

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)

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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.'

(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)

'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

intention

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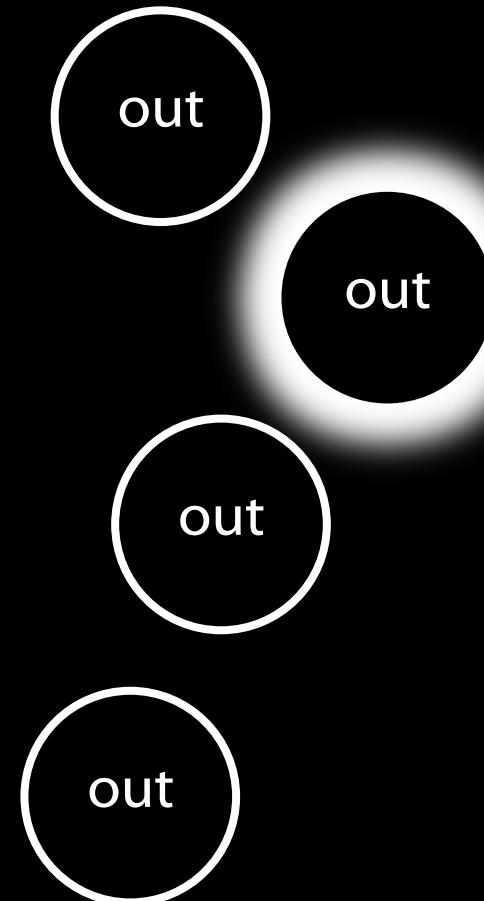


action
w. shared agency

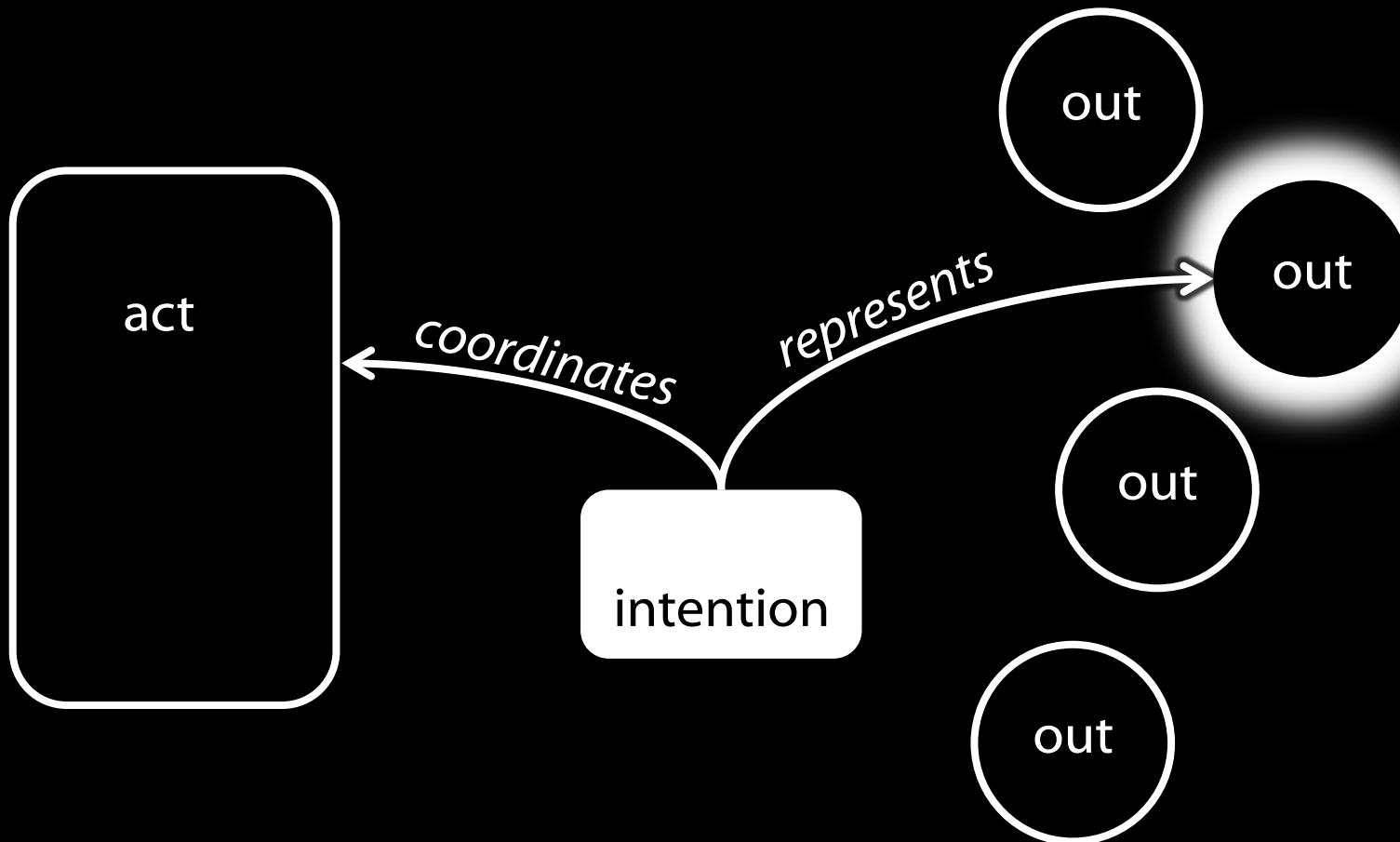
action
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What is the relation between a purposive action and the outcome or outcomes to which it is directed?

