

Joint Action without Shared Intention

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a goal-directed action, or
something resembling one,
comprising two or more
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(Moll & Tomasello 2007)



"perception, action, and cognition are grounded in social interaction"
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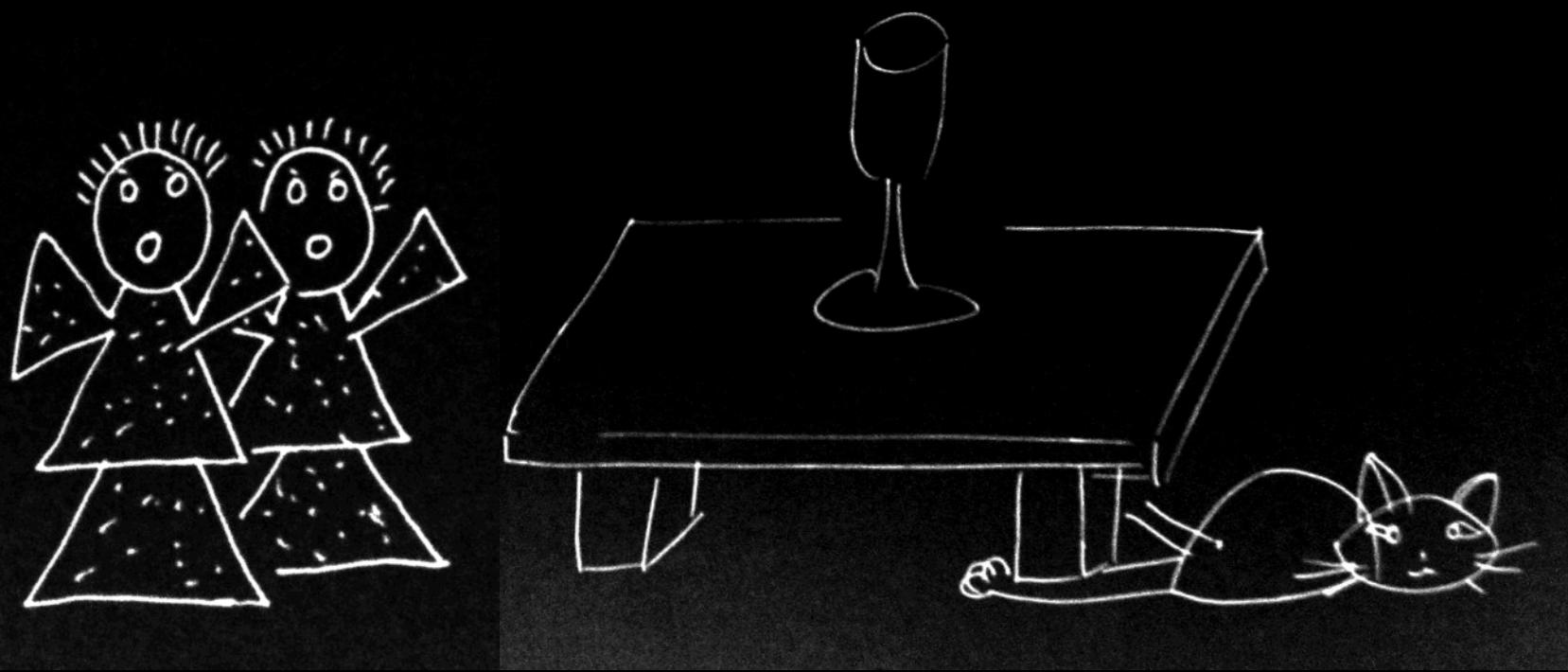
first
half



first
half
collective goals

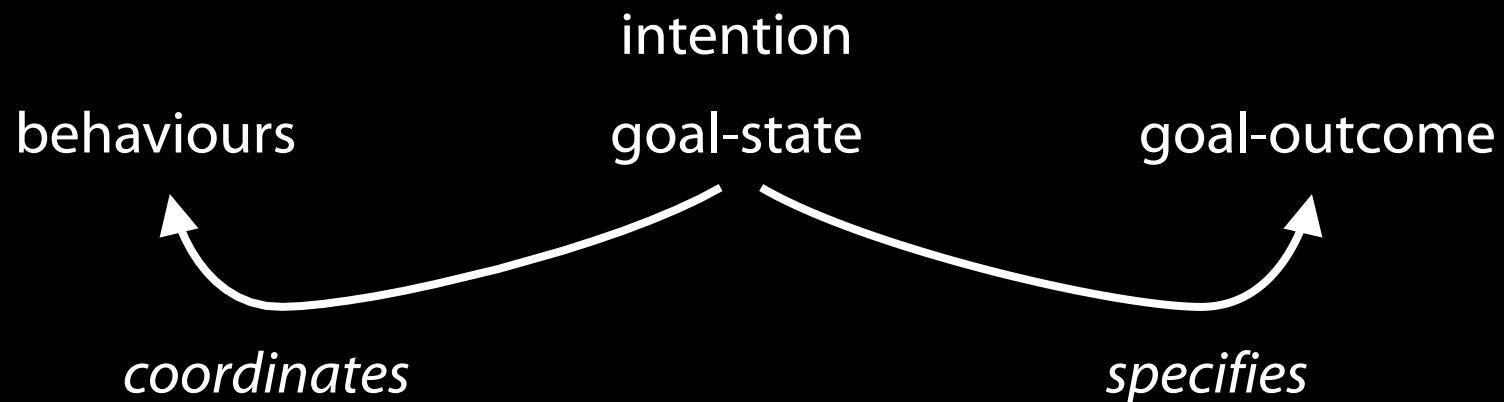
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a collective [shared] intention.'**



