

Mindreading & Joint Action

7. What Is Joint Action Shared Agency?



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Outline

1. The leading philosophical approach to shared agency

2. Limits of this approach

3. (Building blocks for) an alternative approach

4. Motor representation

5. The emergence of mindreading

The leading philosophical approach
to shared agency

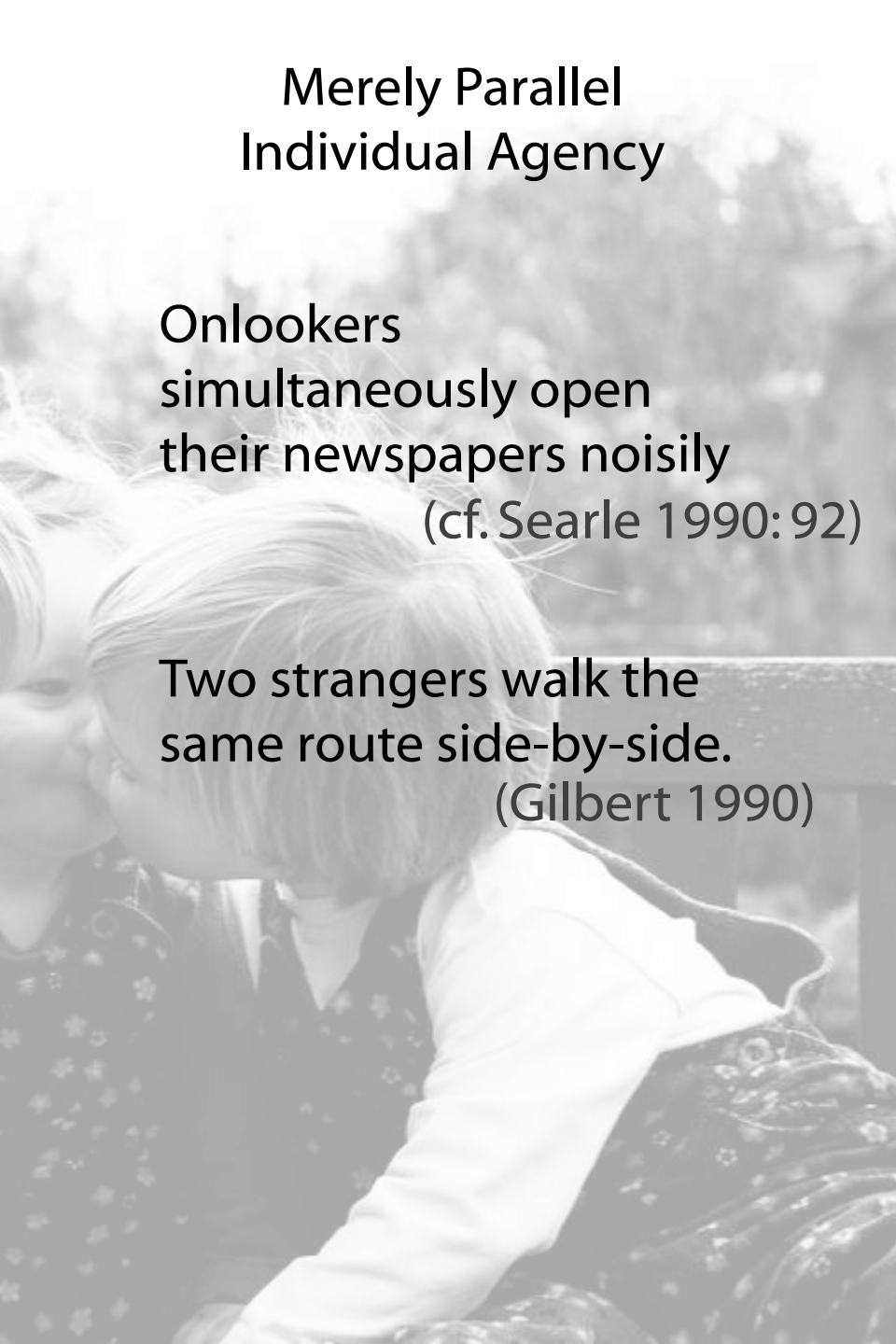




Shared Agency

Members of a flash mob
simultaneously open
their newspapers noisily

Two friends walk to the
metro station together.



Merely Parallel Individual Agency

Onlookers
simultaneously open
their newspapers noisily
(cf. Searle 1990: 92)

Two strangers walk the
same route side-by-side.
(Gilbert 1990)

'I take a collective action to involve a collective
[shared] intention.'

(Gilbert 2006, p. 5)

'I take a collective action to involve a collective
[shared] intention.'

(Gilbert 2006, p. 5)

'The sine qua non of collaborative action is a joint goal
[shared intention] and a joint commitment'

(Tomasello 2008, p. 181)

'I take a collective action to involve a collective [shared] intention.'

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'The sine qua non of collaborative action is a joint goal [shared intention] and a joint commitment'

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'the key property of joint action lies in its internal component [...] in the participants' having a "collective" or "shared" intention.'

(Alonso 2009, pp. 444-5)

'I take a collective action to involve a collective [shared] intention.'

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'The sine qua non of collaborative action is a joint goal [shared intention] and a joint commitment'

(Tomasello 2008, p. 181)

'the key property of joint action lies in its internal component [...] in the participants' having a "collective" or "shared" intention.'

(Alonso 2009, pp. 444-5)

'Shared intentionality is the foundation upon which joint action is built.'

(Carpenter 2009, p. 381)

shared intention
(or 'collective')

shared intention



action
w. shared agency

intention

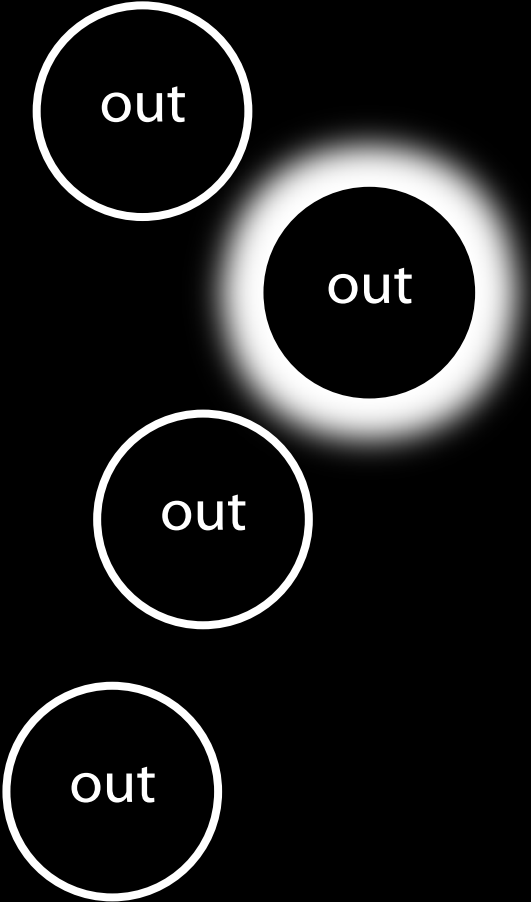
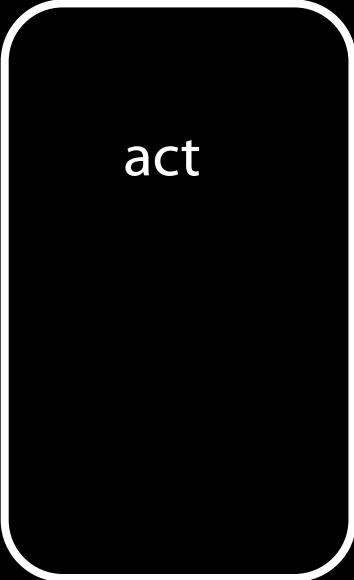


action
w. individual agency

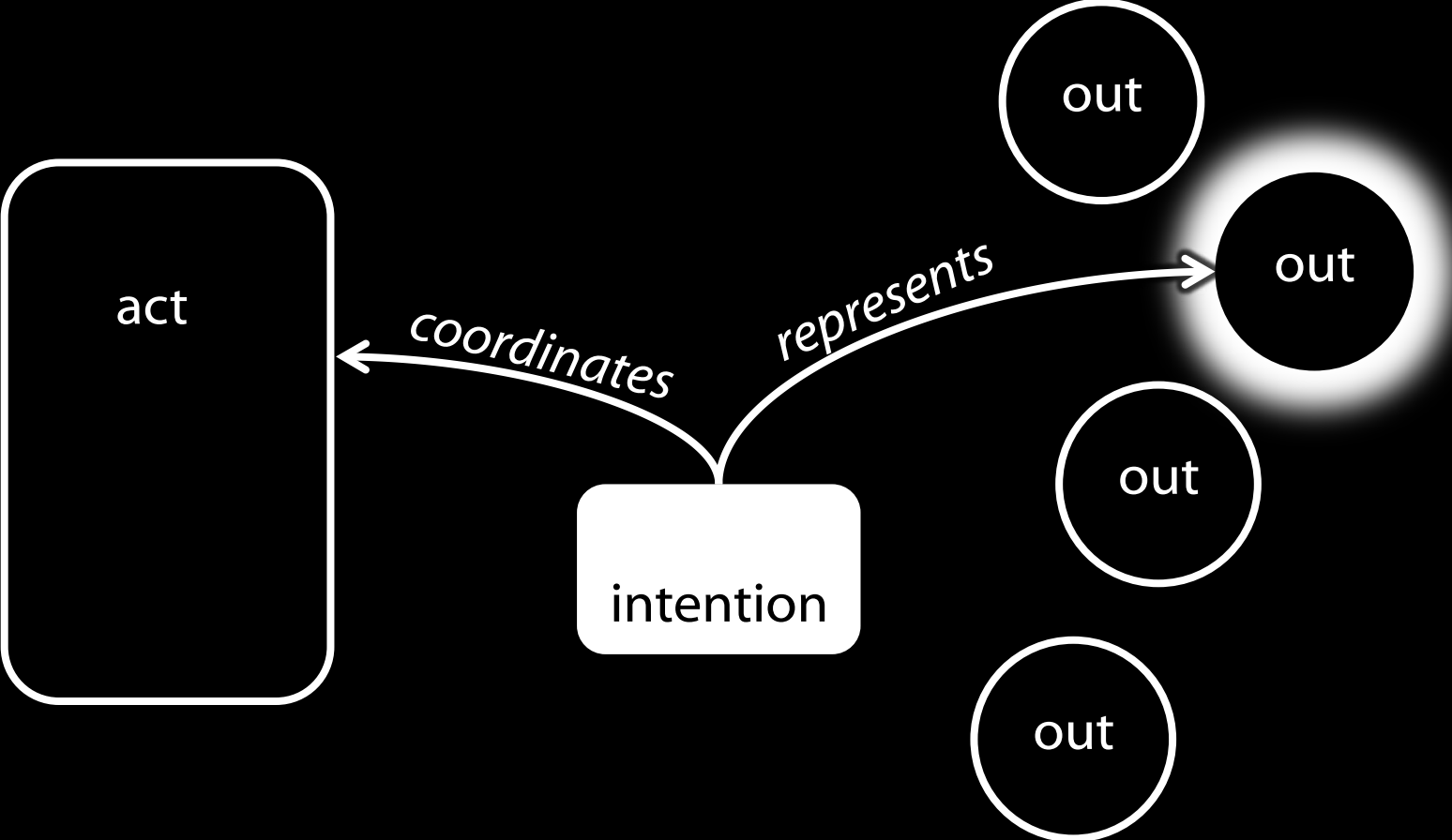


What is the relation between a purposive action and the outcome or outcomes to which it is directed?

