

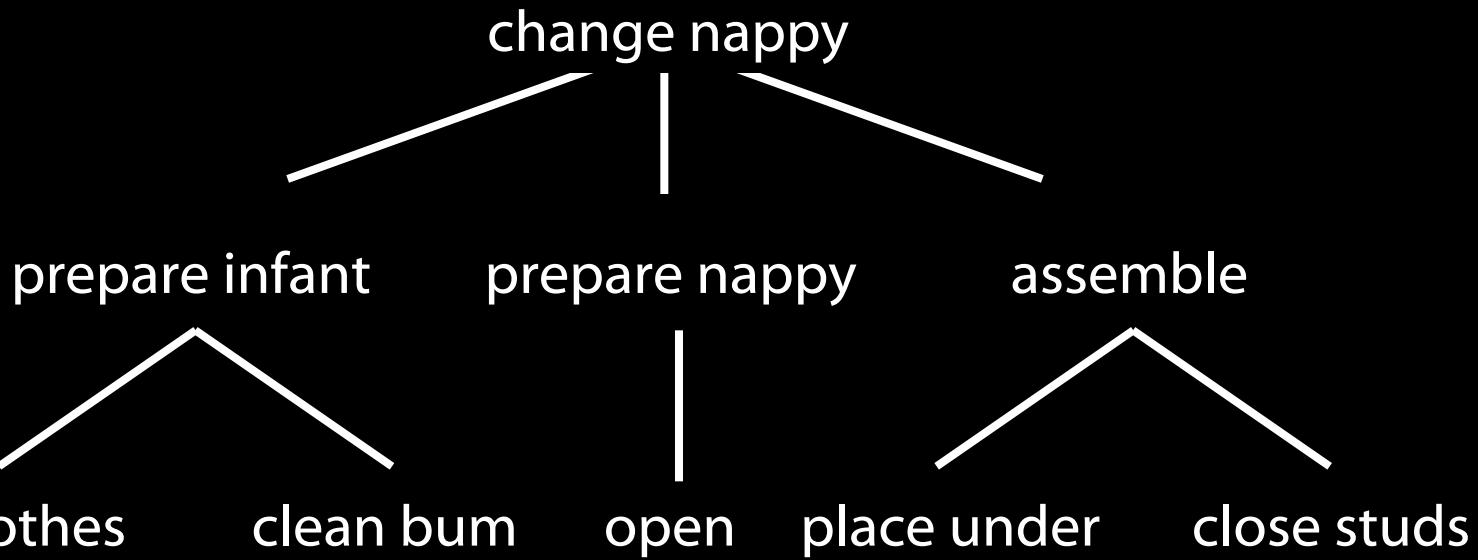


change nappy

plans

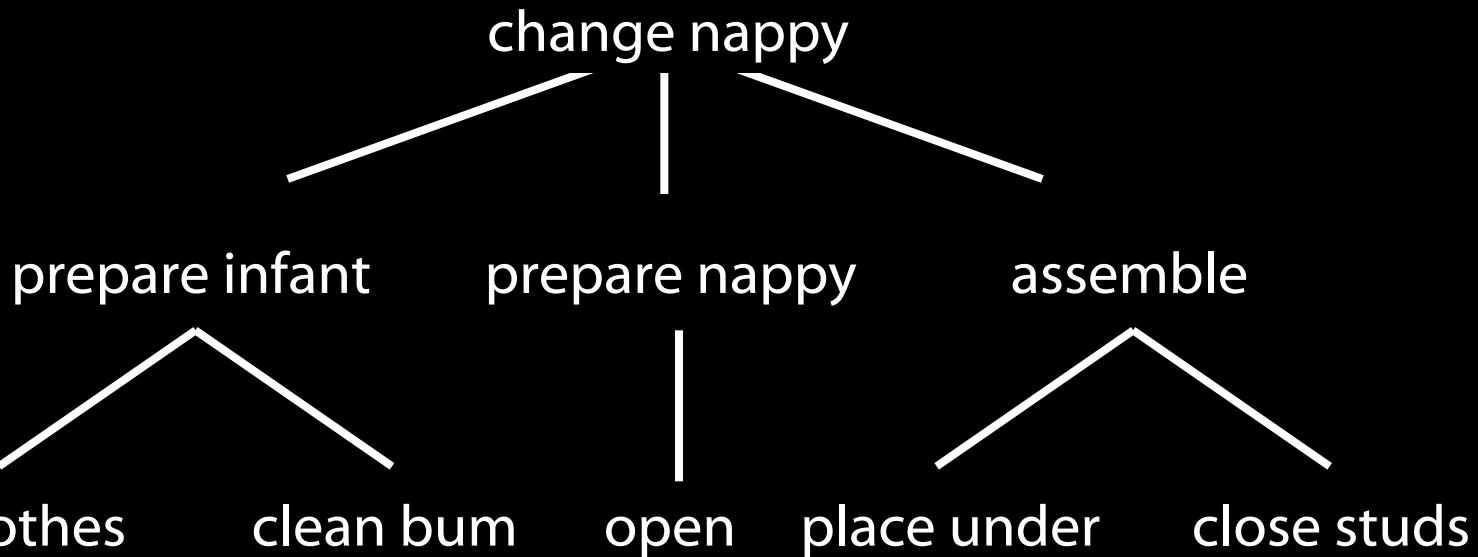


plans



goals

plans

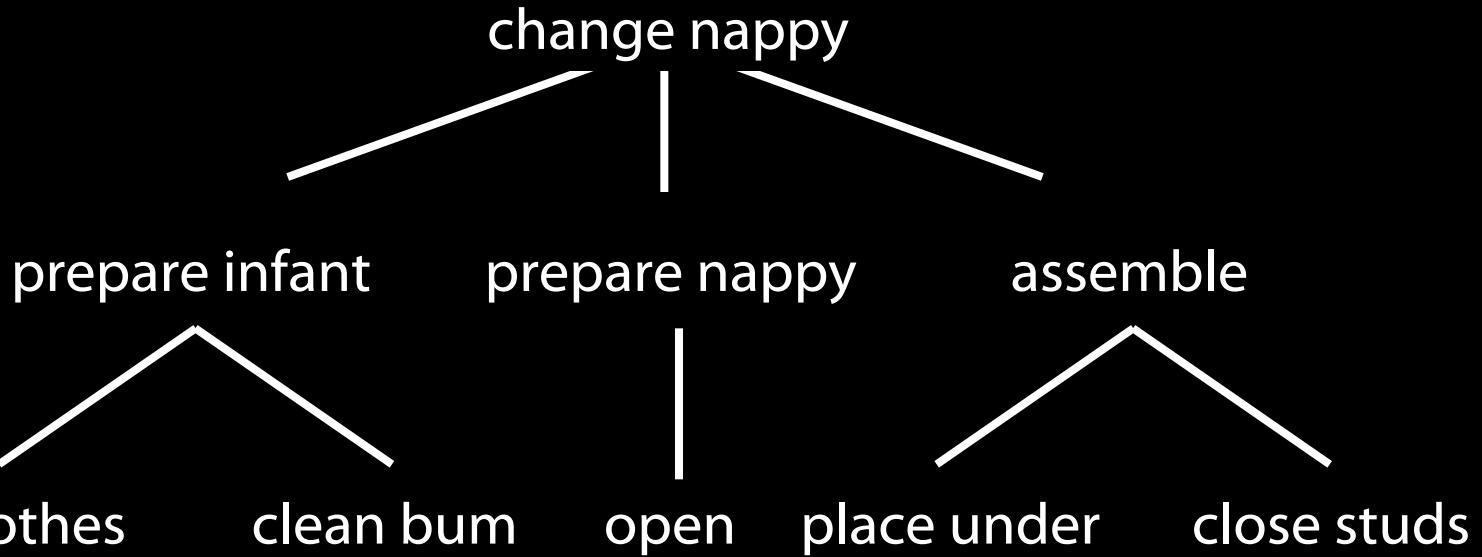


goals

./reach X/ /grasp X/ /grasp Y/ /pull Y/ /scoop X/ /Y out of X/ ...

motor action

plans



goals

. /reach X/ /grasp X/ /grasp Y/ /pull Y/ /scoop X/ /Y out of X/ ...

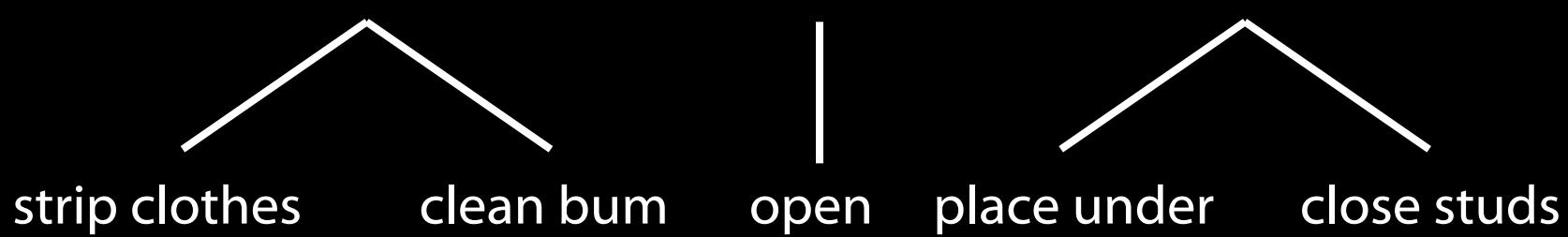