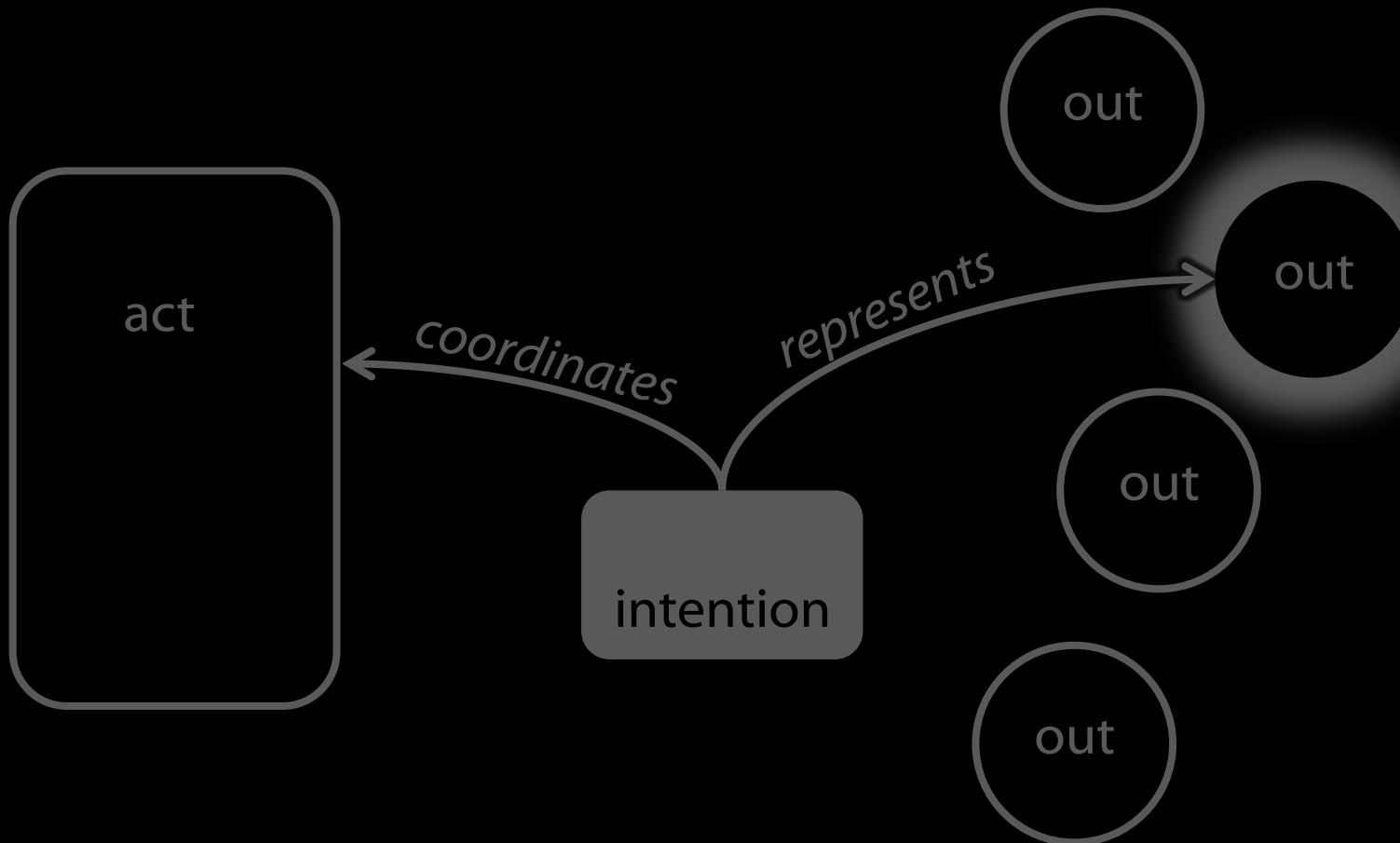
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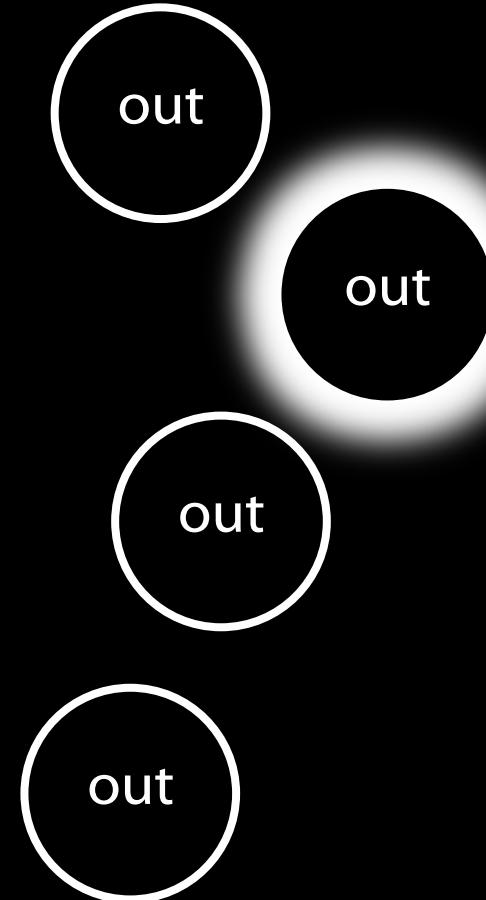
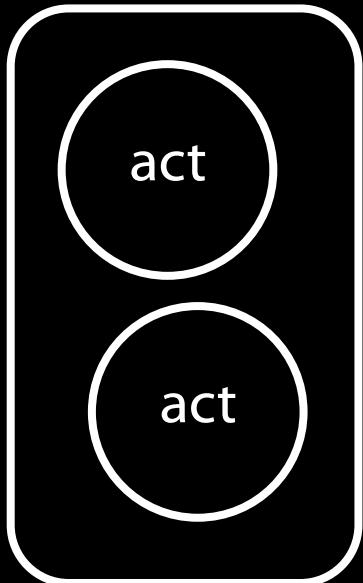
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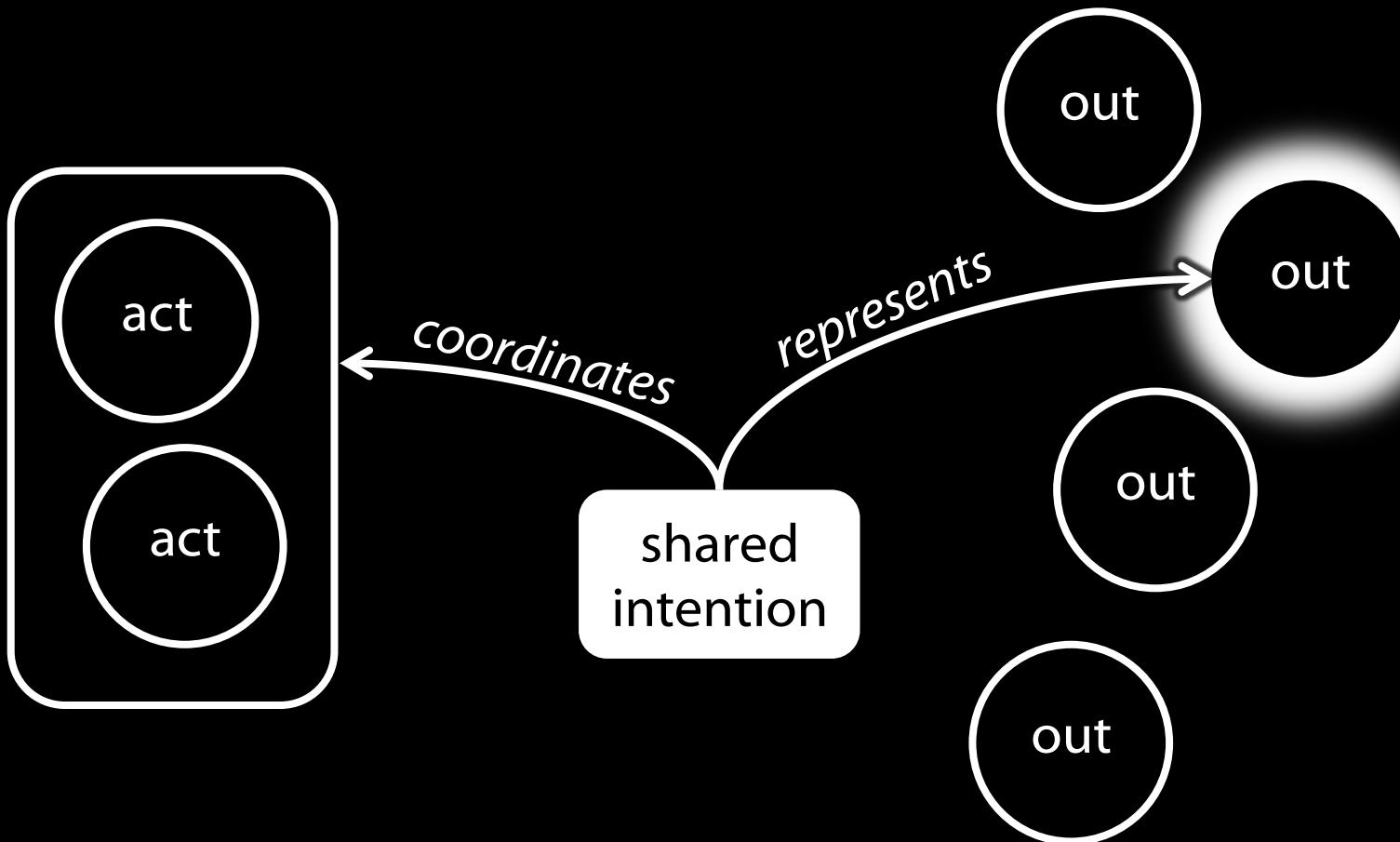
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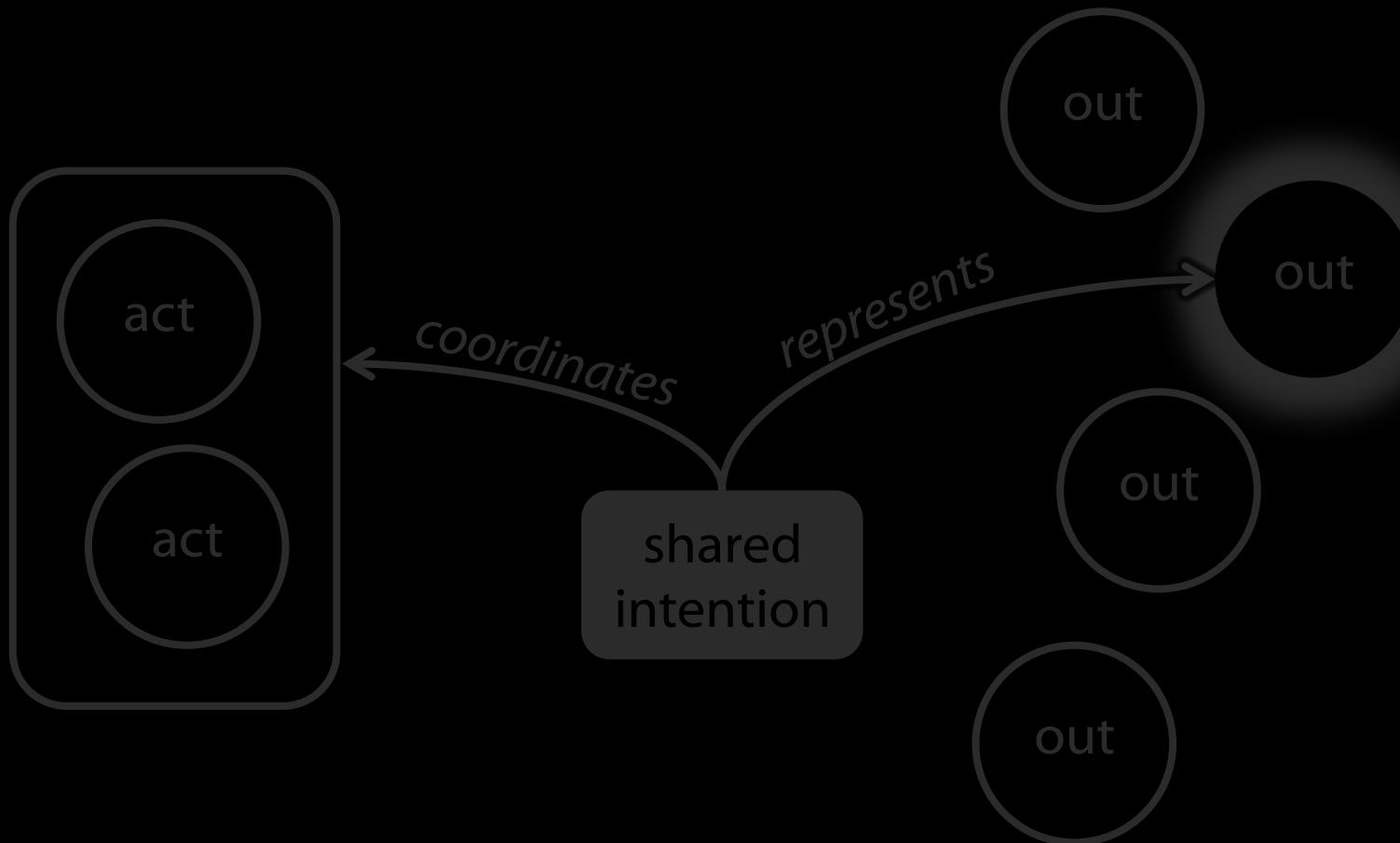
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shared intention