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

(Carpenter 2009, p. 381)

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**'Shared intentionality is the foundation upon which
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**'the key property of joint action lies in its internal
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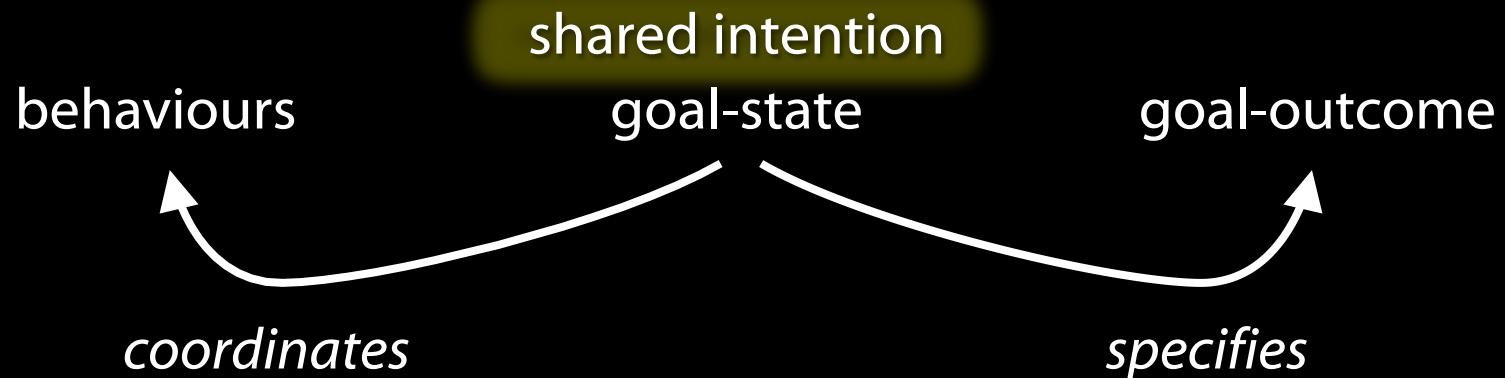
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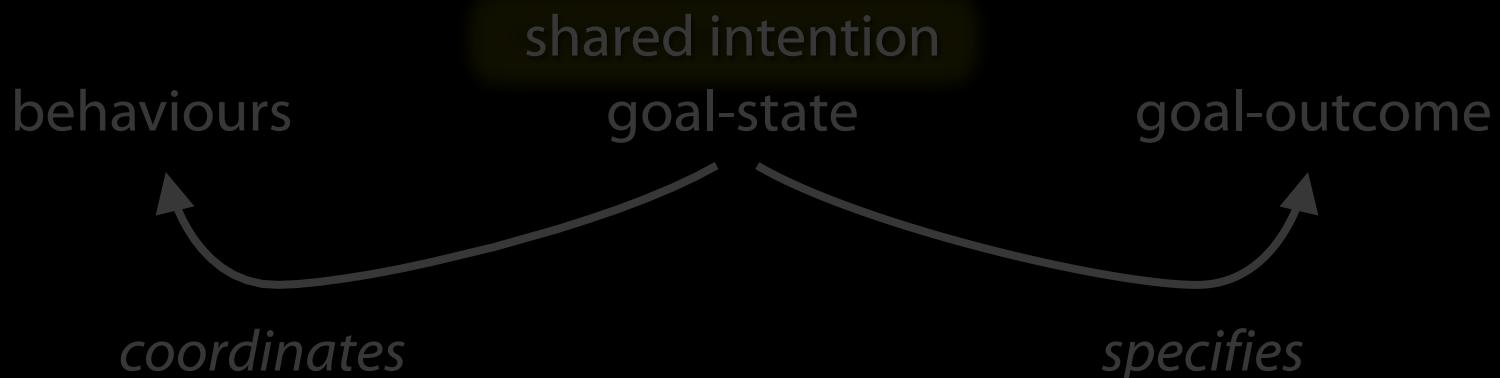
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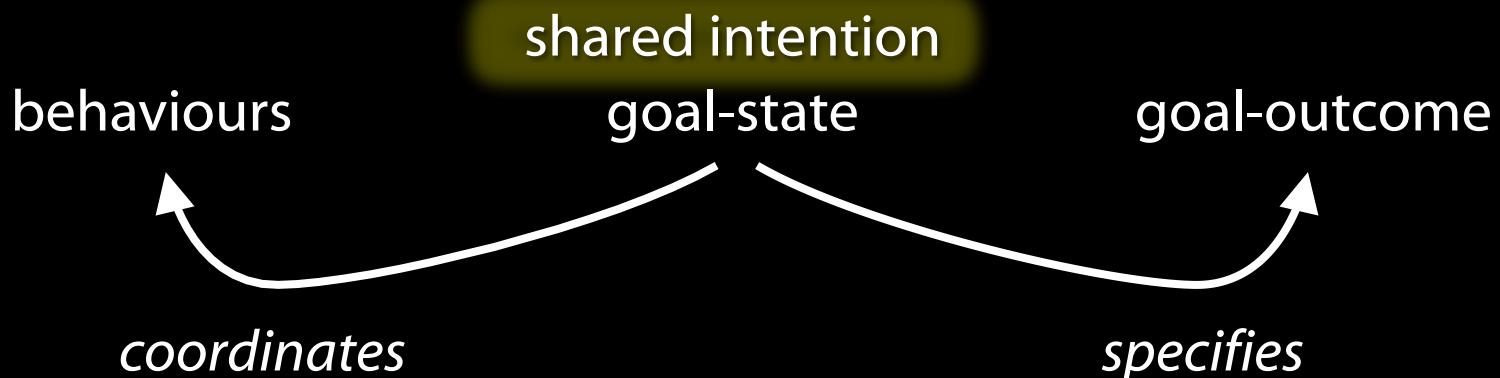
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- The goal of Ayesha and Beatrice's action is to free the cat.
- It is not true that Ayesha and Beatrice have a shared intention. Nor any other kind of shared goal-state.