[reach-left-hand X] [left-wholehand-grasp X] [right-wholehand-grasp ...]

motor action

plans



goals



motor action

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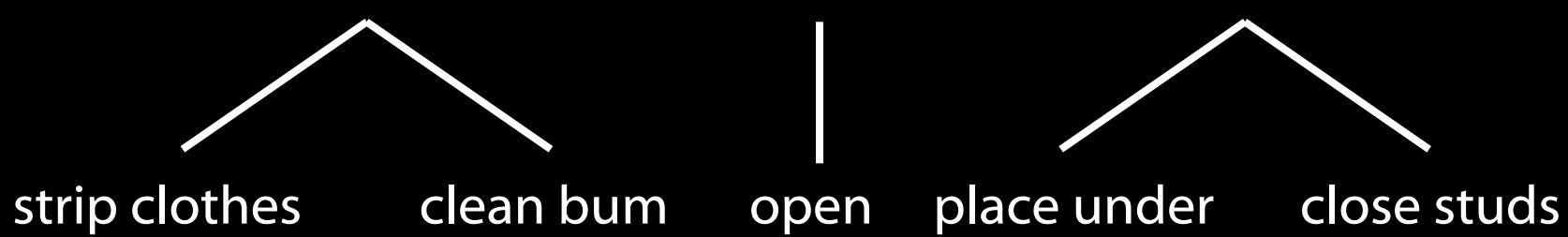
motion



plans



goals



motor action

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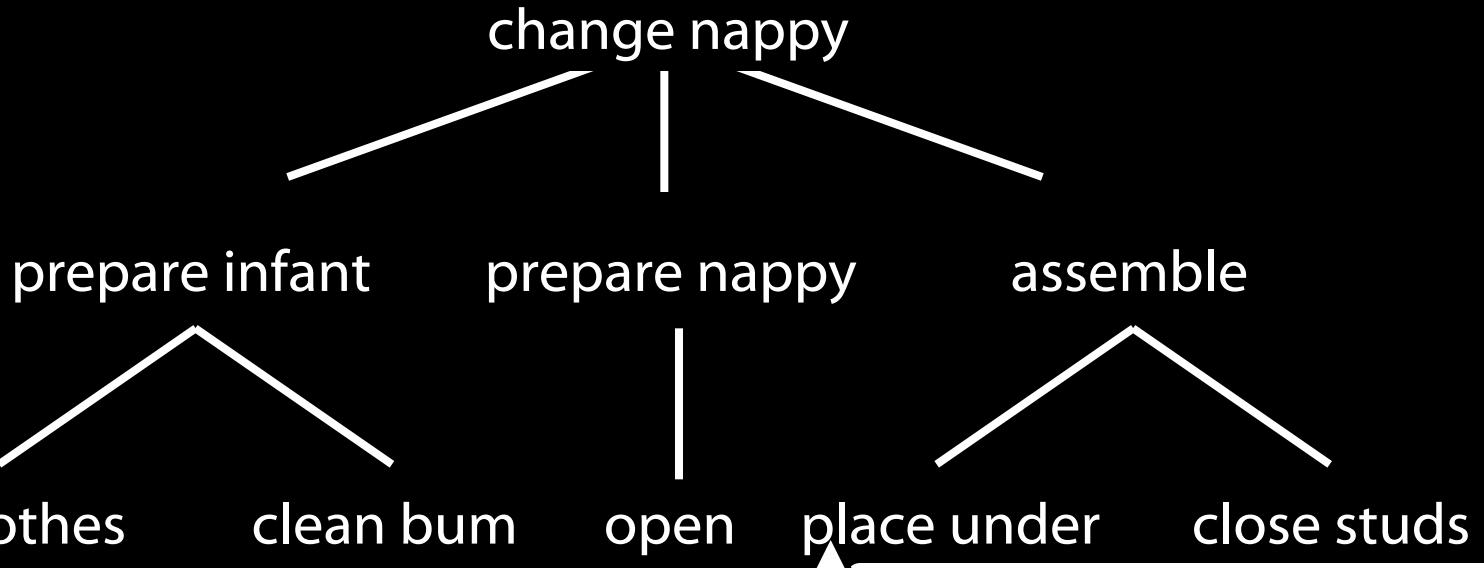
[reach-left-hand X] [left-wholehand-grasp X1] [right-wholehand-grasp ...]