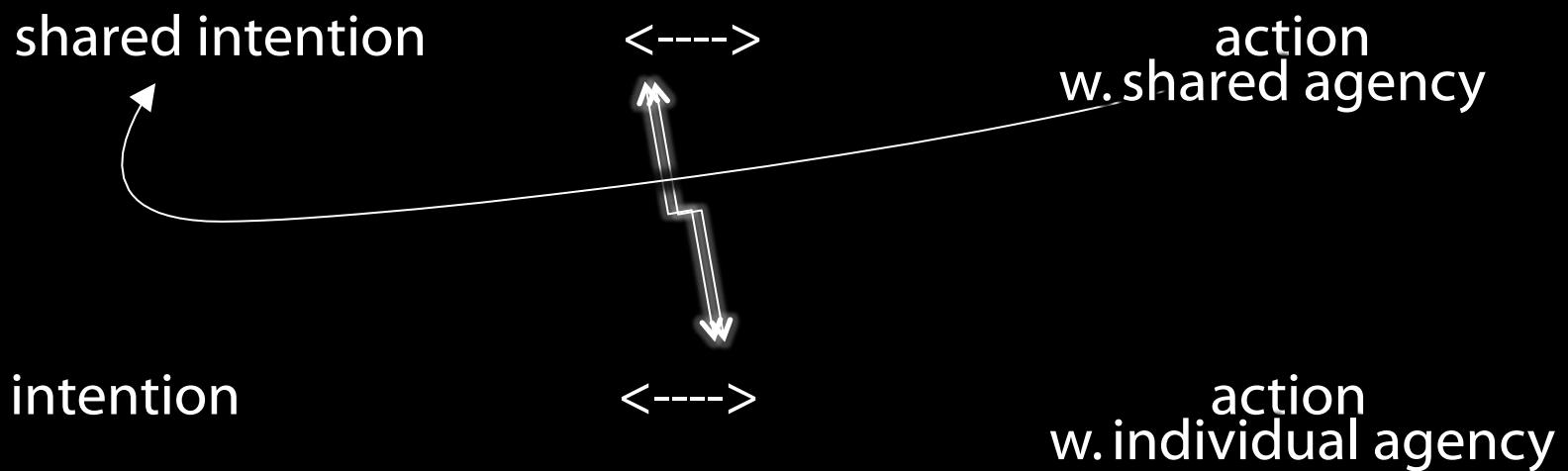
intention

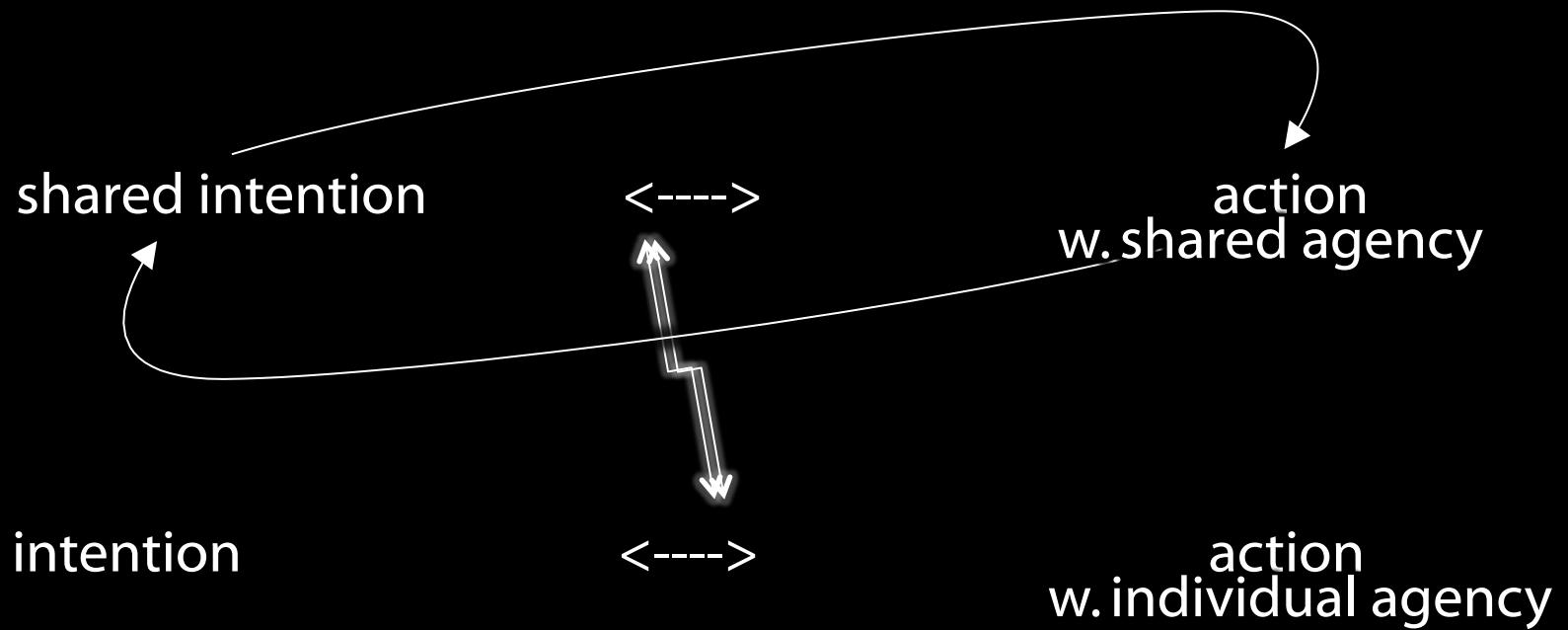
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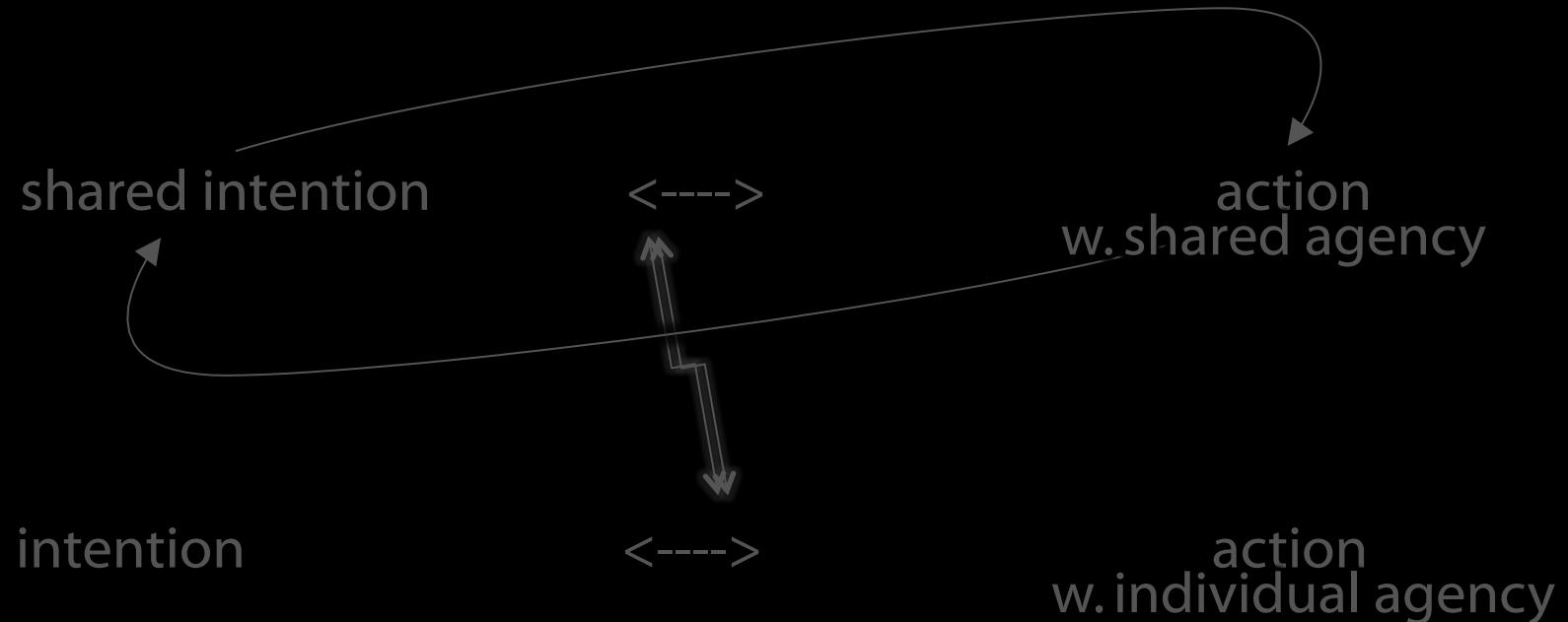
action
w. shared agency

action
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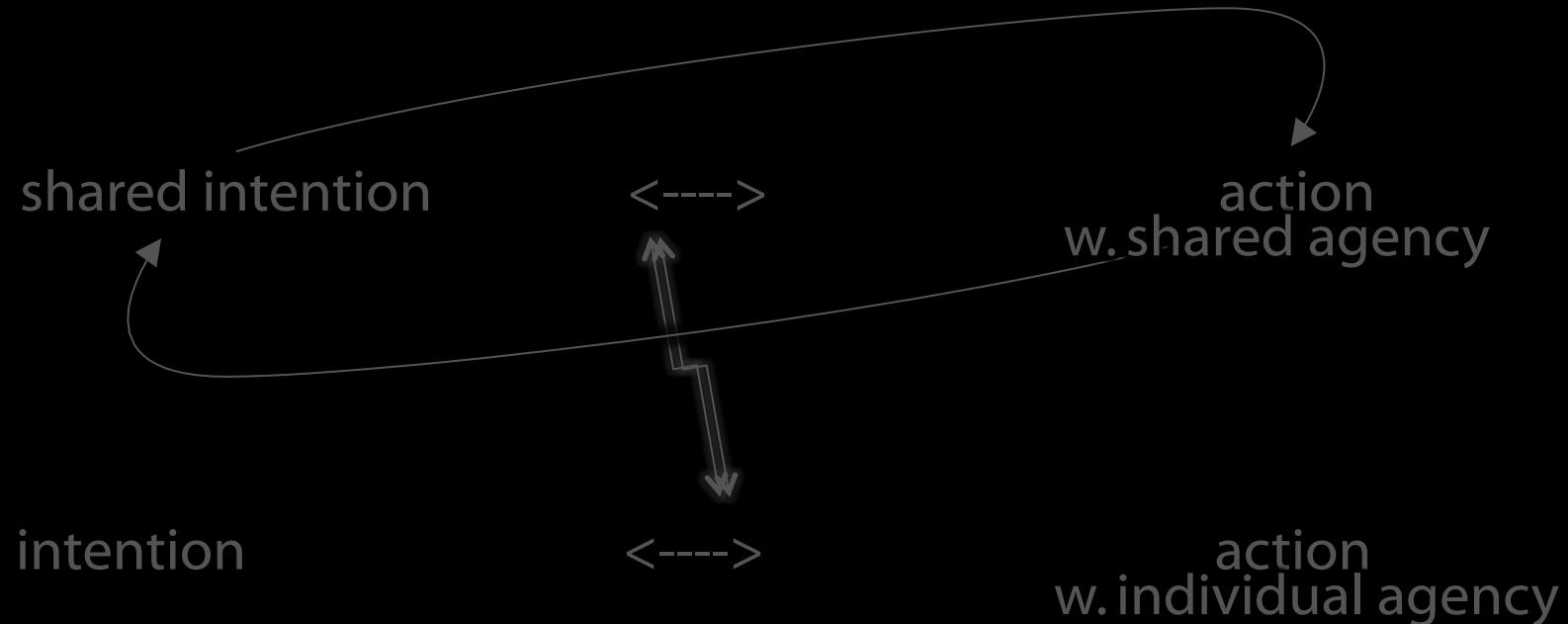




What is shared intention?



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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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Functional characterisation

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Substantial account

We have a shared intention
that we J if

“1. (a) I intend that we J and
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“3. 1 and 2 are common
knowledge between us”

(Bratman 1993:View 4)

Outline

1.1.The leading philosophical approach
to shared agency

2.Limits of this approach

3.(Building blocks for) an alternative
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4.Motor representation

5.The emergence of mindreading

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“the contribution of lower-level processes to social interaction has hardly been considered. This has led philosophers to postulate complex intentional structures that often seem to be beyond human cognitive ability in real-time social interactions.”