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shared intention

awareness of joint-ness

at least one of the agents knows that they are not acting individually; she or they have 'a conception of themselves as contributors to a collective end.'

awareness of others' agency

at least one of the agents is aware of one or more of the others as an intentional agent.

awareness of others' states or commitments

at least one of the agents who are F-ing is aware of, or has individuating beliefs about, some of the others' intentions, beliefs or commitments concerning F.

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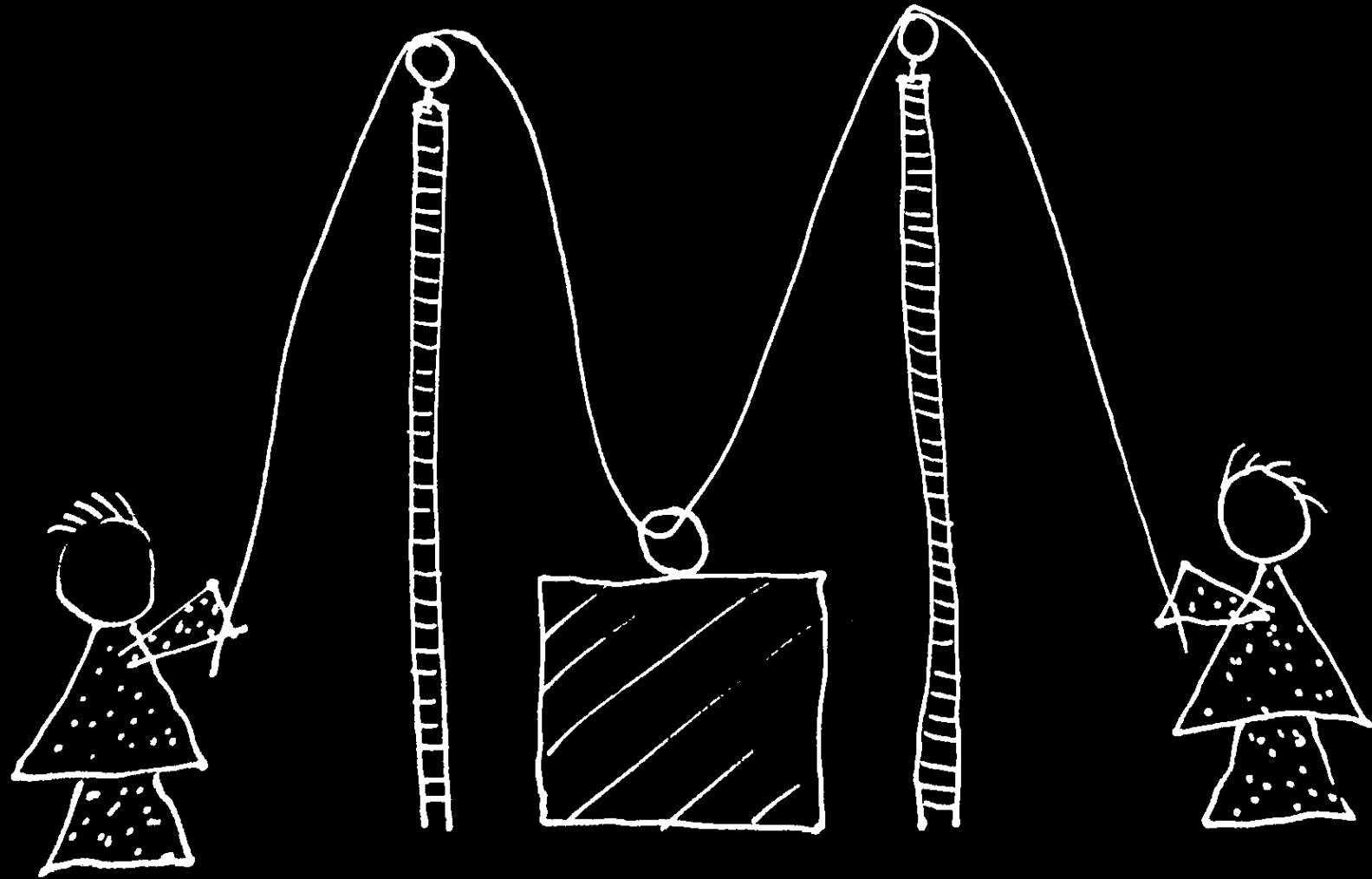
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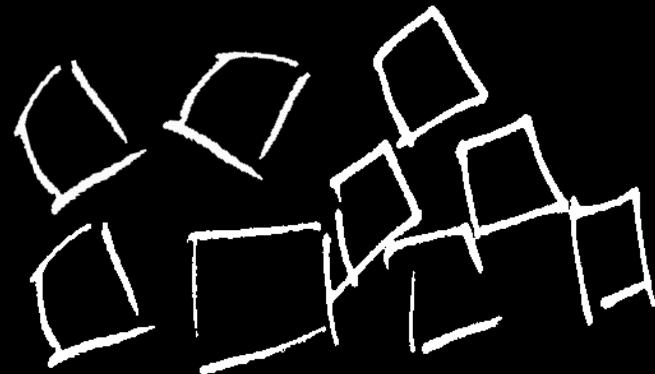
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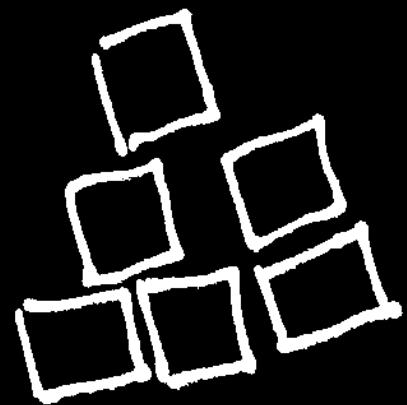
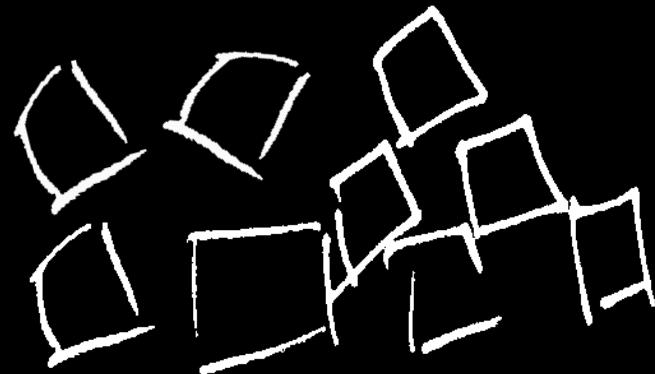
joint action without shared intention

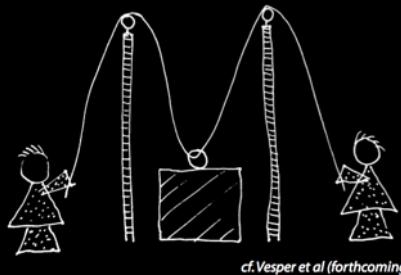


cf. Vesper et al, Neutal Networks (2010)









cf. Vesper et al (forthcoming)



How can we characterise the relation between joint actions and their goal-outcomes without invoking shared intentions?

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The agents' activities are coordinated.