motor emulation

motion



plans



goals

strip clothes clean bum open place under close studs

motor action

./reach X/ /grasp X/ /grasp Y/ /pull Y/ /scoop X/ /Y out of X/ ...

[reach-left-hand X] [left-wholehand-grasp X] [right-wholehand-grasp ...]

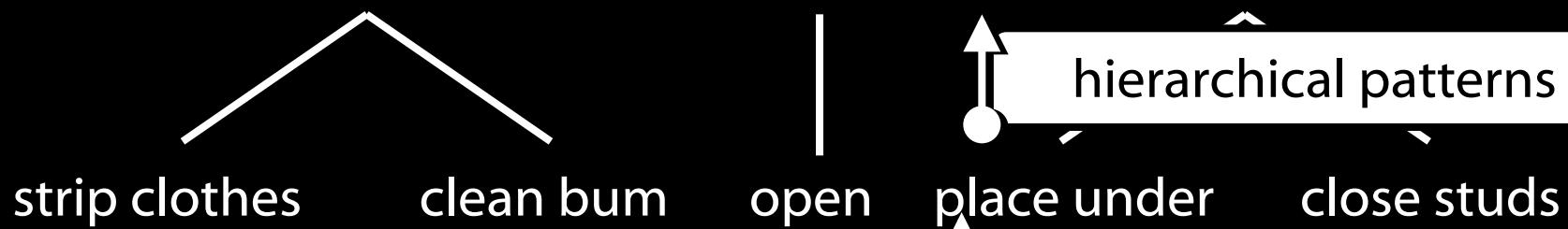
motion



plans



goals



motor action

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motion



plans



goals

strip clothes clean bum open place under close studs

object-directed actions

/reach X/ /grasp X/ /grasp Y/ /pull Y/ /scoop X/ /Y out of X/ ...

motor action

[reach-left-hand X] [left-wholehand-grasp X] [right-wholehand-grasp ...]

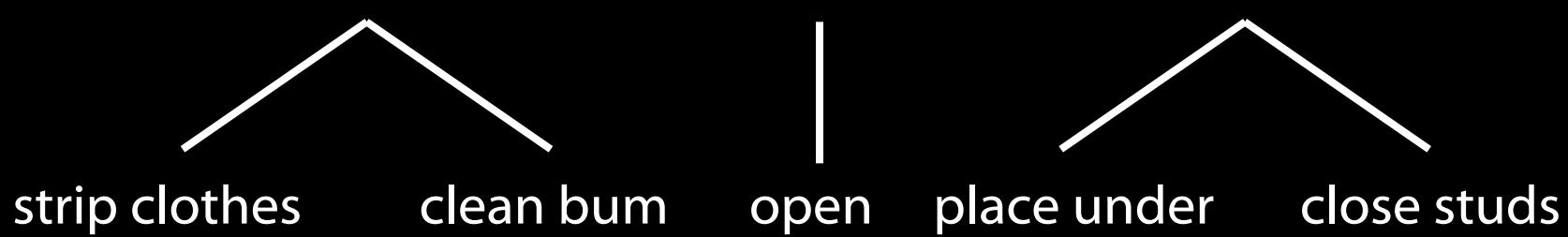
motion



plans



goals



motor action

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motion

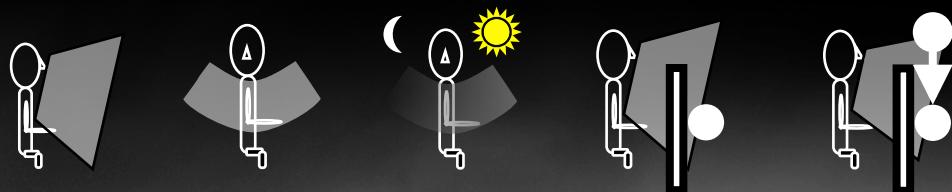




Your *field* = a set of
objects related to you by
proximity, orientation,
lighting and other factors



Your *field* = a set of objects related to you by proximity, orientation, lighting and other factors



proximity orientation

lighting

barriers

trajectory

Your *field* = a set of objects related to you by proximity, orientation, lighting and other factors