(Knoblich & Sebanz 2008:2022)

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Intentions about intentions

Knowledge of others' knowledge
of intentions about intentions

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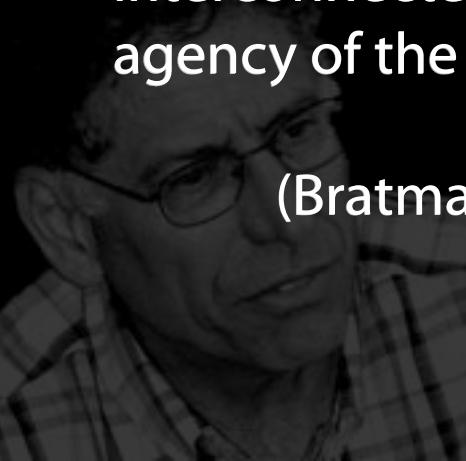
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'shared intentional agency
consists, at bottom, in
interconnected planning
agency of the participants.'

(Bratman 2011, p. 11)



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(Moll & Tomasello 2007)



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

(Sinigaglia and Sparaci 2008)



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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. 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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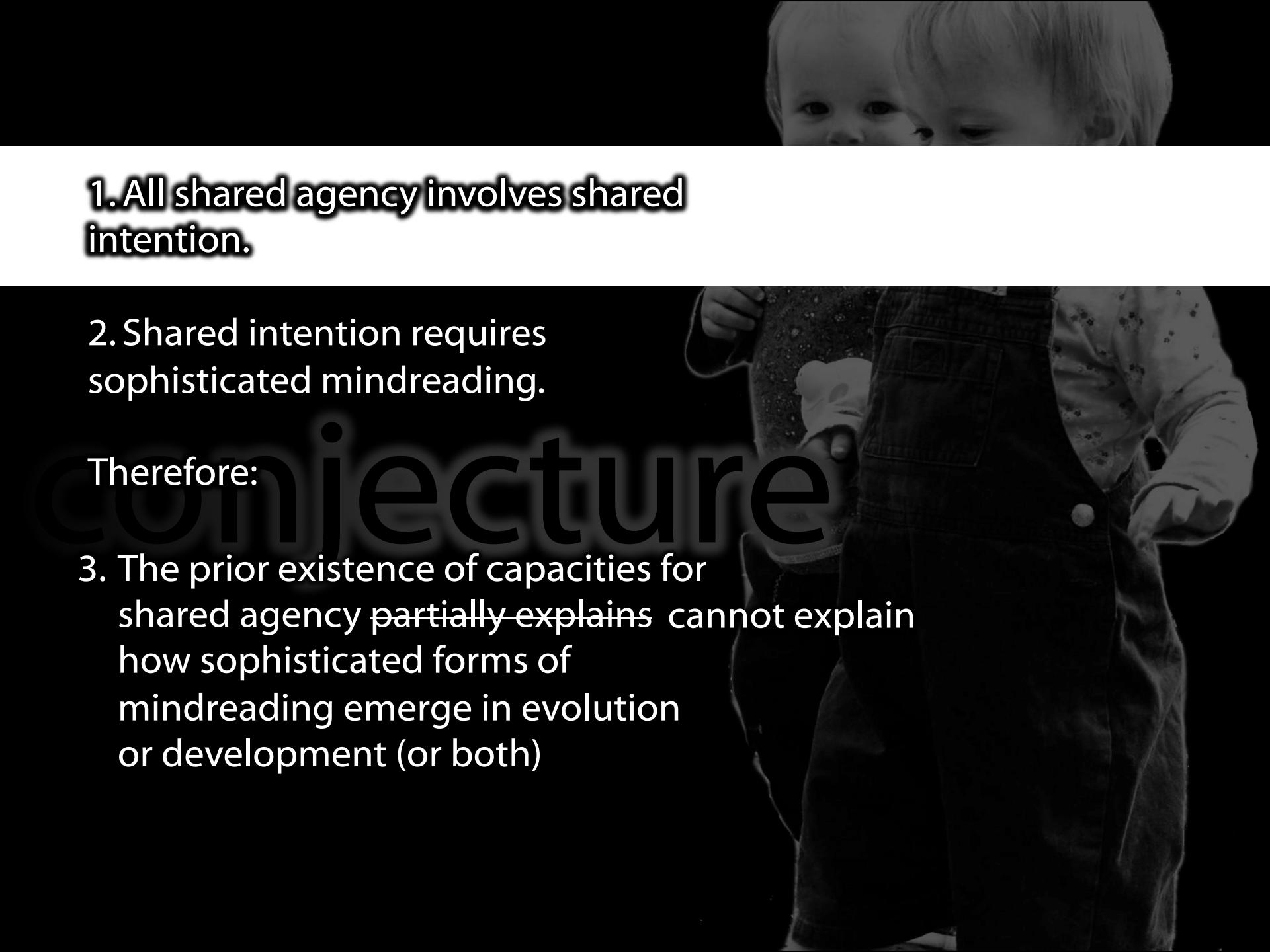
intention

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



action
w. shared agency

action
w. individual agency

A black and white photograph of a baby with light-colored hair, wearing a patterned onesie and overalls, sitting and looking towards the camera.

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shared agency without shared intention

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an action with two or more
agents (Ludwig 2007)

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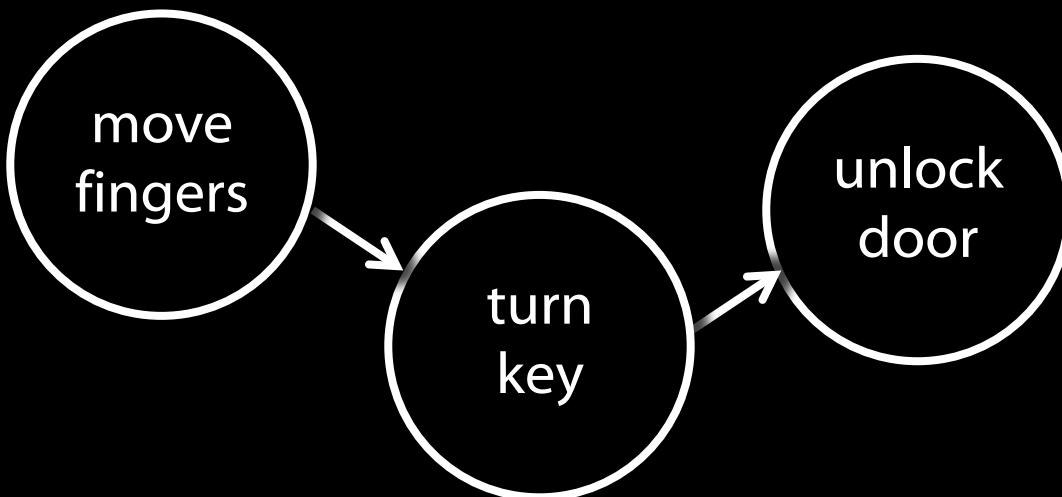
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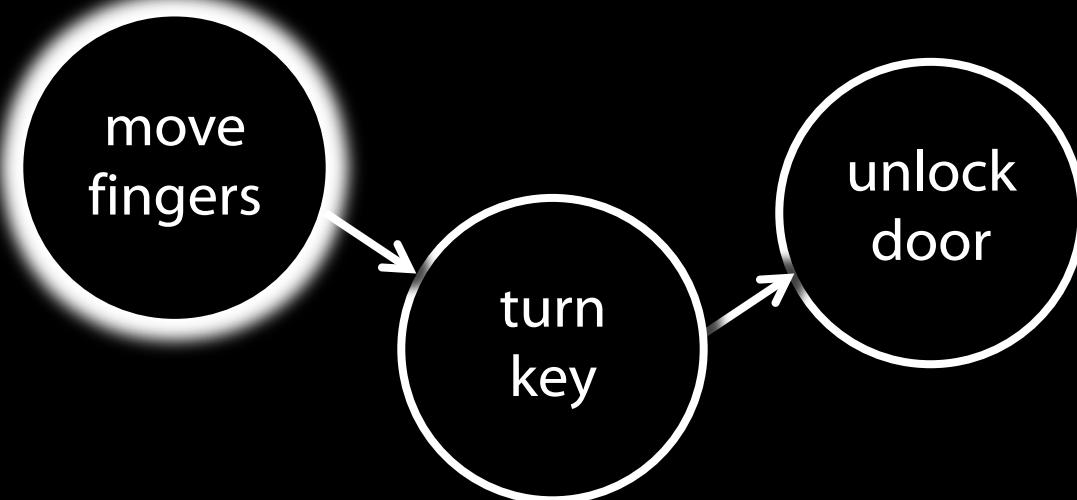
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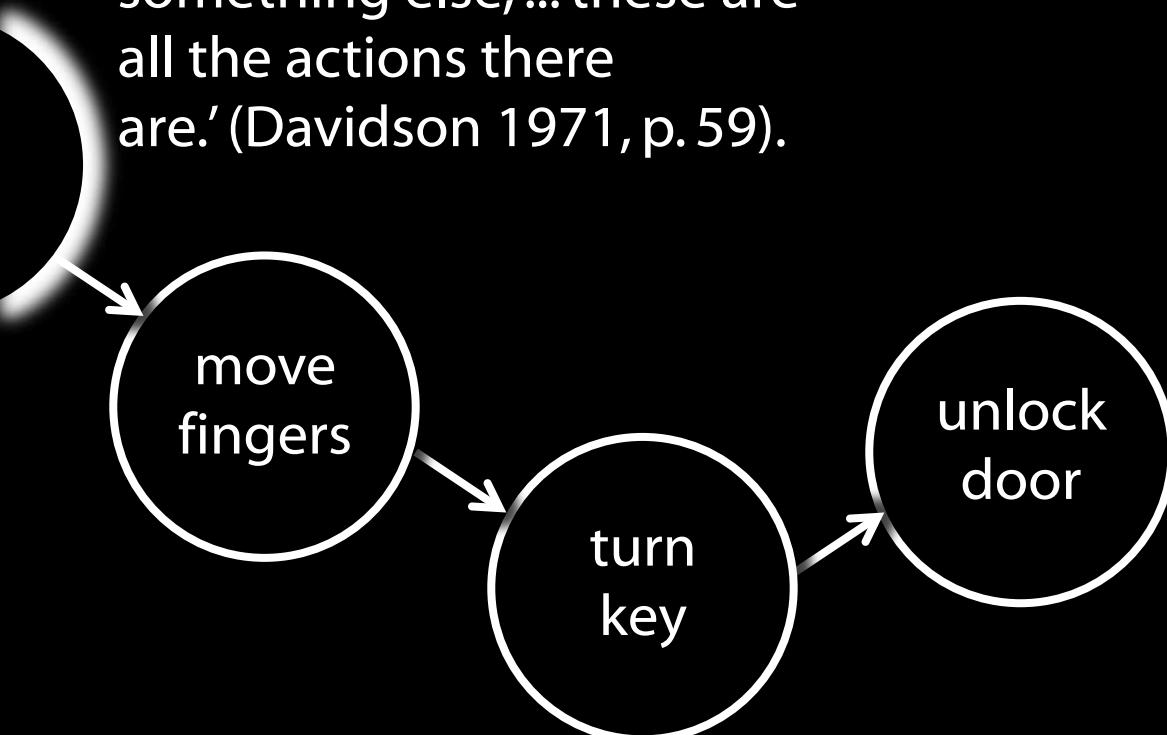
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tidying up the toys together