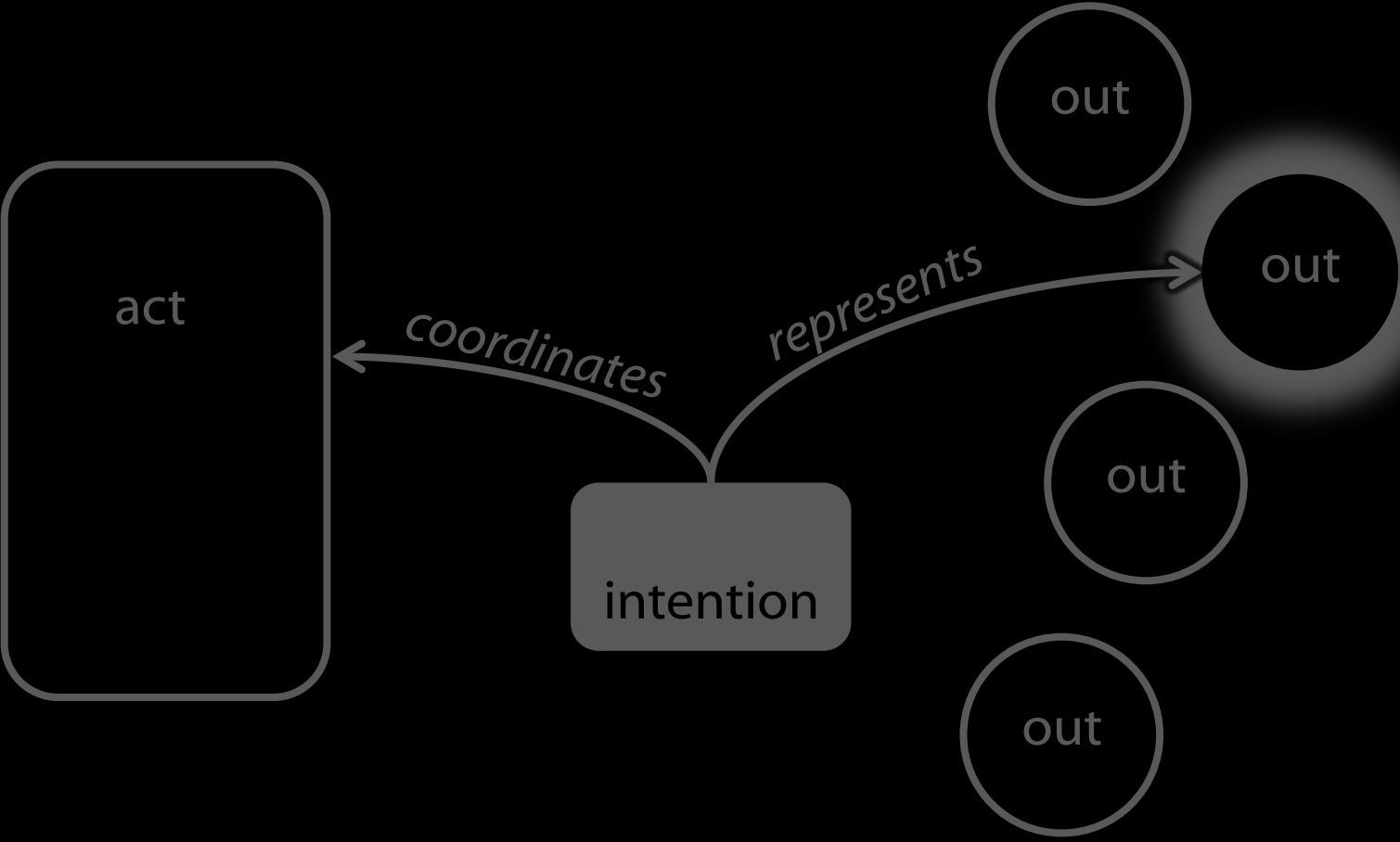
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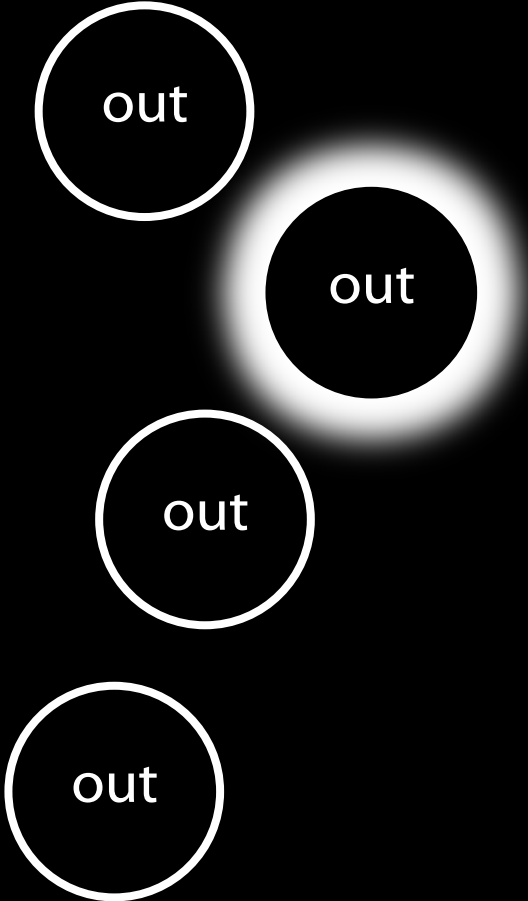
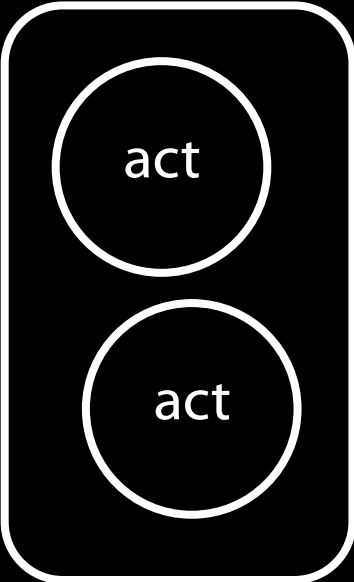
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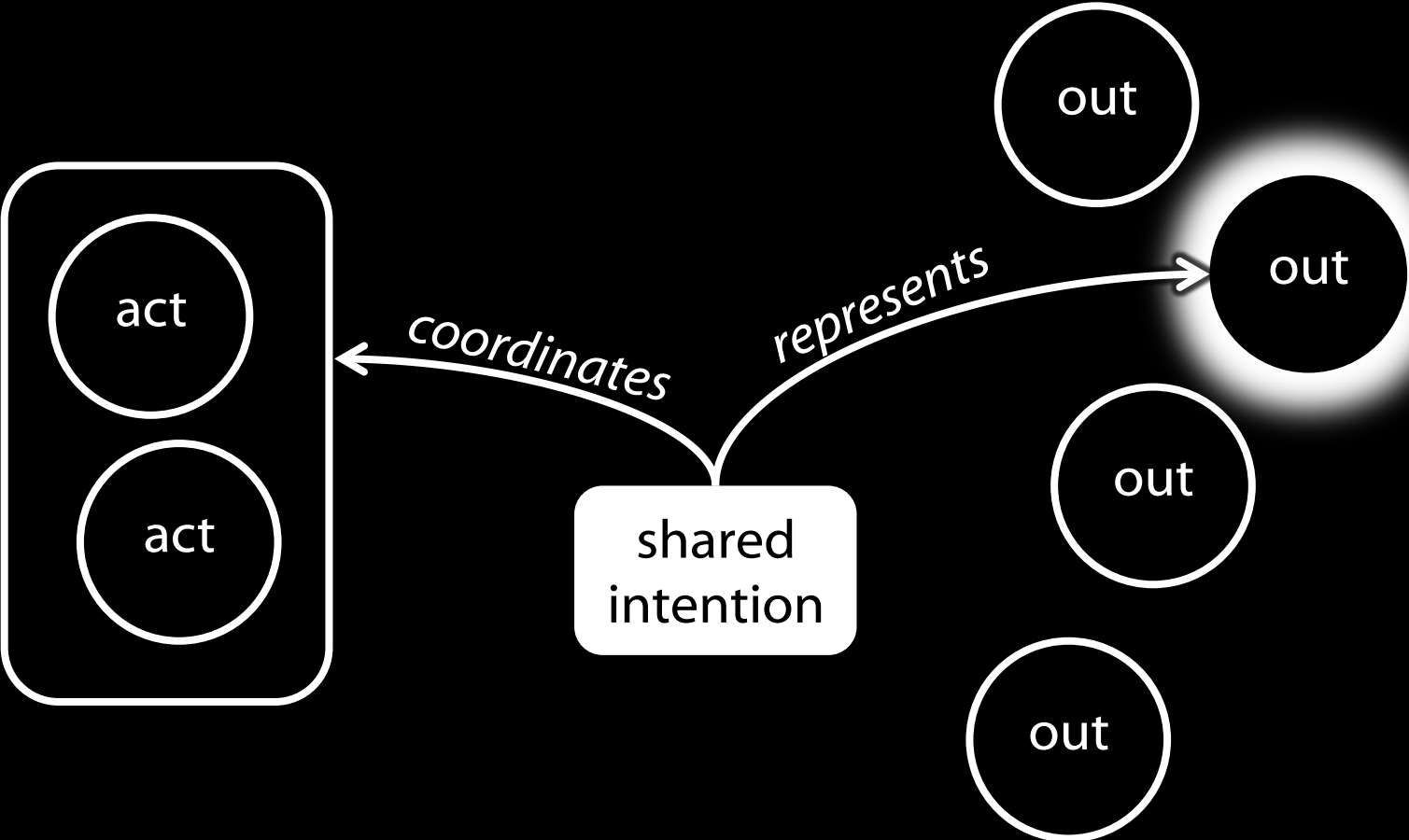
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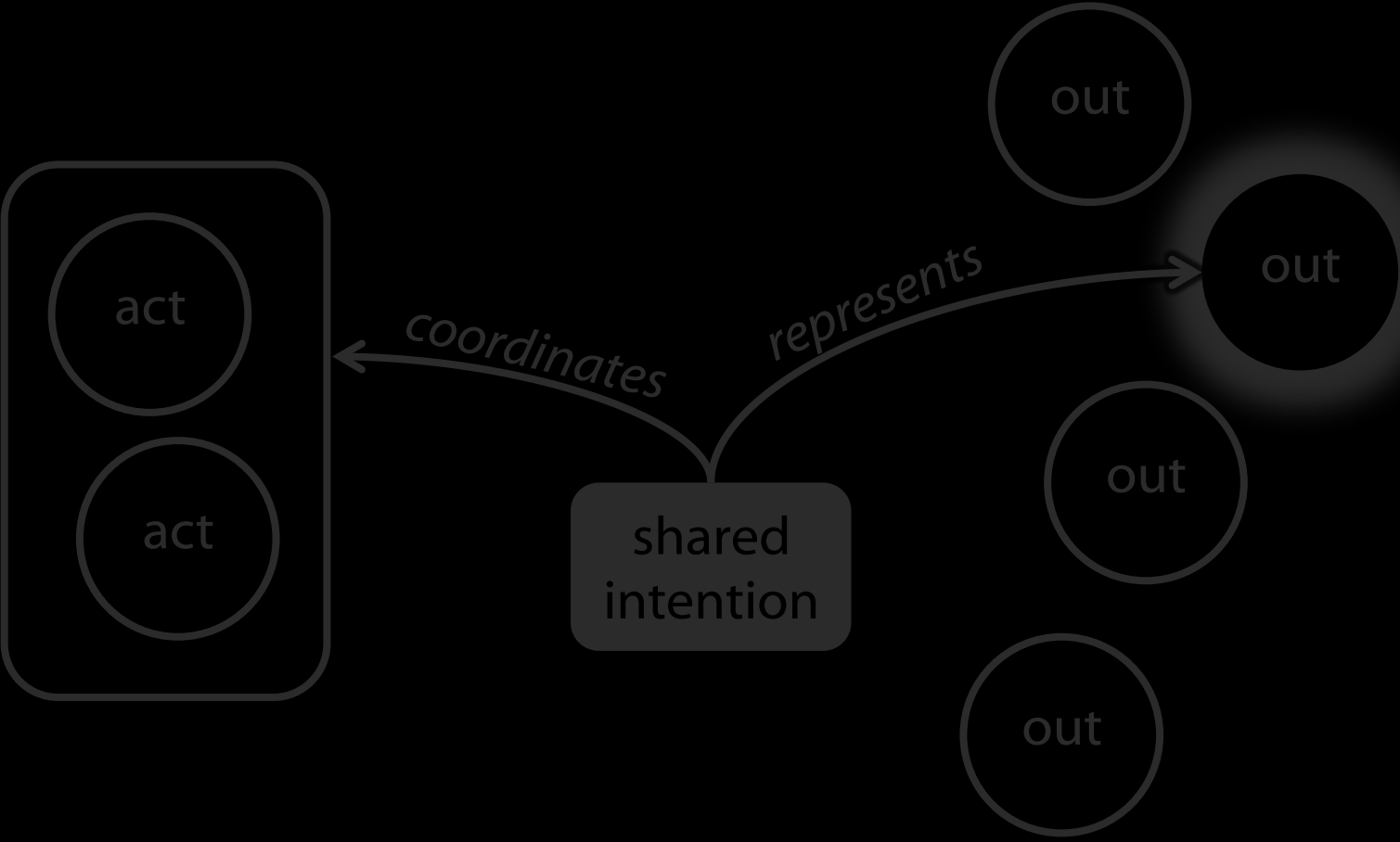
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shared intention