You *encounter* an object = it is in your field



proximity orientation

barriers

trajectory

Detour
Goals are not intentions

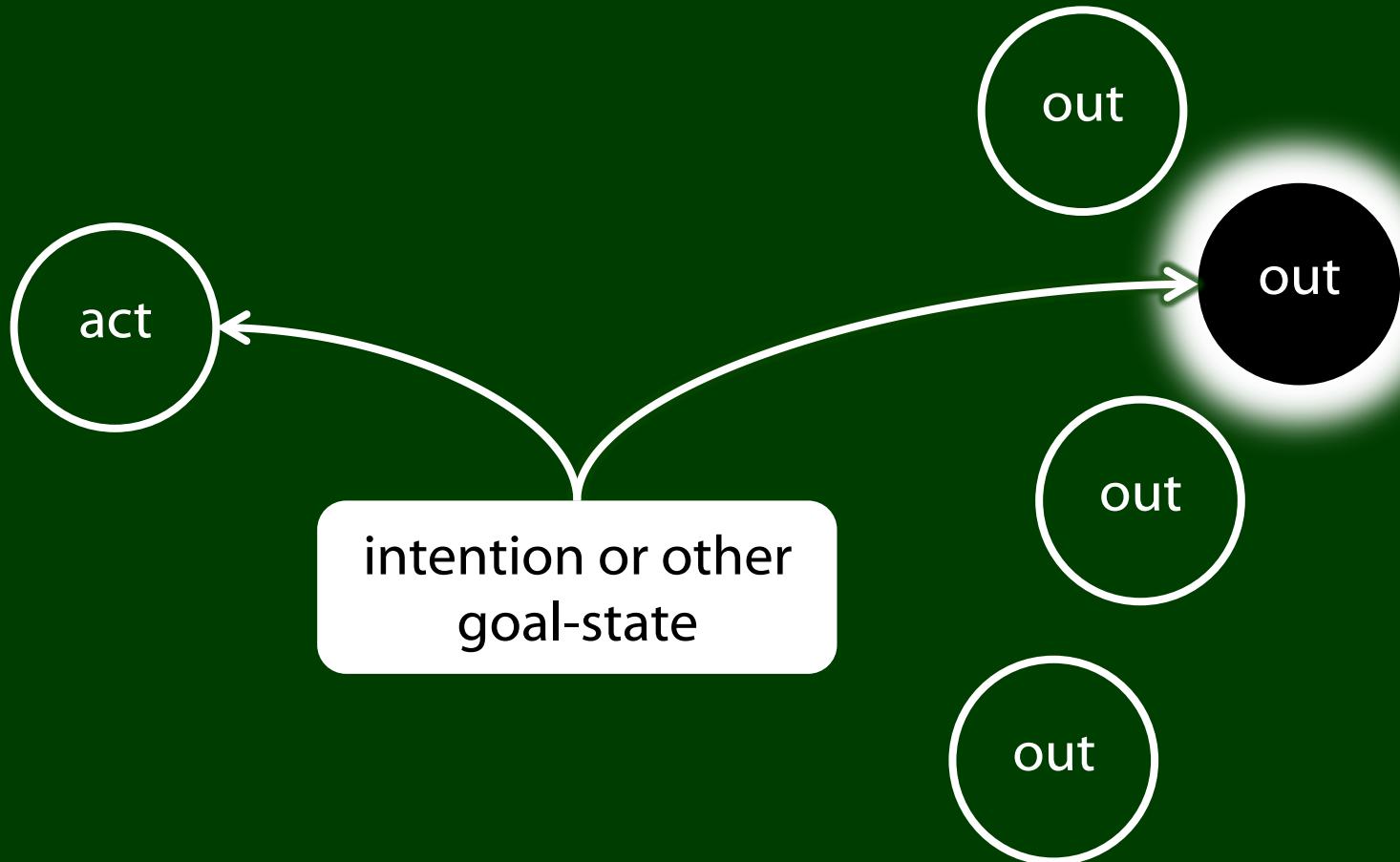
What is the relation between an action and the goal (or goals) to which it is directed?



