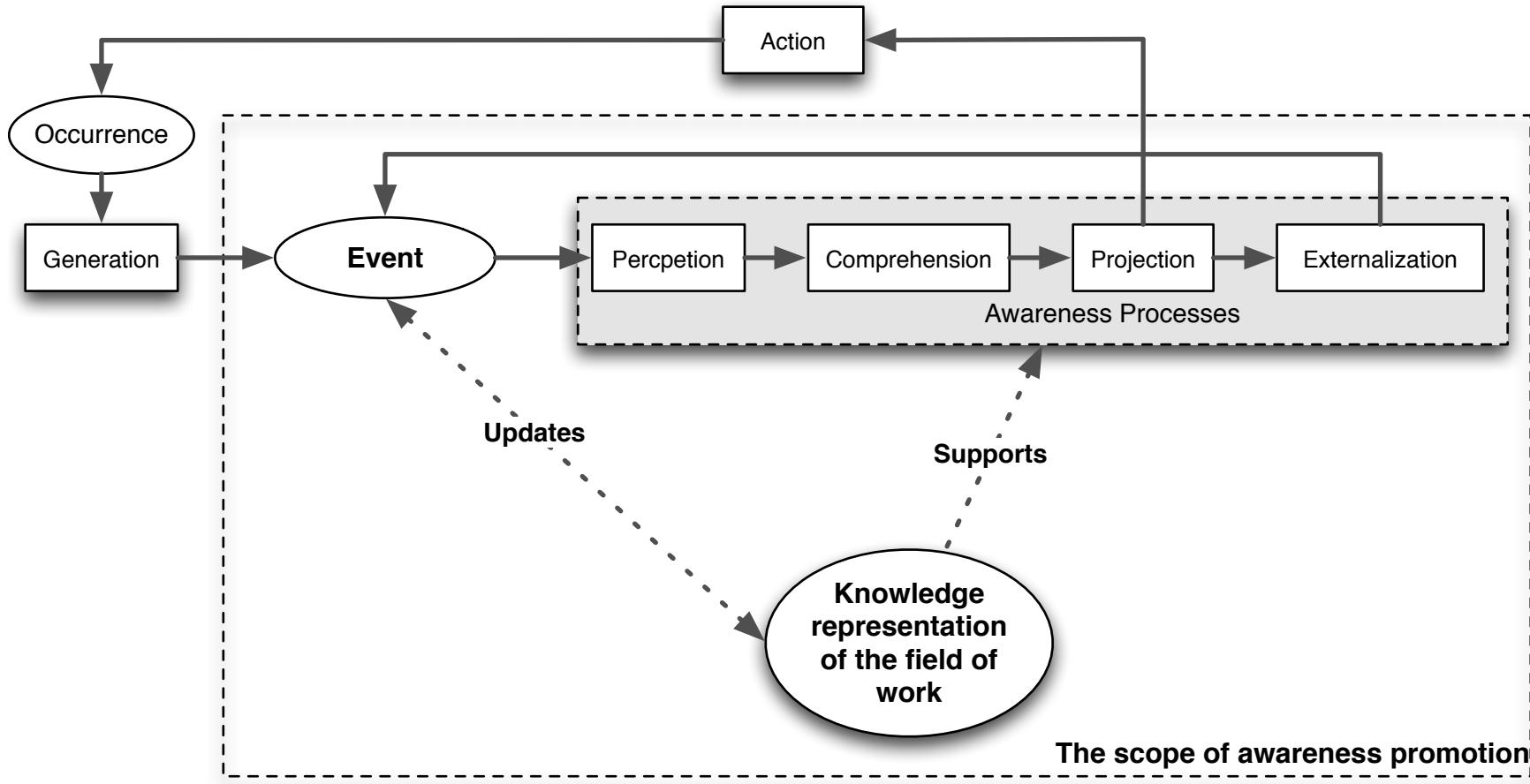


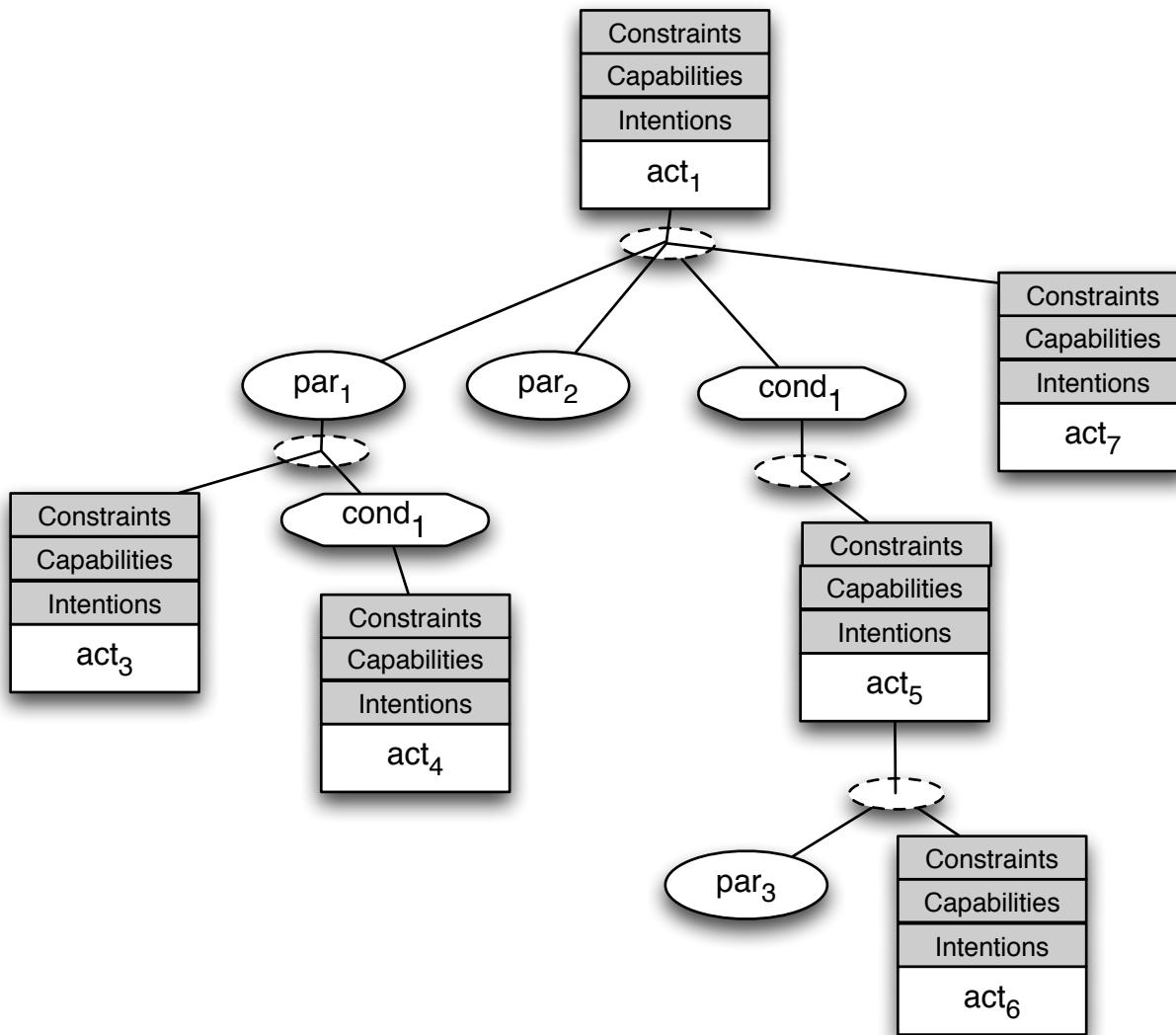


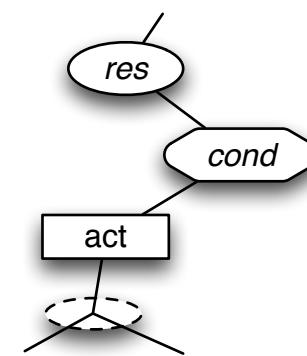
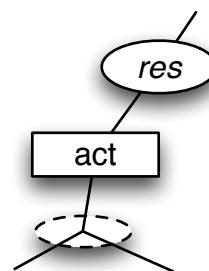
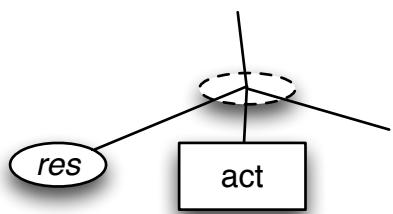
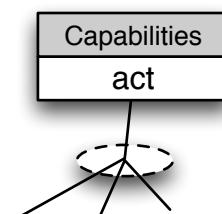
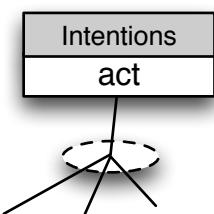
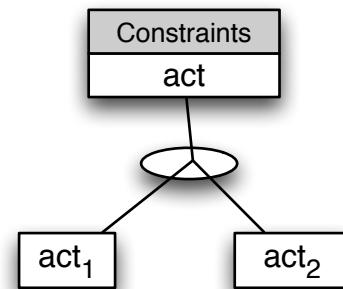
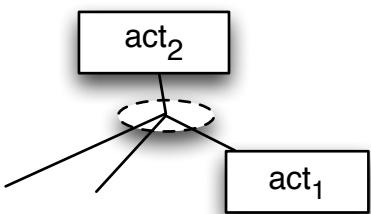