action
w. shared agency

intention



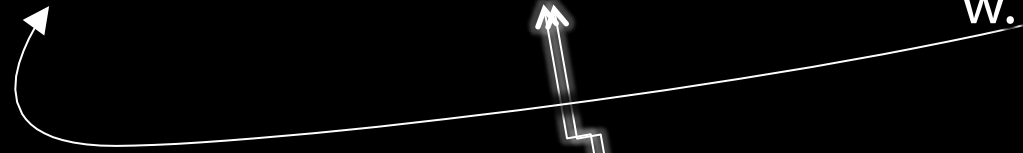
action
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shared intention



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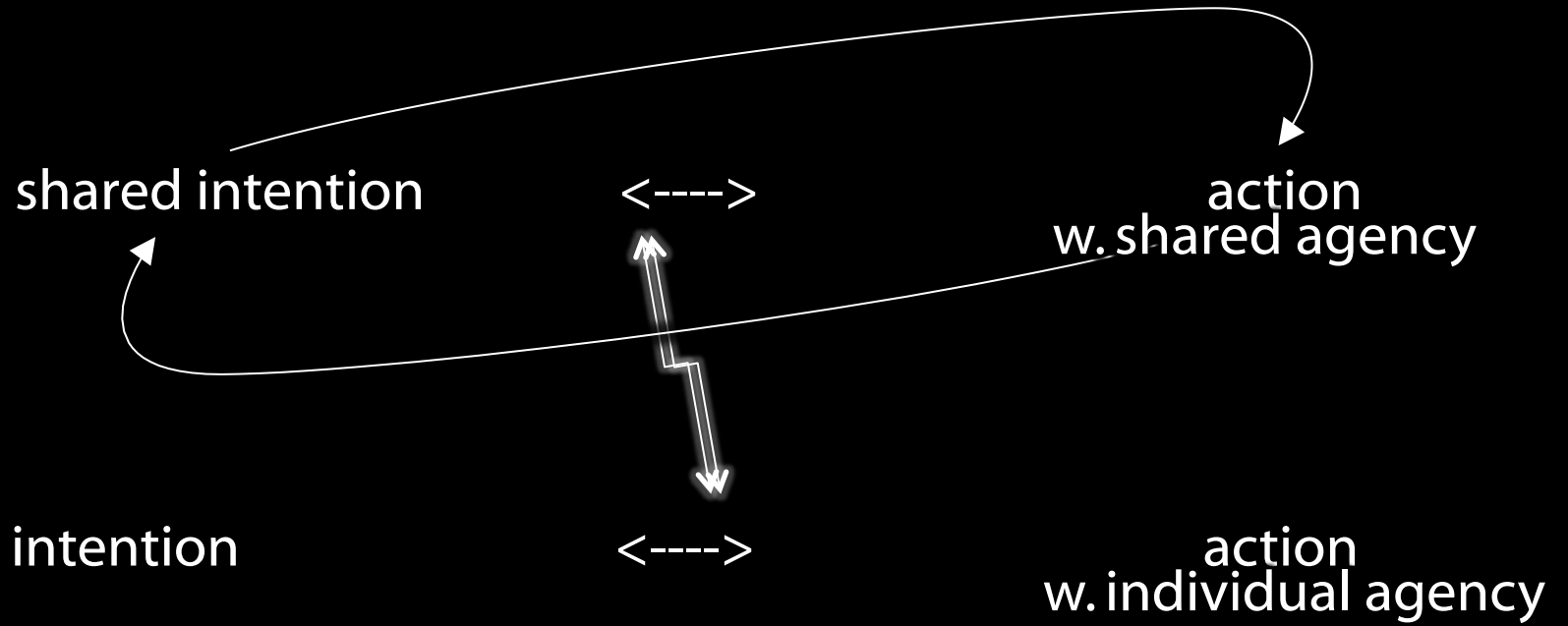