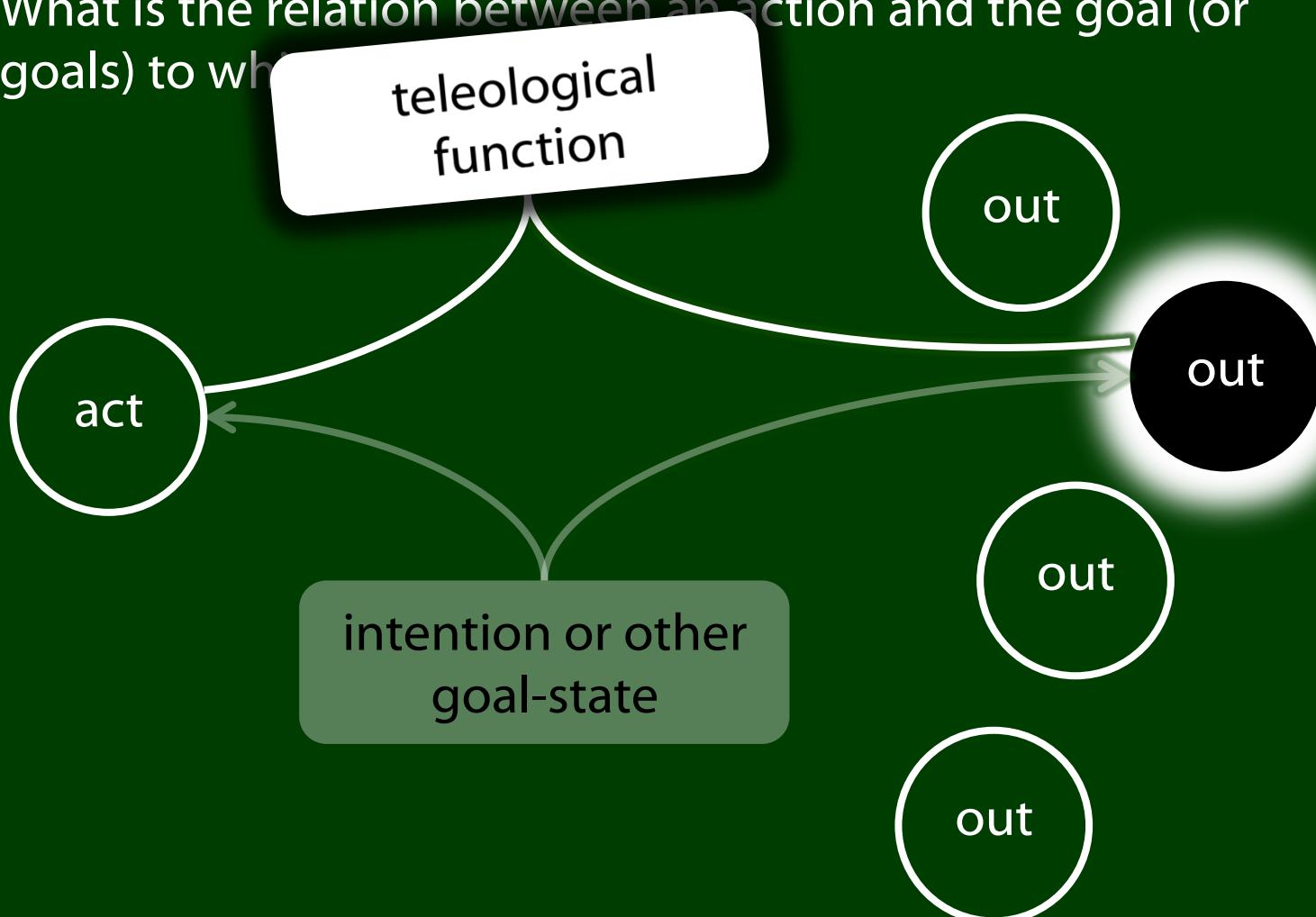
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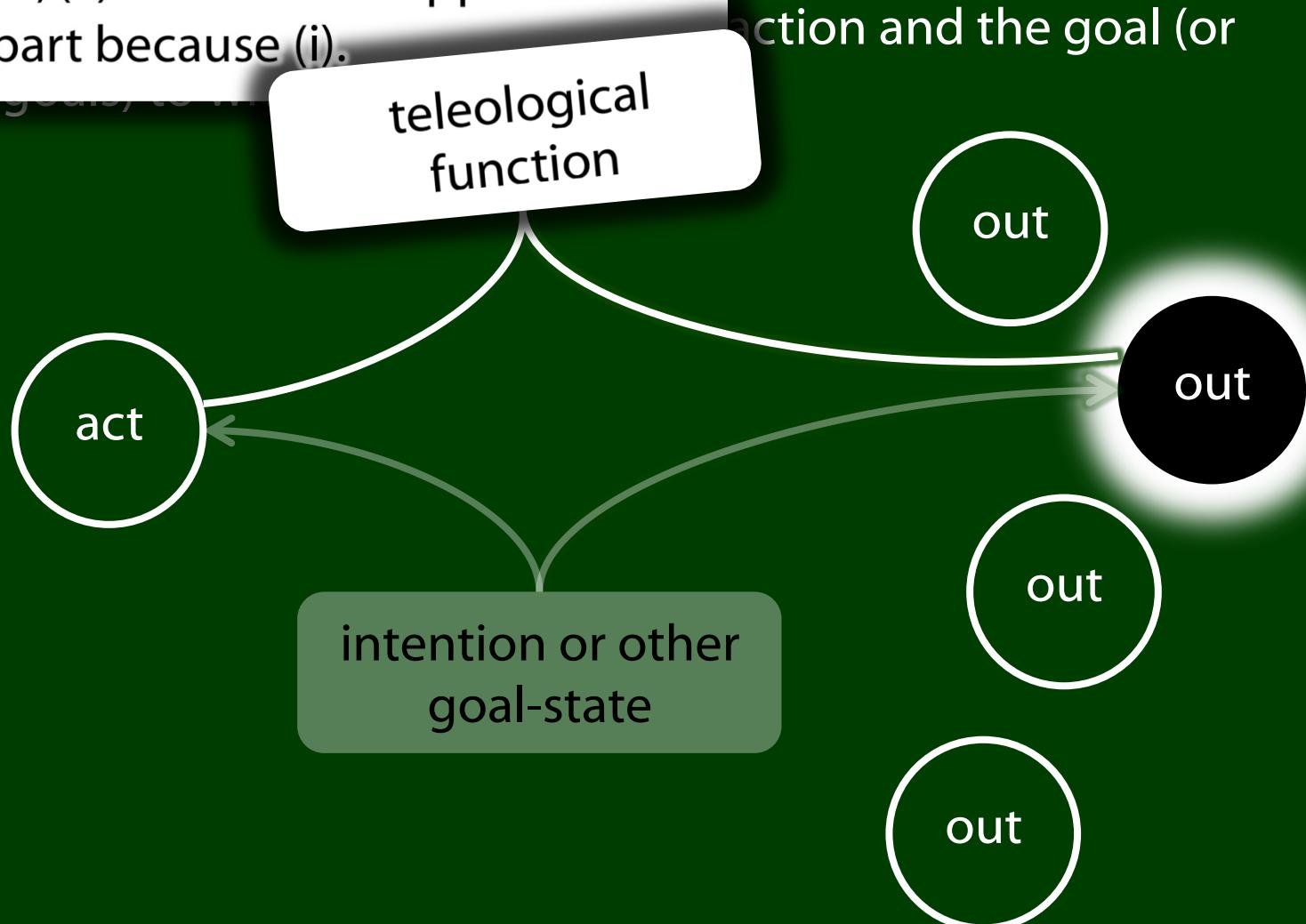
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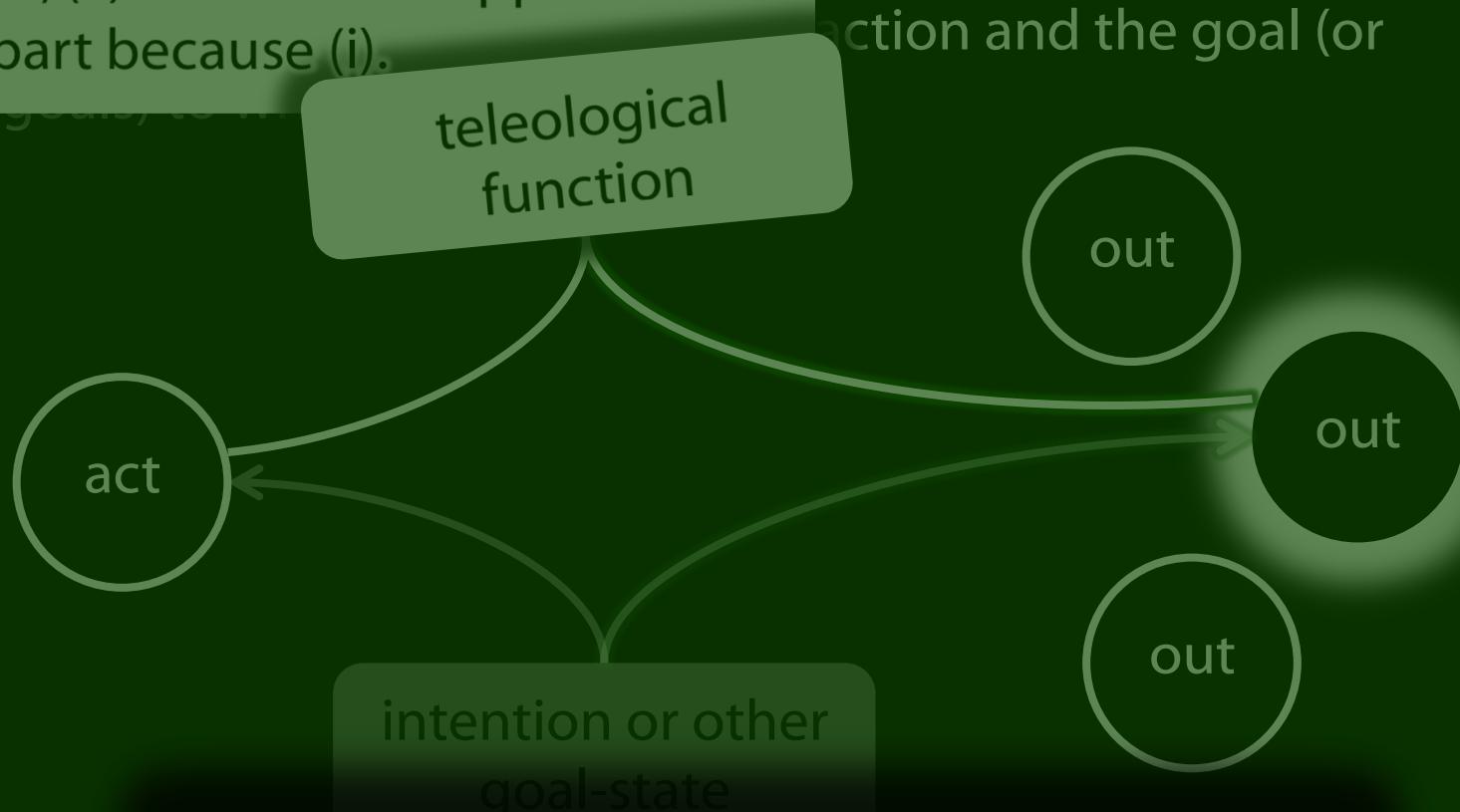
What is the relation between an action and the goal (or goals) to which it is related?