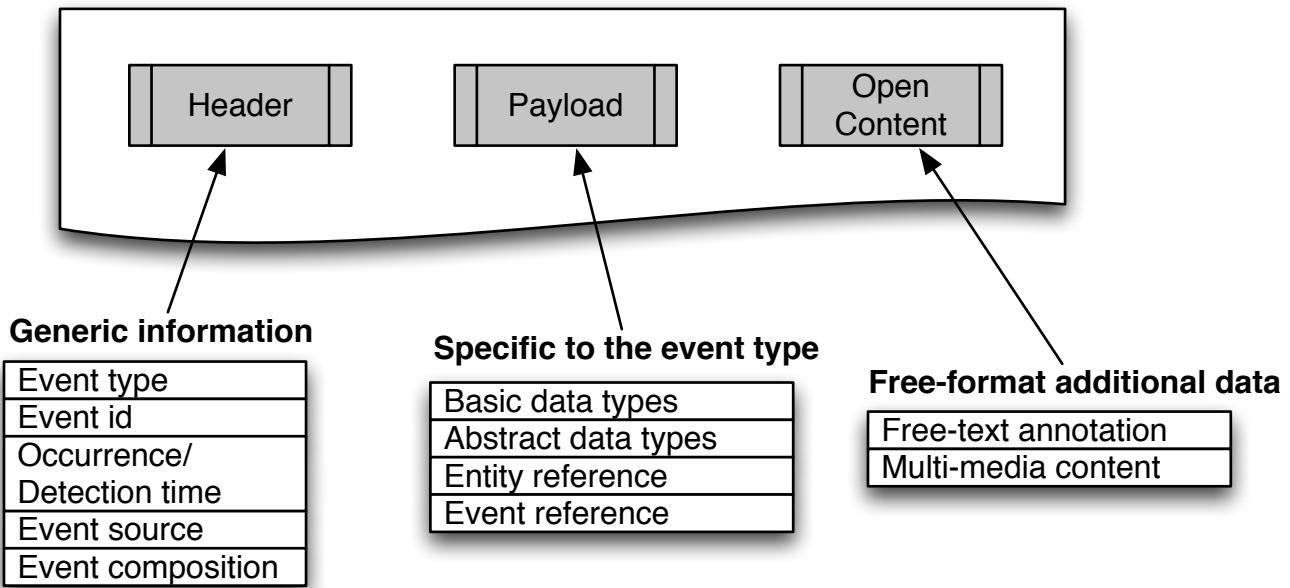


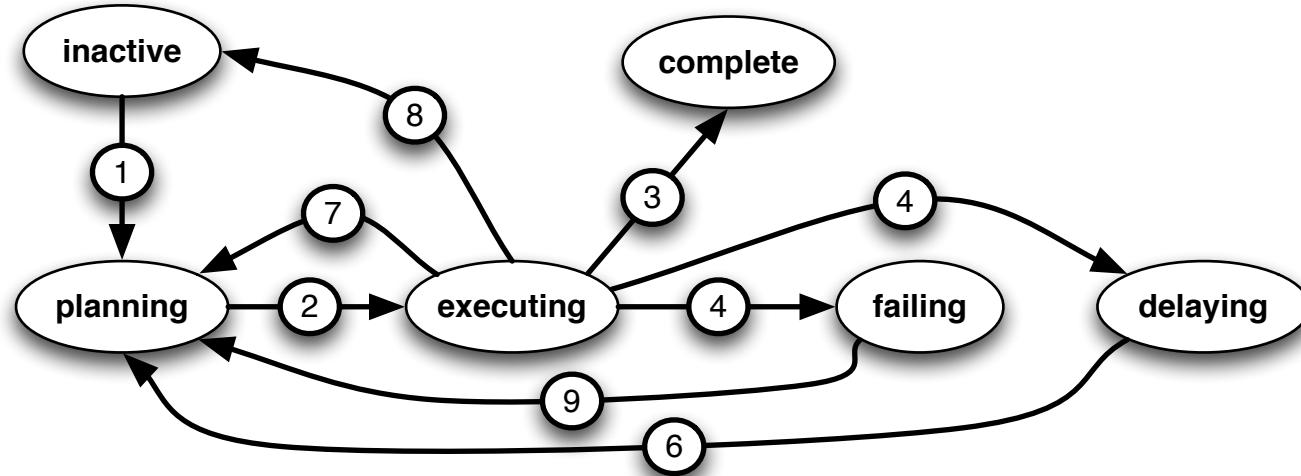


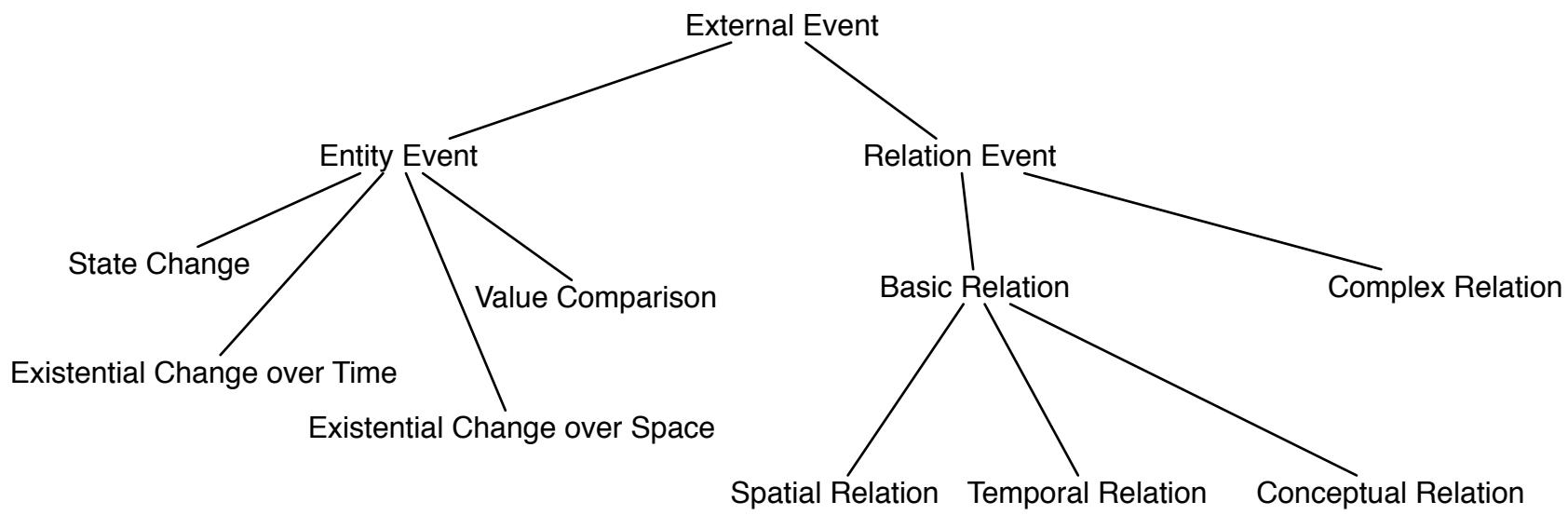


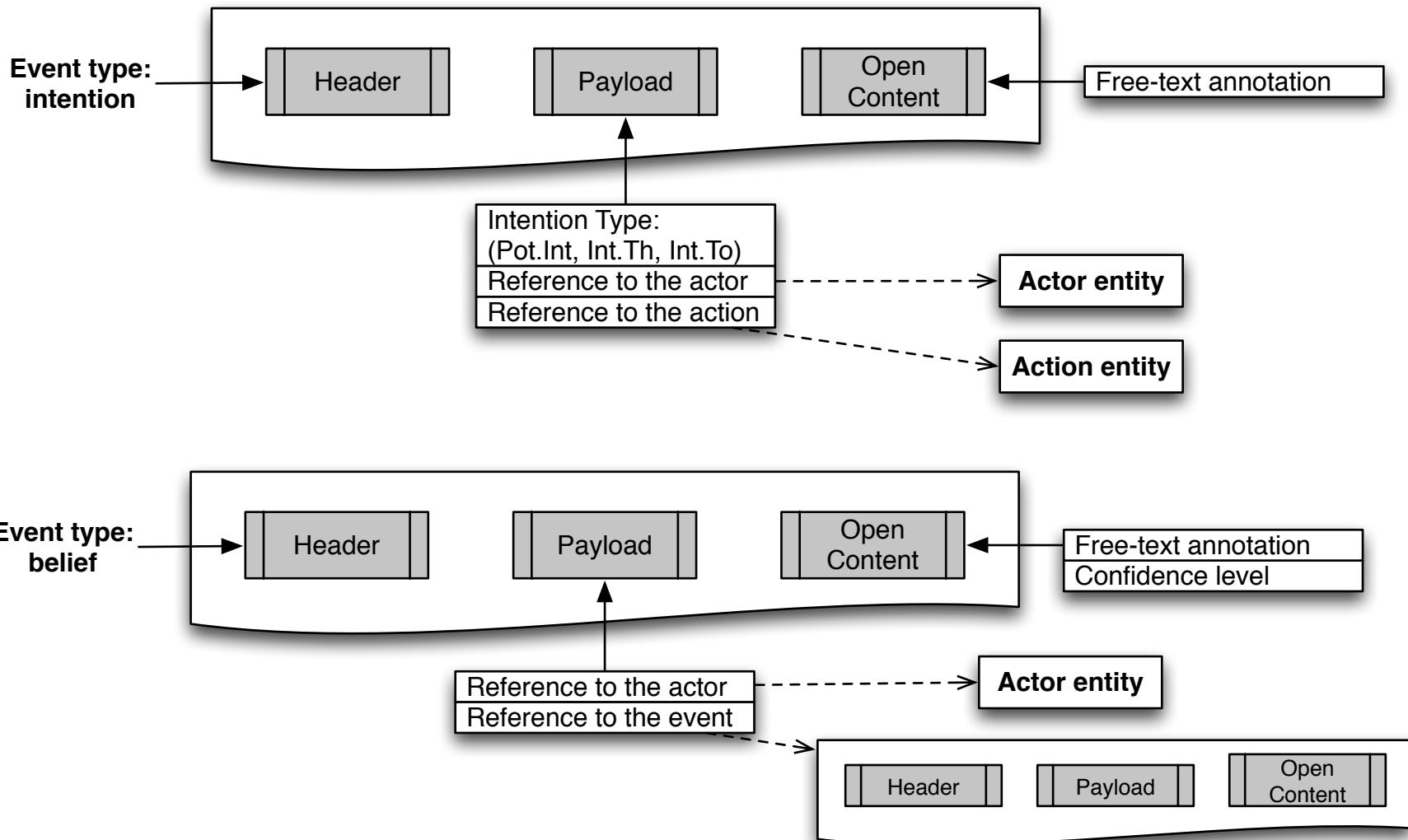


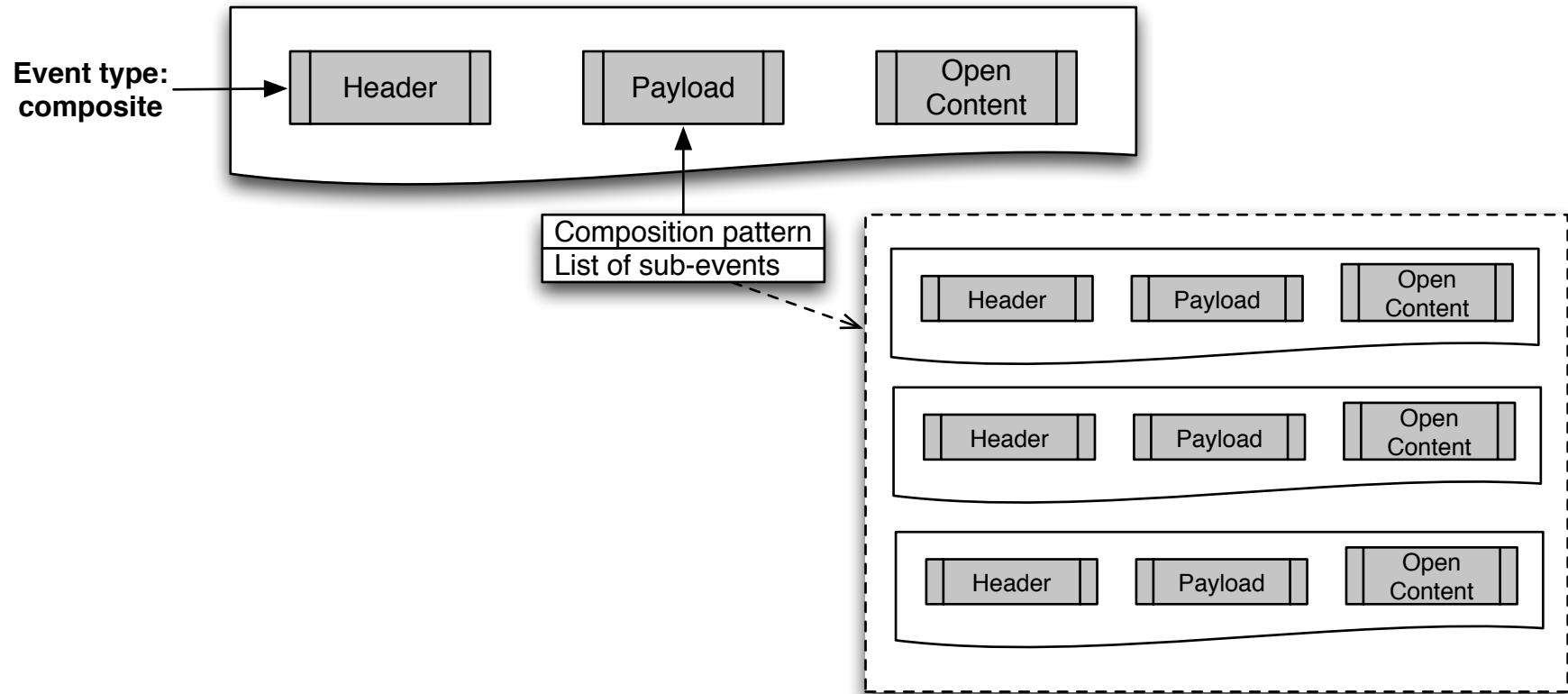


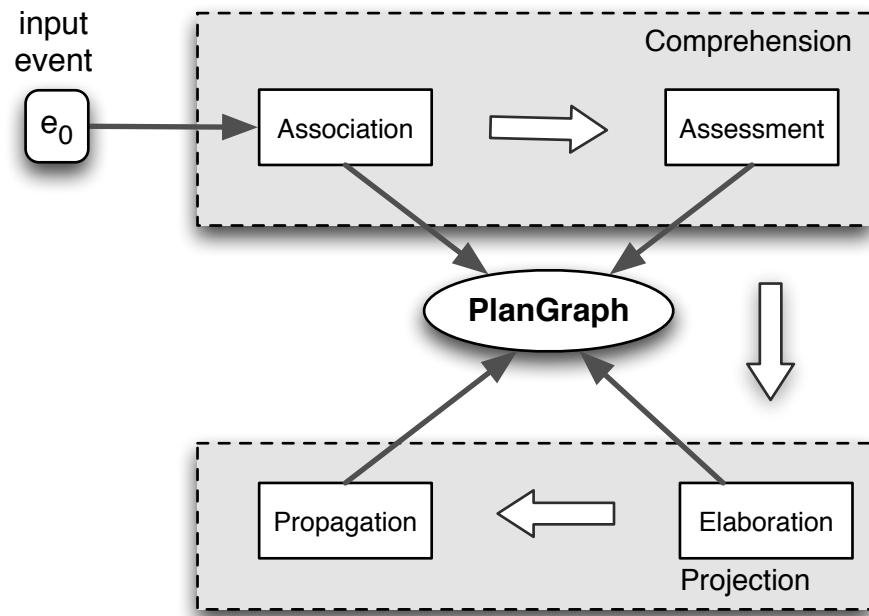


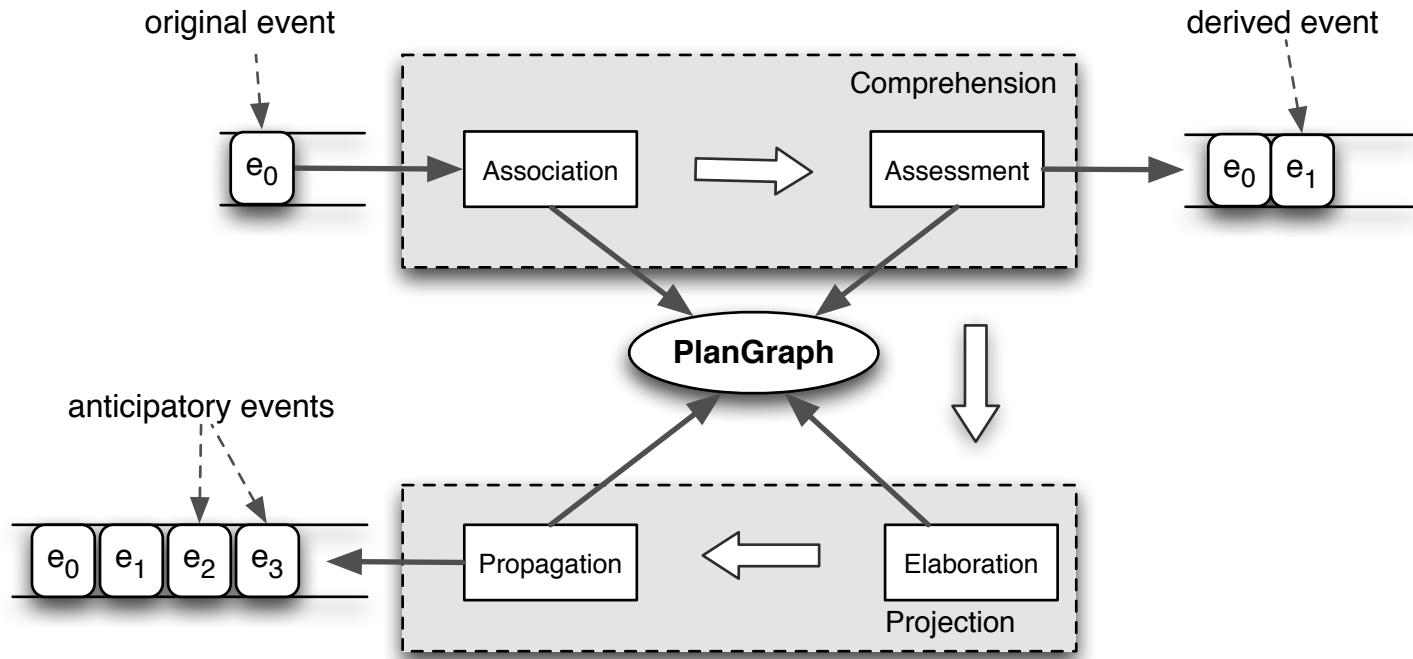


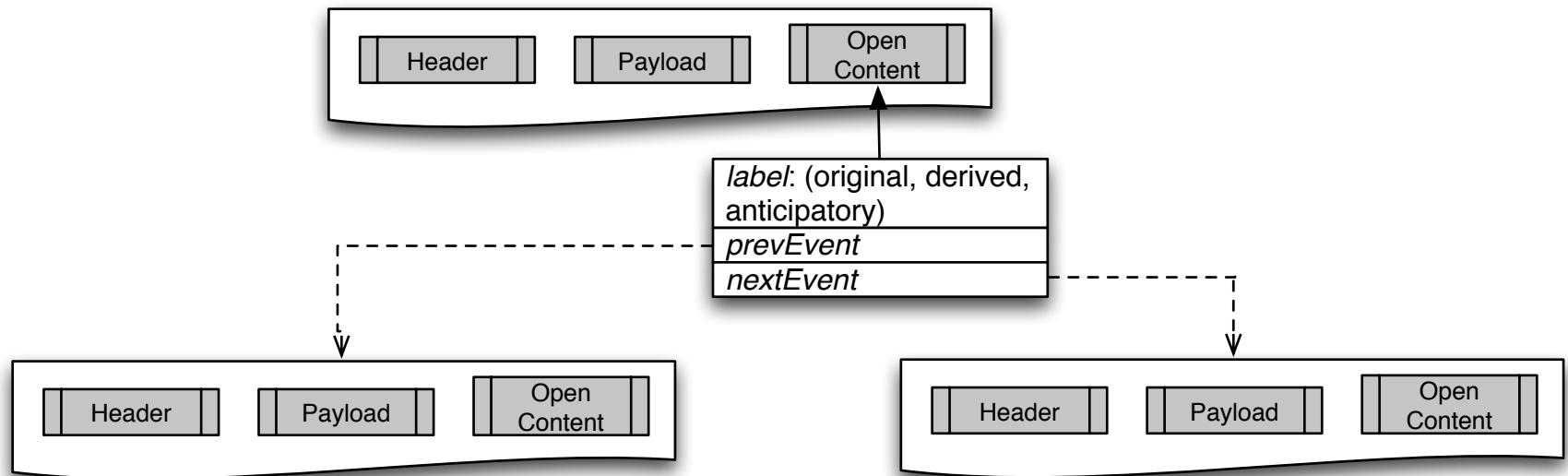


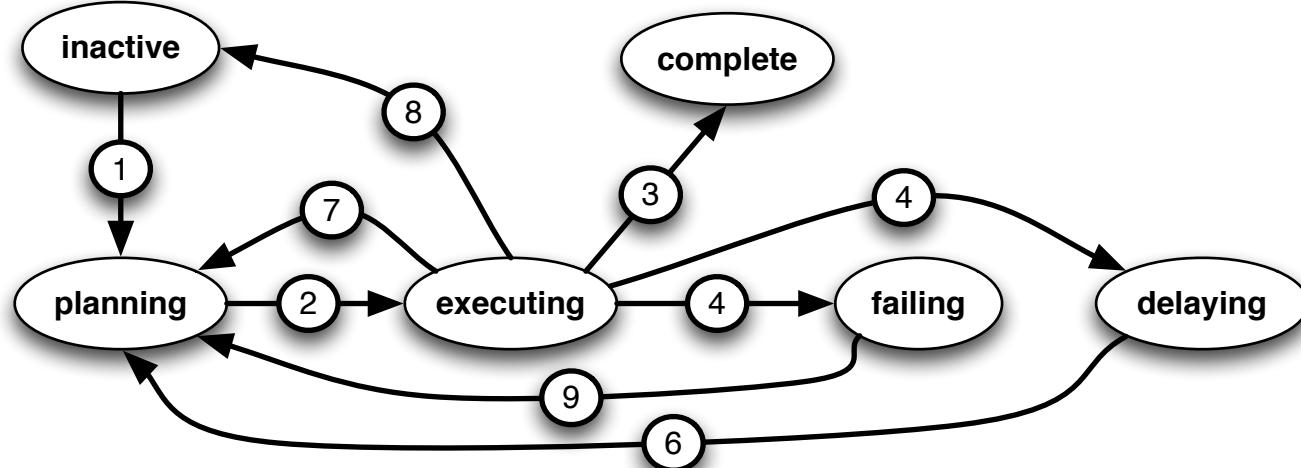




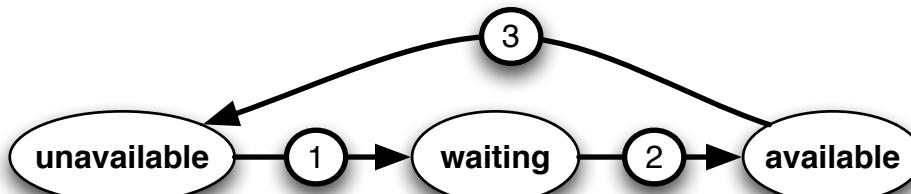




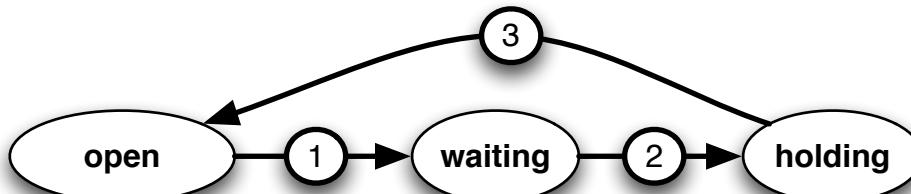




(a) state transitions of an activity



(b) state transitions of a resource



(c) state transitions of a condition

**previous values**

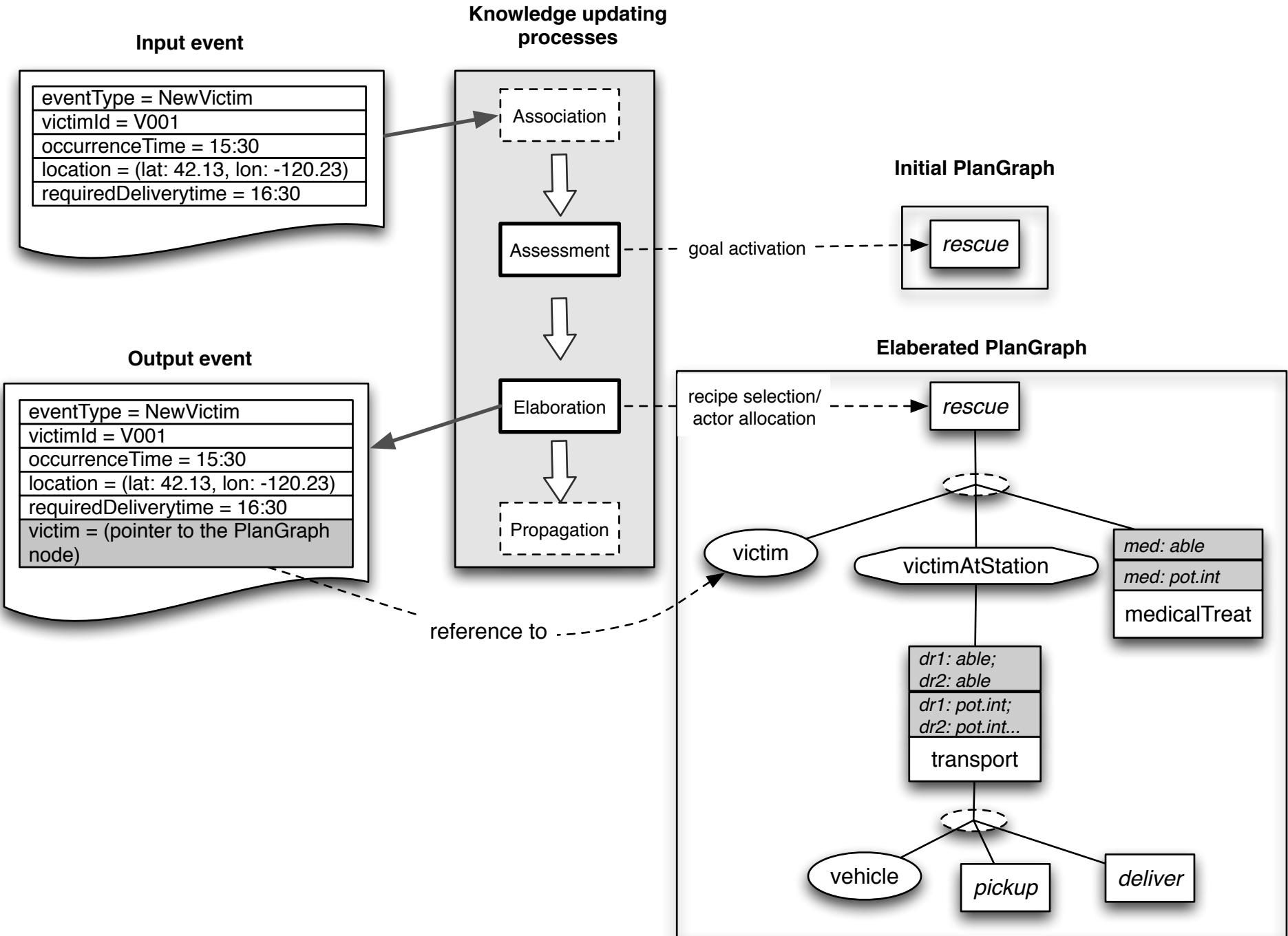
<i>unavailable</i>	<i>waiting</i>	<i>available</i>	<i>delay</i>
0.01	<b>0.97</b>	0.01	0.01

**current values**

<i>unavailable</i>	<i>waiting</i>	<i>available</i>	<i>delay</i>
0.019	0.009	0.108	<b>0.864</b>

**cartesian product**

<i>from</i> \ <i>to</i>	<i>unavailable</i>	<i>waiting</i>	<i>available</i>	<i>delay</i>
<i>unavailable</i>	0.00019	0.00009	0.00108	0.00864
<i>waiting</i>	0.01843	0.00873	0.10476	<b>0.83808</b>
<i>available</i>	0.00019	0.00009	0.00108	0.00864
<i>delay</i>	0.00019	0.00009	0.00108	0.00864



### Input event

### Knowledge updating processes

### Output event

eventType = Intention  
occurrenceTime = 15:35  
actorId = dr1  
actionId = transport  
intentionType = Int.To