intention

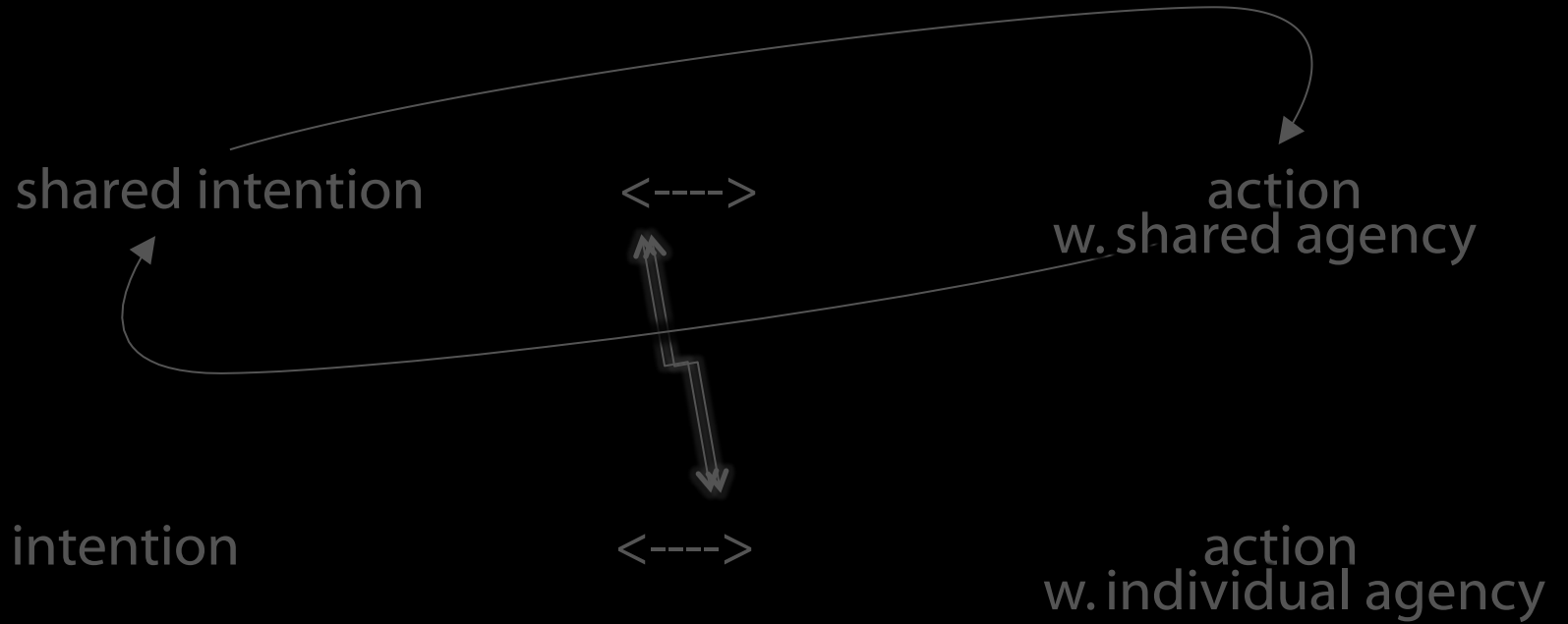


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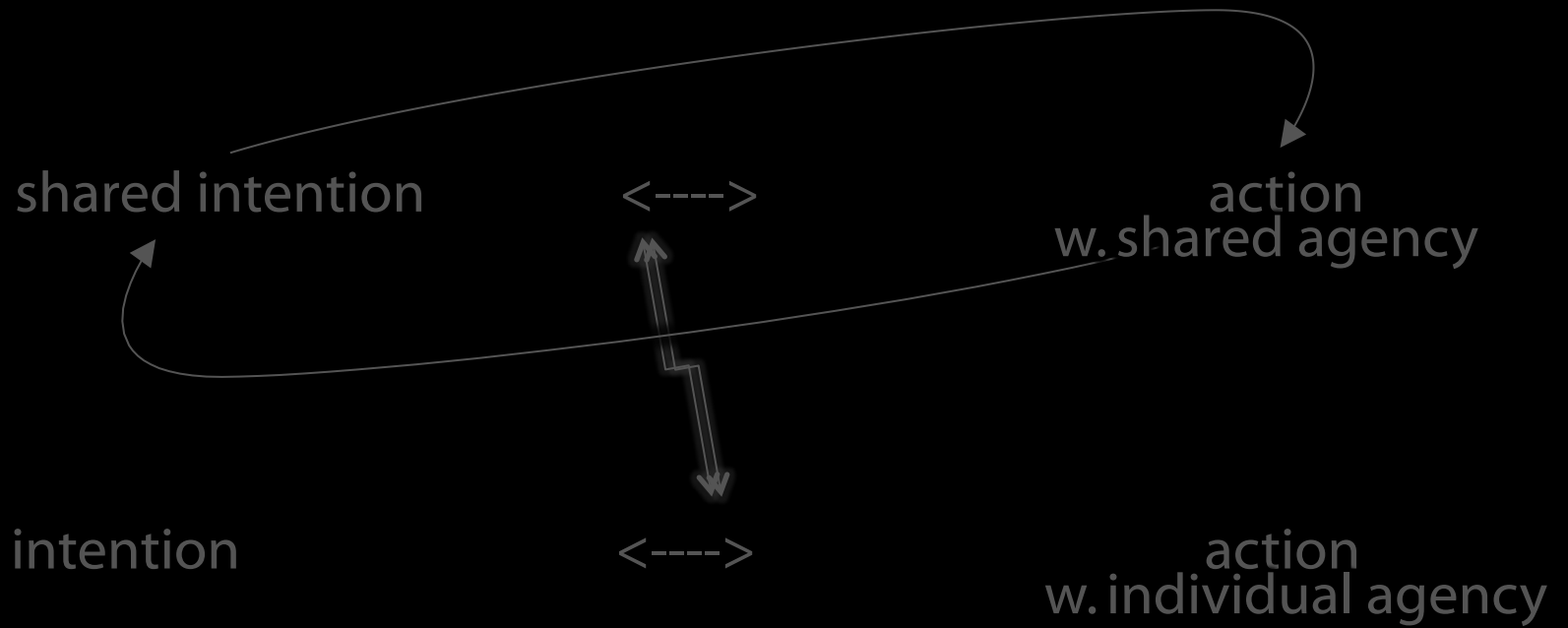




What is shared intention?



What is shared intention?



What is shared intention?

Functional characterisation

Substantial account



What is shared intention?

Functional characterisation

shared intention serves to
(a) coordinate activities, (b)
coordinate planning and (c)
structure bargaining

Substantial account



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“3. 1 and 2 are common
knowledge between us”

(Bratman 1993:View 4)





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(Knoblich & Sebanz 2008: 2022)

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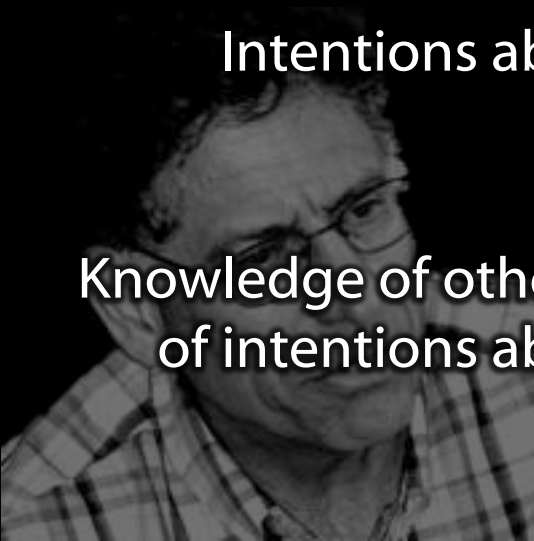
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Knowledge of others' knowledge
of intentions about intentions



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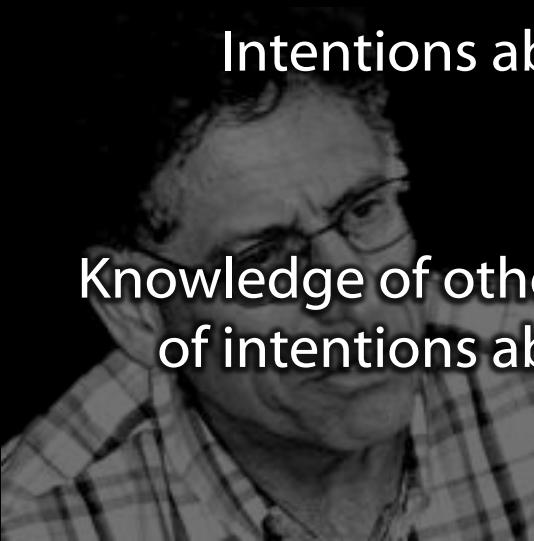
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'shared intentional agency
consists, at bottom, in
interconnected planning
agency of the participants.'

(Bratman 2011, p. 11)

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“perception, action, and cognition are grounded in social interaction”

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“perception, action, and cognition are grounded in social interaction”

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“human cognitive abilities ... [are] built upon social interaction”

(Sinigaglia and Sparaci 2008)



conjecture

The prior existence of capacities for shared agency partially explains how sophisticated forms of mindreading emerge in evolution or development (or both)

1. All shared agency involves shared intention.

2. Shared intention requires sophisticated mindreading.

Therefore:

3. The prior existence of capacities for shared agency ~~partially explains~~ cannot explain how sophisticated forms of mindreading emerge in evolution or development (or both)



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1. All shared agency involves shared intention.

shared intention



action
w. shared agency

2. Shared intention requires sophisticated mindreading.



Therefore:

intention



action
w. individual agency

3. Shared agency could play no significant role in explaining how sophisticated forms of mindreading emerge.



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shared agency without shared intention

Joint action:
an action with two or more
agents (Ludwig 2007)

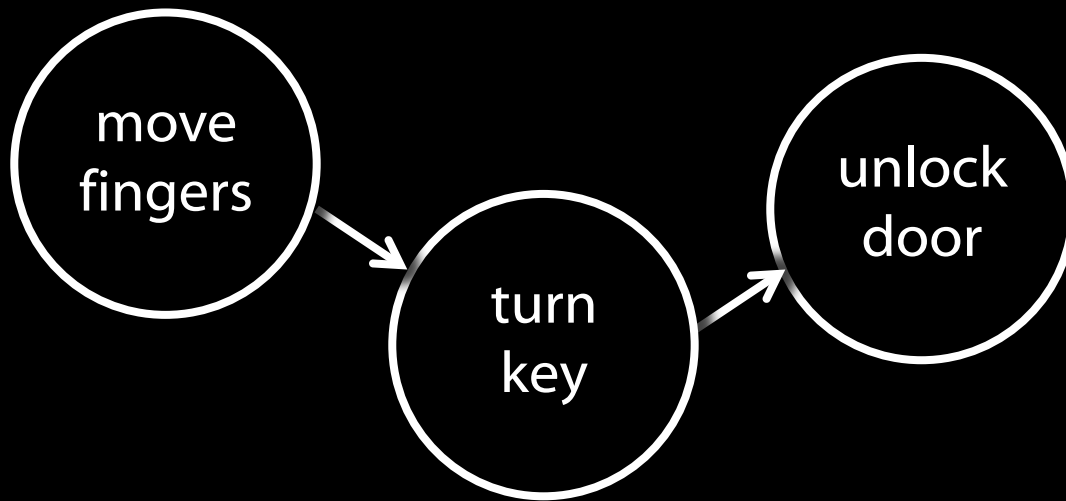
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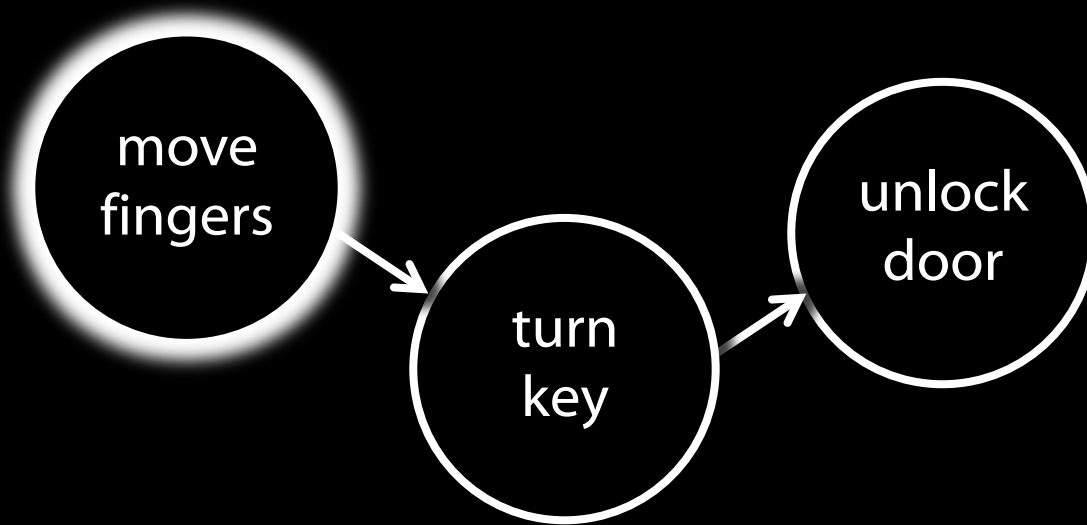
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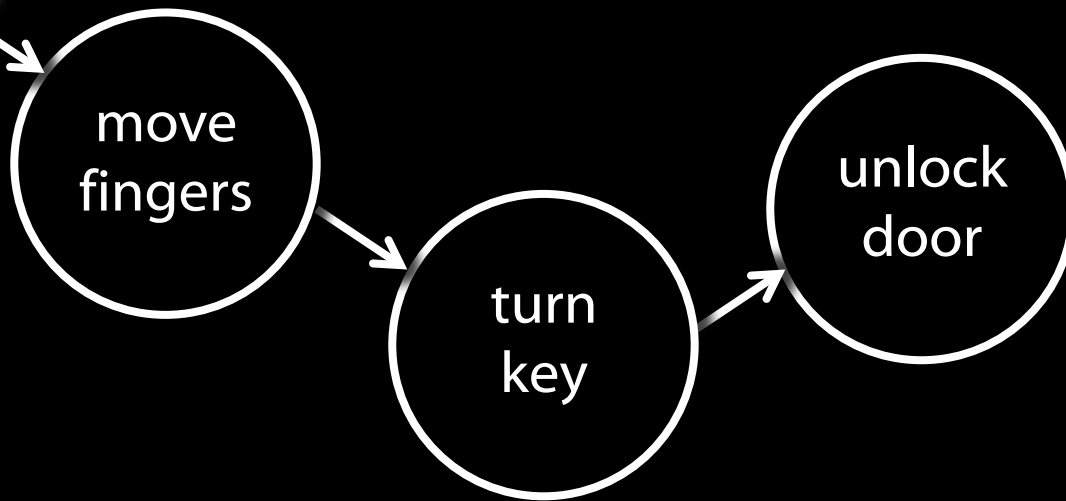
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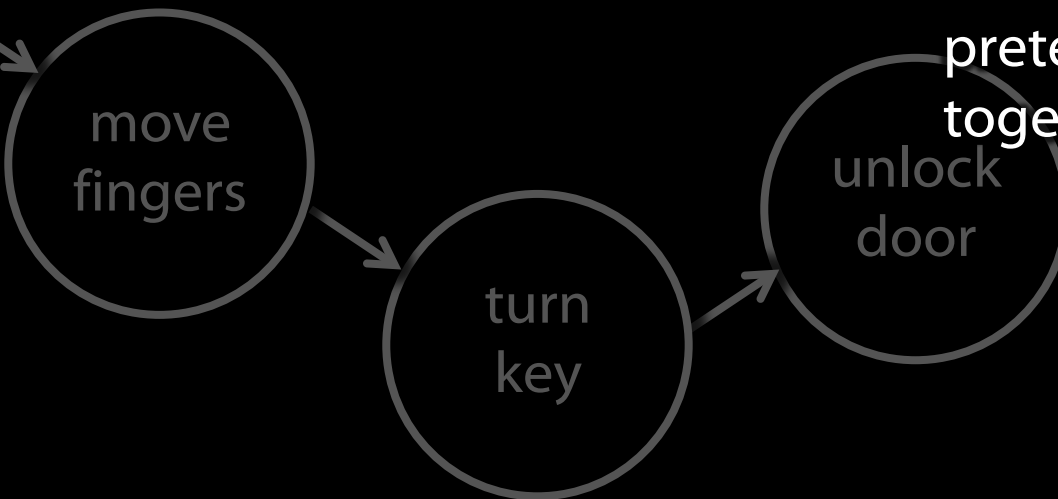
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tidying up the toys together
(Behne et al 2005)