(i) in the past, actions of this type have caused outcomes of this type; (ii) this action happens now in part because (i).



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It is possible to represent goal-directed actions without representing intentions.

End Detour

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proximity orientation

barriers

trajectory

Your *field* = a set of objects related to you by proximity, orientation, lighting and other factors

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Principle 3: one can't goal-directedly act on an object unless one has encountered it.



proximity orientation lighting

barriers trajectory

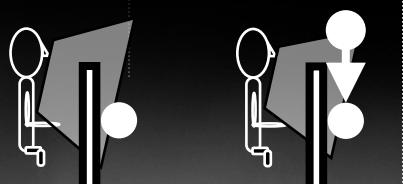
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proximity orientation lighting



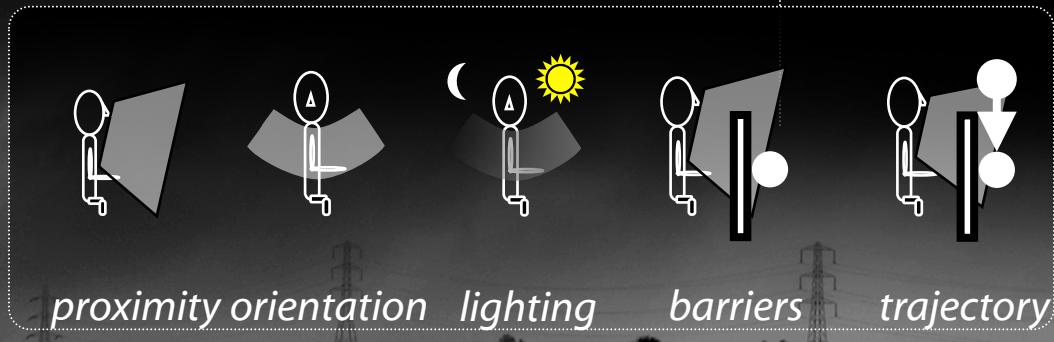
barriers trajectory

Your *field* = a set of objects related to you by proximity, orientation, lighting and other factors

“children could ... think about what the other person saw rather than what they saw”

(Flavell, Shipstead & Croft 1978: 1210)

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proximity orientation lighting

barriers

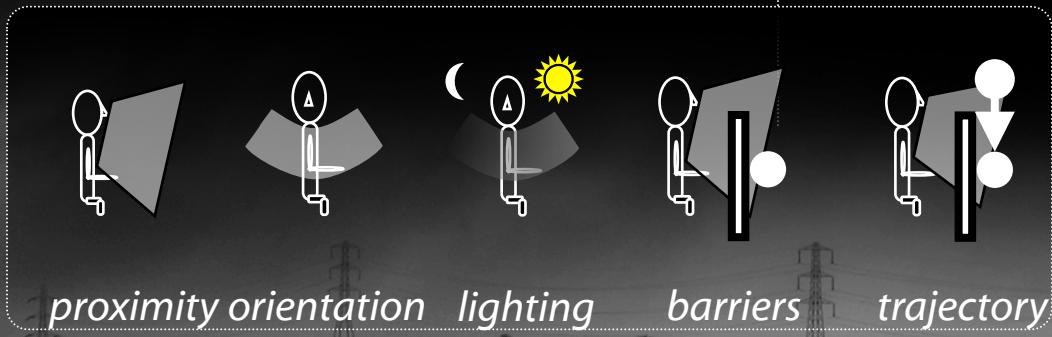
trajectory

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proximity orientation lighting

barriers

trajectory

Your *field* = a set of objects related to you by proximity, orientation, lighting and other factors

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You *register* an object at a location \leq you most recently encountered the object at that location