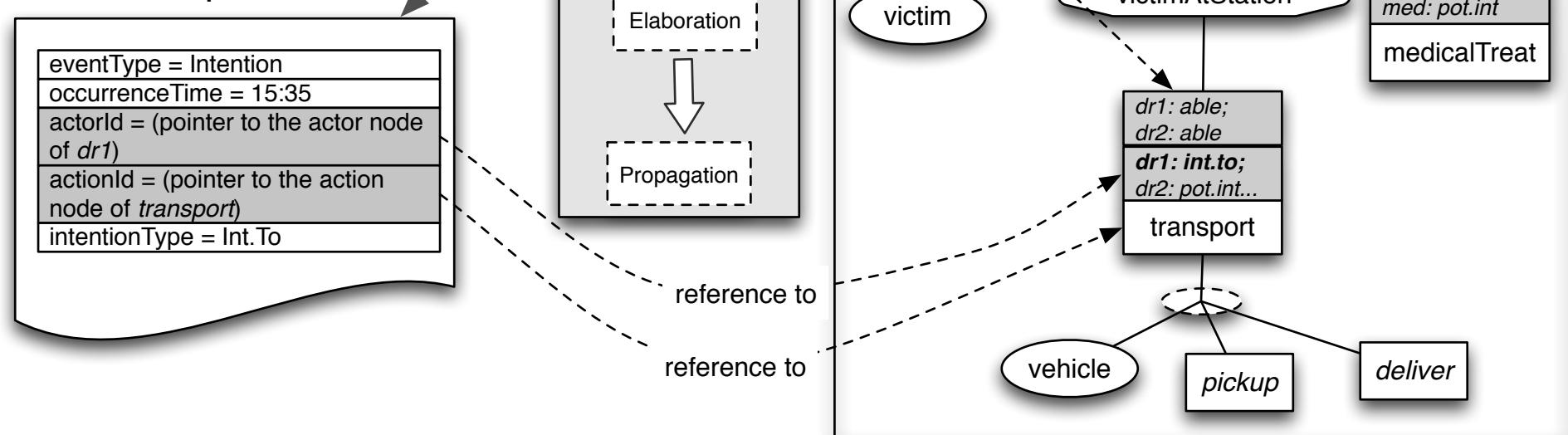
Association

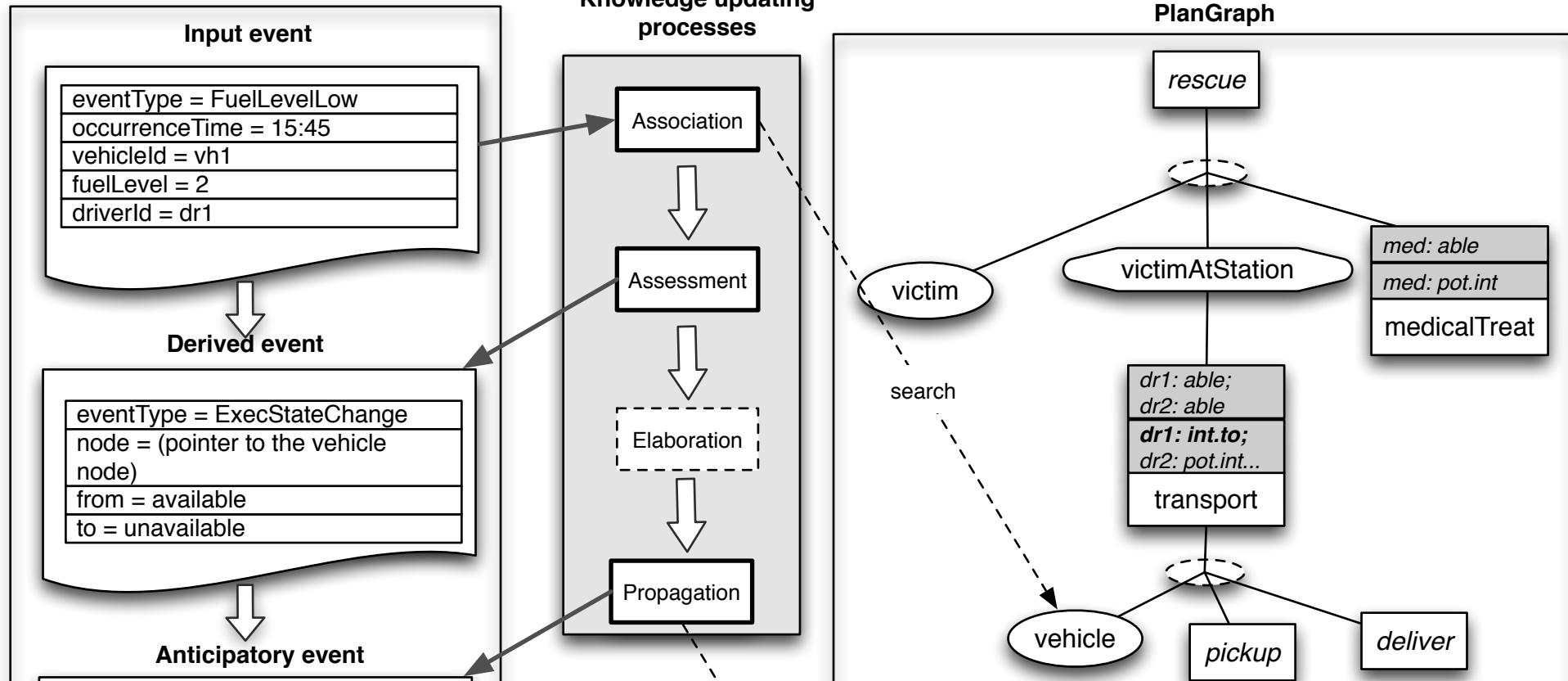
Assessment

Elaboration

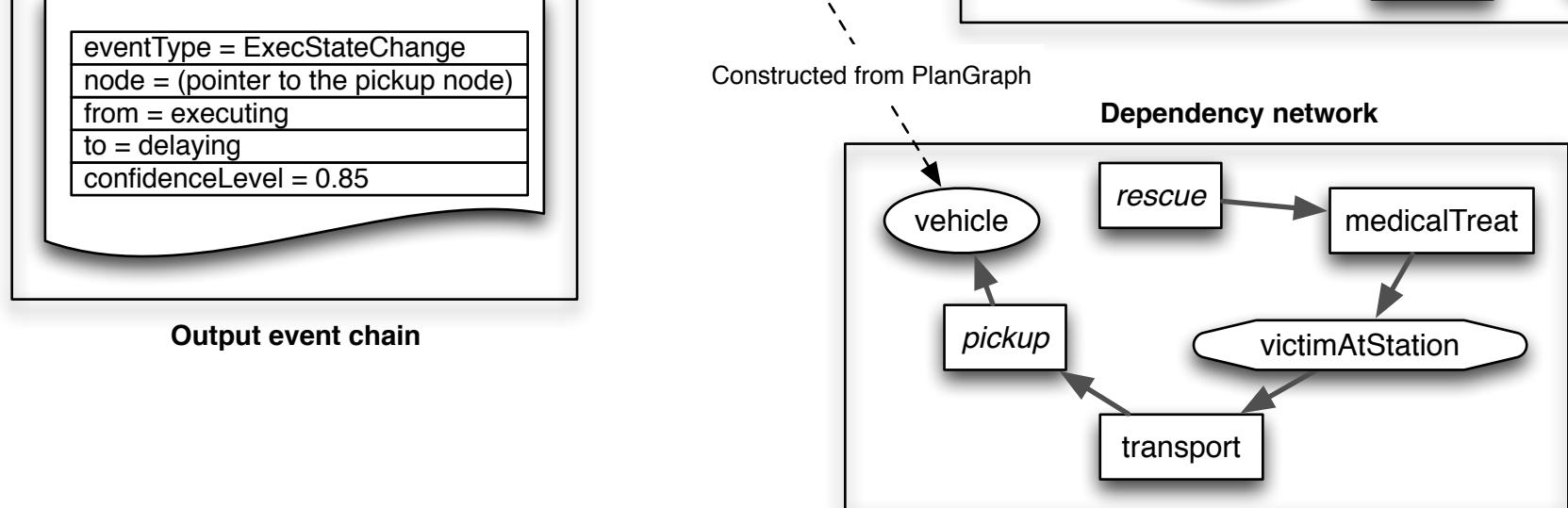
Propagation

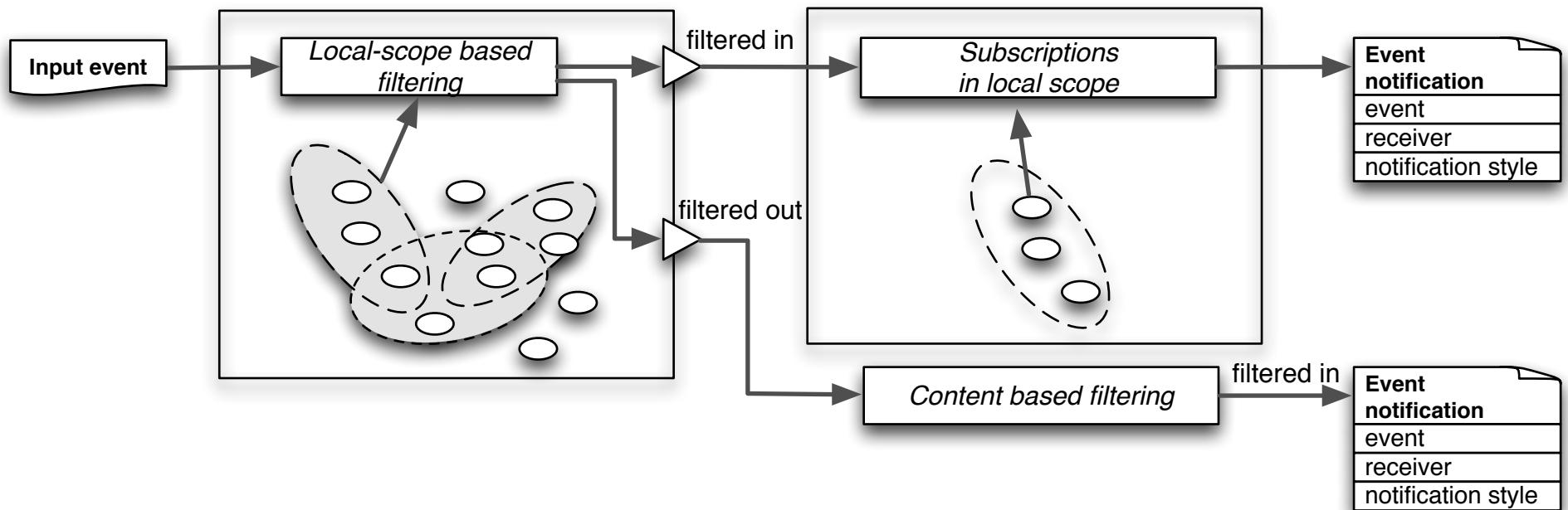
### PlanGraph

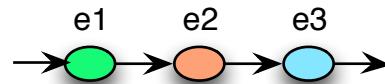




Constructed from PlanGraph







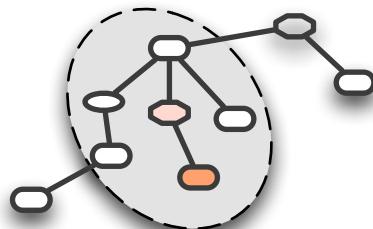
### Event View

The development of the current event



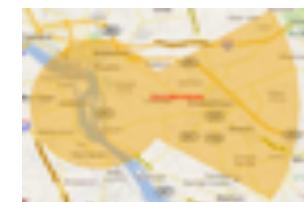
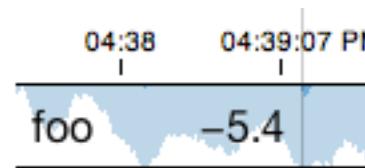
### Activity View

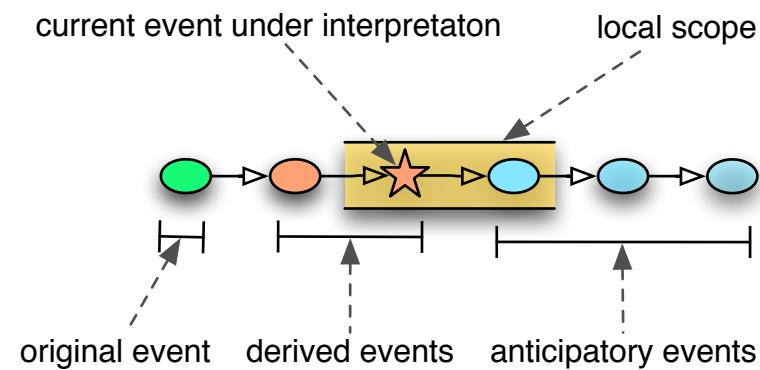
The activity structure and the local scope

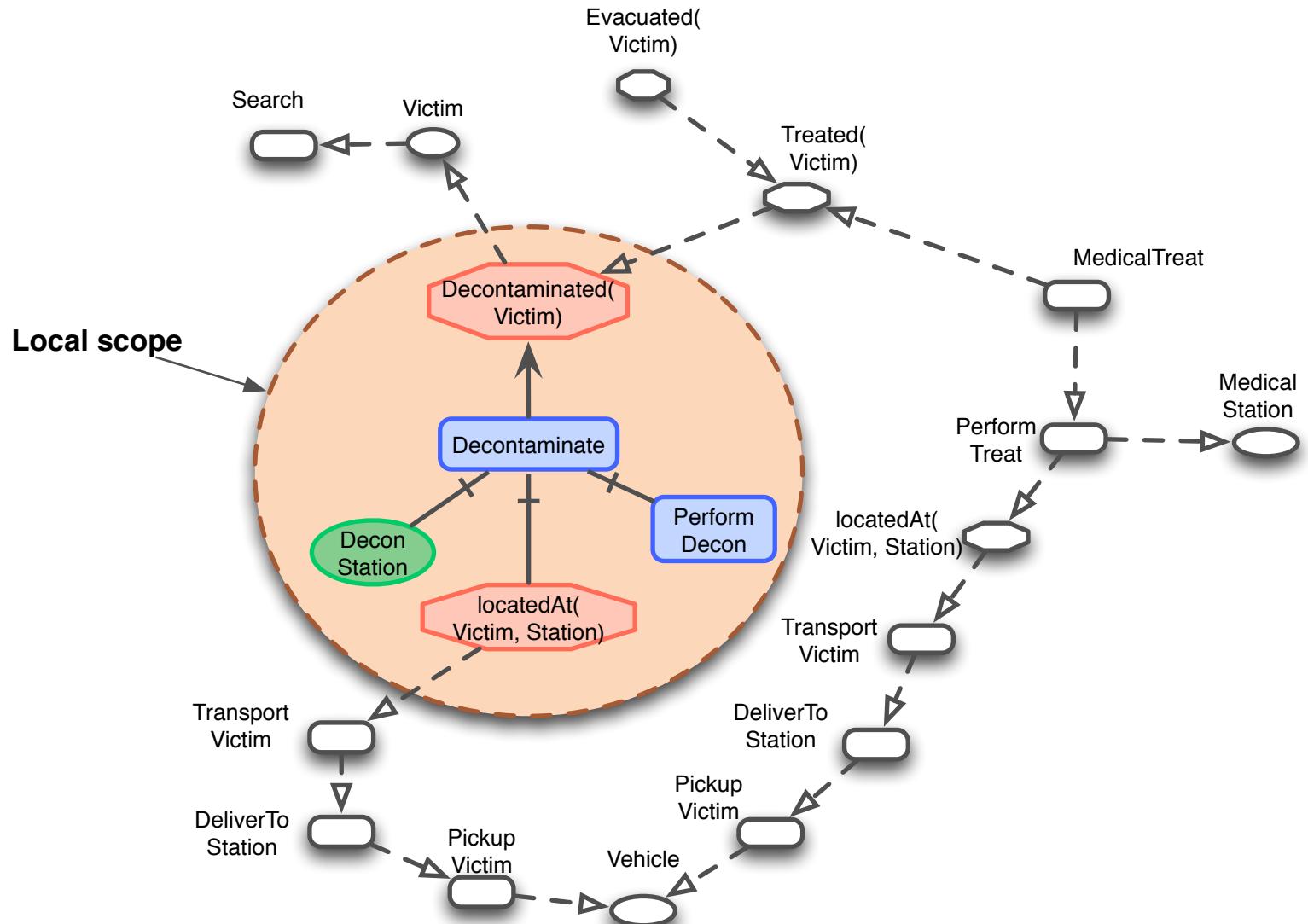


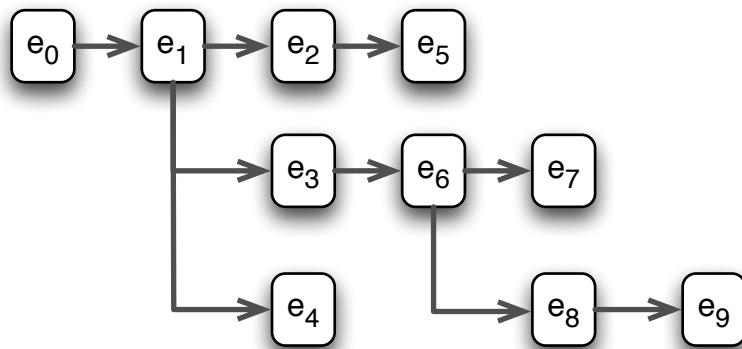
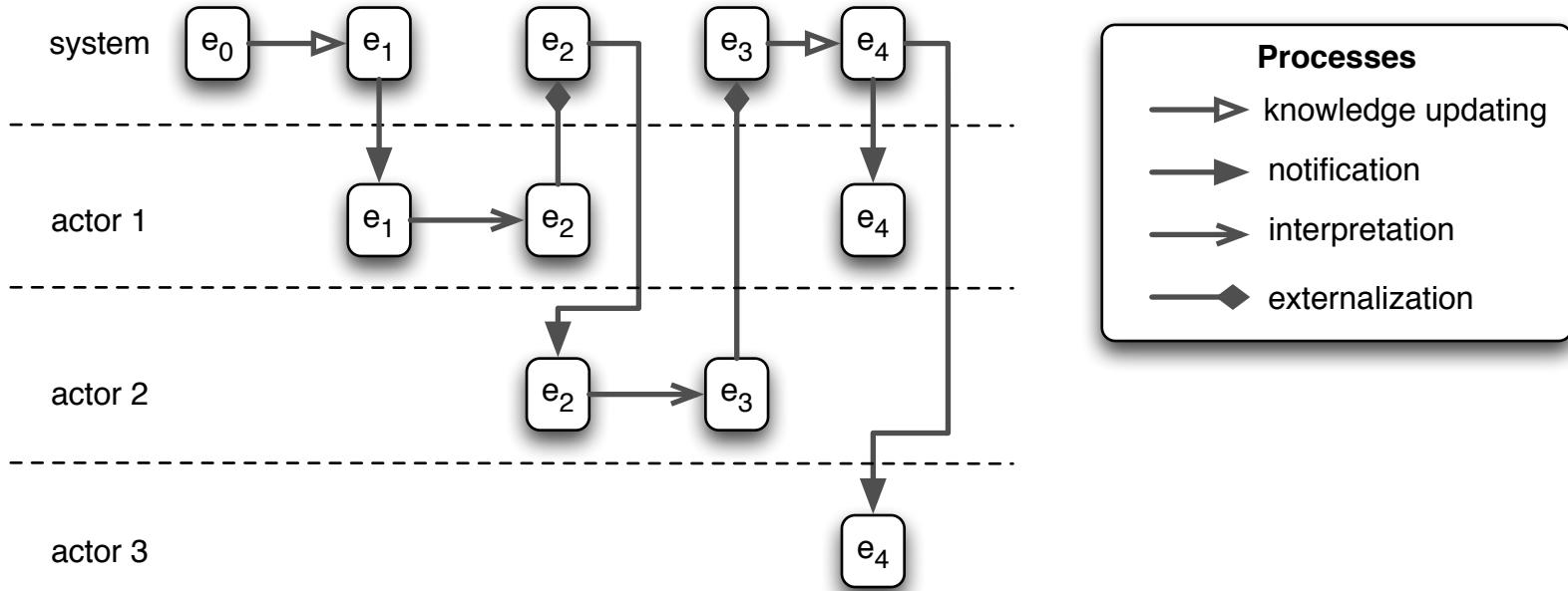
### Context View