The goal-outcome would normally occur partly as a consequence of this coordination, or would normally be partly constituted by it

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second
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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

Joint actions in children's second year involve ...

- abilities to switch roles
- sensitivity to others' mental states
Buttelmann, Carpenter et al (2009)
- dispositions to help partners
Warneken, Chen et al (2009)
- partner-specific projects
Liebal, Behne et al (2009)

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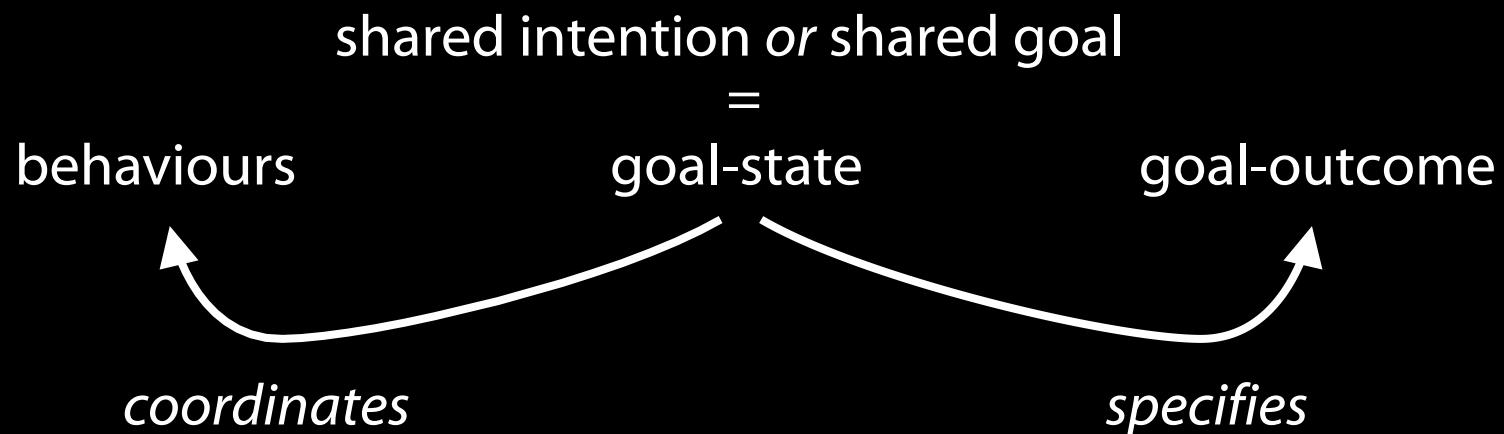
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Intentions are ...

- * attitudes to propositions
- * conclusions of practical reasoning
- * elements of plans
- * defined by norms of consistency