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proximity

orientation

barriers

trajectory

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Principle 4: correct registration is a condition of *successful* action.



proximity

orientation

barriers

trajectory





source: Liszkowski et al (2008)



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proximity



orientation



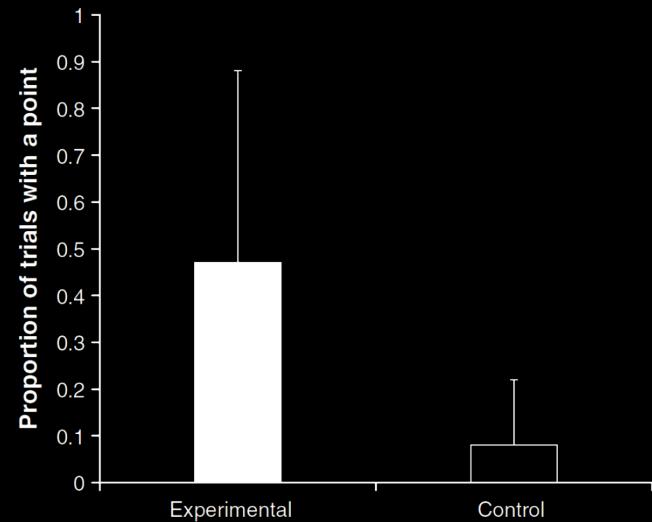
lighting



barriers

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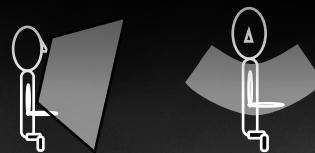


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“Helping by informing inextricably involves ... an understanding of others’ goals and ... of others’ ignorance.”

(Liszkowski, Carpenter & Tomasello 2008: 738-9)



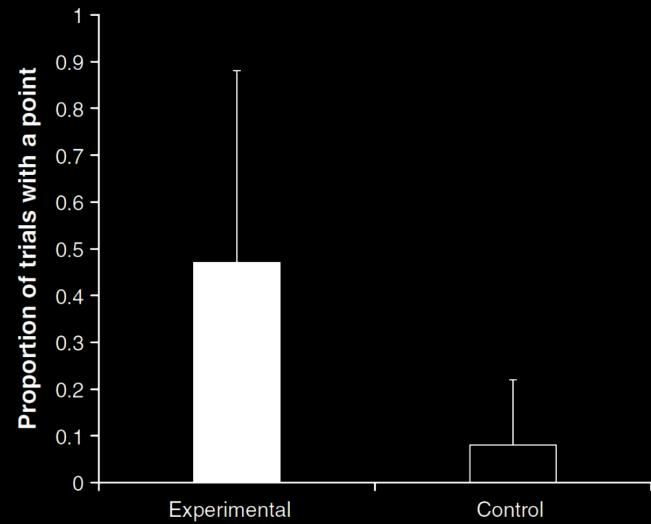
proximity orientation lighting

barriers

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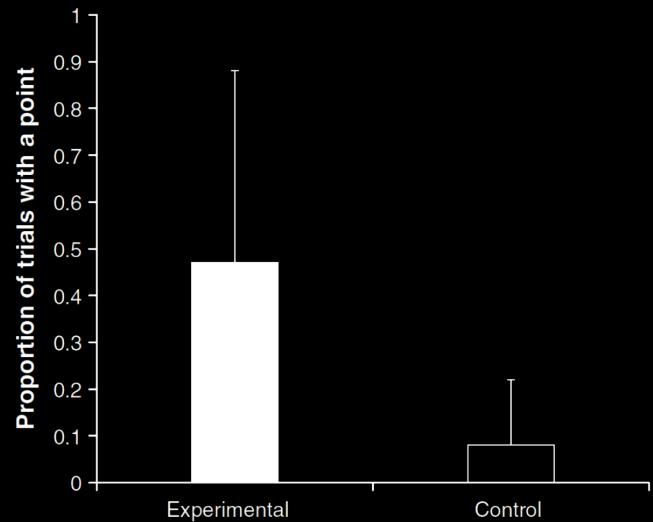
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barriers

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proximity

orientation

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Principle 5



proximity orientation lighting

barriers

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Principle 5: when an agent performs a goal-directed action and the goal specifies an object, the agent will act as if the object were actually in the location she registers it at.



proximity



orientation



lighting



barriers



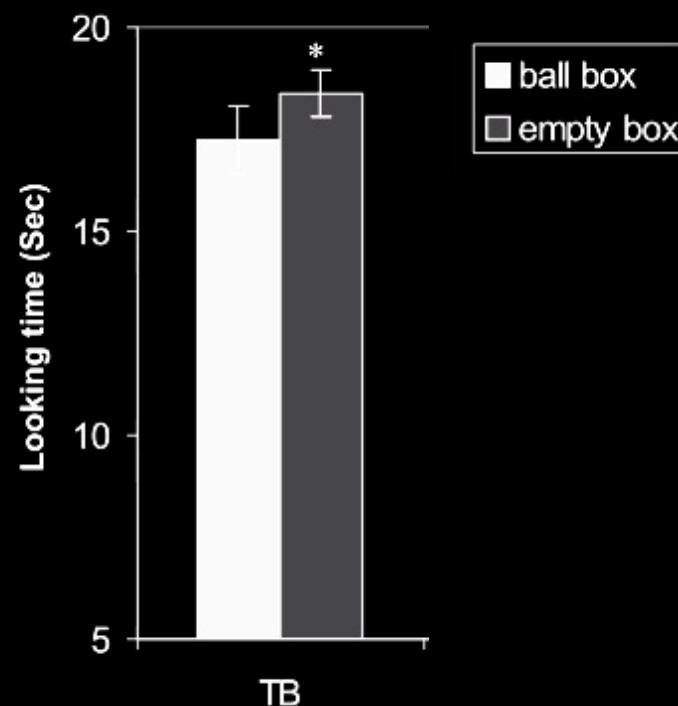
trajectory



source Träuble, Marinovic, & Pauen (2010)