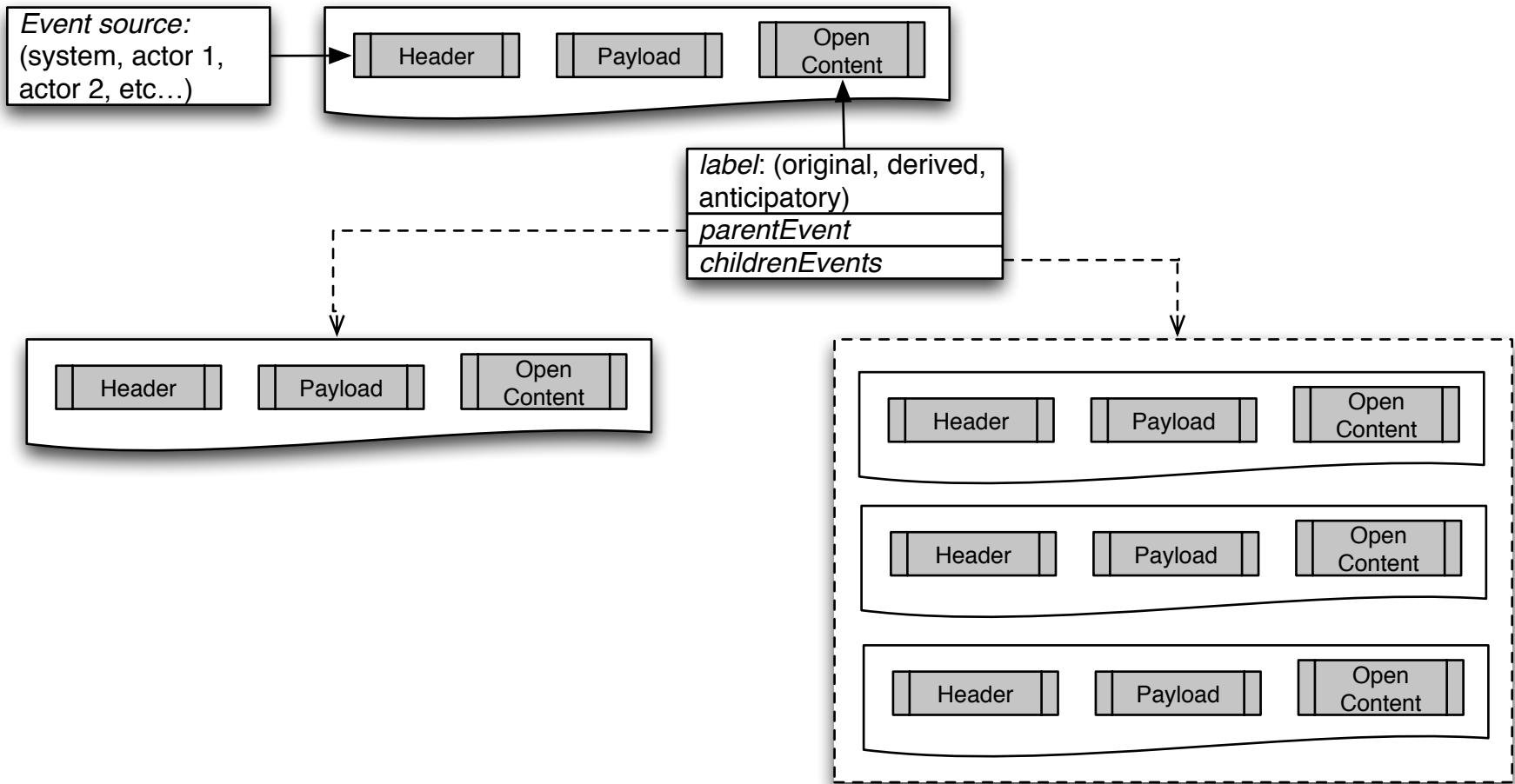
Contextual info about the current event

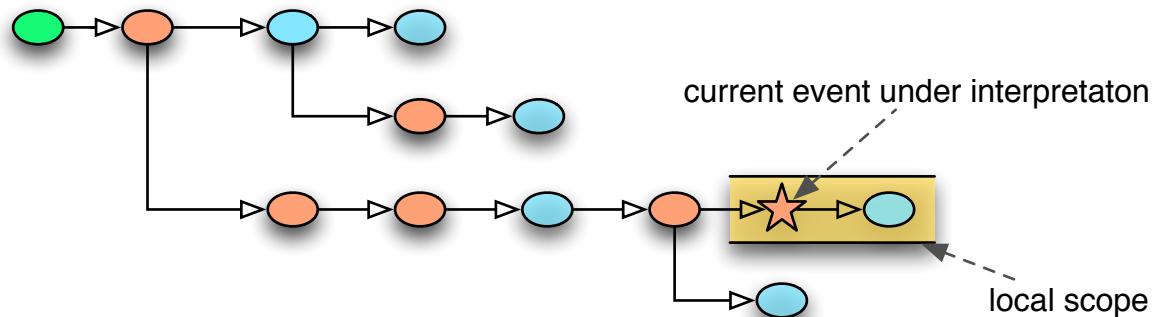




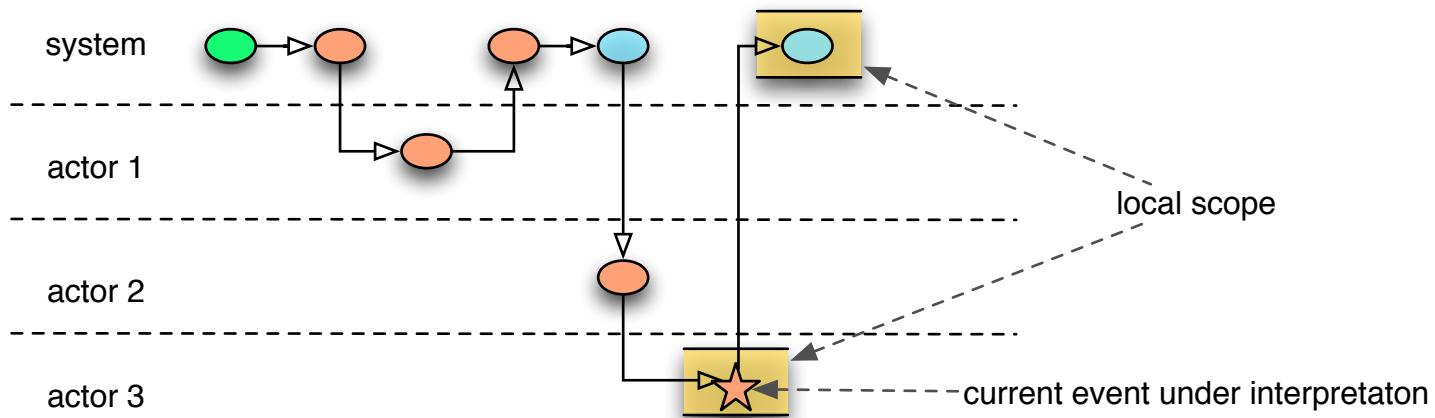




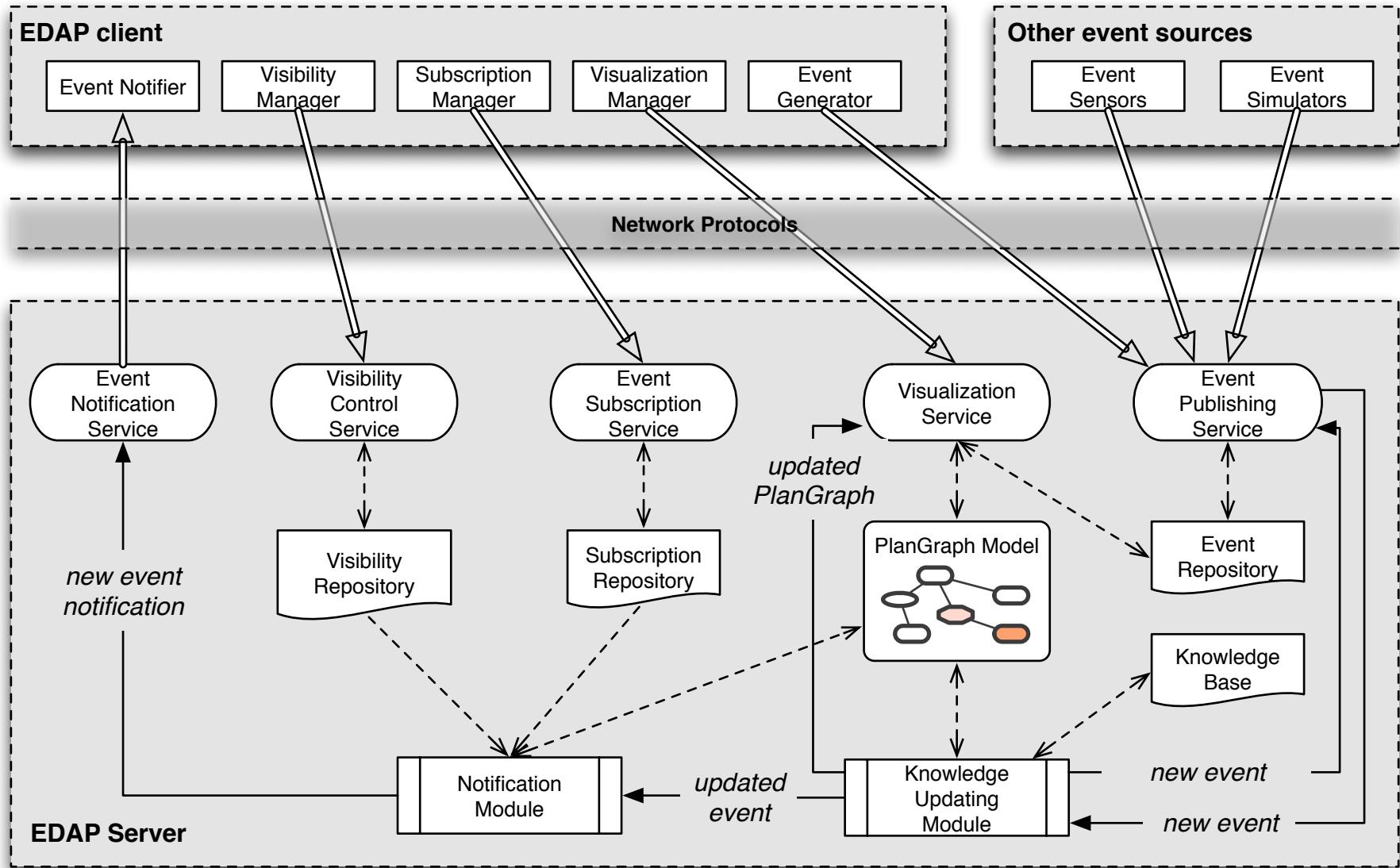




**(a) the whole event propagation tree**



**(b) the active event propagation chain**



## → Network protocols

→ Message passing

←→ Data access

Event table
eventId
eventType
occurrenceTime
detectionTime
eventSource
eventComposition
payload
openContent

Event Development table
label
parentEventId
currentEventId

```
<Event id="event01">
    <Payload>
        <Property name="intentionType" type="string">
            <Value>Int.Th</Value>
        </Property>
        <Property name="actor" type="string">
            <Value>actor01</Value>
        </Property>
        <Property name="action" type="string">
            <Value>action03</Value>
        </Property>
    </Payload>
</Event>
```

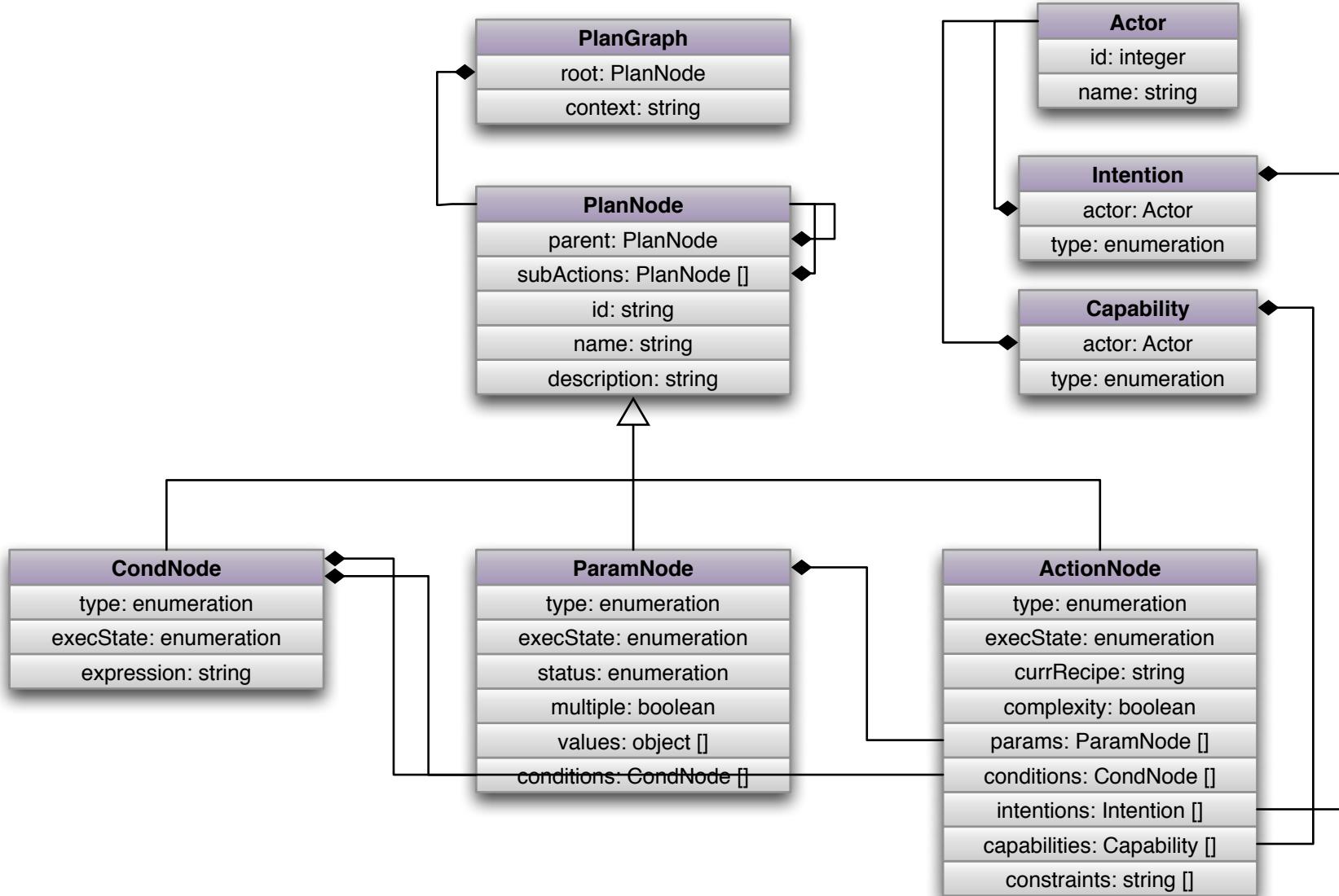
Subscription table
subscriptionId
userId
notificationStyle
active
eventPattern

```
<Subscription id="sub01">
    <EventPattern type="all">
        <Filter type="eventType">
            <Value>ExecutionStateChange</Value>
        </Filter>
        <Filter type="eventContent">
            <Expression>[entityType] = 'action' and
                [to] = 'delaying'</Expression>
        </Filter>
        <Filter type="localScope">
            <Intention>Int.That</Intention>
        </Filter>
    </EventPattern>
</Subscription>
```

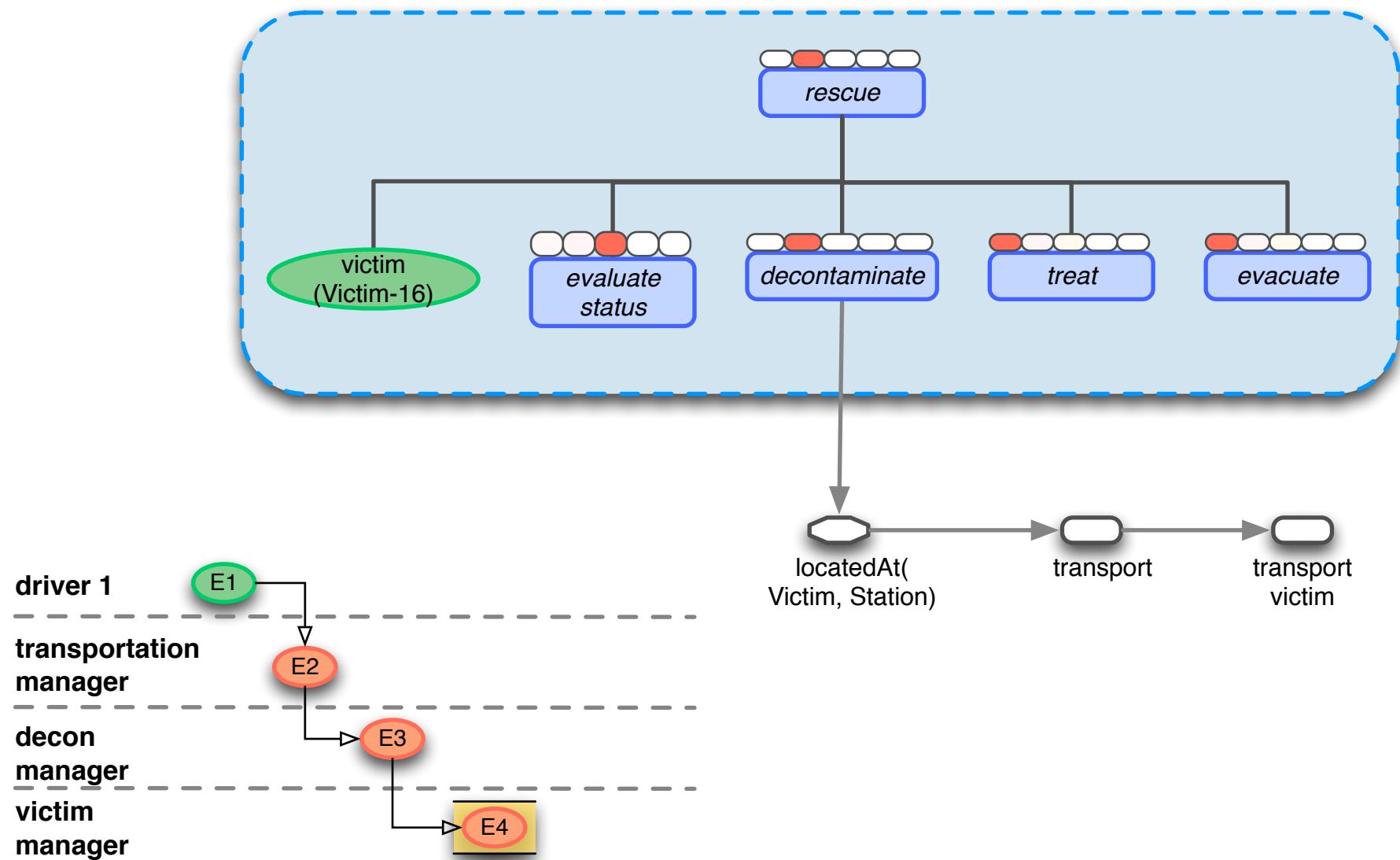
Visibility policy table	
policyId	
userId	
active	
eventPattern	
receiverPattern	
attributeList	

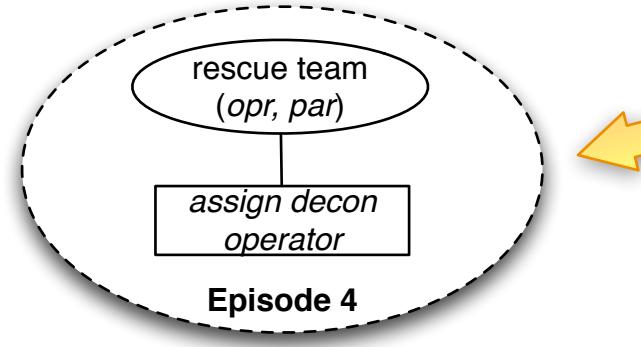
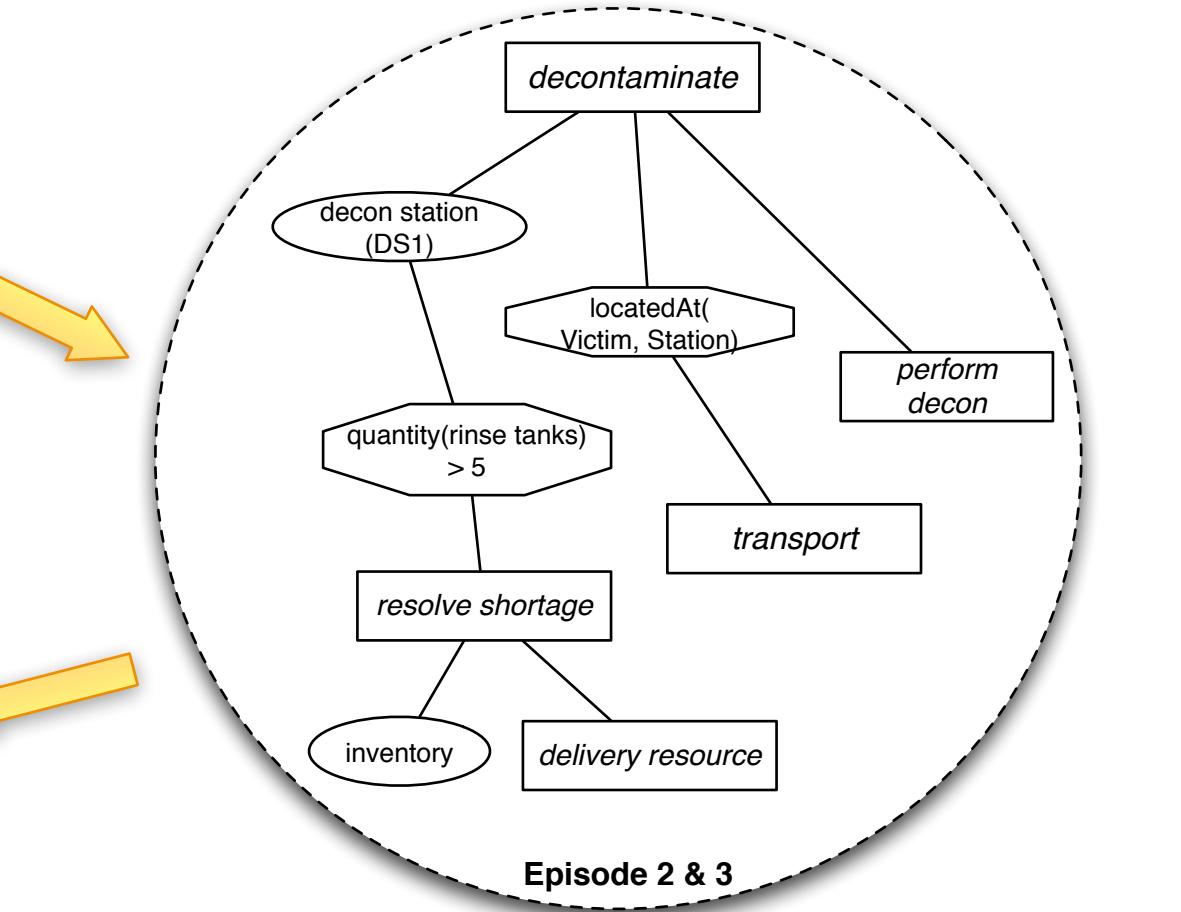
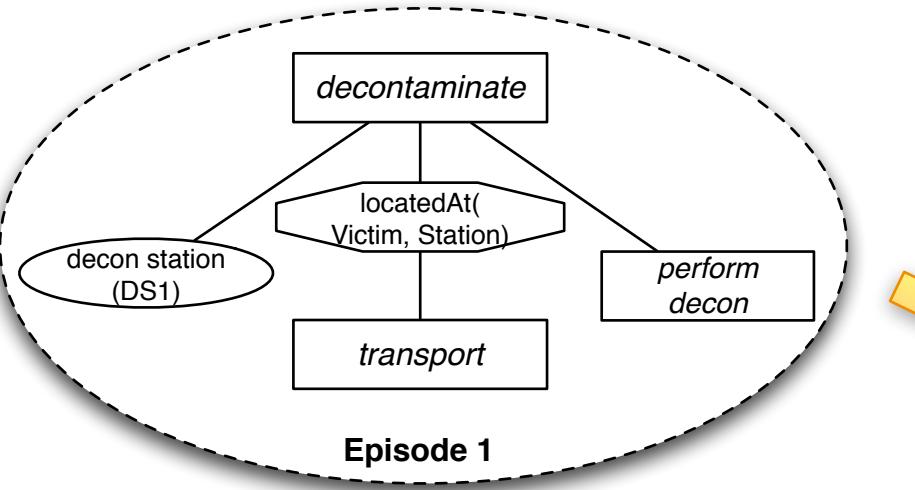
```
<Visibility id="vis11">
    <ReceiverPattern type="all">
        <Filter type="attribute">
            <Expression>[role] = 'driver'</Expression>
        </Filter>
        <Filter type="localScope">
            <Capability>Workable</Capability>
        </Filter>
    </ReceiverPattern>
</Visibility>
```

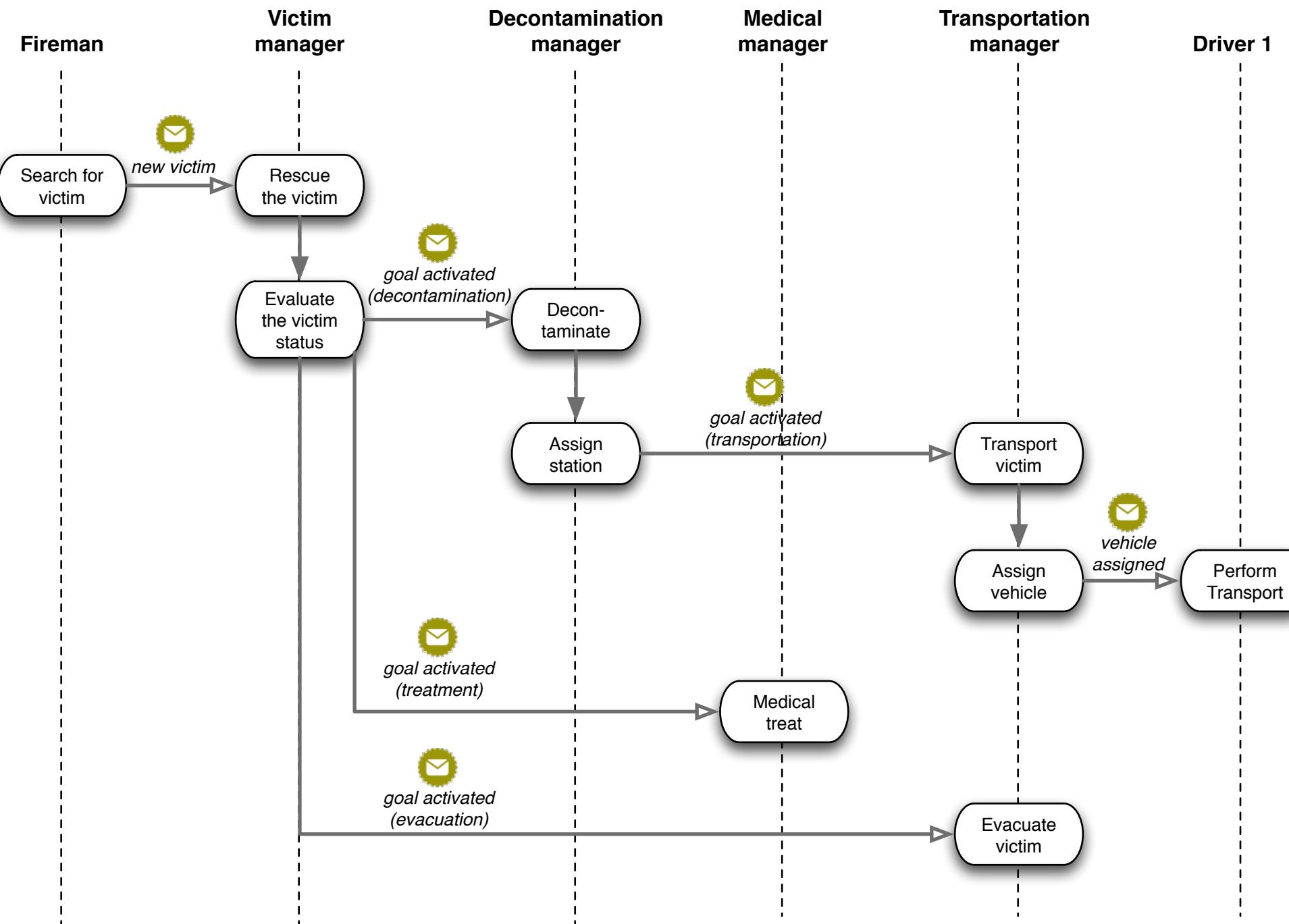
```
<Visibility id="vis11">
    <AttributeList>
        <Attribute name="victimName" />
        <Attribute name="location" />
        <Attribute name="injuryInfo" />
    </AttributeList>
</Visibility>
```