(Behne et al 2005)

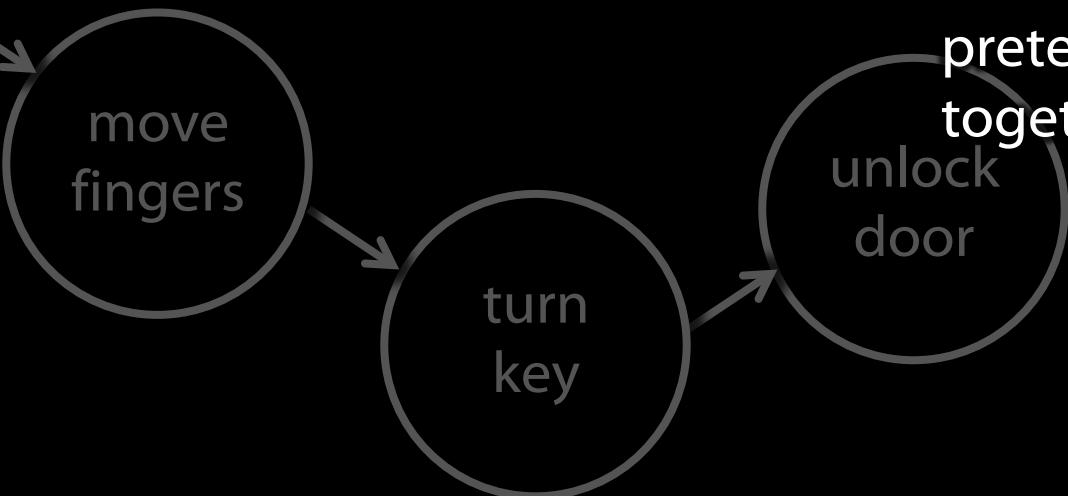
cooperatively pulling handles in sequence to make a dog-puppet sing

(Brownell et al 2006)

bouncing a ball on a large trampoline together

(Tomasello & Carpenter 2007)

pretending to row a boat together



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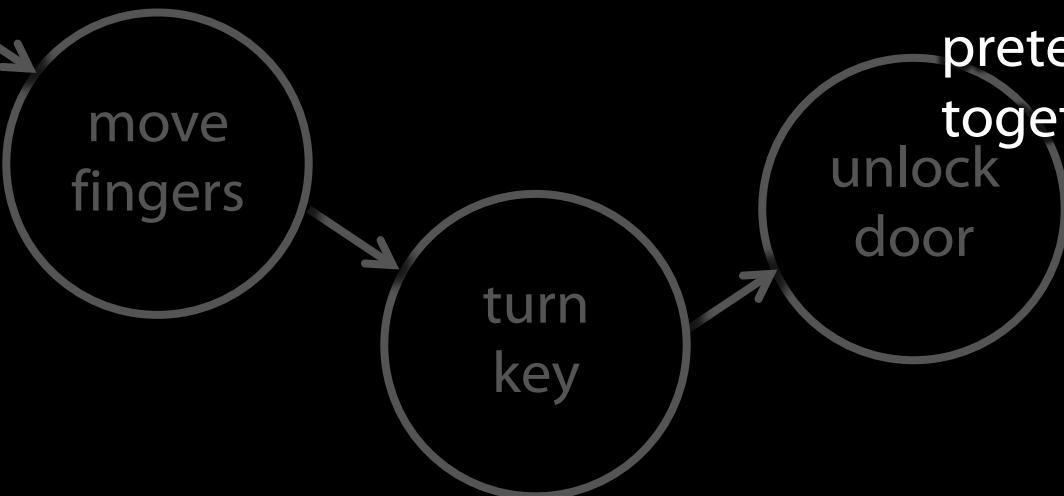
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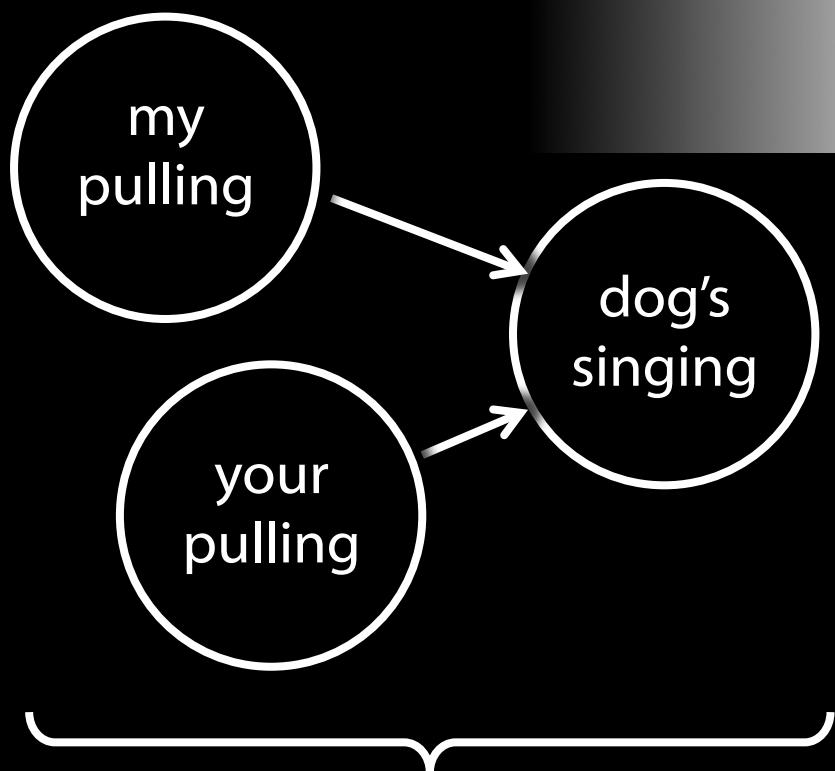
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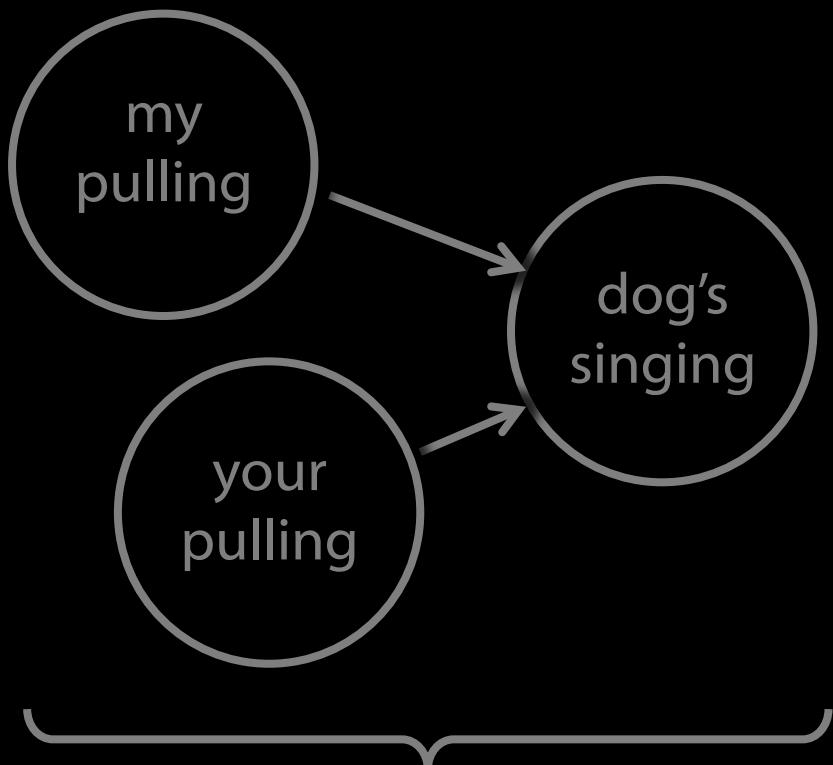
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2 Bodily movements 'are all
the actions there
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3 In supposedly paradigm
cases of joint action, there
are no bodily movements
with more than one agent.

Therefore:

4 Supposedly paradigm cases
are not joint actions.

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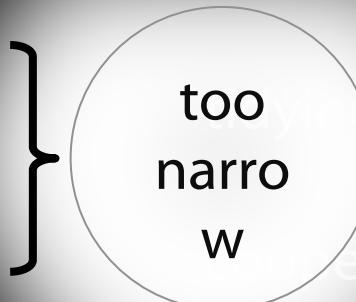
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Joint action:
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Joint action:
an ~~action~~ event with two or
more agents (Ludwig 2007)

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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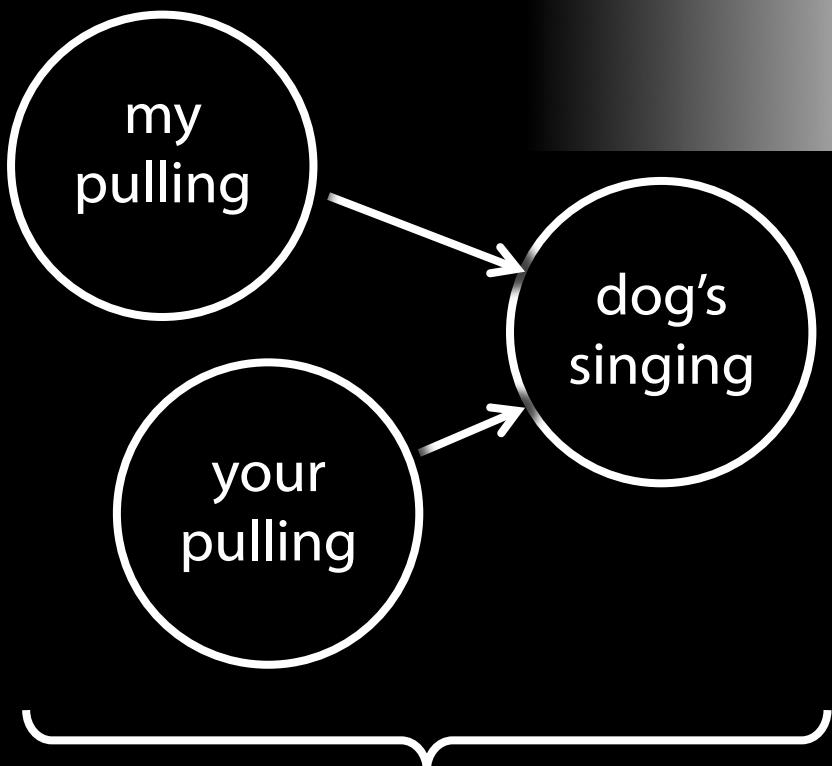
Agency

