

Understanding Empathy:

Metaphysical starting assumptions in the modeling of
empathy and emotions

Joel Parthemore

Visiting researcher

Dept. of Cognitive Neuroscience and Philosophy, University of Skövde
Centre for Cognitive Semiotics, University of Lund

16 December 2016

Outline

Understanding
Empathy

Joel Parthemore

Empathy: Theme and variations

Empathy:
Theme and
variations

Theory of mind, and the alternatives

Theory of mind,
and the
alternatives

Modeling empathy and emotions

Modeling
empathy and
emotions

Conclusions

Conclusions

Sympathy vs. empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

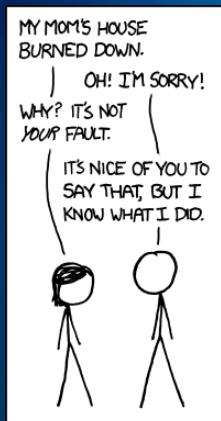
Modeling
empathy and
emotions

Conclusions

Sympathy vs. empathy

Understanding
Empathy

Joel Parthemore



IT ANNOYS ME WHEN PEOPLE
INTERPRET AN OBVIOUSLY
SYMPATHETIC "I'M SORRY" AS
AN APOLOGY, SO I'VE STARTED
RESPONDING BY MAKING IT ONE.

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

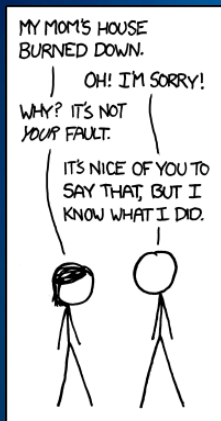
Modeling
empathy and
emotions

Conclusions

Sympathy vs. empathy

Understanding
Empathy

Joel Parthemore



IT ANNOYS ME WHEN PEOPLE
INTERPRET AN OBVIOUSLY
SYMPATHETIC "I'M SORRY" AS
AN APOLOGY, SO I'VE STARTED
RESPONDING BY MAKING IT ONE.

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Sympathy vs. empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

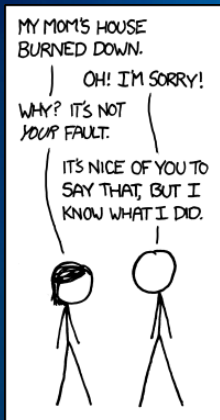
Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Definition

Sympathy: showing awareness of and consideration for the mental states of another, particularly when they are going through hard times.



IT ANNOYS ME WHEN PEOPLE
INTERPRET AN OBVIOUSLY
SYMPATHETIC "I'M SORRY" AS
AN APOLOGY, SO I'VE STARTED
RESPONDING BY MAKING IT ONE.

Sympathy vs. empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

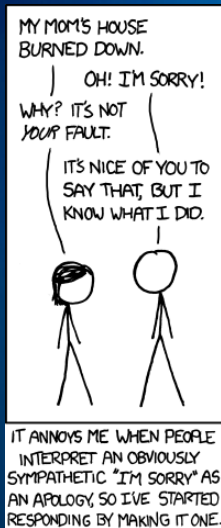
Modeling
empathy and
emotions

Conclusions

Definition

Sympathy: showing awareness of and consideration for the mental states of another, particularly when they are going through hard times.

- ▶ An emotional response to a (usually strong) emotional state.



Sympathy vs. empathy

Understanding
Empathy

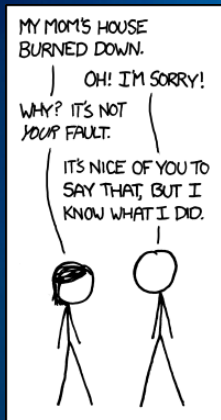
Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



IT ANNOYS ME WHEN PEOPLE
INTERPRET AN OBVIOUSLY
SYMPATHETIC "I'M SORRY" AS
AN APOLOGY, SO I'VE STARTED
RESPONDING BY MAKING IT ONE.