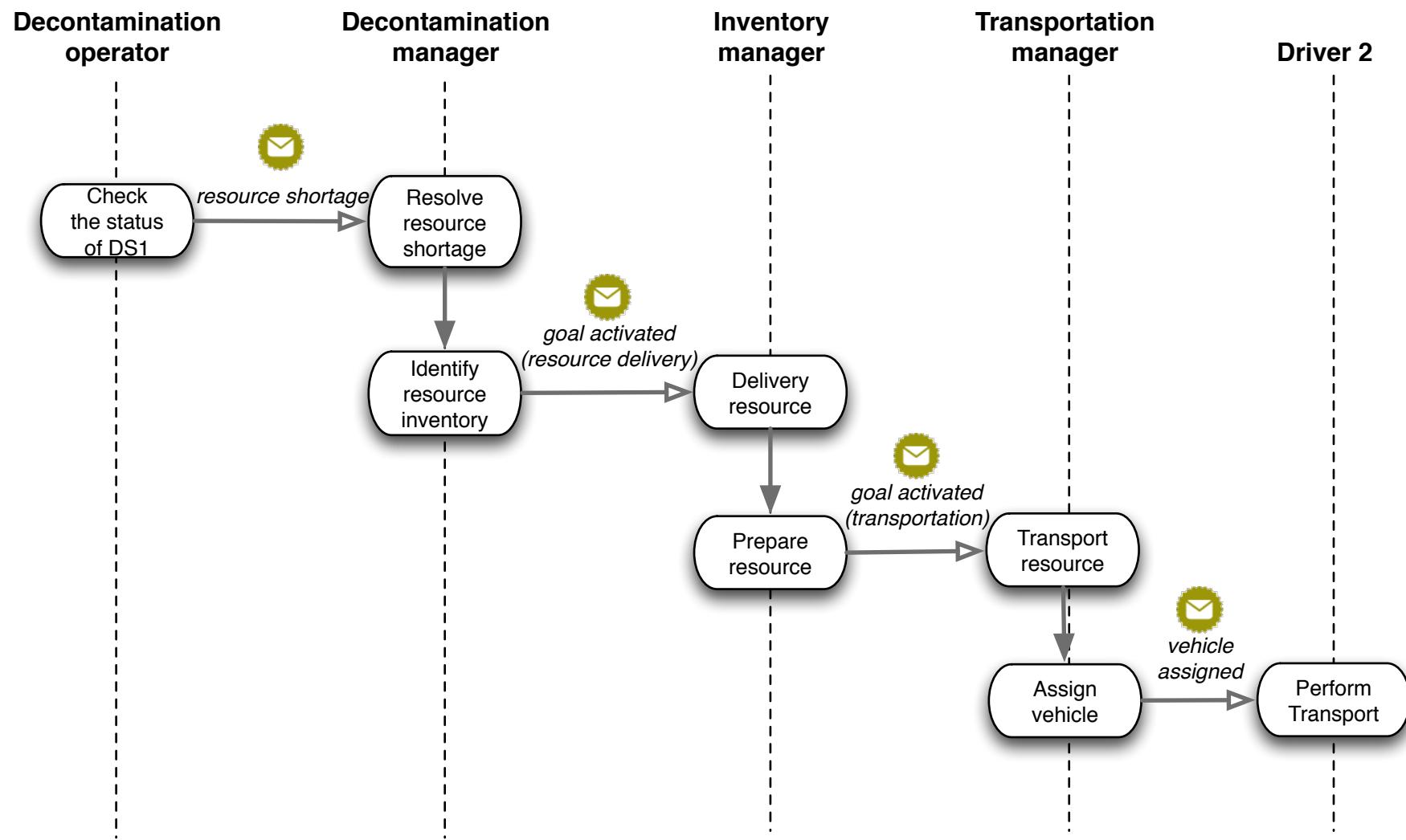


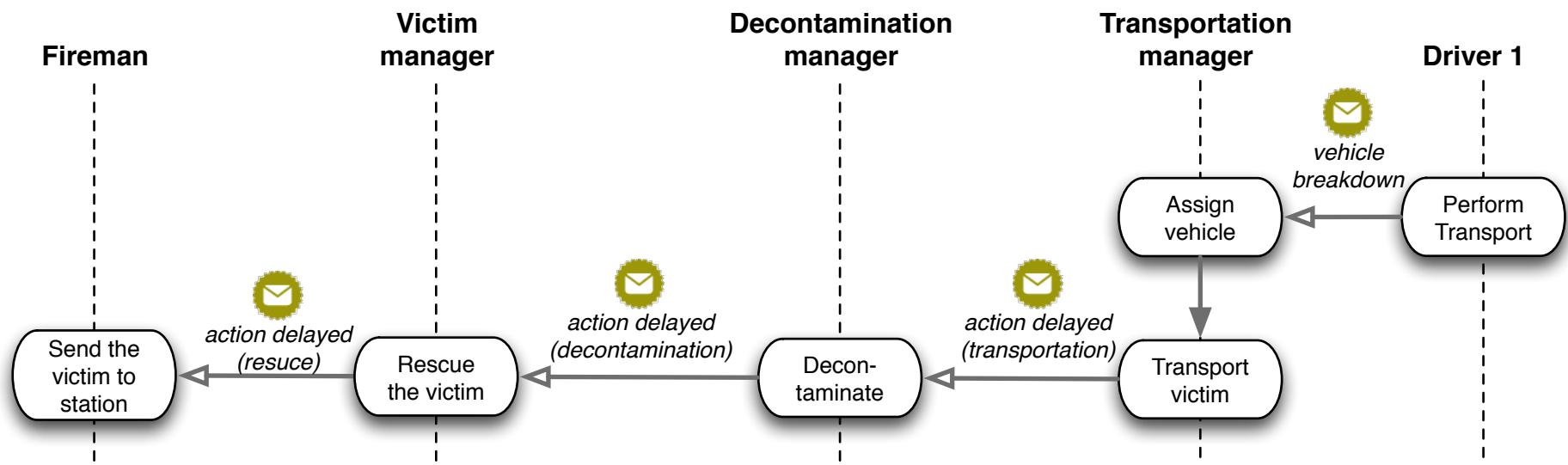
## vm\_activity\_view

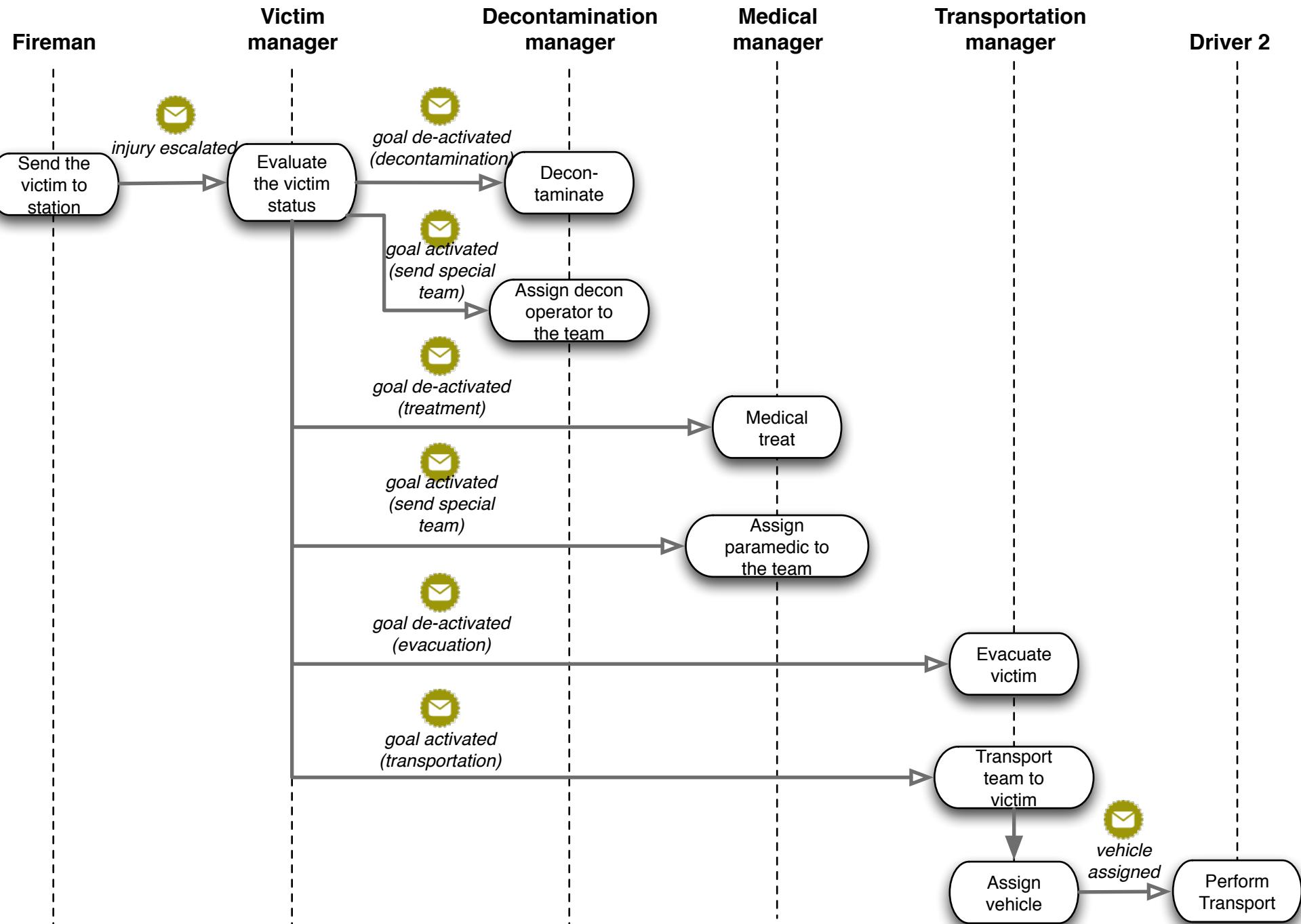


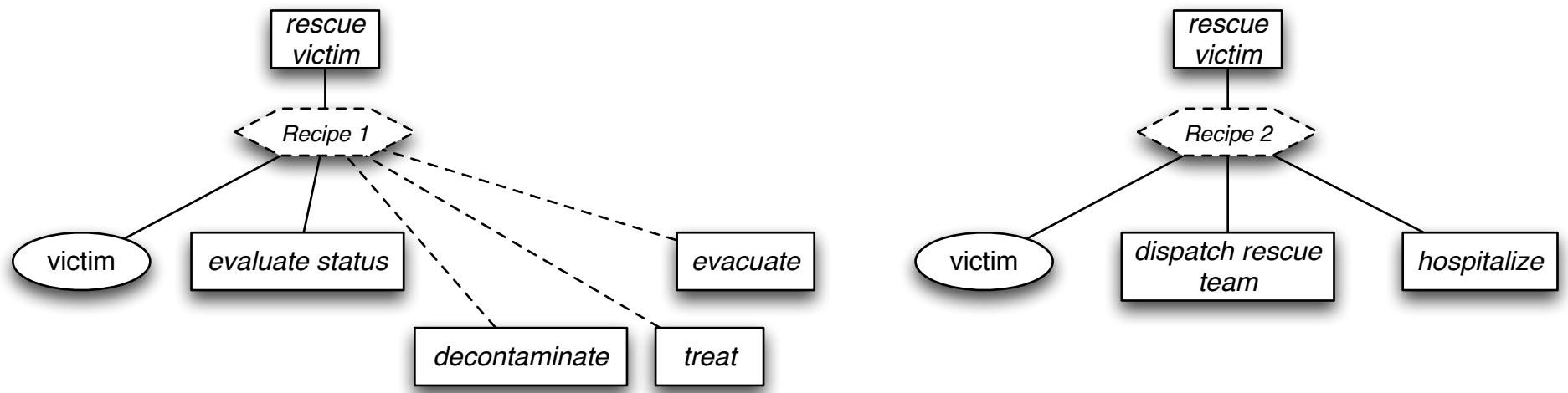




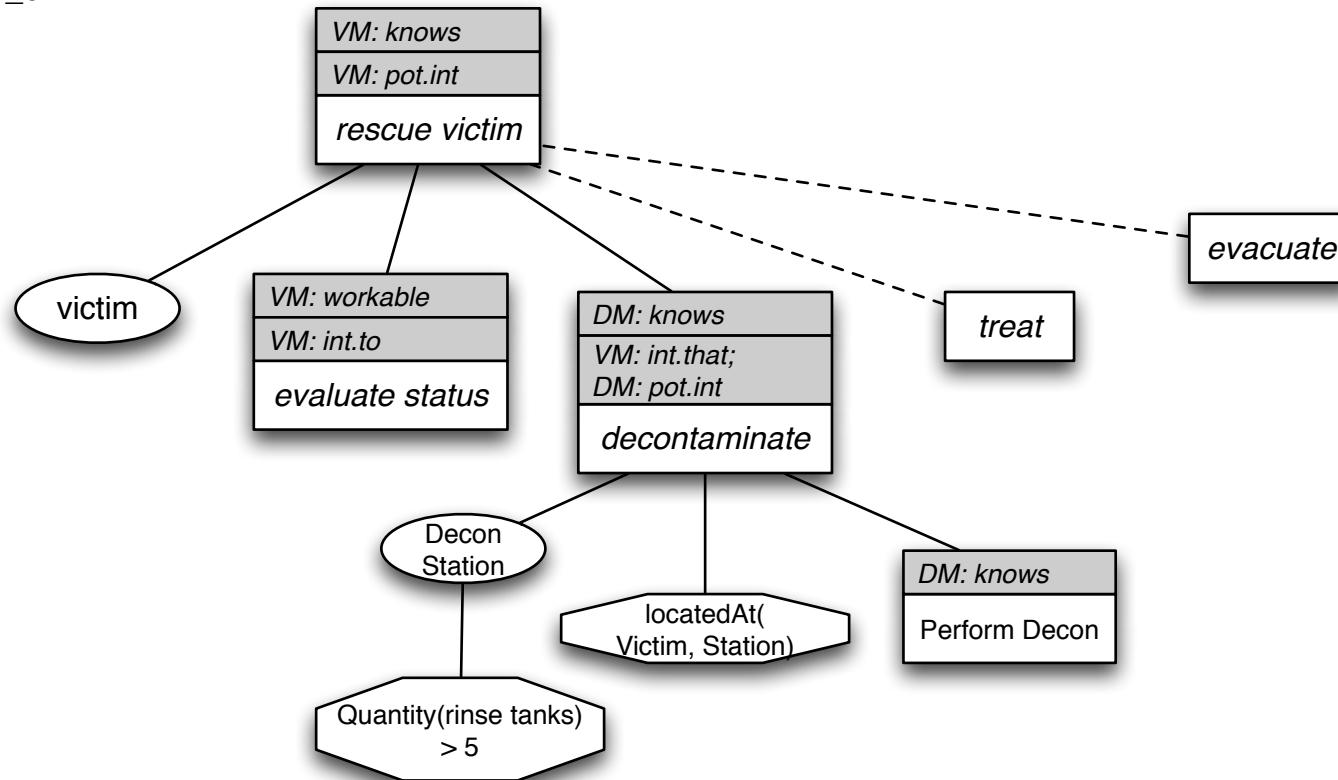




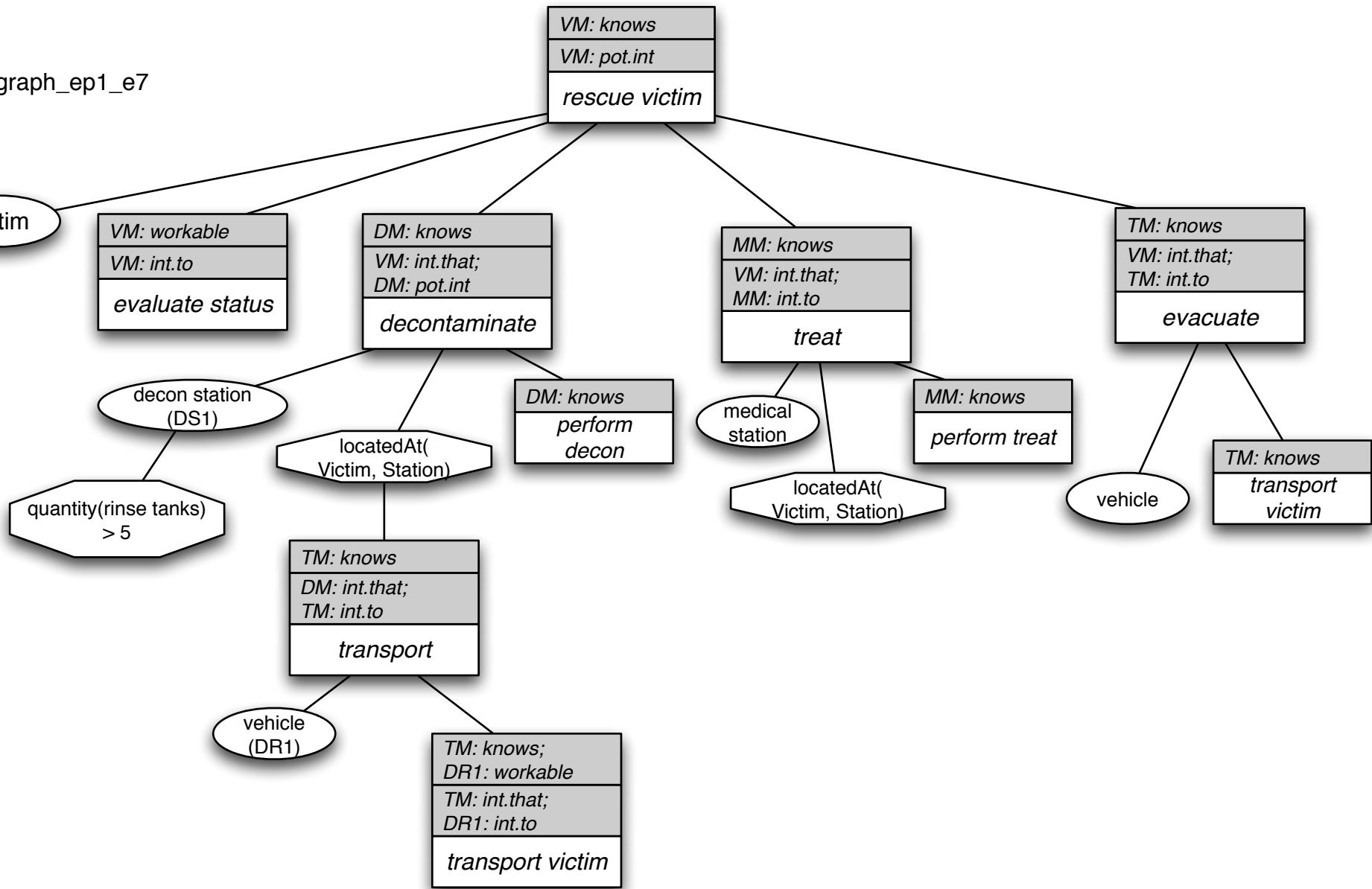




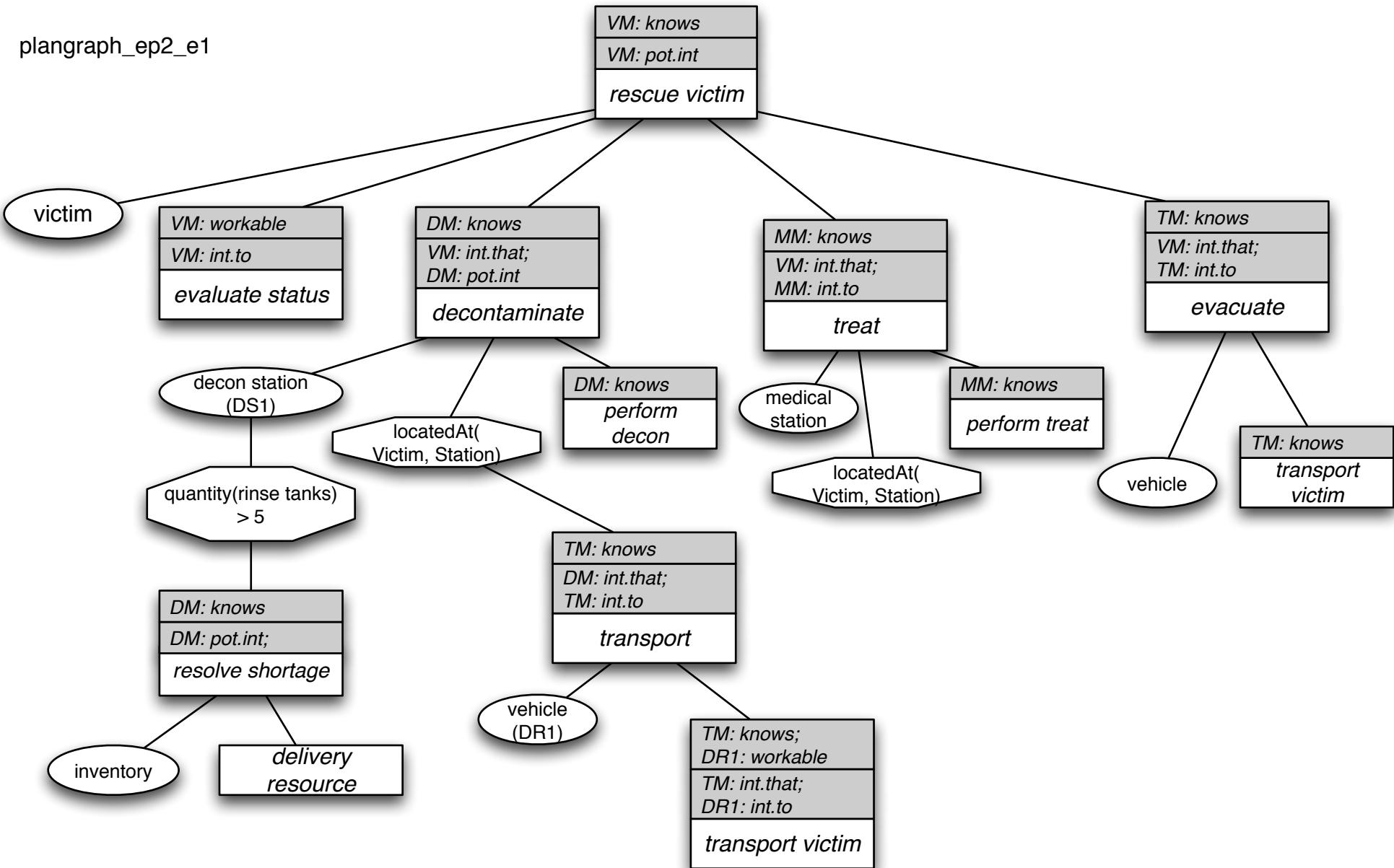
plangraph\_ep1\_e2



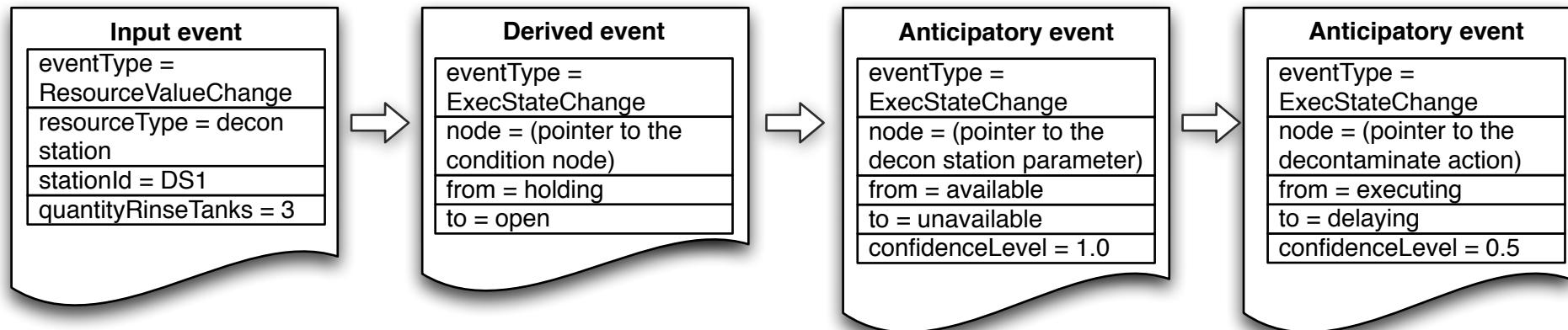
## plangraph\_ep1\_e7

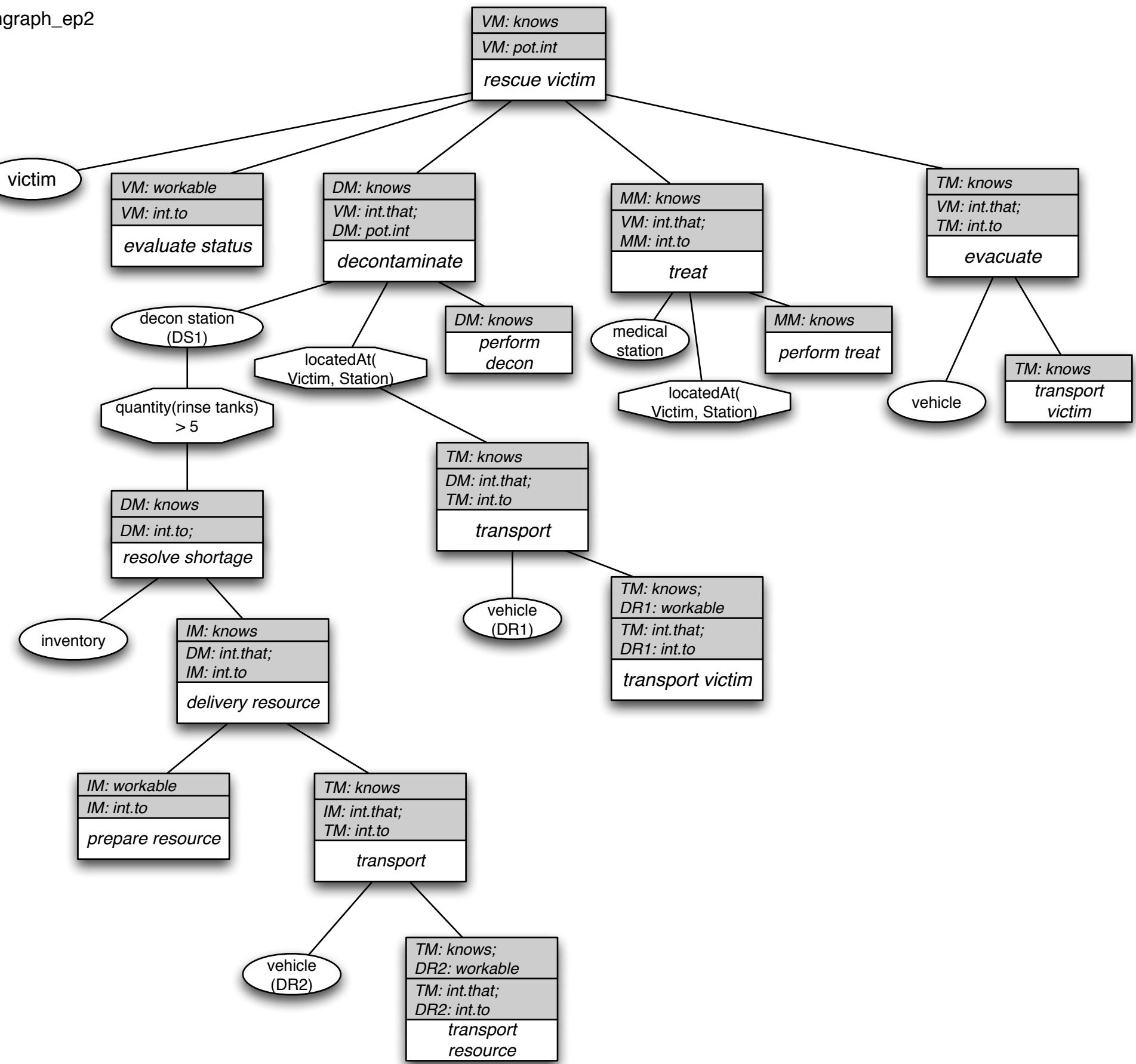


plangraph\_ep2\_e1