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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We make the dog sing

tidying up the toys together
(Behne et al 2005)

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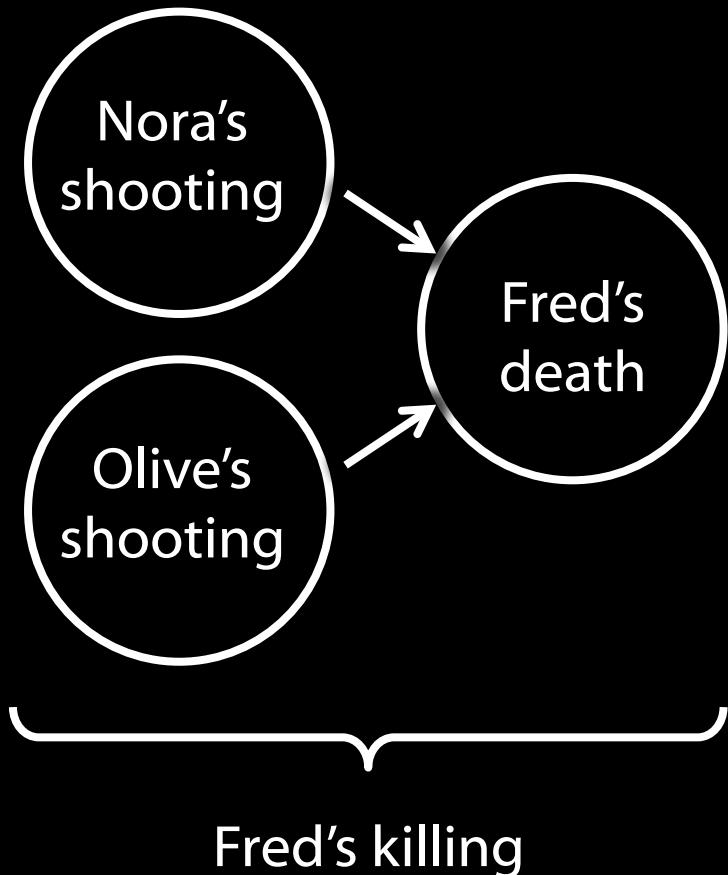
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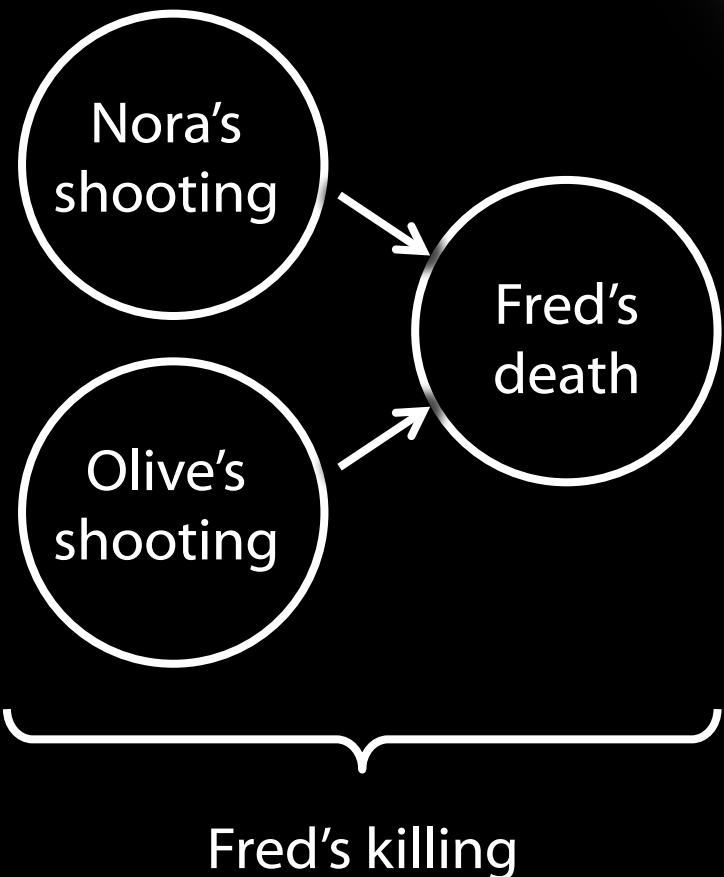
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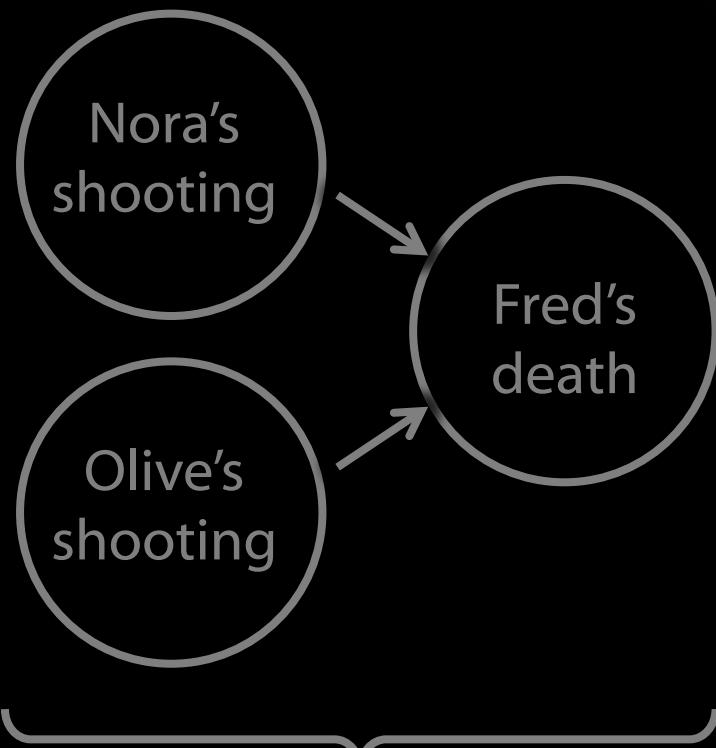
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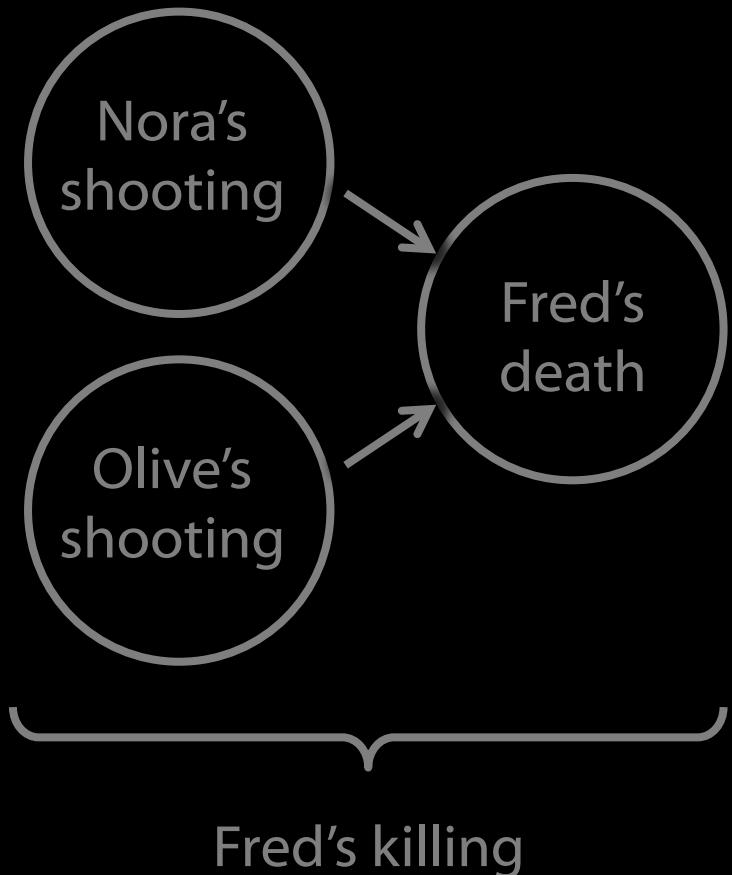
(Tomasello & Carpenter 2007)

pretending to row a boat
together



Fred's killing

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)

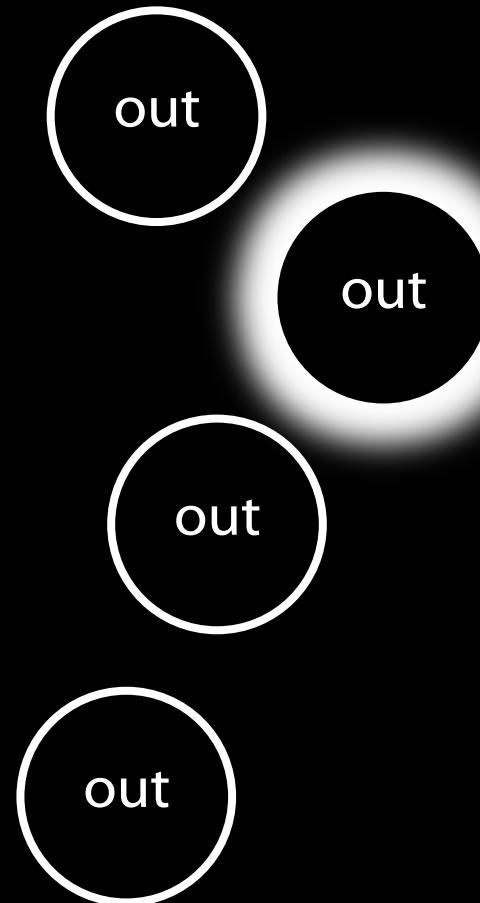
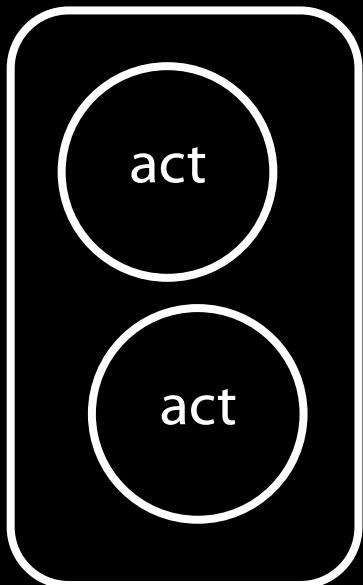
bouncing a ball on a large
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(Tomasello & Carpenter 2007)