cooperatively pulling
handles in sequence to
make a dog-puppet sing
(Brownell et al 2006)

bouncing a ball on a large
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(Tomasello & Carpenter 2007)

pretending to row a boat
together



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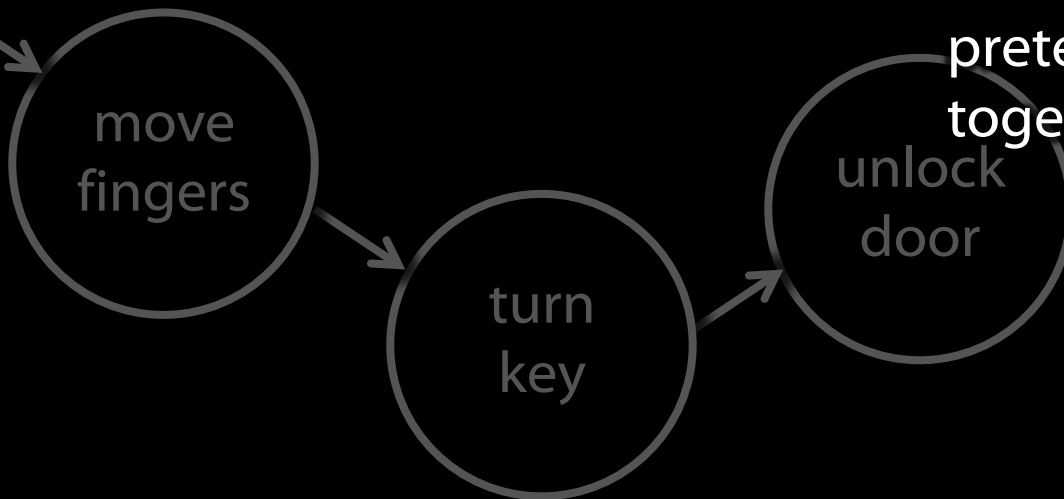
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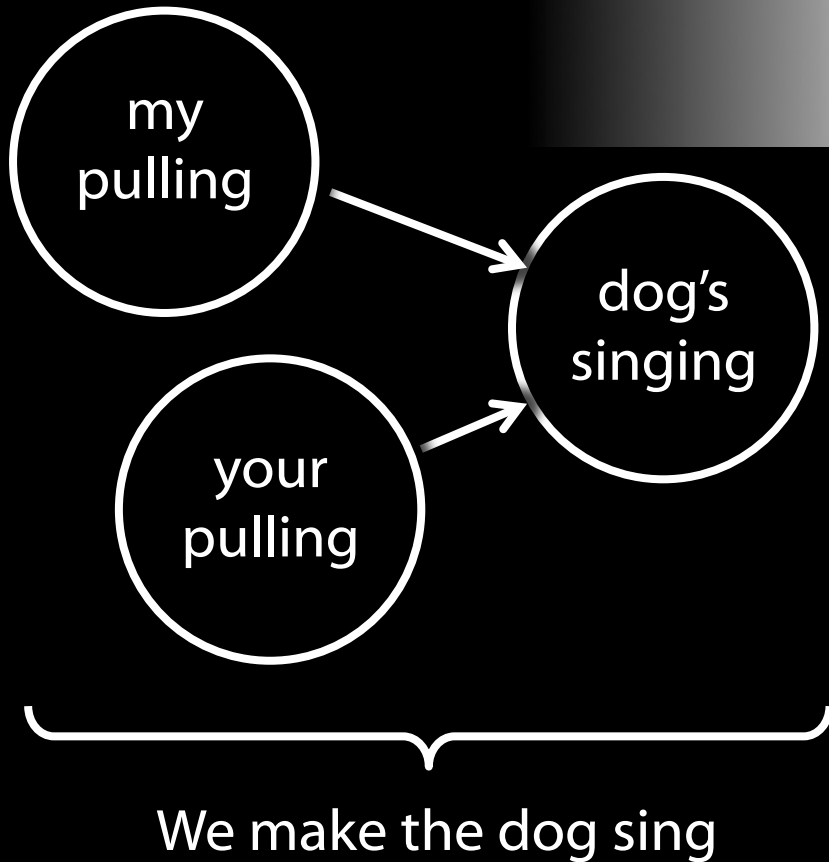
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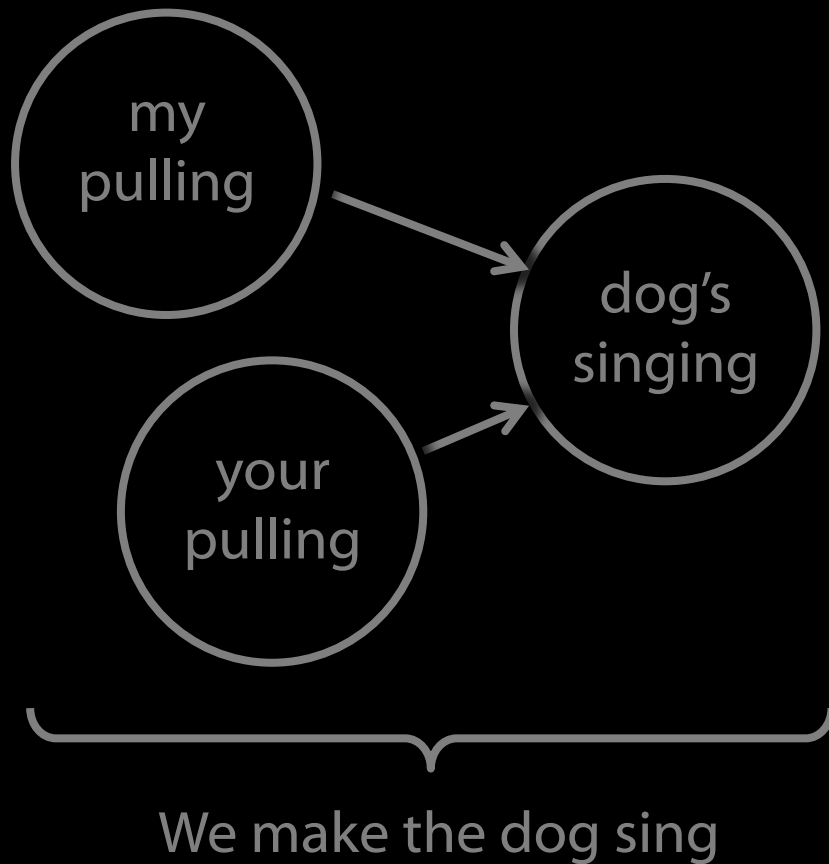
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1 Joint action:
an action with two or more
agents (Ludwig 2007)

2 Bodily movements 'are all
the actions there
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3 In supposedly paradigm
cases of joint action, there
are no bodily movements
with more than one agent.

Therefore:

4 Supposedly paradigm cases
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too
narro
w

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Joint action:
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Joint action:
an ~~action~~-event with two or
more agents (Ludwig 2007)

Grounding

events D_1, \dots, D_n ground E , if:

D_1, \dots, D_n and E occur;

D_1, \dots, D_n are each (perhaps improper) parts of E ; and

every event that is a proper part of E but does not overlap

D_1, \dots, D_n is caused by some or all of D_1, \dots, D_n .

(Adapted from Pietroski 1998)

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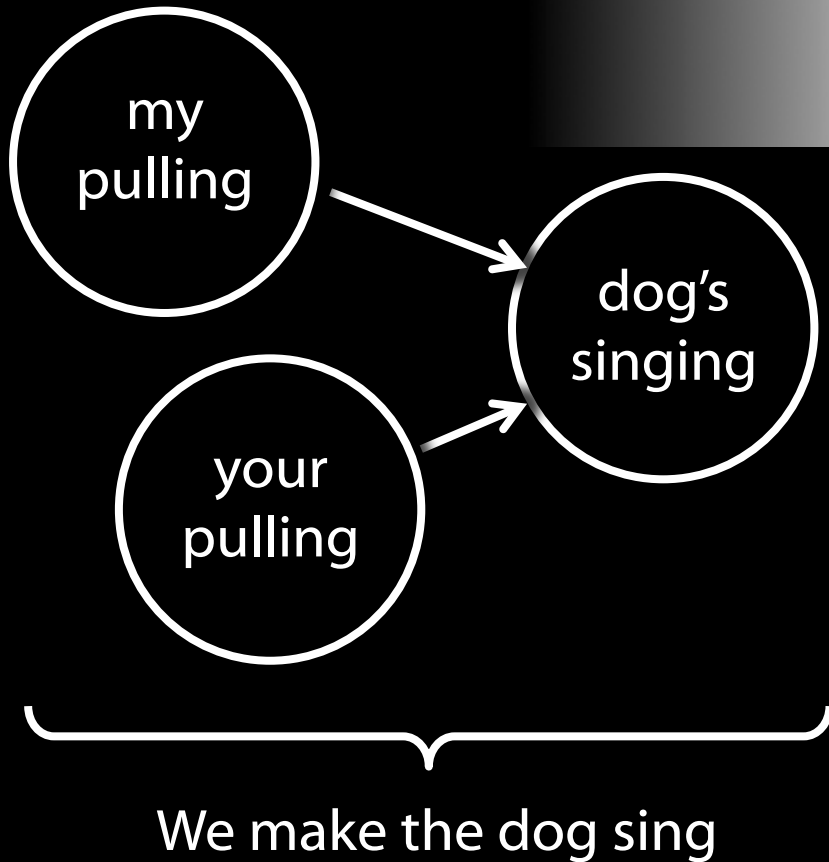
Agency

For an individual to be among the agents of an event is for there to be actions a_1, \dots, a_n which ground this event where the individual is an agent of one or more of these actions.