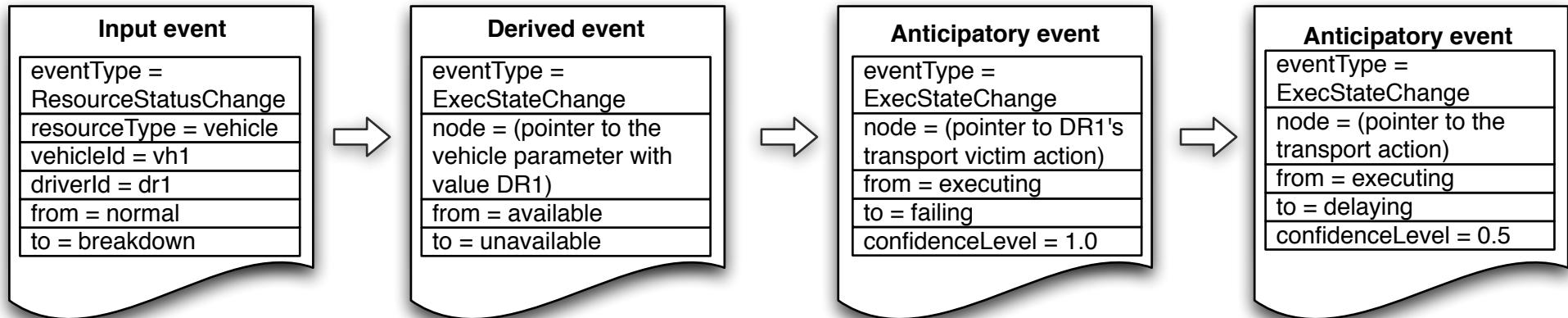


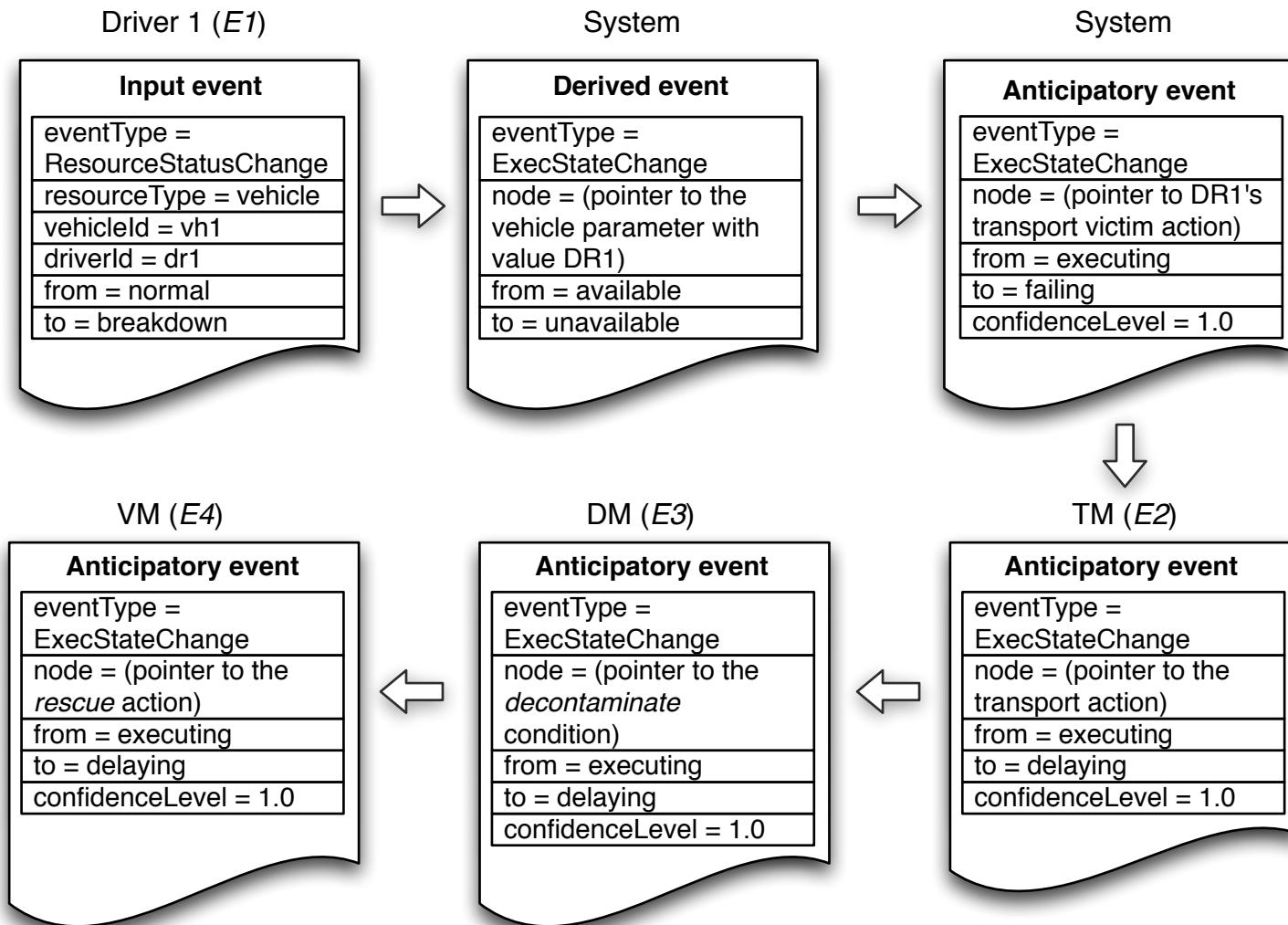
## eventchain\_ep2\_e1



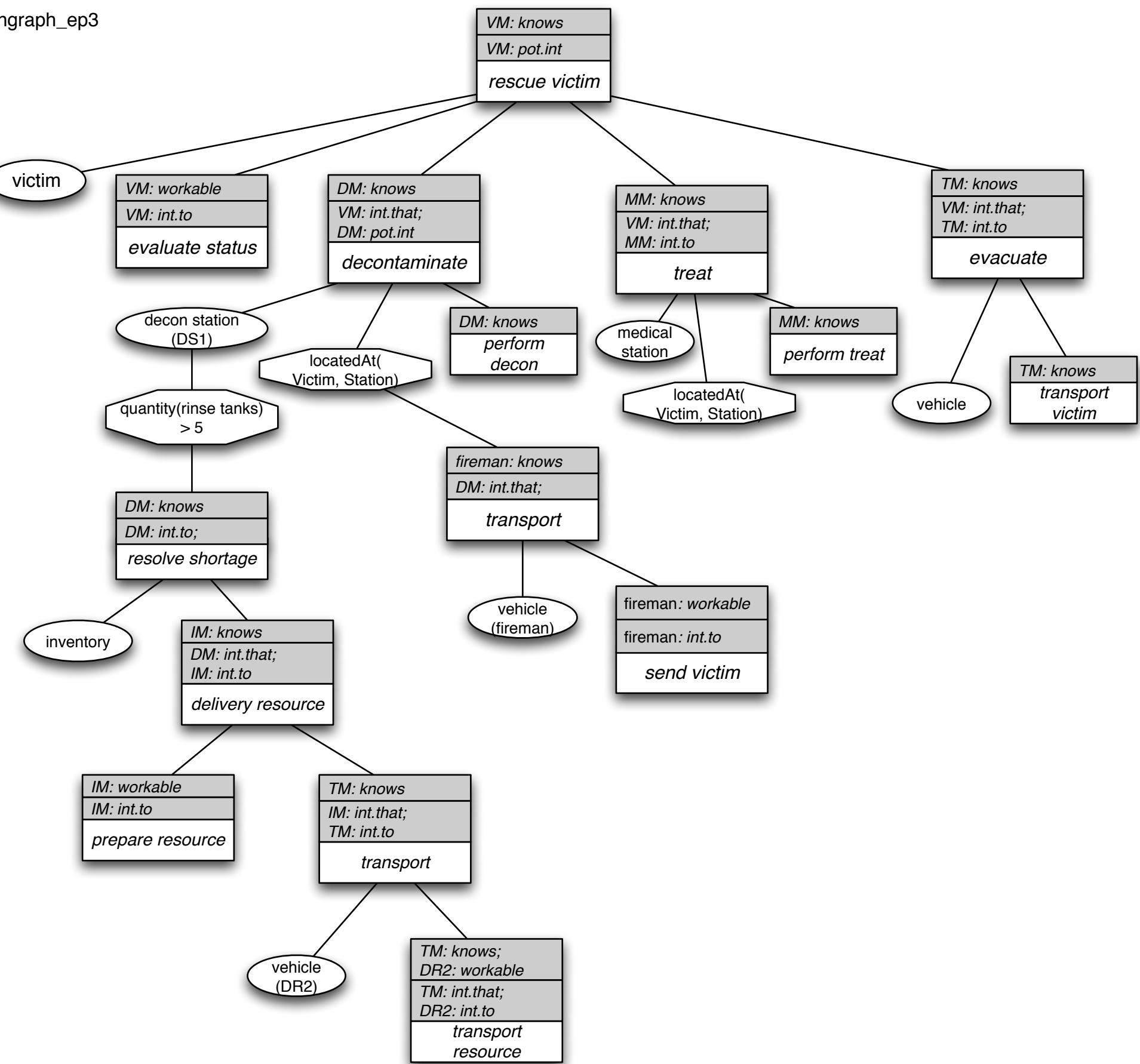


## eventchain\_ep3\_e1

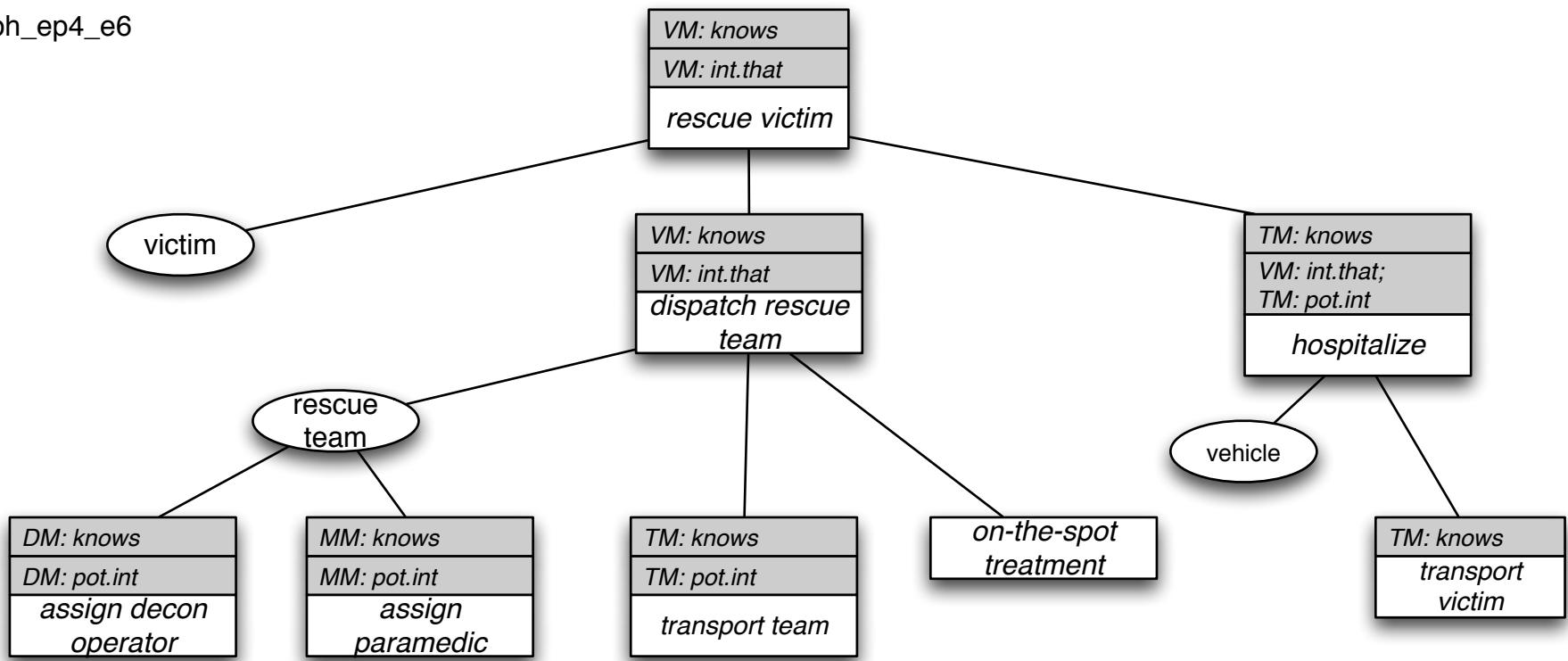




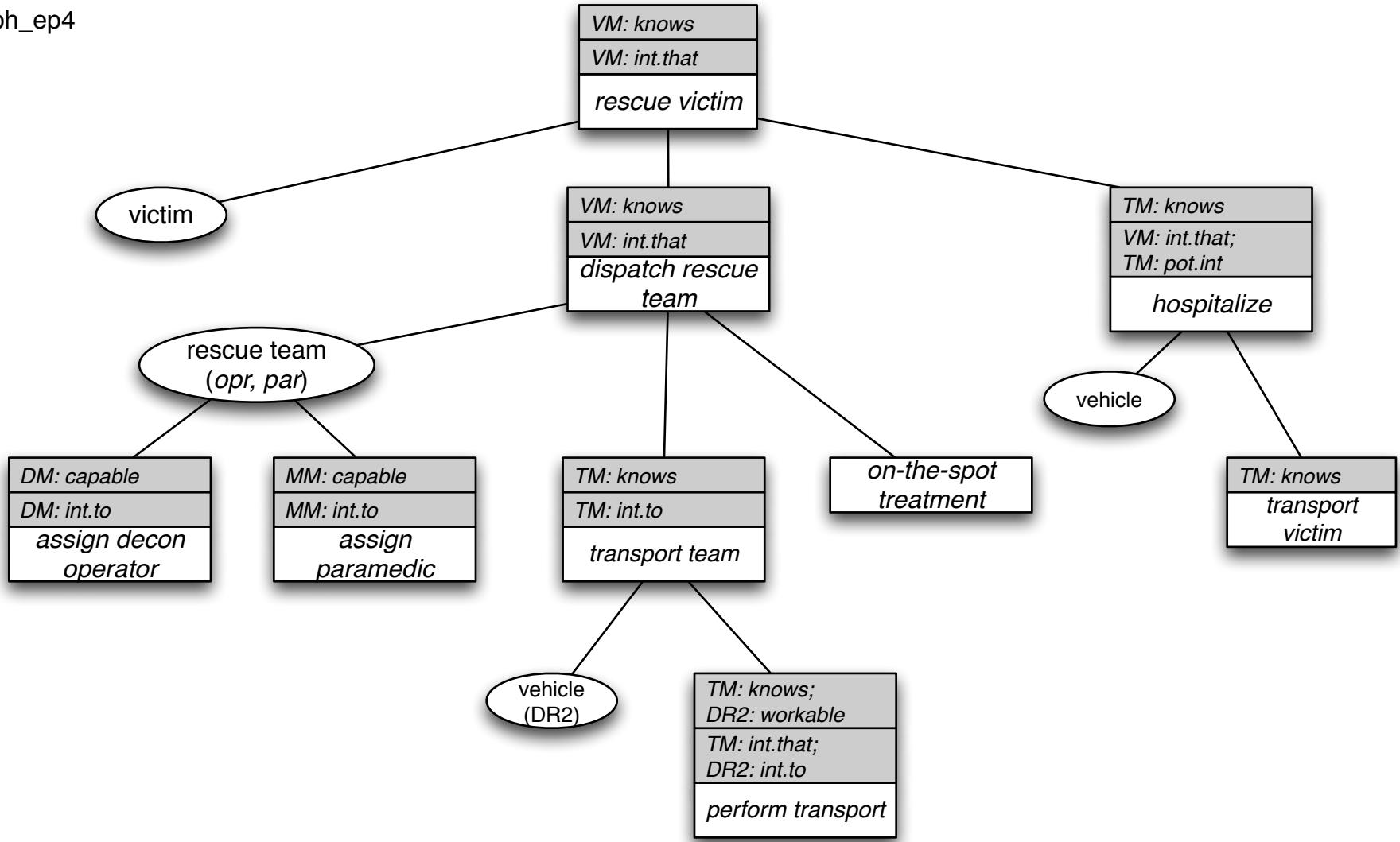
plangraph\_ep3



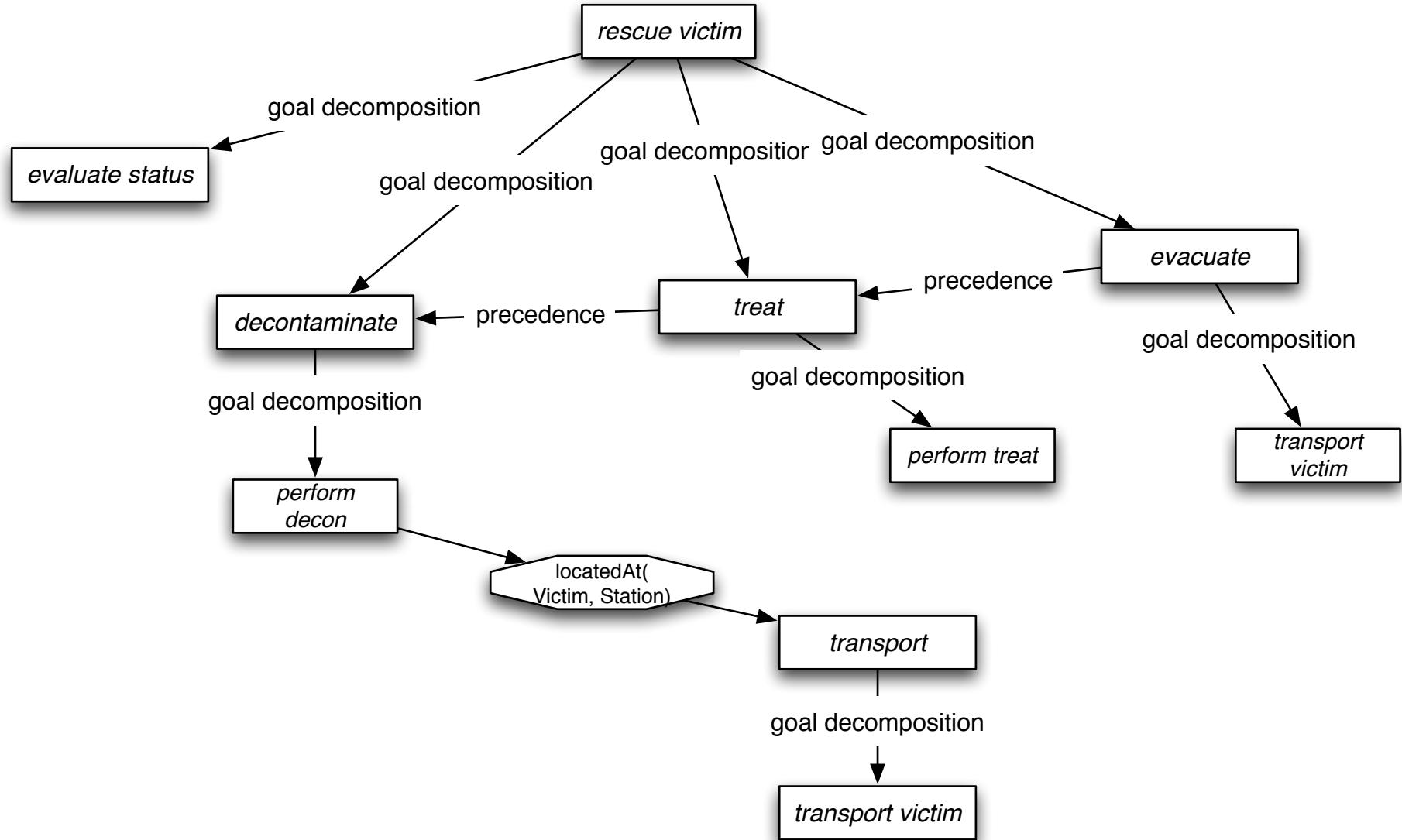
plangraph\_ep4\_e6



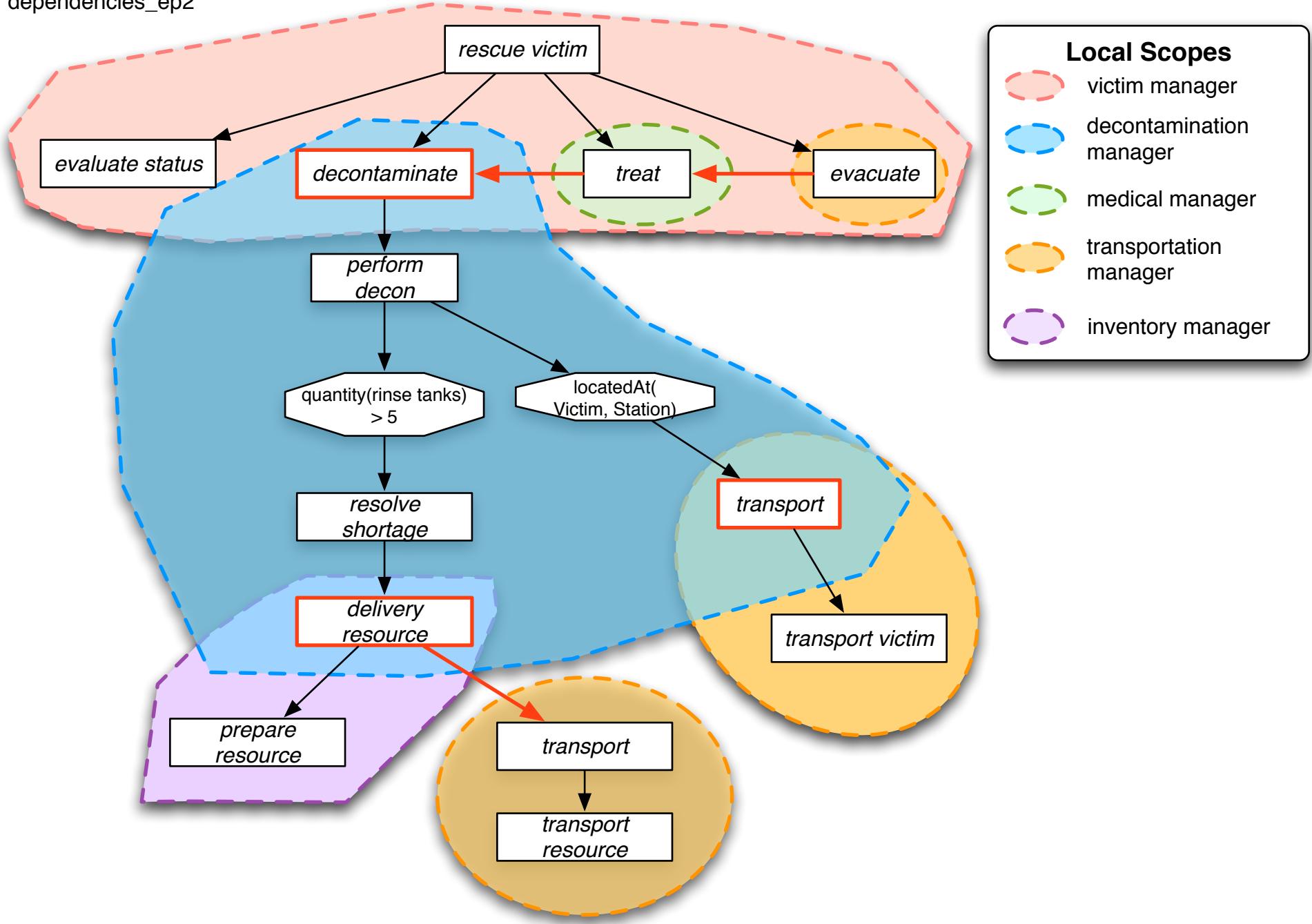
plangraph\_ep4



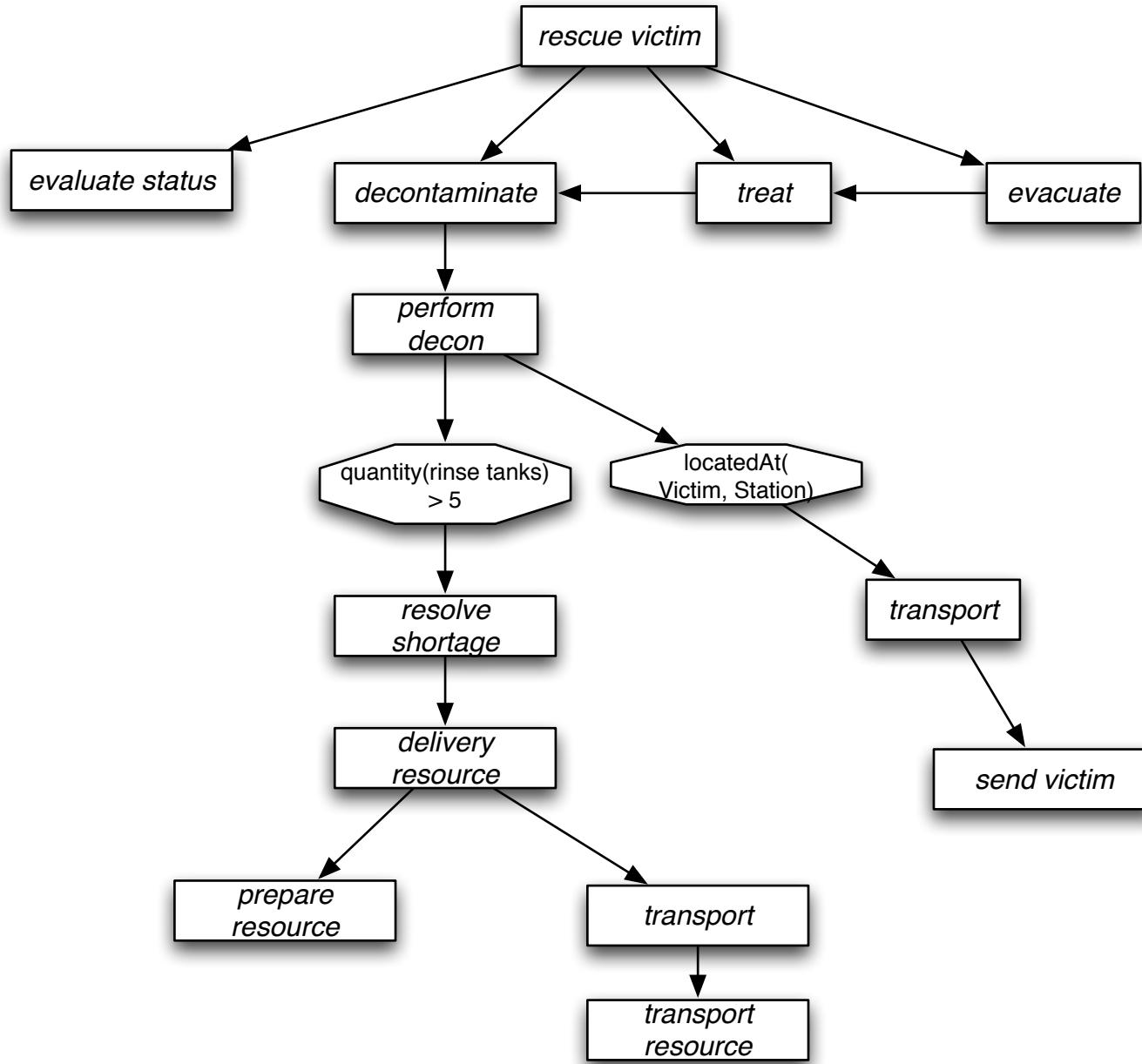
## dependencies\_ep1



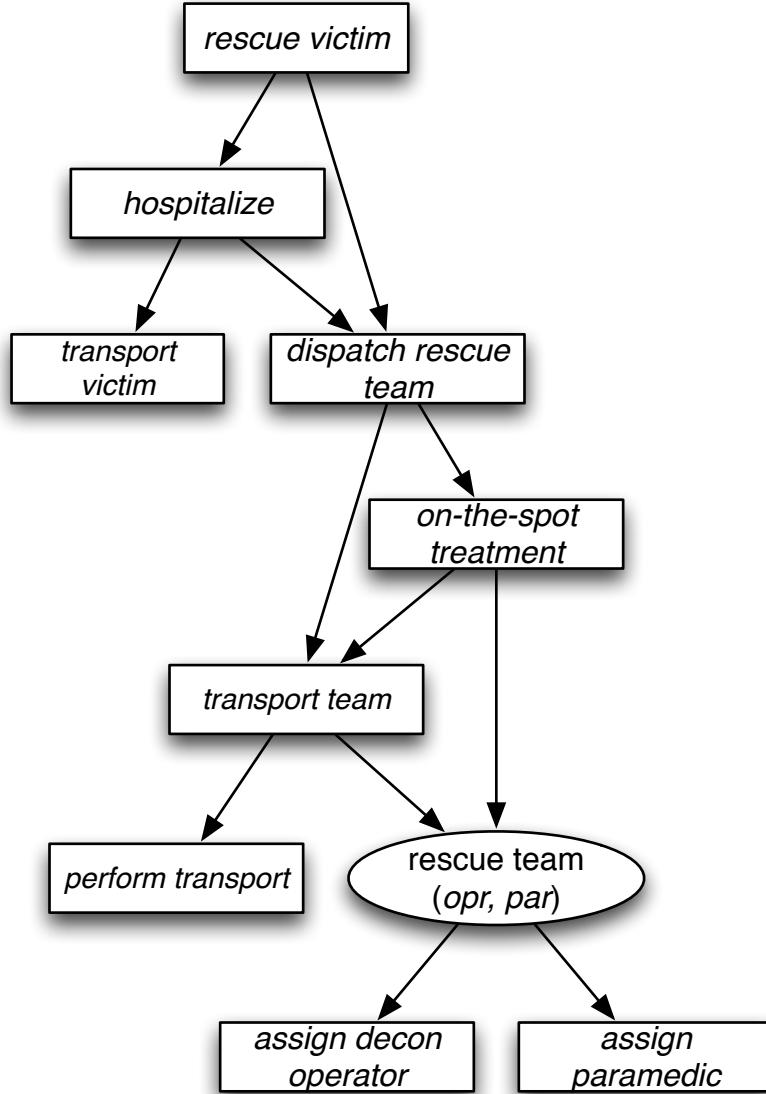