Definition

Sympathy: showing awareness of and consideration for the mental states of another, particularly when they are going through hard times.

- ▶ An emotional response to a (usually strong) emotional state.

Definition

Empathy: feeling that you are experiencing what the other person is feeling.

- ▶ Need not be in the same emotional state.

Sympathy vs. empathy

Understanding
Empathy

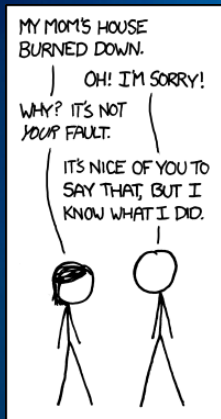
Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



IT ANNOYS ME WHEN PEOPLE
INTERPRET AN OBVIOUSLY
SYMPATHETIC "I'M SORRY" AS
AN APOLOGY, SO I'VE STARTED
RESPONDING BY MAKING IT ONE.

Definition

Sympathy: showing awareness of and consideration for the mental states of another, particularly when they are going through hard times.

- ▶ An emotional response to a (usually strong) emotional state.

Definition

Empathy: feeling that you are experiencing what the other person is feeling.

- ▶ Need not be in the same emotional state.
- ▶ Sometimes treated explicitly as being like mind reading or telepathy.

Other related phenomena

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Other related phenomena

Definition

Emotional contagion. “Catching” an emotion like catching a cold.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Other related phenomena

Definition

Emotional contagion. “Catching” an emotion like catching a cold.

- ▶ Absolutely no requirement to understand what it's all about.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Other related phenomena

Understanding
Empathy

Joel Parthemore

Definition

Emotional contagion. “Catching” an emotion like catching a cold.

- ▶ Absolutely no requirement to understand what it's all about.
- ▶ Can be all but completely disconnected from the originating individual(s).

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Other related phenomena

Understanding
Empathy

Joel Parthemore

Definition

Emotional contagion. “Catching” an emotion like catching a cold.

- ▶ Absolutely no requirement to understand what it's all about.
- ▶ Can be all but completely disconnected from the originating individual(s).

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Definition

Emotional sharing. Being in the same context perturbed by the same motivating forces.

Other related phenomena

Understanding
Empathy

Joel Parthemore

Definition

Emotional contagion. “Catching” an emotion like catching a cold.

- ▶ Absolutely no requirement to understand what it's all about.
- ▶ Can be all but completely disconnected from the originating individual(s).

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Definition

Emotional sharing. Being in the same context perturbed by the same motivating forces.

- ▶ Stereotypical example: funeral, sporting event.

Failures in empathy



Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Failures in empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



Failures in empathy

- ▶ Sociopaths and psychopaths.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Failures in empathy

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Failures in empathy

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Failures in empathy

Understanding
Empathy

Joel Parthemore

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.
 - ▶ Intriguing suggestion that empathy may be trainable.

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Failures in empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.
 - ▶ Intriguing suggestion that empathy may be trainable.
- ▶ Autism spectrum disorder and Asperger’s syndrome.

Failures in empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.
 - ▶ Intriguing suggestion that empathy may be trainable.
- ▶ Autism spectrum disorder and Asperger’s syndrome.
 - ▶ Likewise appear unaware of the significance of social cues.

Failures in empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.
 - ▶ Intriguing suggestion that empathy may be trainable.
- ▶ Autism spectrum disorder and Asperger’s syndrome.
 - ▶ Likewise appear unaware of the significance of social cues.
 - ▶ Recent research suggesting that autists may not be insensitive to others’ emotional states but *overly sensitive* to them.