(Adapted from Pietroski 1998)

Joint action:
an ~~action~~-event with two or
more agents (Ludwig 2007)

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tidying up the toys together
(Behne et al 2005)

cooperatively pulling
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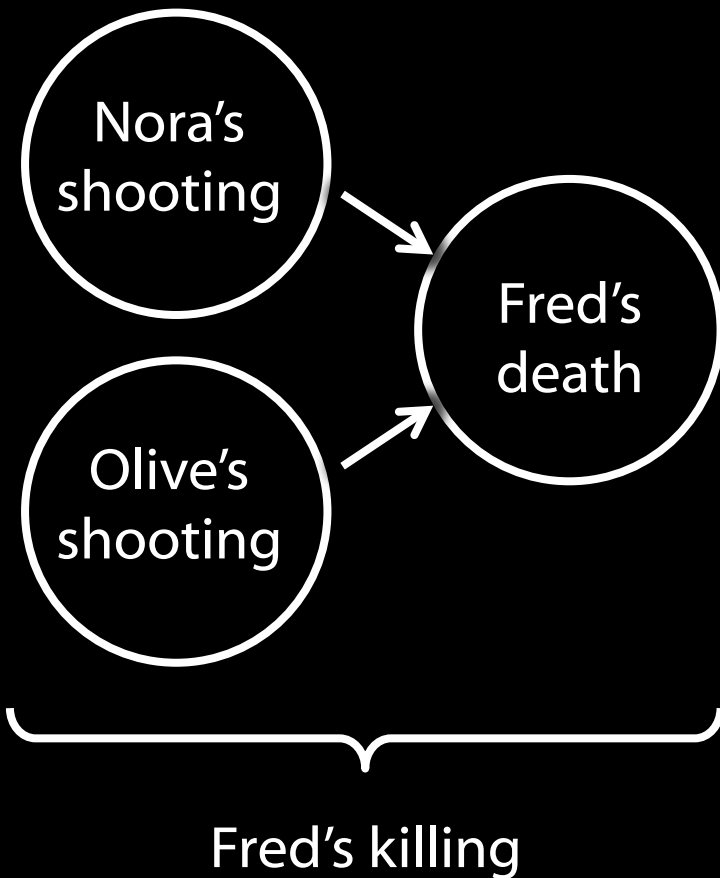
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too
broad

putting up the toys together
(Behne et al 2005)

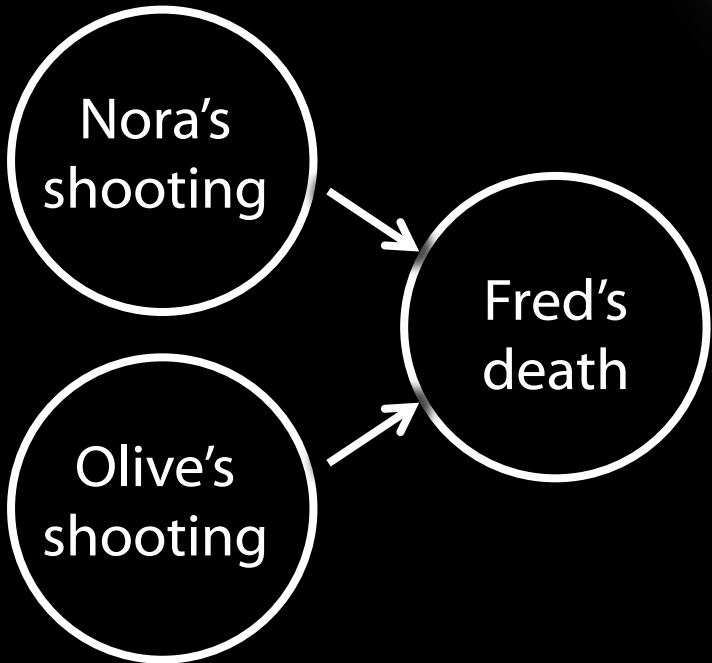
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Fred's killing

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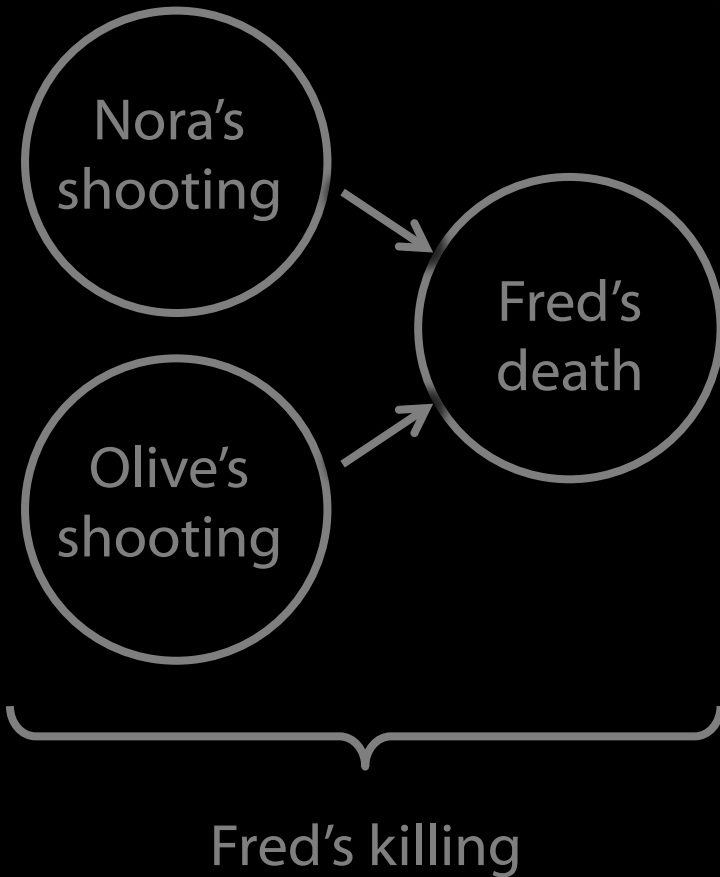
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make a dog-puppet sing

(Brownell et al 2006)

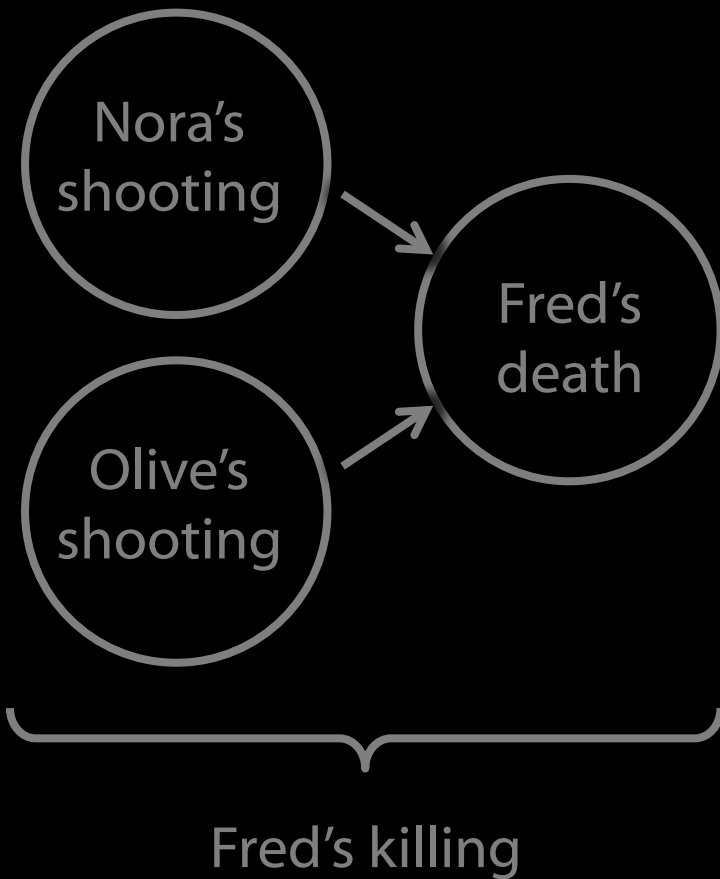
bouncing a ball on a large
trampoline together

(Tomasello & Carpenter 2007)

pretending to row a boat
together



Goal-directed joint action: an event with two or more agents which, taken as a whole, is directed to a goal.



cooperatively pulling handles in sequence to make a dog-puppet sing

(Brownell et al 2006)

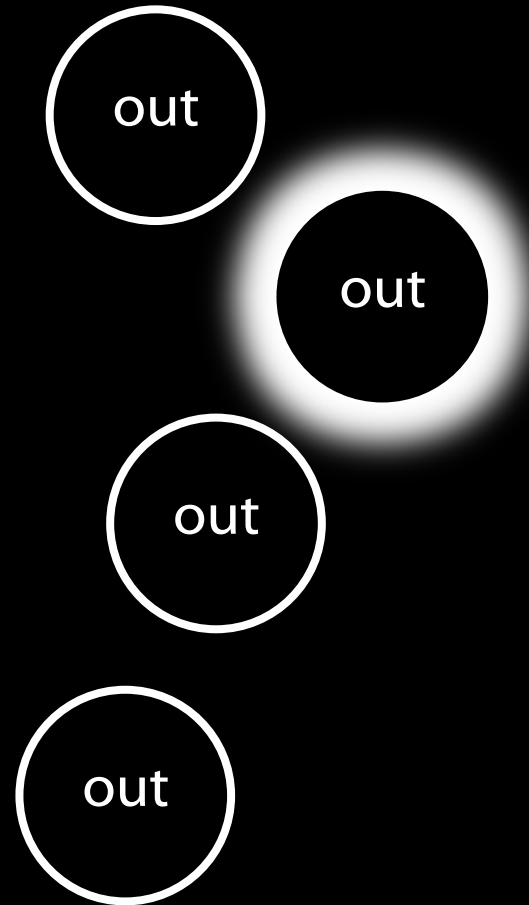
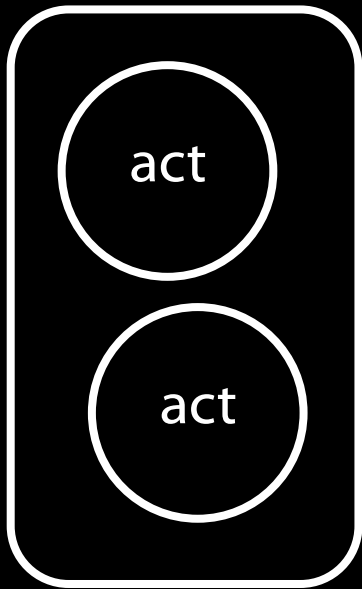
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(Tomasello & Carpenter 2007)