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Functional characterisation

Substantial account



Functional characterisation

shared intention serves to
(a) coordinate activities, (b)
coordinate planning and (c)
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“3. 1 and 2 are common
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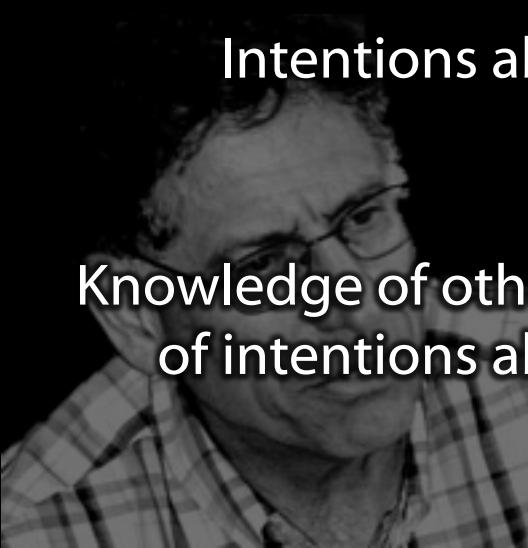
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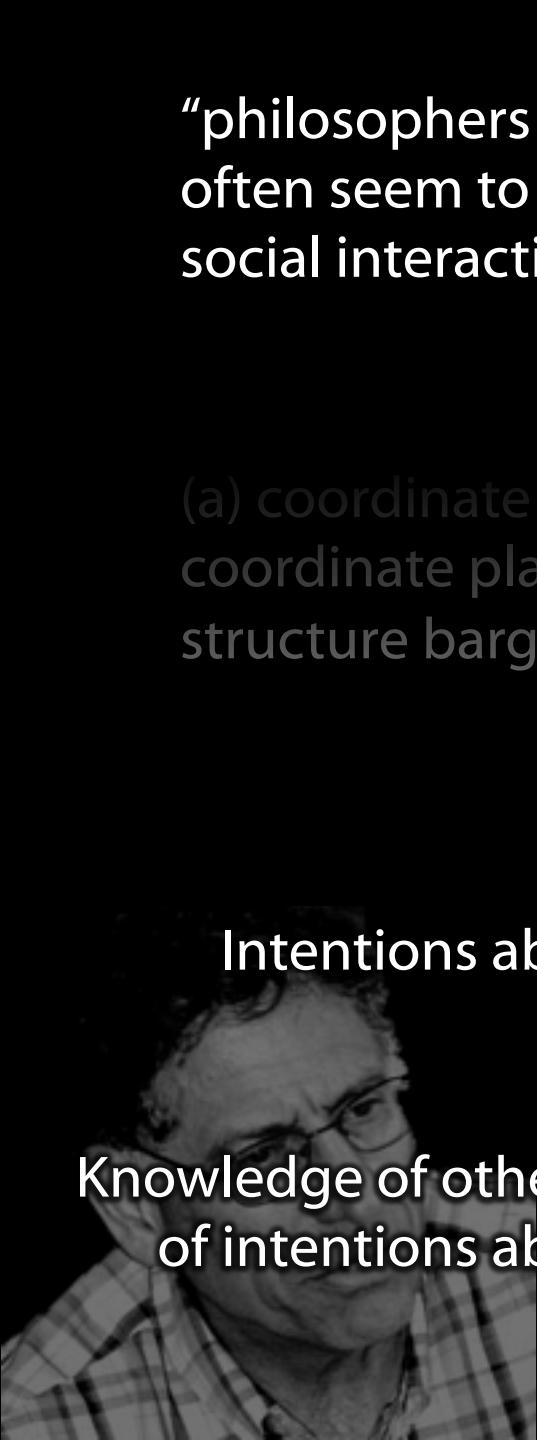
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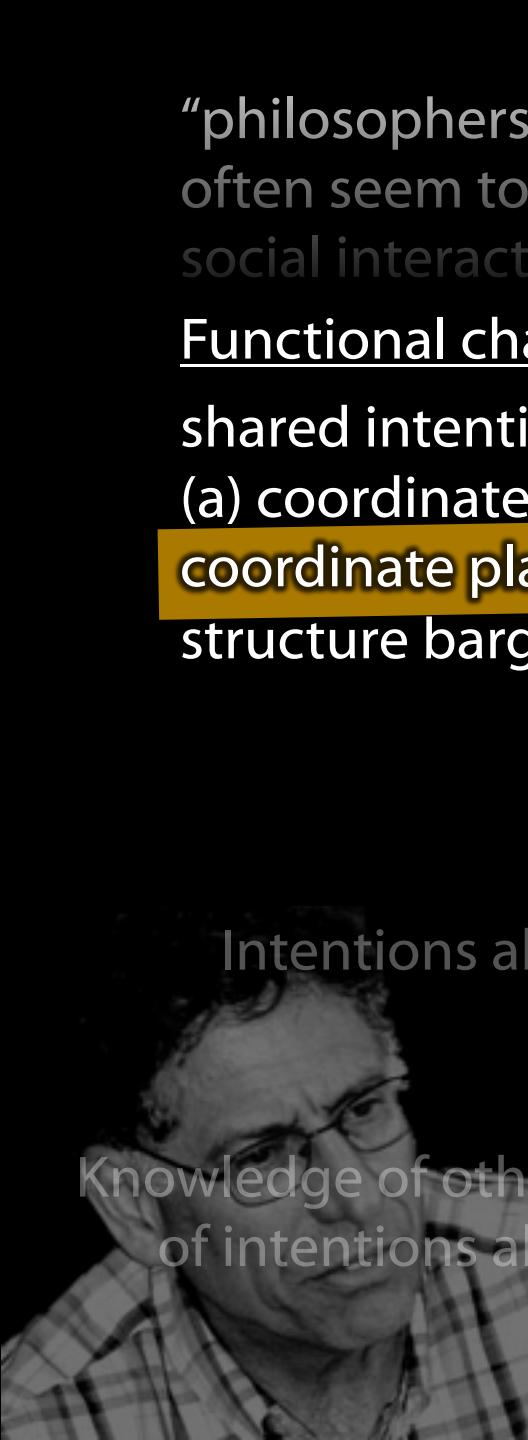
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collective goal

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shared intention

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application

“regular participation in cooperative, cultural interactions during ontogeny leads children to construct uniquely powerful forms of cognitive representation.”

(Moll & Tomasello 2006:2-3)

how does that work?

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(ibid.)

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not like this!