Failures in empathy

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

- ▶ Sociopaths and psychopaths.
 - ▶ Some research from 2013 that they can switch it on and off at will.
 - ▶ Some significant evidence that they may well have well-developed *involuntary* empathic responses but that the empathic responses are not the “right” ones.
 - ▶ Intriguing suggestion that empathy may be trainable.
- ▶ Autism spectrum disorder and Asperger’s syndrome.
 - ▶ Likewise appear unaware of the significance of social cues.
 - ▶ Recent research suggesting that autists may not be insensitive to others’ emotional states but *overly sensitive* to them.
 - ▶ Enactivists are inclined to view autists as instances of cognitive diversity rather than intrinsic disorder.

Theory of mind

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.
 - ▶ Proponents of theory theory take that quite literally.

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.
 - ▶ Proponents of theory theory take that quite literally.
 - ▶ Simulationists do not.

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.
 - ▶ Proponents of theory theory take that quite literally.
 - ▶ Simulationists do not.
- ▶ Attributed in young children through the so-called *false-belief task*.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.
 - ▶ Proponents of theory theory take that quite literally.
 - ▶ Simulationists do not.
- ▶ Attributed in young children through the so-called *false-belief task*.
- ▶ Reliably established in most children by age four.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Theory of mind

- ▶ Often understood to be the necessary foundation to empathy and related phenomena.

Definition

The capacity to attribute beliefs, desires, intentions, motivations, knowledge, etc. to oneself and others – correctly – and to understand and anticipate that the perspective of others will often differ from one's own.

- ▶ Implication that one understands others through being able to *theorize* – i.e., form theories – about their minds.
 - ▶ Proponents of theory theory take that quite literally.
 - ▶ Simulationists do not.
- ▶ Attributed in young children through the so-called *false-belief task*.
- ▶ Reliably established in most children by age four.
- ▶ Appears to be lacking in a majority cohort of similarly aged children diagnosed as autistic.

Dan Zahavi

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Dan Zahavi

The theory-theory of mind and the simulation theory of mind both deny that it is possible to experience other minds, both presuppose the fundamental opacity or invisibility of other minds.... Both accounts consequently share the view that the minds of others are concealed and hidden, and they consider one of the main challenges facing a theory of social cognition to be the question of how and why we ascribe such hidden mental entities or processes to certain publicly observable bodies.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Dan Zahavi

The theory-theory of mind and the simulation theory of mind both deny that it is possible to experience other minds, both presuppose the fundamental opacity or invisibility of other minds.... Both accounts consequently share the view that the minds of others are concealed and hidden, and they consider one of the main challenges facing a theory of social cognition to be the question of how and why we ascribe such hidden mental entities or processes to certain publicly observable bodies.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Dan Zahavi

Understanding
Empathy

Joel Parthemore

The theory-theory of mind and the simulation theory of mind both deny that it is possible to experience other minds, both presuppose the fundamental opacity or invisibility of other minds.... Both accounts consequently share the view that the minds of others are concealed and hidden, and they consider one of the main challenges facing a theory of social cognition to be the question of how and why we ascribe such hidden mental entities or processes to certain publicly observable bodies.

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

*When claiming that we are able to **experience** others, and as a consequence do not exclusively have to rely on and employ inferences, imitations or projections, this is not meant to entail that we can experience the other in precisely the same way as she herself does, nor that the other's consciousness is accessible to us in precisely the same way as our own is. . . . It is precisely because of this difference, precisely because of this asymmetry, that we can claim that the minds we experience are other minds. As Husserl points out, had I had the same access to the consciousness of the other as I have to my own, the other would cease being an other and would instead become a part of myself.*

What exactly is being claimed here?

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What exactly is being claimed here?

- ▶ The negative view:

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.
- ▶ The positive view:

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.
- ▶ The positive view:
 - ▶ There is an experience of the emotional and cognitive states of others that is *direct, unmediated, and non-inferential*.

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.
- ▶ The positive view:
 - ▶ There is an experience of the emotional and cognitive states of others that is *direct, unmediated, and non-inferential*.
 - ▶ Like and unlike other perceptual modalities.