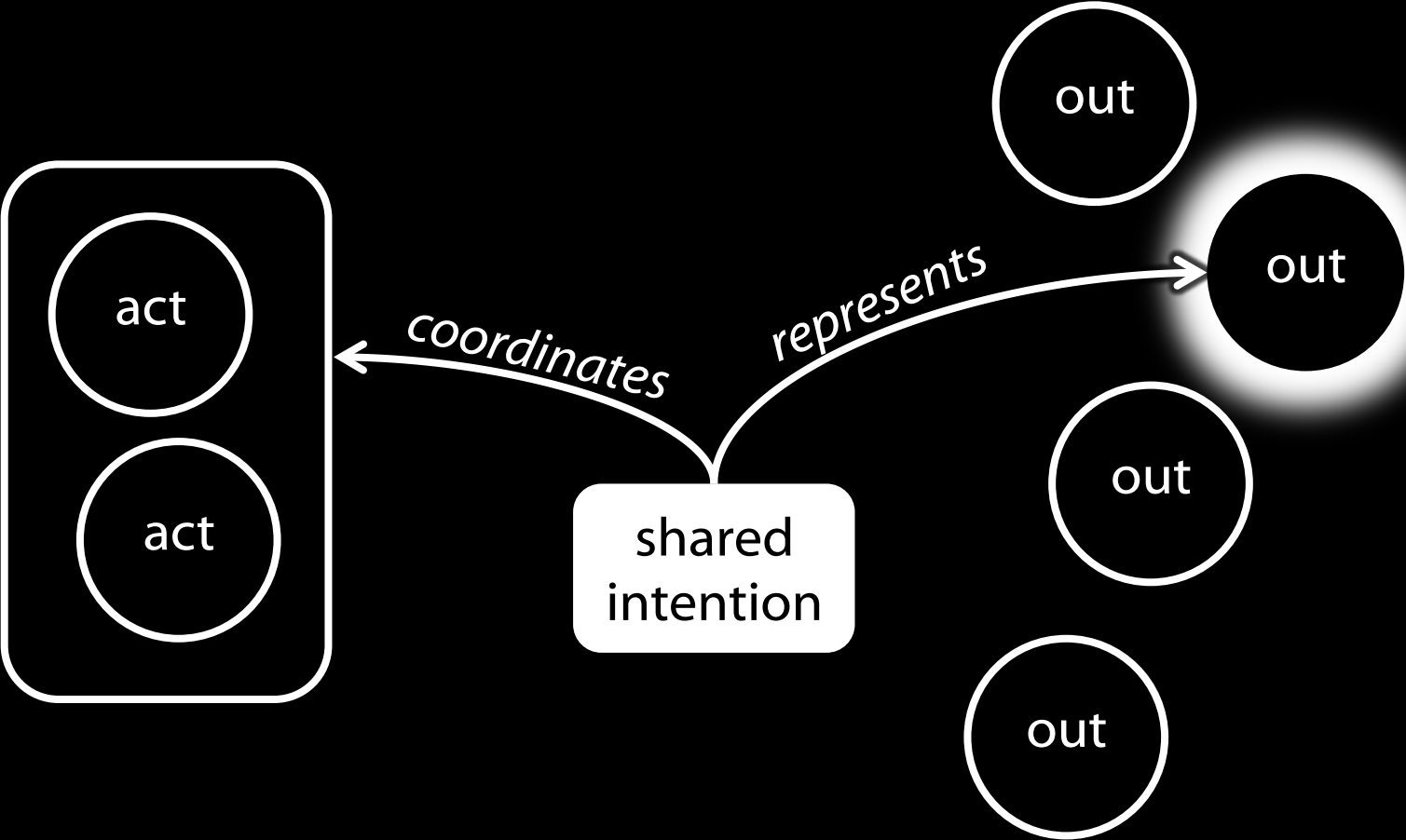
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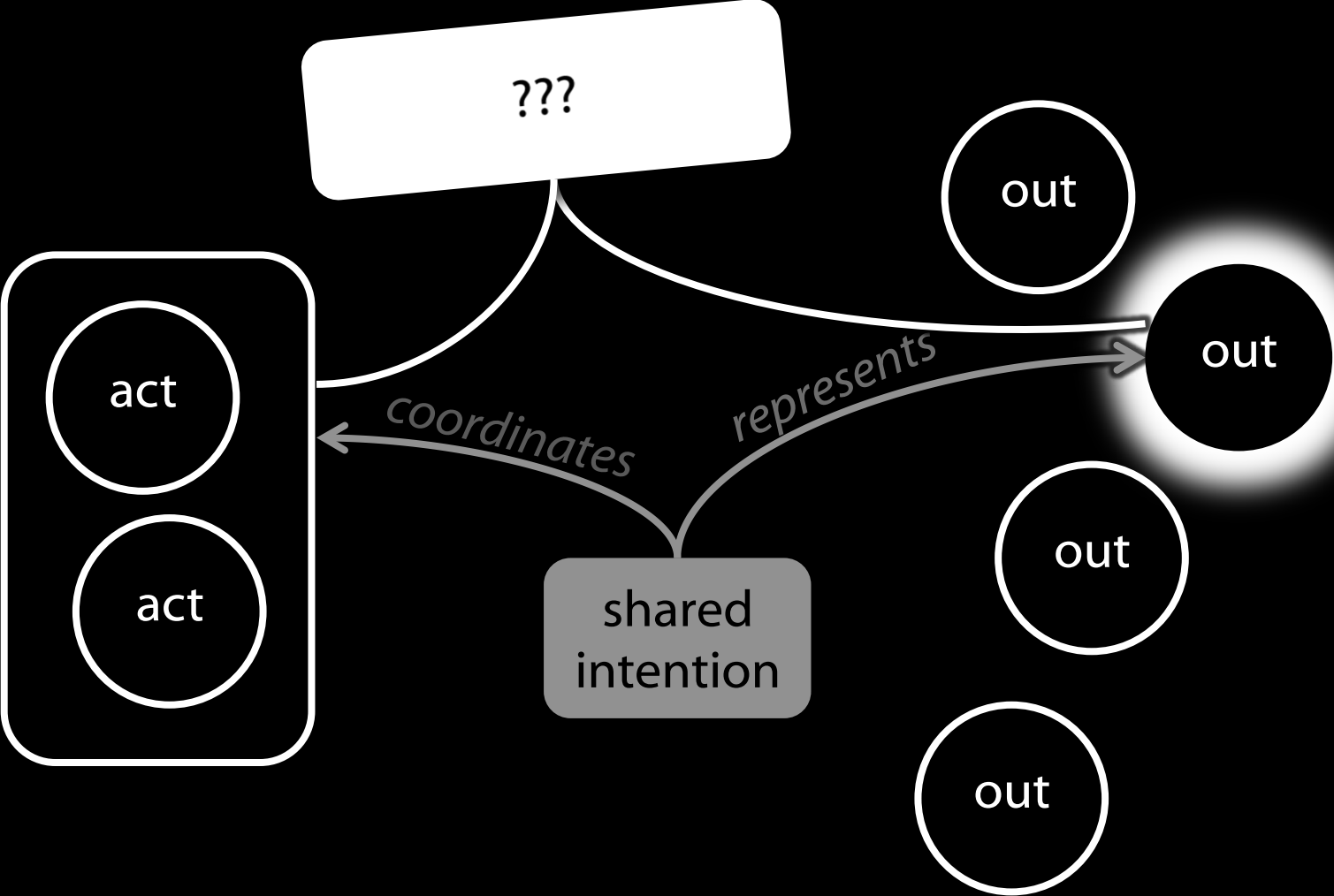
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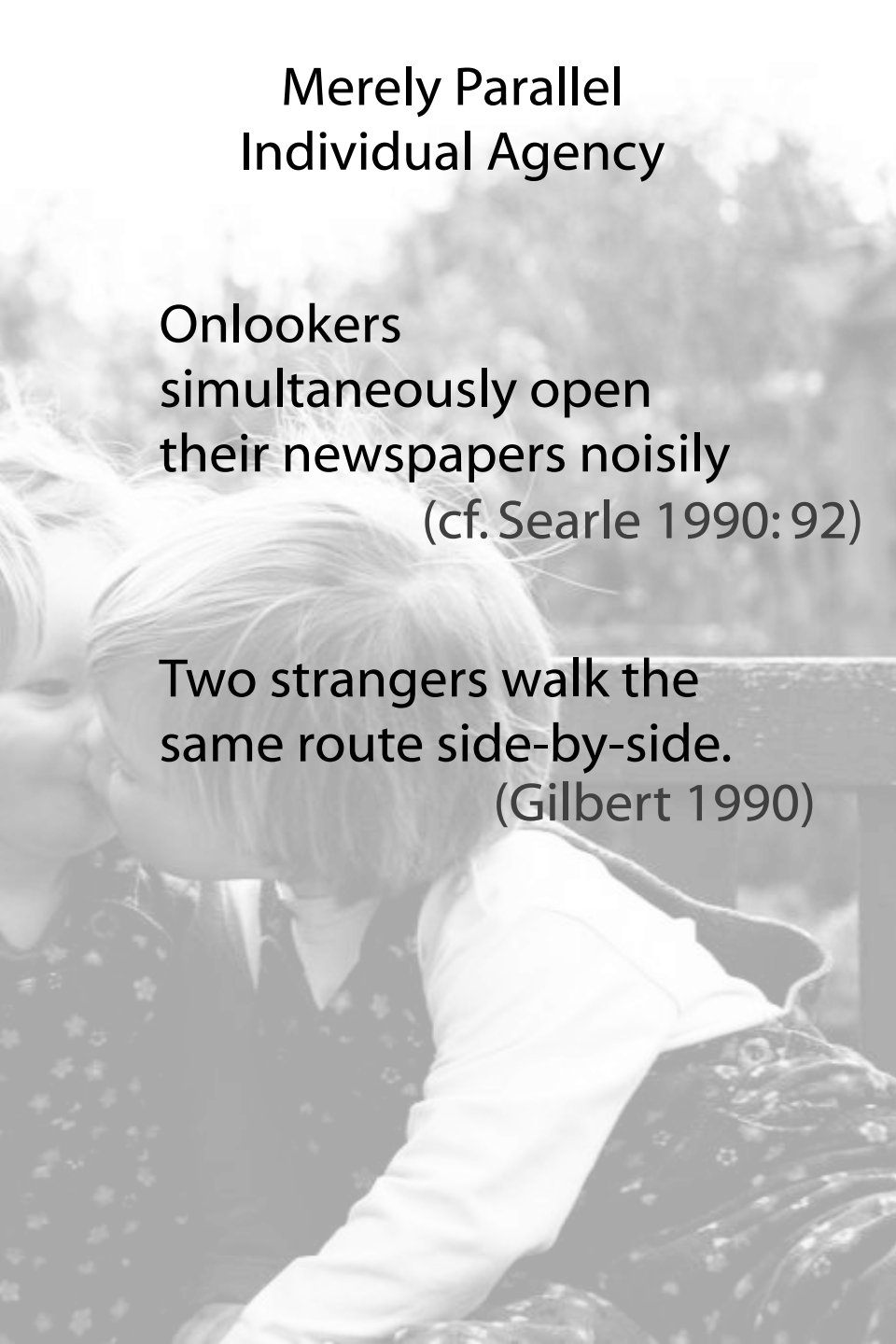
G is a distributive goal: it is an outcome to which each agent's actions are individually directed and it is possible that: all actions succeed relative to this outcome.



Shared Agency

Members of a flash mob
simultaneously open
their newspapers noisily

Two friends walk to the
metro station together.