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The problem of opaque means

your-goal-is-my-goal

your-goal-is-my-goal

1. We are about to engage in some joint action* or other
2. I am not about to change my goal.

Therefore:

3. Your actions also will be directed to this goal.

[*in the minimal sense associated with distributive goals]

understanding
goals

capacity to
share goals

understanding
communicative intent

failed reach



point



source: Hare & Tomasello (2004)

failed reach



point



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“to understand pointing, the subject needs to understand more than the individual goal-directed behaviour. She needs to understand that ... the other attempts to communicate to her ... and ... the communicative intention behind the gesture”

(Moll & Tomasello 2007)

failed reach



point



source: Hare & Tomasello (2004)



source: Leekam et al (2010)

"the adult's social cues conveyed her communicative intent, which in turn encouraged the child to 'see through the sign'."

(Leekam, Solomon & Teoh 2010:118)



source: Leekam et al (2010)

understanding
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'Ayesha and Beatrice
between them lifted the
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'Ayesha and Beatrice
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'Left Leg and Right Leg
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'Ayesha and Beatrice
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Contrast with Csibra

Teleological and referential action interpretation “rely on different kinds of action understanding”

...

they are initially two distinct “action interpretation systems”

(Csibra, 2003:546)

“referential expectation may also originate from conceiving gaze shifts as communicative acts”

(Csibra, 2003)

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Human social cognition, including full-blown theory of mind cognition, is built on capacities for joint action and their exercise.

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Objections

1. Full-blown theory of mind cognition comes before joint action
2. Joint action presupposes full-blown theory of mind cognition

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~~third
half~~ part

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Intentions about intentions

Knowledge of others' knowledge
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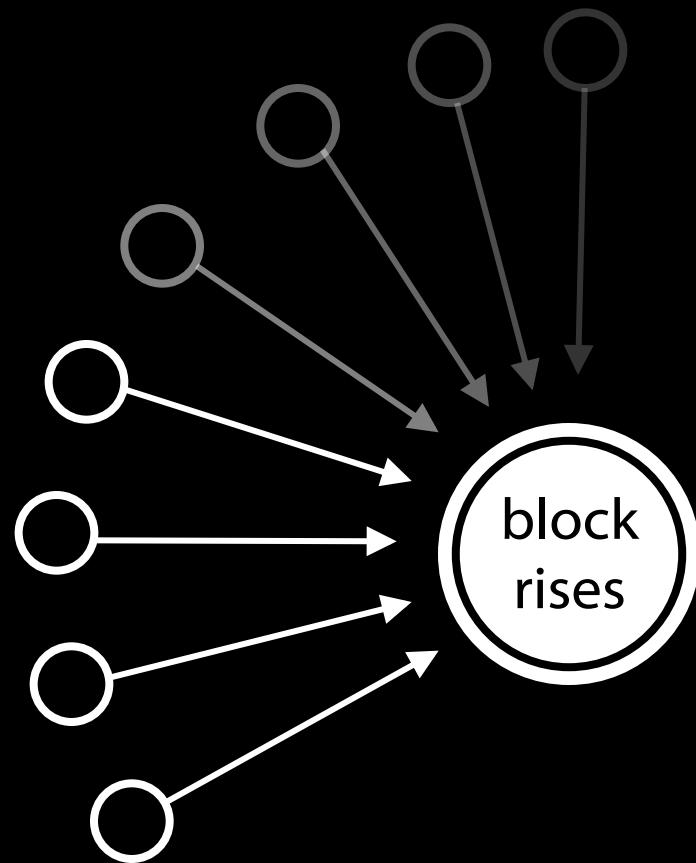
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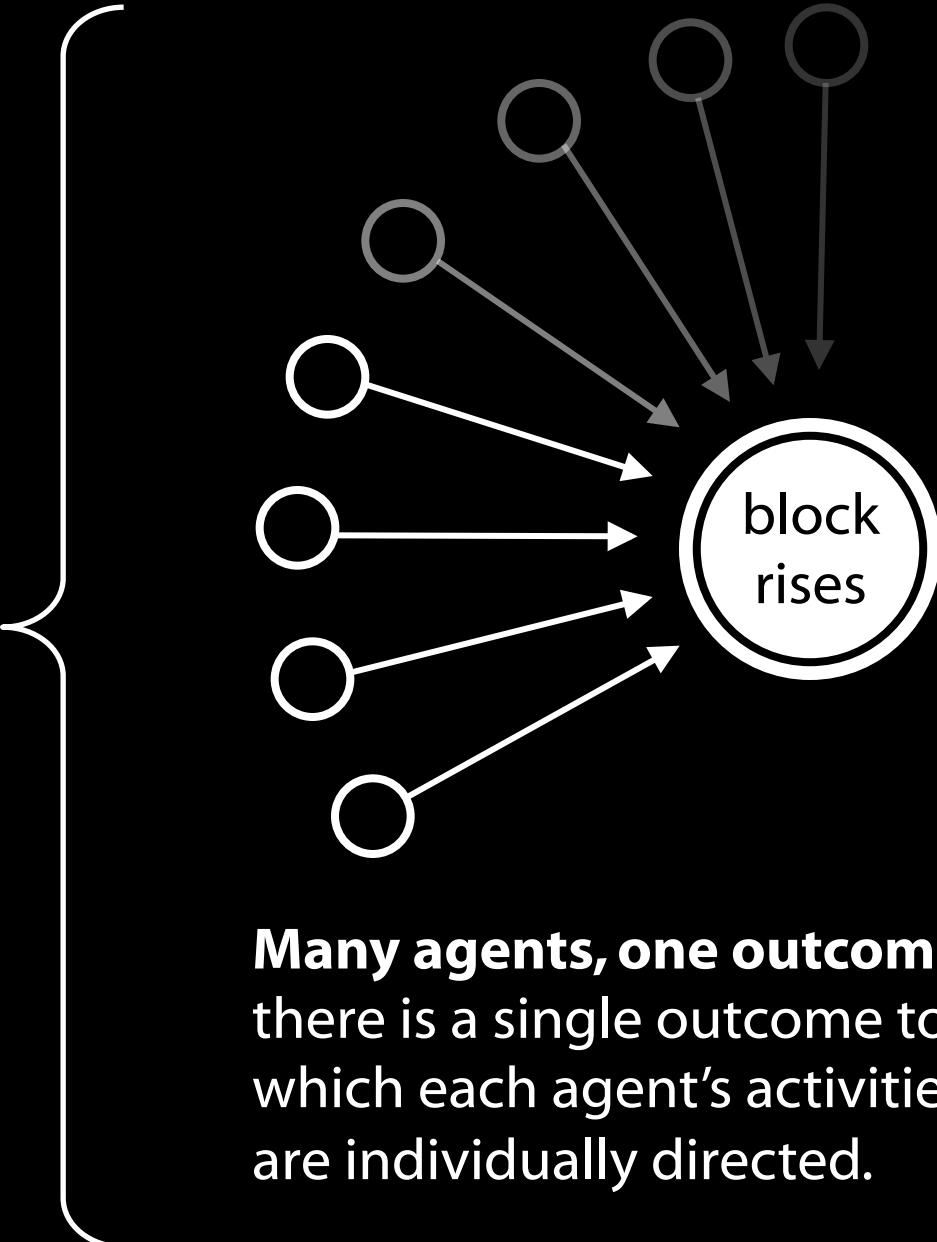
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distributive goal