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.
- ▶ The positive view:
 - ▶ There is an experience of the emotional and cognitive states of others that is *direct, unmediated, and non-inferential*.
 - ▶ Like and unlike other perceptual modalities.
 - ▶ Maintains a view of the individual that remains essentially isolated.

What exactly is being claimed here?

- ▶ The negative view:
 - ▶ Not rejecting ToM but assigning it a more peripheral as opposed to foundational role.
 - ▶ Understanding others emotionally and cognitively does not proceed from ToM but *vice versa*.
- ▶ The positive view:
 - ▶ There is an experience of the emotional and cognitive states of others that is *direct, unmediated, and non-inferential*.
 - ▶ Like and unlike other perceptual modalities.
 - ▶ Maintains a view of the individual that remains essentially isolated.

Hypothesis: There are certain intense experiences – call them *extreme empathy* – where there is a single joint experience among two or more individuals.

Rethinking personhood

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ *Extended-mind hypothesis* (Clark and Chalmers).

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ *Extended-mind hypothesis* (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ ***Extended-mind hypothesis*** (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”
 - ▶ 2008: “[Human beings are] profoundly embodied agents... able constantly the negotiate and renegotiate the agent-world boundary itself.”

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ **Extended-mind hypothesis** (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”
 - ▶ 2008: “[Human beings are] profoundly embodied agents. . . able constantly to negotiate and renegotiate the agent-world boundary itself.”
- ▶ **Enactivism** (Maturana, Varela, Thompson, *et al.*).

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ **Extended-mind hypothesis** (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”
 - ▶ 2008: “[Human beings are] profoundly embodied agents. . . able constantly to negotiate and renegotiate the agent-world boundary itself.”
- ▶ **Enactivism** (Maturana, Varela, Thompson, *et al.*).
 - ▶ 1978: “Everything that is said, is said by an observer to another observer that could be himself.”

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ **Extended-mind hypothesis** (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”
 - ▶ 2008: “[Human beings are] profoundly embodied agents. . . able constantly to negotiate and renegotiate the agent-world boundary itself.”
- ▶ **Enactivism** (Maturana, Varela, Thompson, *et al.*).
 - ▶ 1978: “Everything that is said, is said by an observer to another observer that could be himself.”
 - ▶ 1992: “I have proposed using the term *enactive* to. . . evoke the idea that what is known is brought forth, in contraposition to the more classical views of either cognitivism or connectionism.”

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Rethinking personhood

- ▶ **Extended-mind hypothesis** (Clark and Chalmers).
 - ▶ 1998: “Where does the mind stop and the rest of the world begin?”
 - ▶ 2008: “[Human beings are] profoundly embodied agents. . . able constantly to negotiate and renegotiate the agent-world boundary itself.”
- ▶ **Enactivism** (Maturana, Varela, Thompson, *et al.*).
 - ▶ 1978: “Everything that is said, is said by an observer to another observer that could be himself.”
 - ▶ 1992: “I have proposed using the term *enactive* to. . . evoke the idea that what is known is brought forth, in contraposition to the more classical views of either cognitivism or connectionism.”
- ▶ **Perspectival dualism**: what we call “mental” and what we call “physical” are neither two ontologically different substances nor two ontologically distinct sets of property of a common substance but rather competing, complementary, mutually necessary, yet irreconcilable views on one and the same world.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What phenomenologically minded cognitive scientists *should* say

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.
- ▶ The view of human beings as isolated islands of consciousness is a modern Western conceit and should be recognized as such.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.
- ▶ The view of human beings as isolated islands of consciousness is a modern Western conceit and should be recognized as such.
- ▶ Agents viewed as biological entities have reasonably well-defined boundaries; the exact same agents viewed as cognitive entities do not!

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.
- ▶ The view of human beings as isolated islands of consciousness is a modern Western conceit and should be recognized as such.
- ▶ Agents viewed as biological entities have reasonably well-defined boundaries; the exact same agents viewed as cognitive entities do not!
- ▶ Sometimes the latter boundary drops out altogether. When?