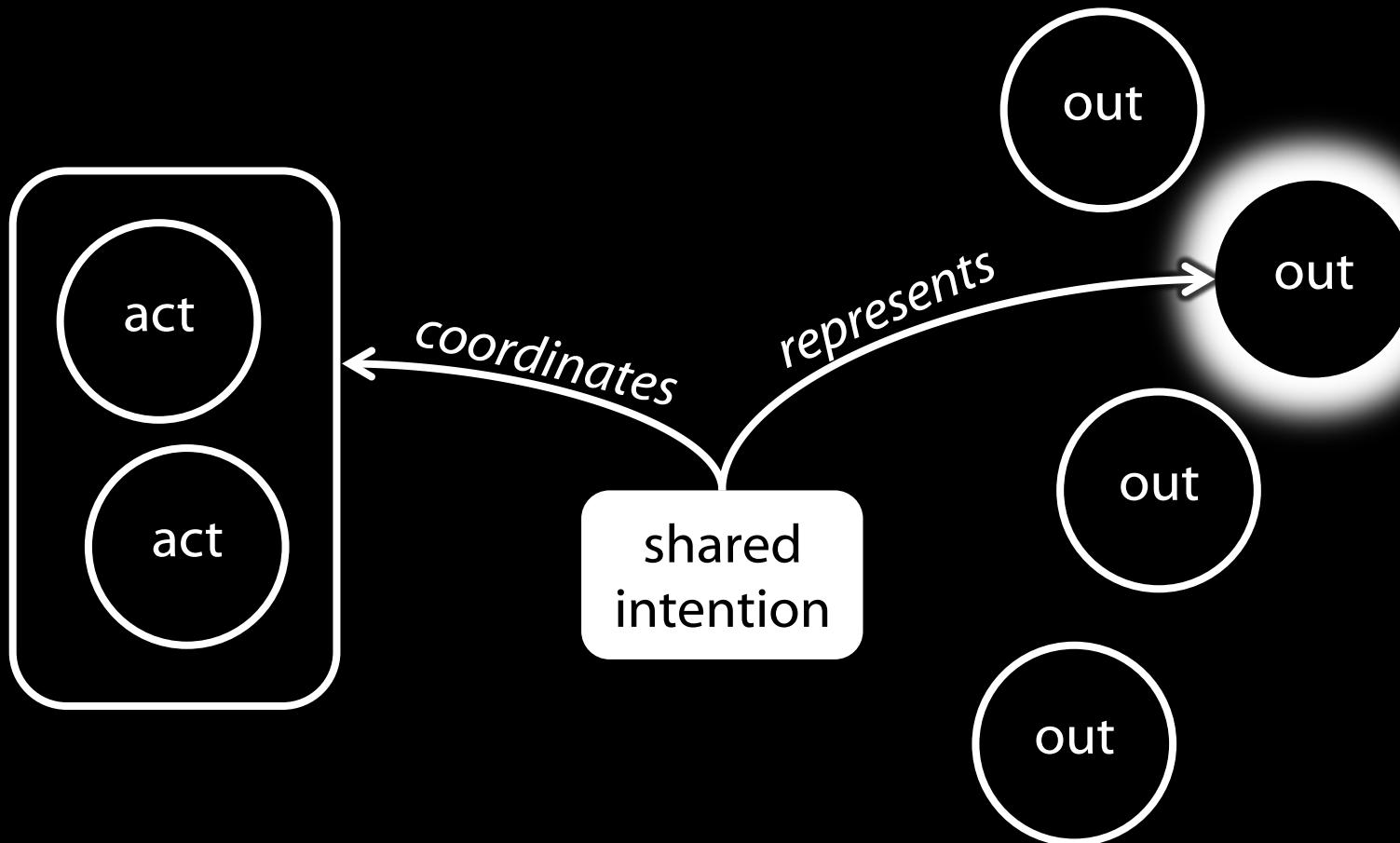
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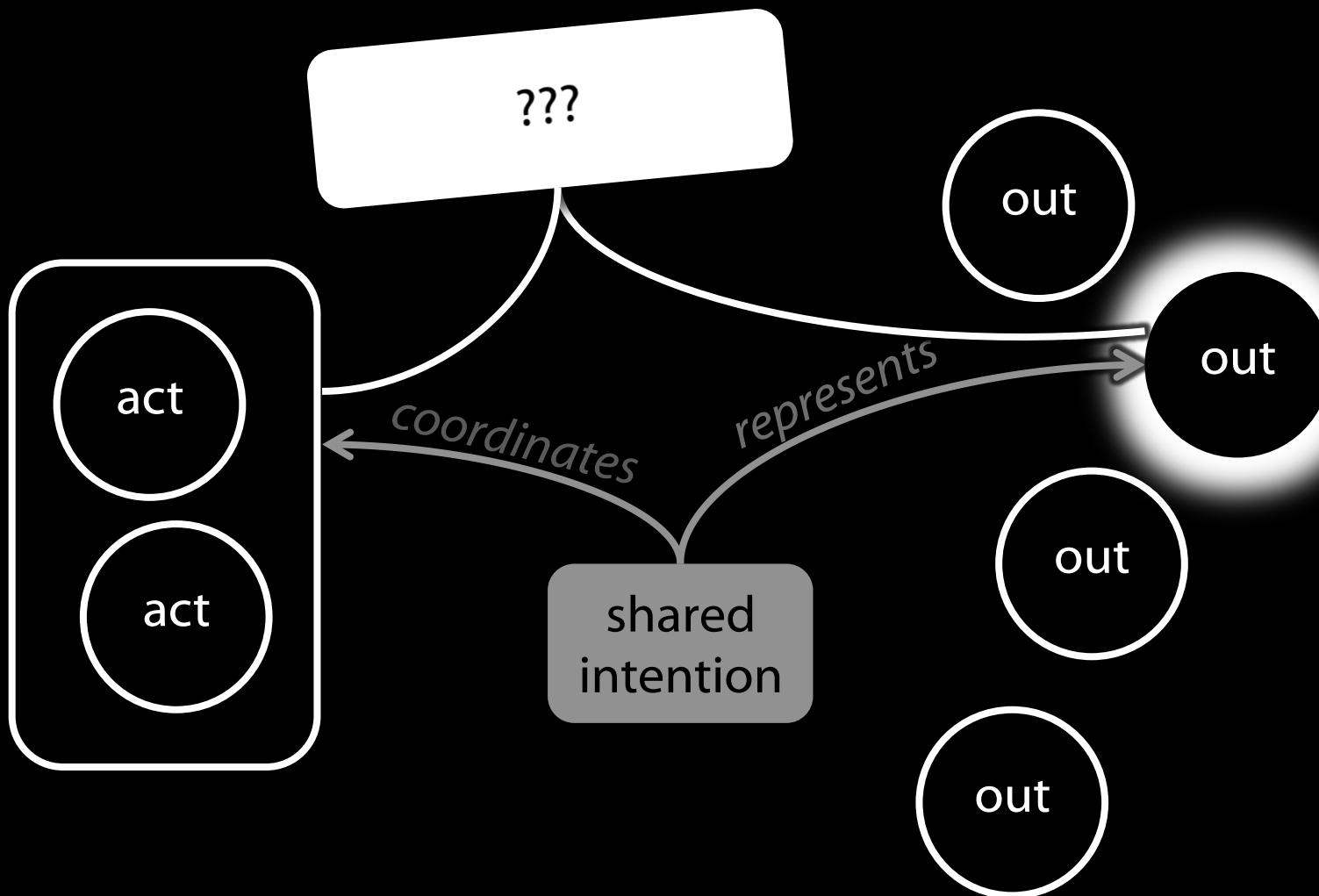
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G is a distributive goal: it is an outcome to which each agent's actions are individually directed and it is possible that all actions succeed relative to this outcome.

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.

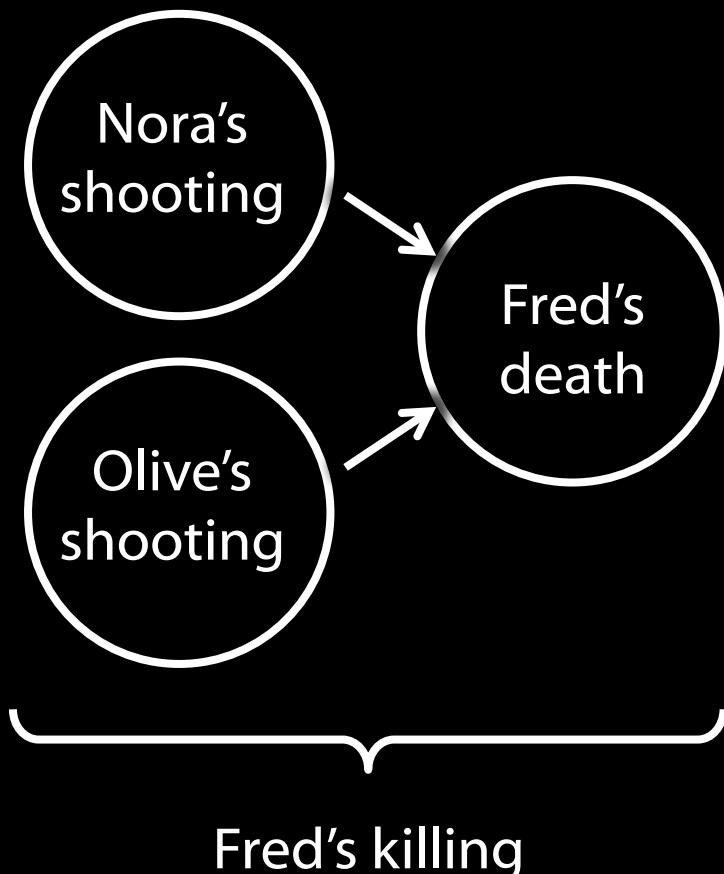
(Gilbert 1990)

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- (c) coordination of this type would normally facilitate occurrences of outcomes of this type.