## dependencies\_ep2

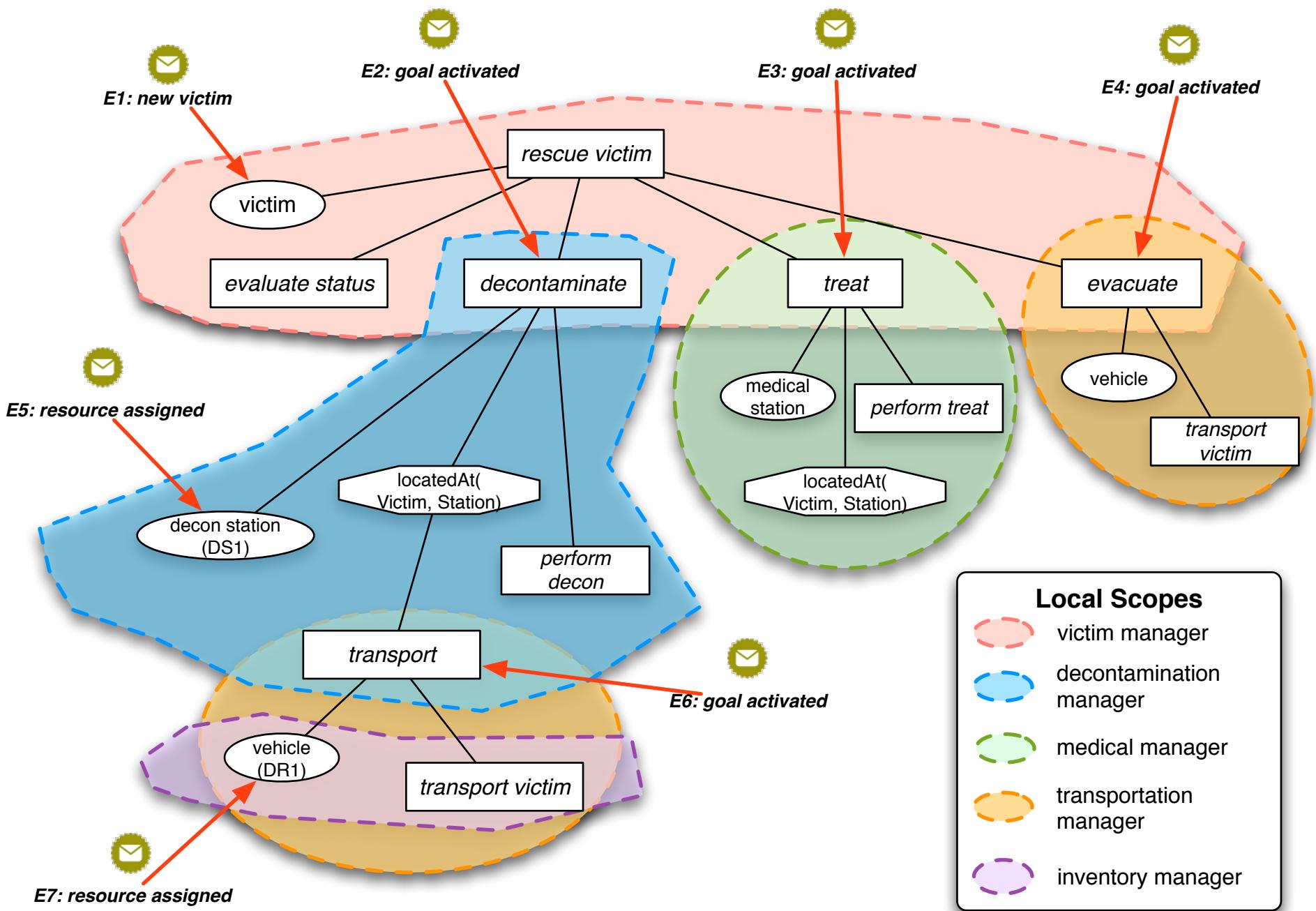


## dependencies\_ep3



dependencies\_ep4

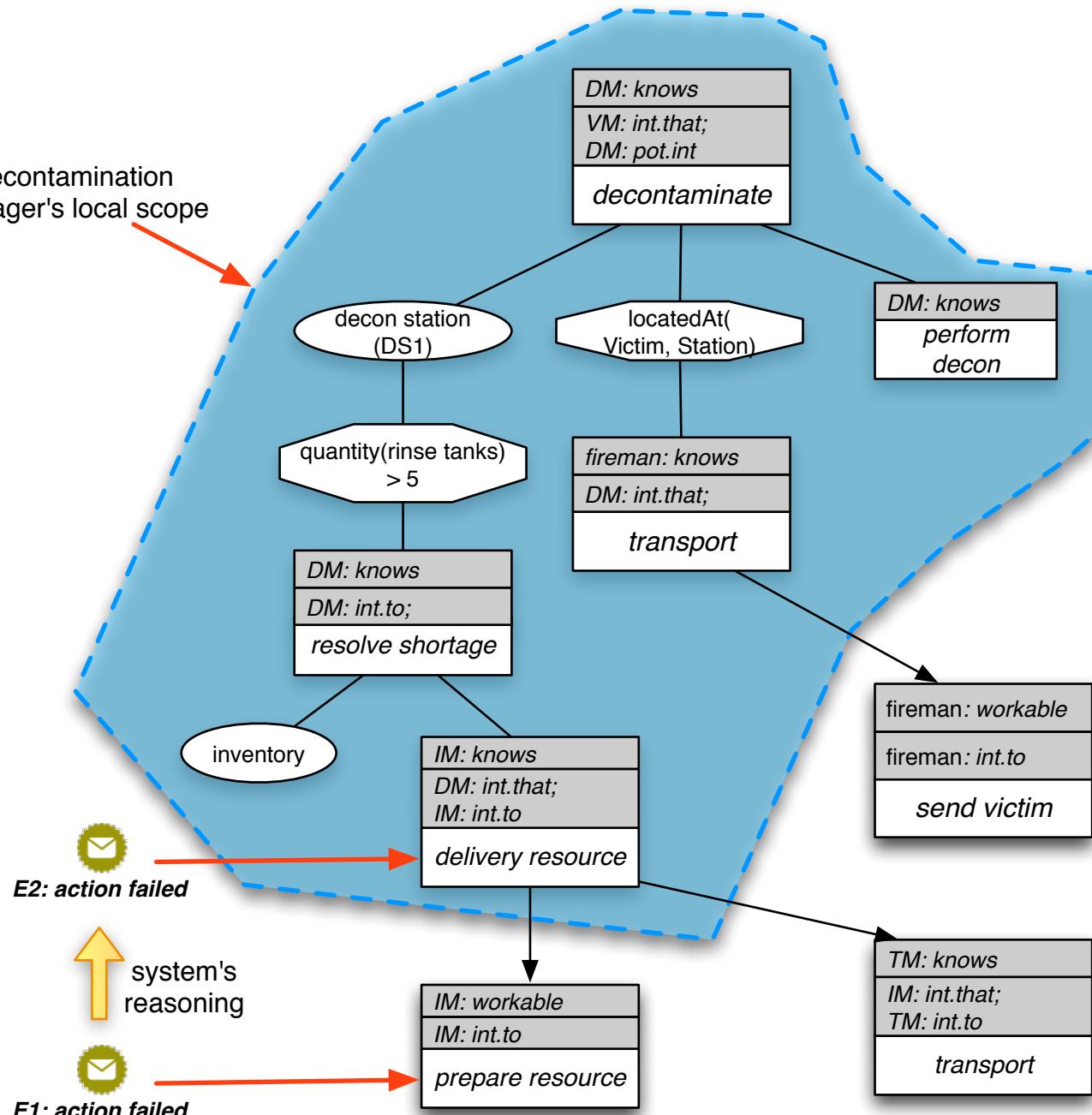


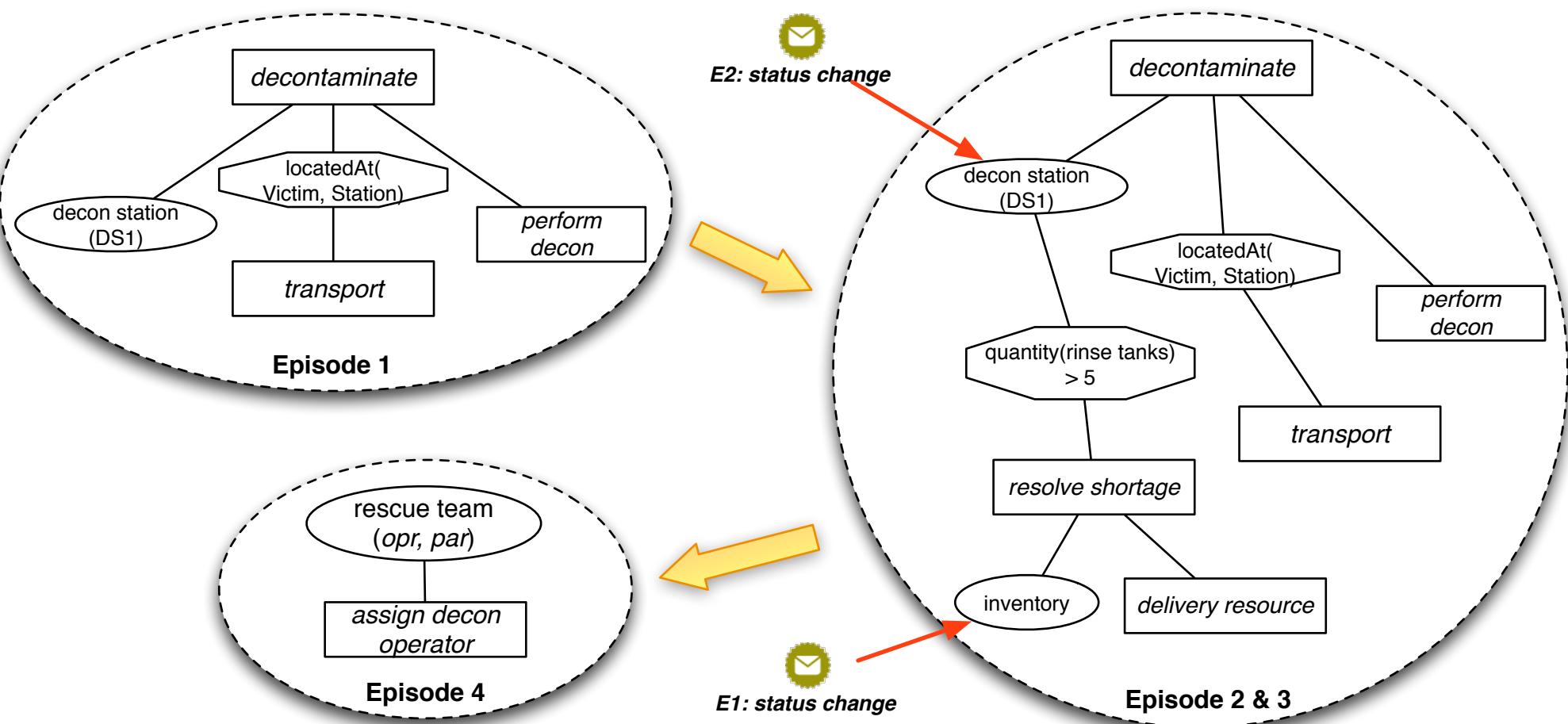


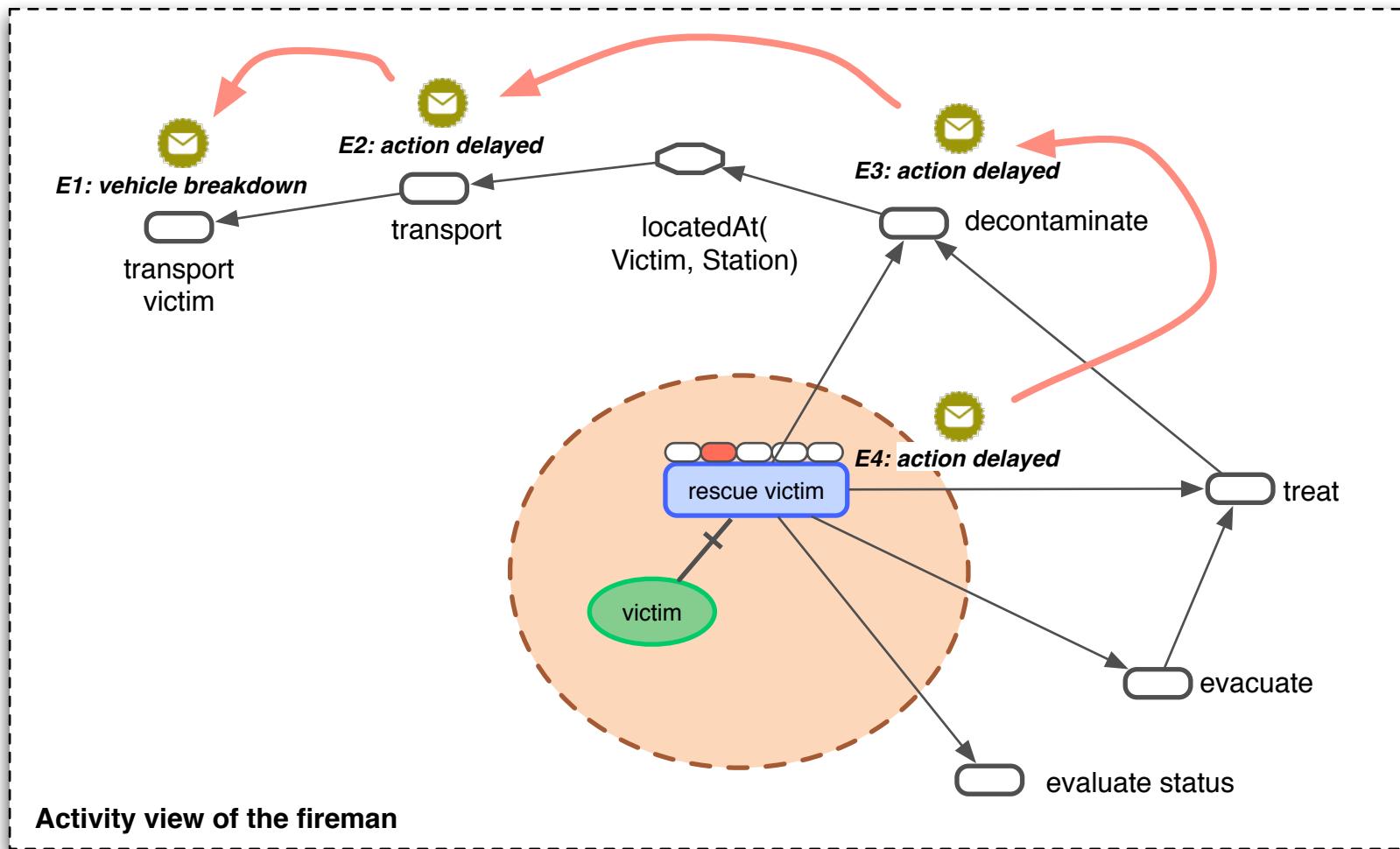
### Local Scopes

- victim manager
- decontamination manager
- medical manager
- transportation manager
- inventory manager

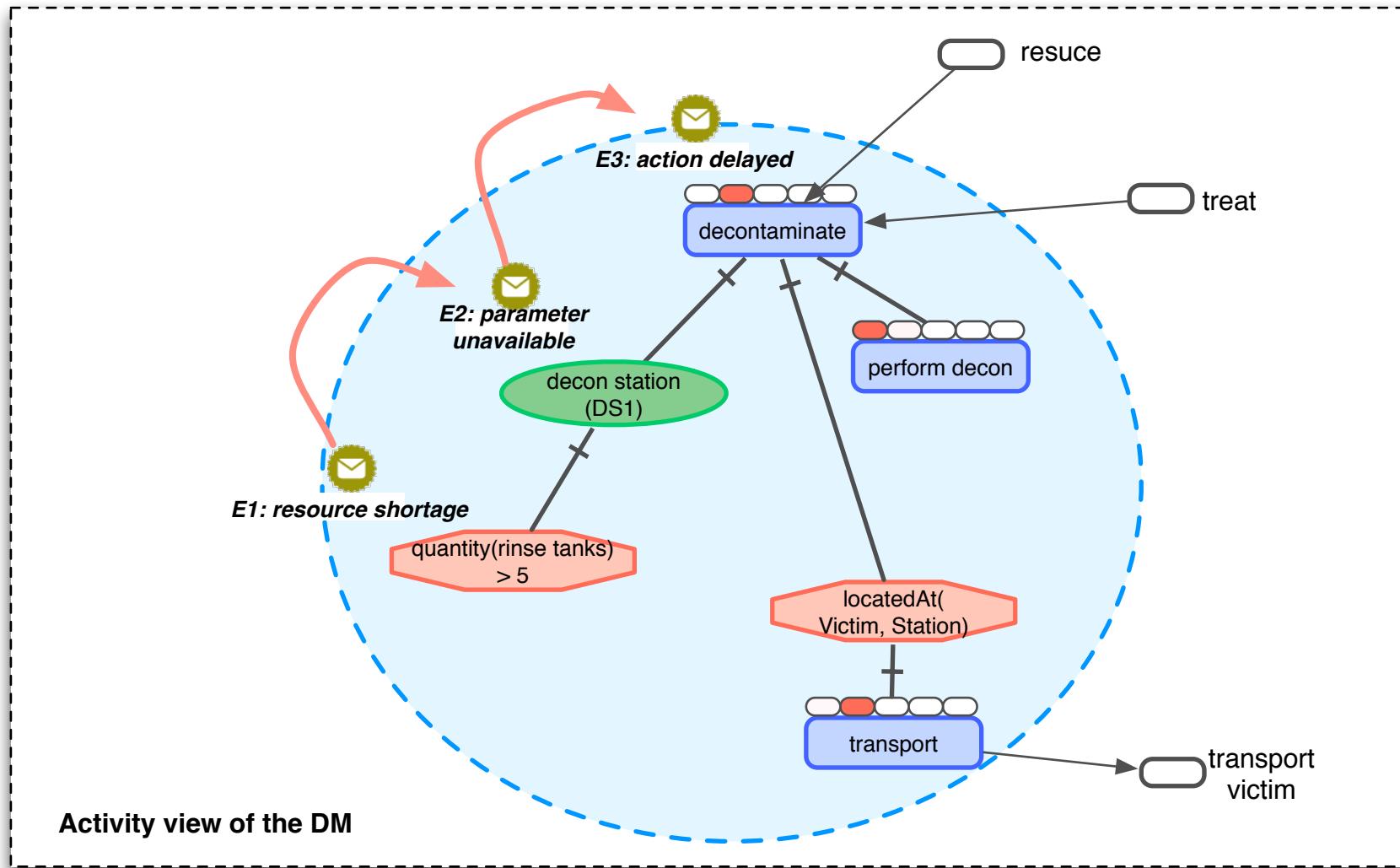
decontamination  
manager's local scope

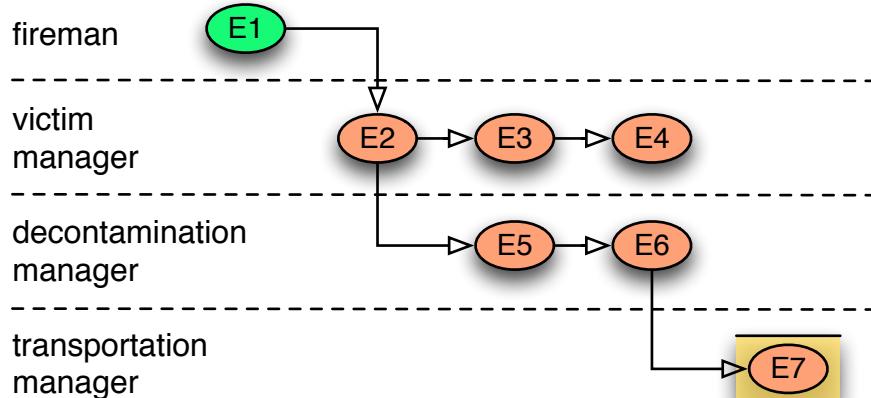