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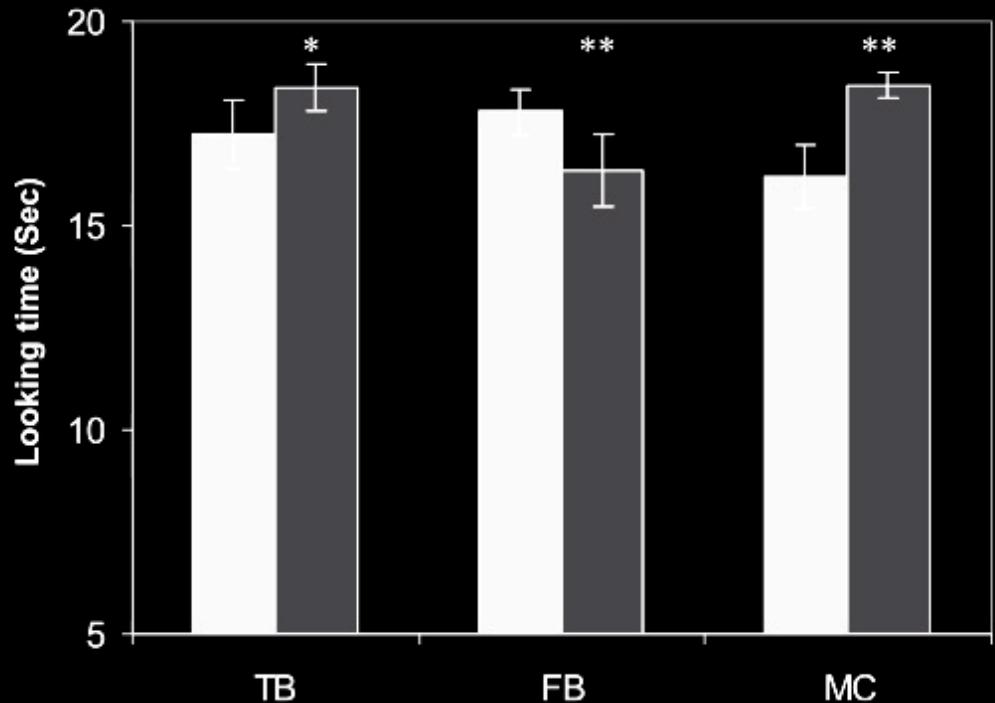
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proximity



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proximity



orientation



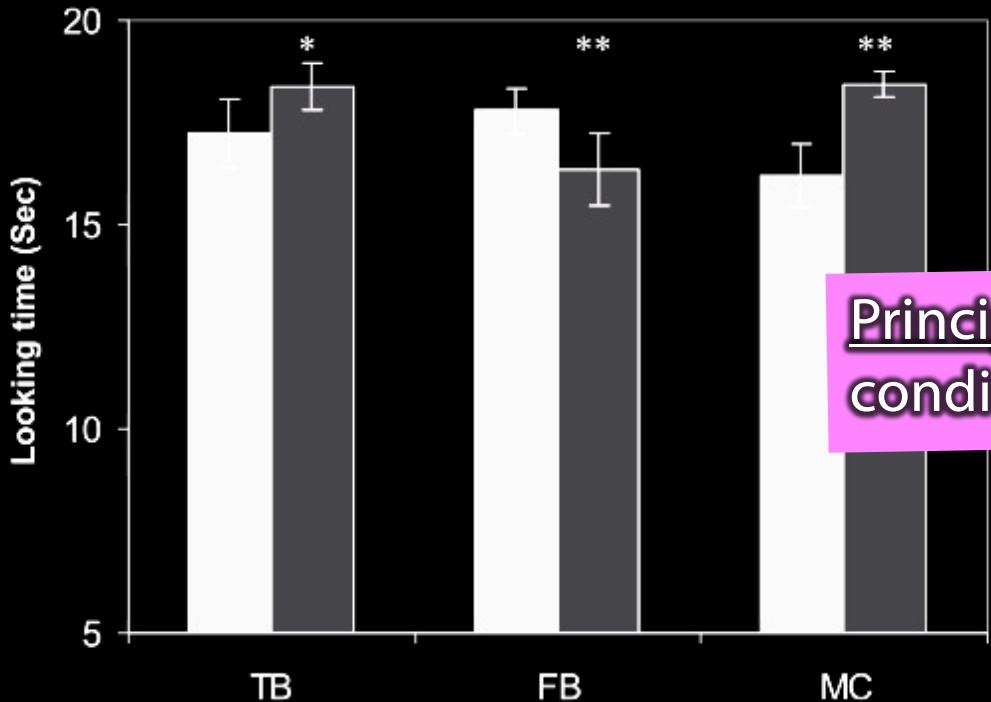
lighting



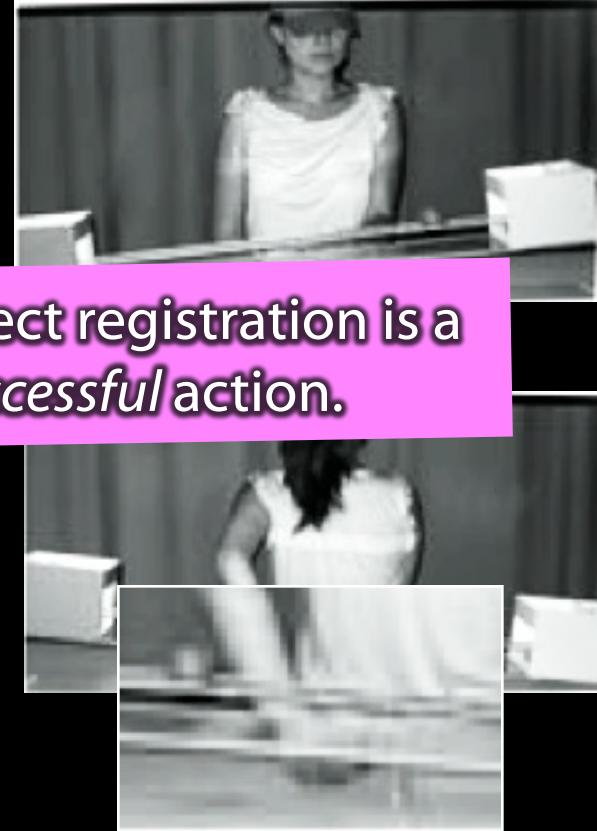
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trajectory



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