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.
- ▶ The view of human beings as isolated islands of consciousness is a modern Western conceit and should be recognized as such.
- ▶ Agents viewed as biological entities have reasonably well-defined boundaries; the exact same agents viewed as cognitive entities do not!
- ▶ Sometimes the latter boundary drops out altogether. When?
 - ▶ Infant/caregiver dyad, *per* Joel Krueger: “from birth, some experiences are constitutively [non-reductively] social in that certain phenomenological states, such as the positive emotions that arise within these early exchanges, are jointly owned”.

What phenomenologically minded cognitive scientists *should* say

- ▶ Consciousness is only ever relatively private and never absolutely so.
- ▶ The view of human beings as isolated islands of consciousness is a modern Western conceit and should be recognized as such.
- ▶ Agents viewed as biological entities have reasonably well-defined boundaries; the exact same agents viewed as cognitive entities do not!
- ▶ Sometimes the latter boundary drops out altogether. When?
 - ▶ Infant/caregiver dyad, *per* Joel Krueger: “from birth, some experiences are constitutively [non-reductively] social in that certain phenomenological states, such as the positive emotions that arise within these early exchanges, are jointly owned”.
 - ▶ Other moments of emotionally intense, “shared” experience that are mistakenly labeled as instances of empathy.

My interests



Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



My interests

- ▶ More epistemological than ontological.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.
- ▶ Argue for the importance of combining “top-down” with “bottom-up” approaches as essential to arriving at any theoretically adequate understanding.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.
- ▶ Argue for the importance of combining “top-down” with “bottom-up” approaches as essential to arriving at any theoretically adequate understanding.
- ▶ Ontological commitments:

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.
- ▶ Argue for the importance of combining “top-down” with “bottom-up” approaches as essential to arriving at any theoretically adequate understanding.
- ▶ Ontological commitments:
 - ▶ Emotions are evolutionarily ancient.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.
- ▶ Argue for the importance of combining “top-down” with “bottom-up” approaches as essential to arriving at any theoretically adequate understanding.
- ▶ Ontological commitments:
 - ▶ Emotions are evolutionarily ancient.
 - ▶ They are tied up with our existence as living organisms.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My interests

- ▶ More epistemological than ontological.
- ▶ Interested in both how we currently do, and how we most usefully can, model these things conceptually, both as researchers and as lay persons.
- ▶ Argue for the importance of combining “top-down” with “bottom-up” approaches as essential to arriving at any theoretically adequate understanding.
- ▶ Ontological commitments:
 - ▶ Emotions are evolutionarily ancient.
 - ▶ They are tied up with our existence as living organisms.
 - ▶ They serve as part of the necessary foundation to rational thought, “higher-level” cognition, and consciousness.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.
 - ▶ No reason in principle the same algorithm can't be used in a bottom-up, exploratory manner.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.
 - ▶ No reason in principle the same algorithm can't be used in a bottom-up, exploratory manner.
- ▶ Bottom-up: “SEER-3” robotic platform.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.
 - ▶ No reason in principle the same algorithm can't be used in a bottom-up, exploratory manner.
- ▶ Bottom-up: “SEER-3” robotic platform.
 - ▶ Modeling the non-conceptual content of visual experience.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.
 - ▶ No reason in principle the same algorithm can't be used in a bottom-up, exploratory manner.
- ▶ Bottom-up: “SEER-3” robotic platform.
 - ▶ Modeling the non-conceptual content of visual experience.
 - ▶ Robot looks around and gradually builds up a 2D model of its environment.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

My empirical research

- ▶ Top-down: “Charley” mind-mapping software.
 - ▶ Direct translation of the theory of concepts from my doctoral thesis into software form.
 - ▶ Theory offers a specific algorithm that all concepts are meant to follow.
 - ▶ No reason in principle the same algorithm can't be used in a bottom-up, exploratory manner.
- ▶ Bottom-up: “SEER-3” robotic platform.
 - ▶ Modeling the non-conceptual content of visual experience.
 - ▶ Robot looks around and gradually builds up a 2D model of its environment.
 - ▶ Includes model of foveal/non-foveal/peripheral vision, memory fading, movement detection, etc.