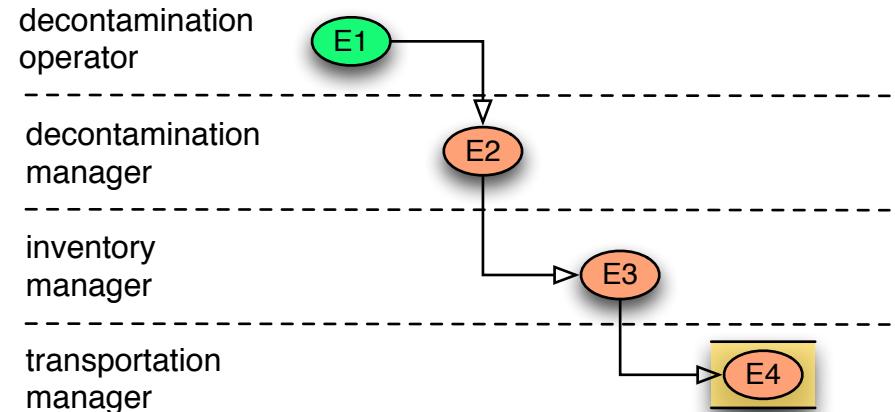


## Activity view of the fireman

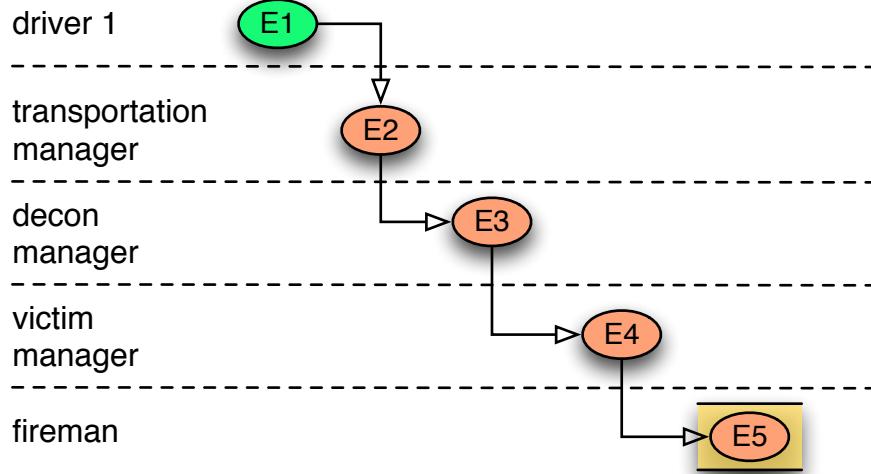




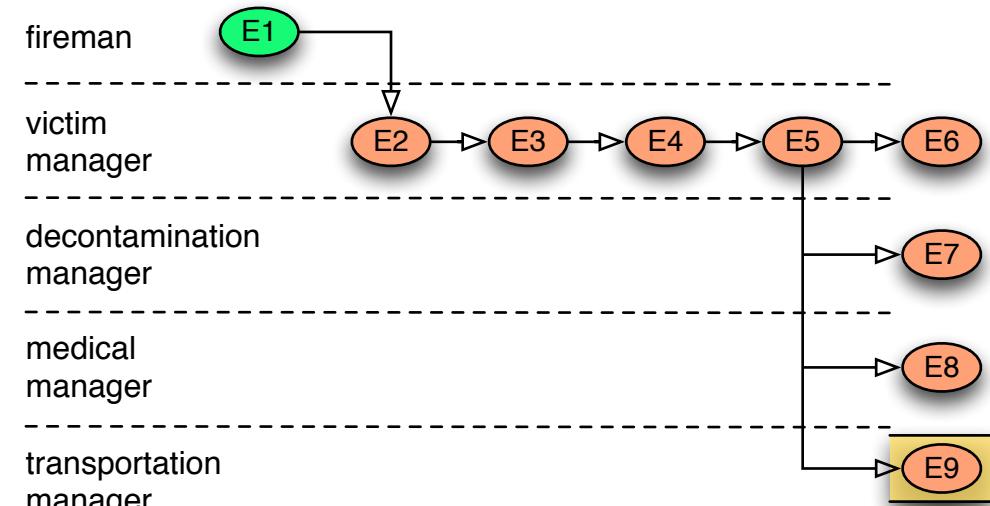
(a) E7 in Episode 1



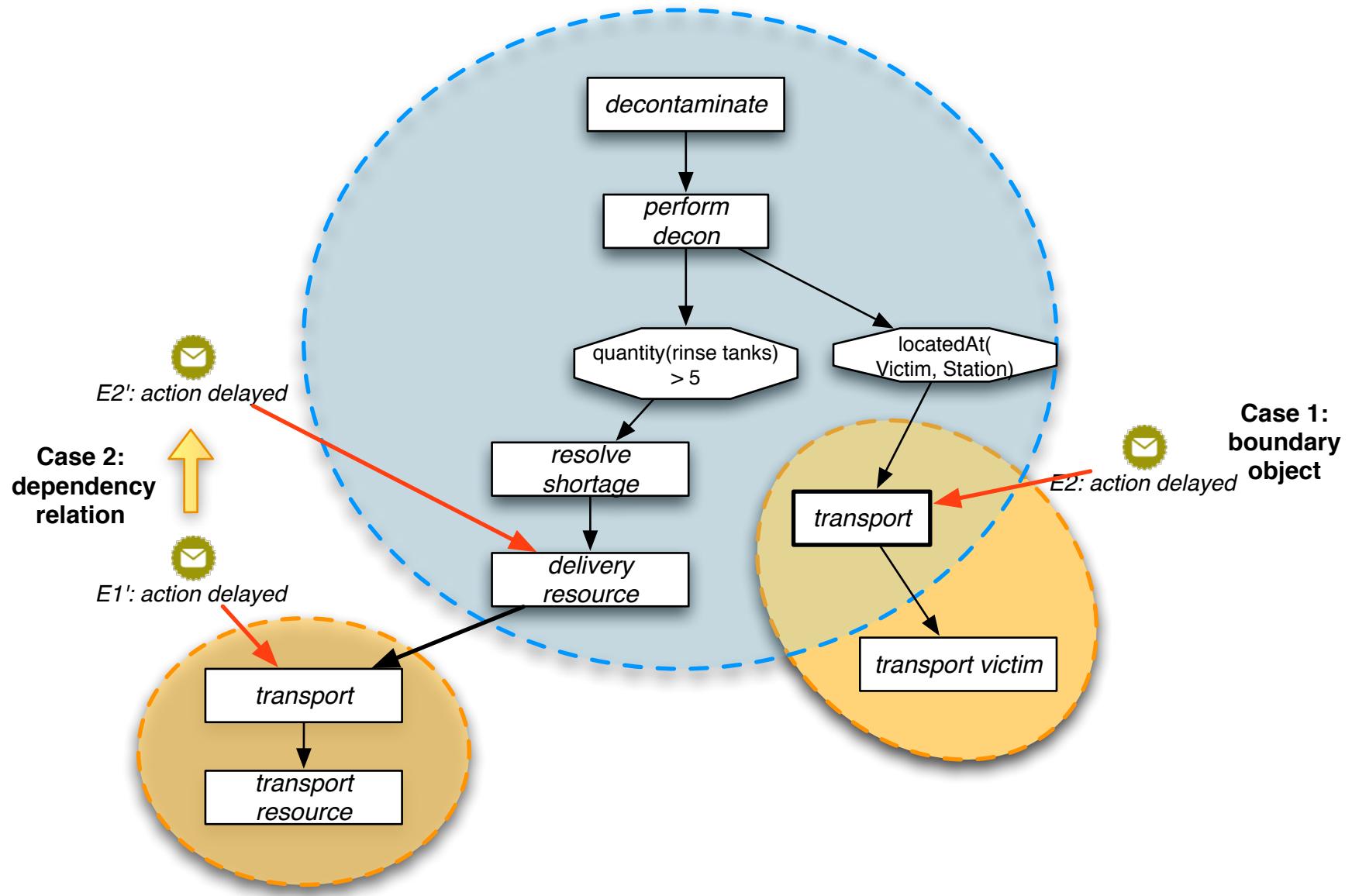
(b) E4 in Episode 2



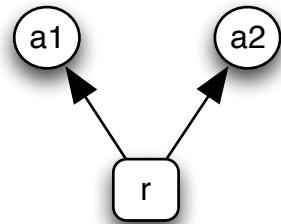
(c) E5 in Episode 3



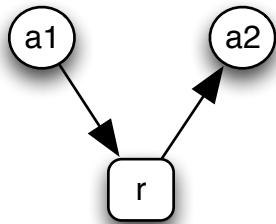
(d) E9 in Episode 4



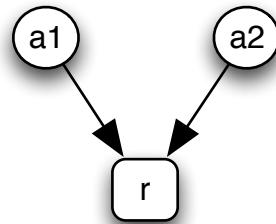




**Shared Resource**



**Producer/  
Consumer**



**Common Object**

Actions

Resources