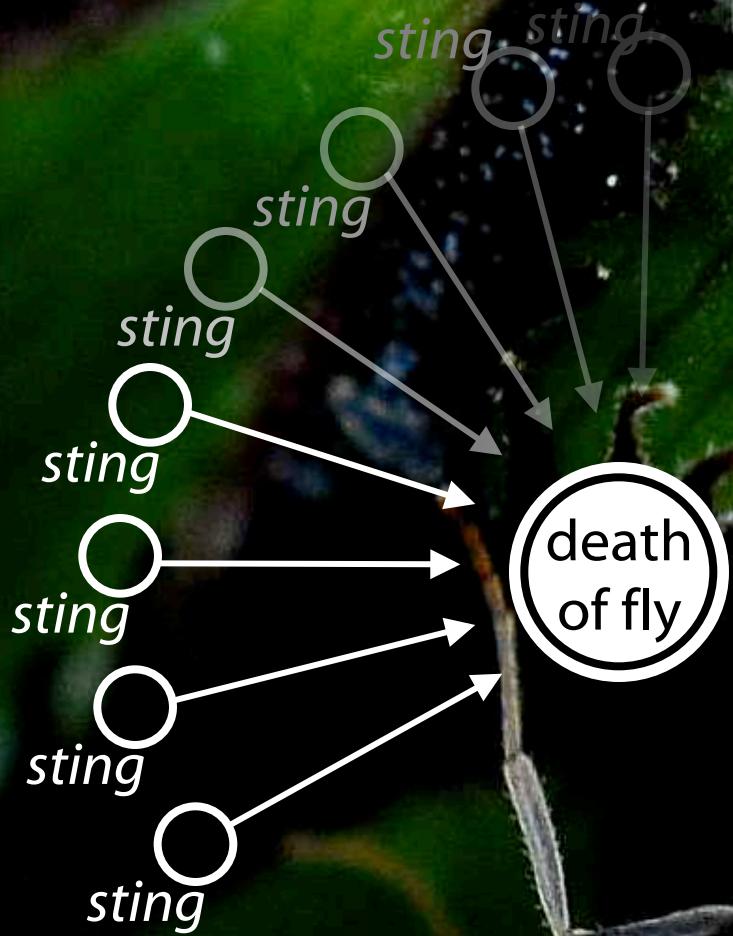
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(Pacherie & Dokic 2006, 110)

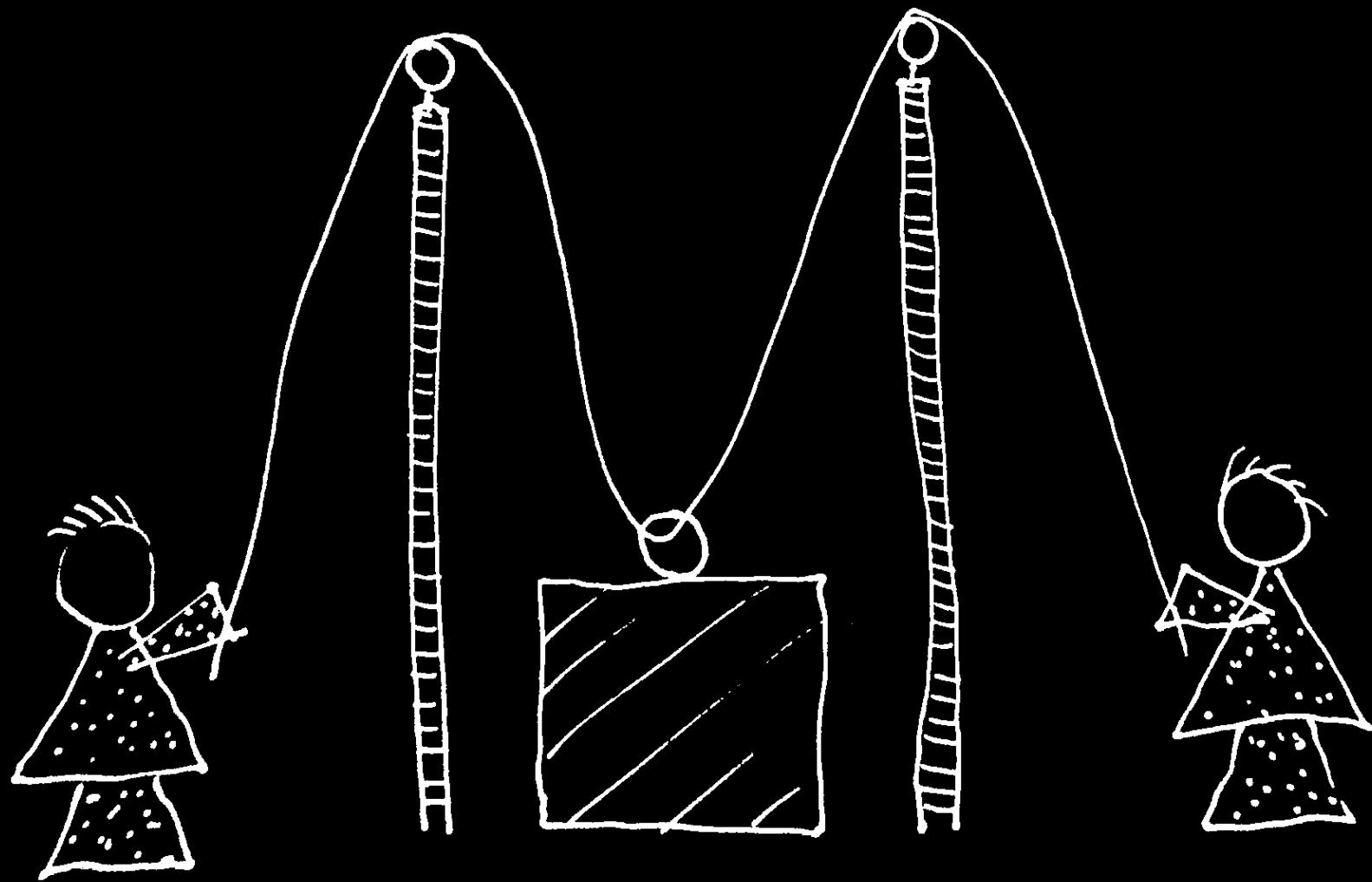
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death
of fly



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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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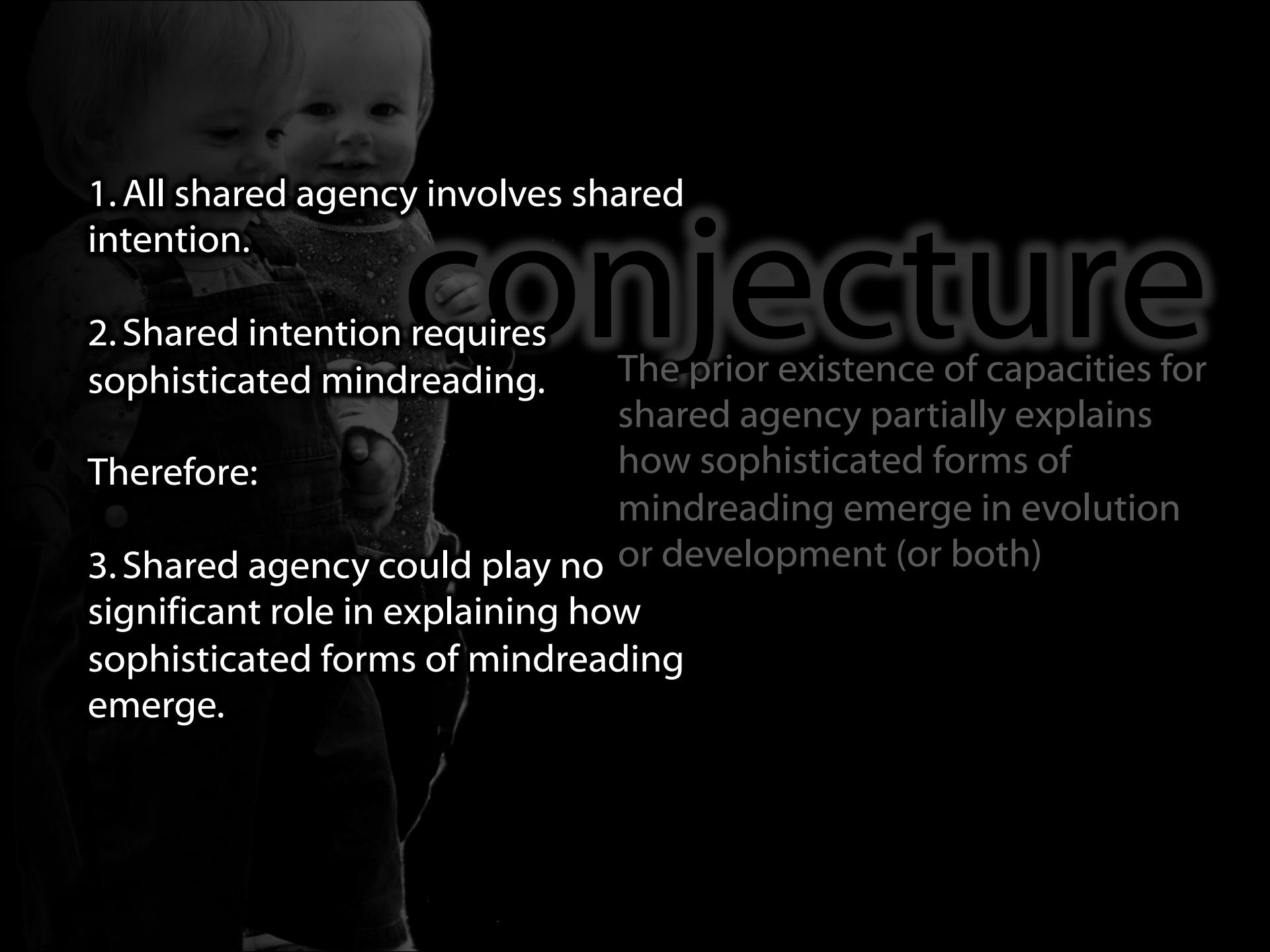
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A black and white photograph of two young children, a boy and a girl, standing close together against a black background. The boy, on the left, is wearing overalls and has his arm around the girl. The girl, on the right, is wearing a patterned top. They are both looking towards the camera with slight smiles.

conjecture

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

A black and white photograph of a baby looking slightly to the right.

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)

A black and white photograph of two young children, a boy and a girl, standing close together and smiling. The boy is in the foreground, wearing overalls, and the girl is behind him, wearing a patterned top. They appear to be in a playful or happy mood.

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)

tidying up the toys together
(Behne et al 2005)

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