joint action

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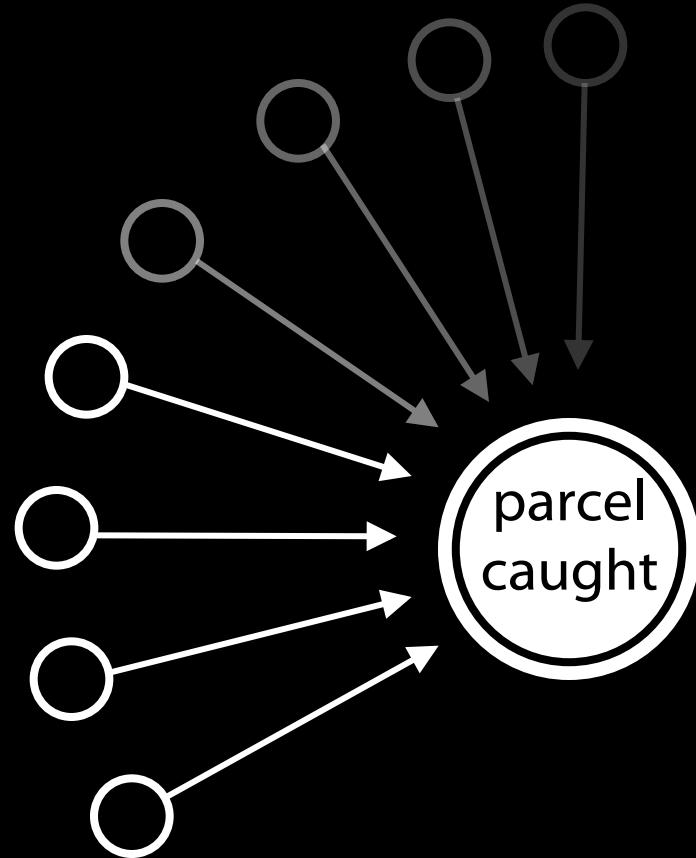
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[*could be weakened]

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table'

'Left Leg and Right Leg
between them supported
the table'

'Ayesha and Beatrice
between them lifted the
table intentionally'



'Ayesha and Beatrice
between them lifted the
table'

'Left Leg and Right Leg
between them supported
the table'



'Ayesha and Beatrice
between them lifted the
table intentionally'