Merely Parallel Individual Agency

Onlookers
simultaneously open
their newspapers noisily
(cf. Searle 1990: 92)

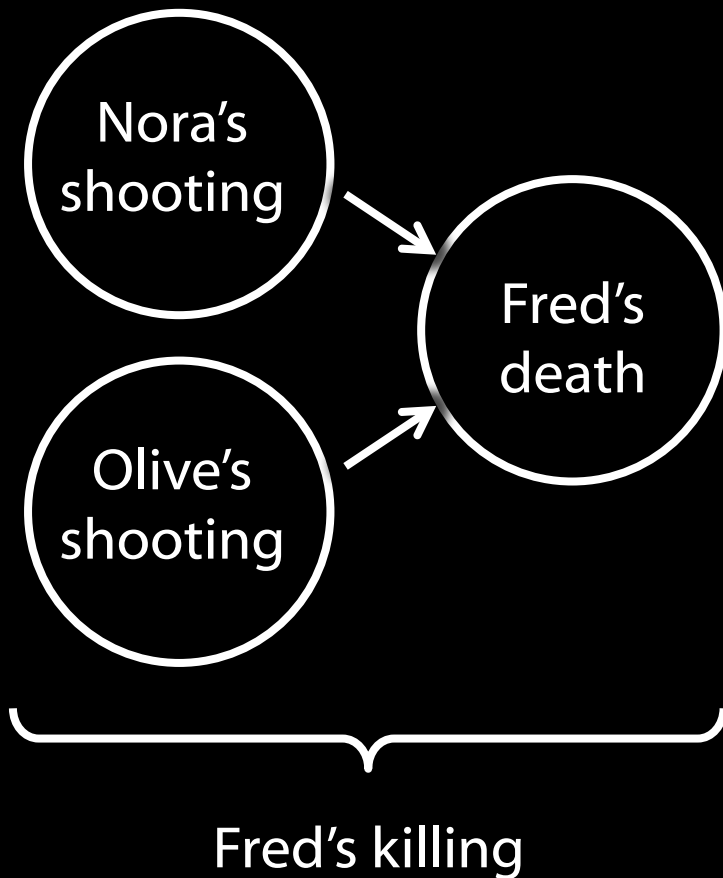
Two strangers walk the
same route side-by-side.
(Gilbert 1990)

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G is a collective goal

- (a) it is a distributive goal;
- (b) the actions are coordinated; and
- (c) coordination of this type would normally facilitate occurrences of outcomes of this type.

“It ... seems useful to draw a distinction between elementary or thin forms of joint action common to humans and other social mammals and sophisticated or thick forms of joint action, perhaps unique to the human species.”

(Pacherie & Dokic 2006, 110)

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death
of fly

sting sting

sting

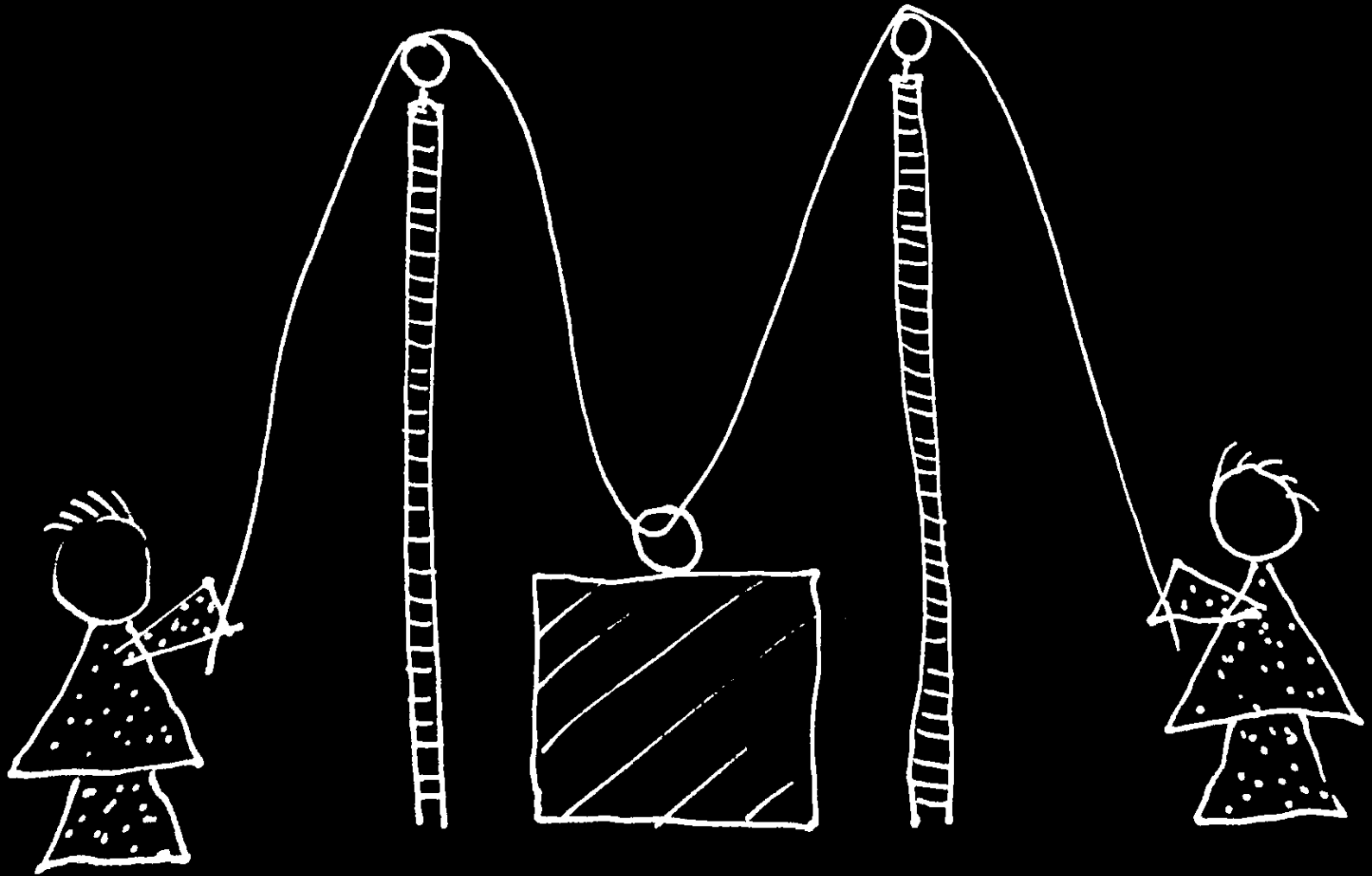
sting

sting

sting

sting

sting



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G is a collective goal

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Each agent most wants and expects each of the other agents to perform activities directed to the goal.

Each agent most wants and expects the goal to occur as a common effect of all their goal-directed actions.

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etc...

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conjecture

The prior existence of capacities for shared agency partially explains how sophisticated forms of mindreading emerge in evolution or development (or both)



1. All shared agency involves shared intention.

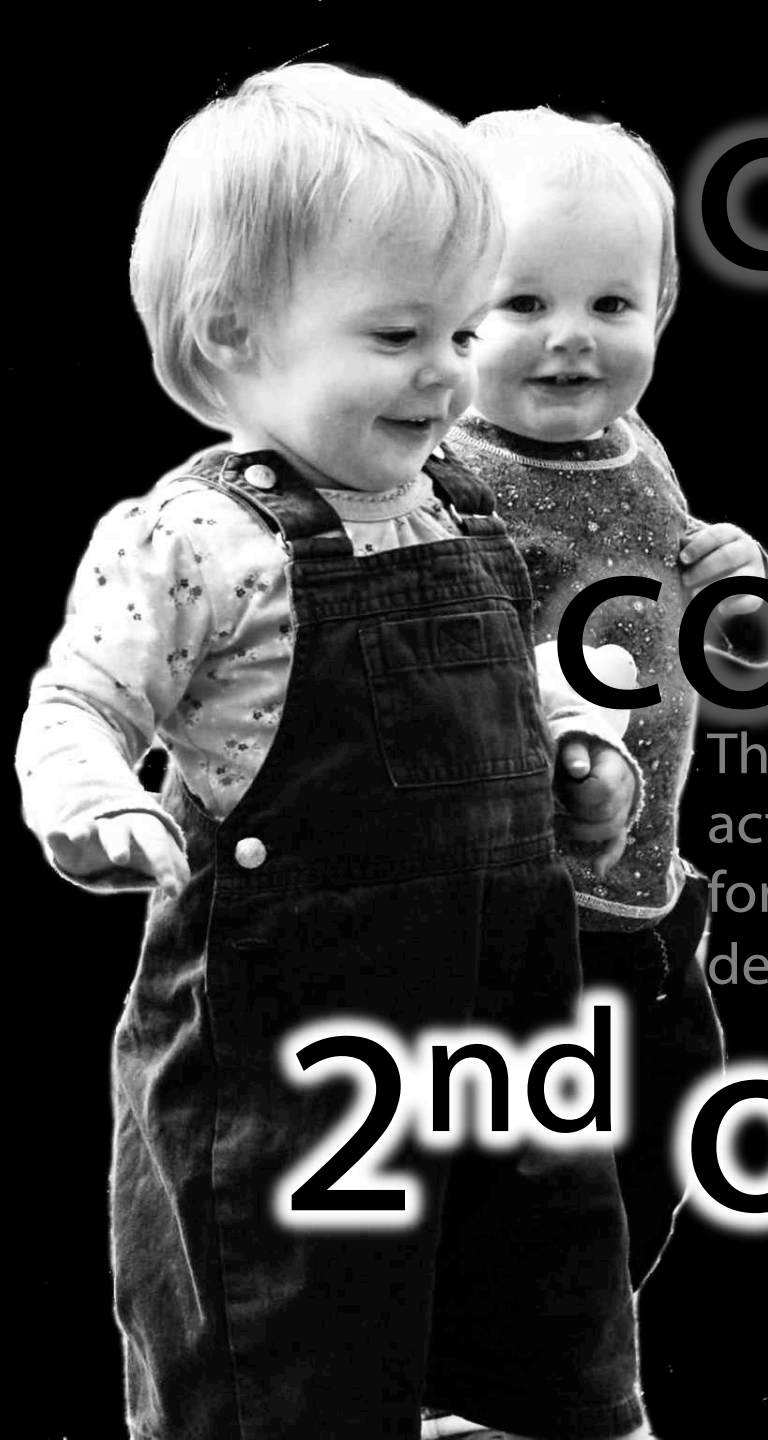
2. Shared intention requires sophisticated mindreading.

Therefore:

3. Shared agency could play no significant role in explaining how sophisticated forms of mindreading emerge.

conjecture

The prior existence of capacities for shared agency partially explains how sophisticated forms of mindreading emerge in evolution or development (or both)



challenge

Explain the emergence, in evolution or development, of sophisticated forms of mindreading.

conjecture

The existence of abilities to engage in joint action partially explains how sophisticated forms of mindreading emerge in evolution or development (or both)

2nd objection

Joint action presupposes sophisticated mindreading

tidying up the toys together

(Behne et al 2005)

cooperatively pulling
handles in sequence to
make a dog-puppet sing

(Brownell et al 2006)

bouncing a ball on a large
trampoline together

(Tomasello & Carpenter 2007)

pretending to row a boat
together

painting a house together

(Bratman 1992)

lifting a heavy sofa together

(Velleman 1997)

preparing a hollandaise
sauce together

(Searle 1990)

going to Chicago together

(Kutz 2000)

walking together

(Gilbert 1990)

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(Behne et al 2005)

cooperatively pulling
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(Brownell et al 2006)

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