Understanding
Empathy

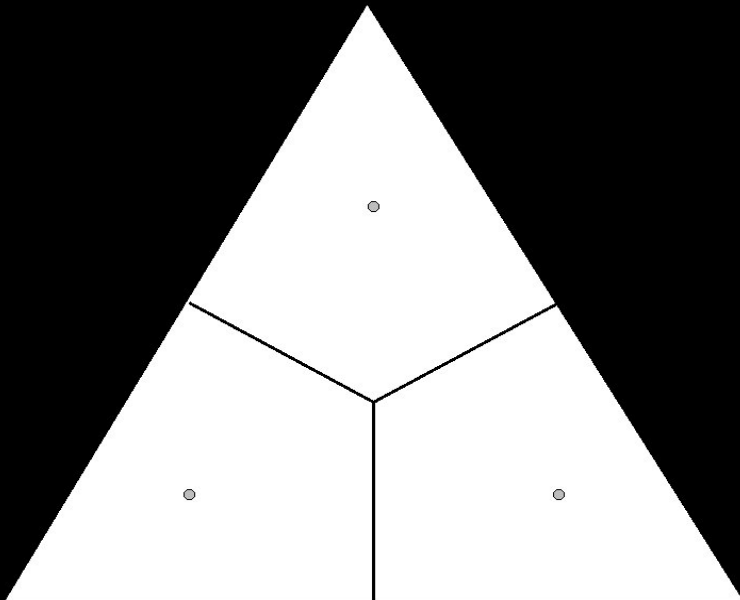
Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



Understanding Empathy

Joel Parthemore

Empathy:
Theme and variations

Theory of mind,
and the alternatives

Modeling
empathy and emotions

Conclusions

Understanding Empathy

Joel Parthemore

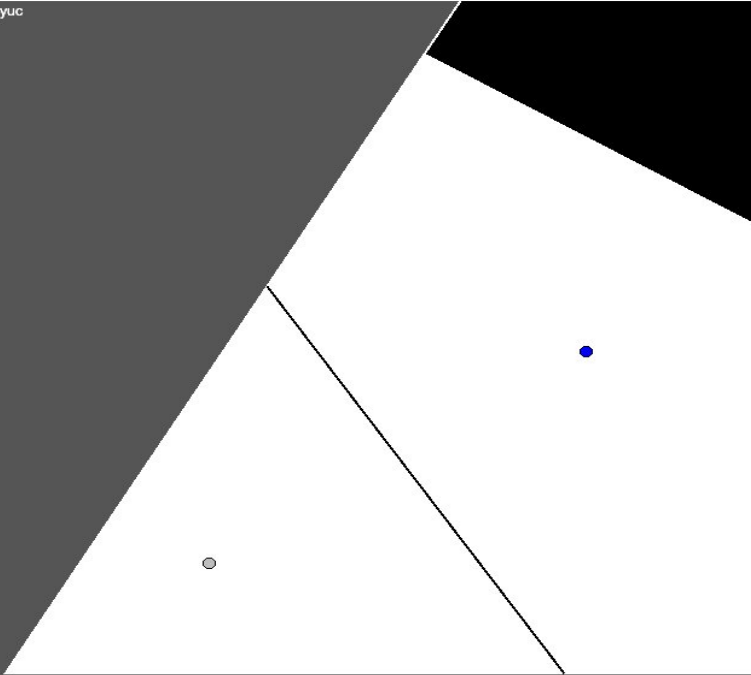
Empathy:
Theme and
variations

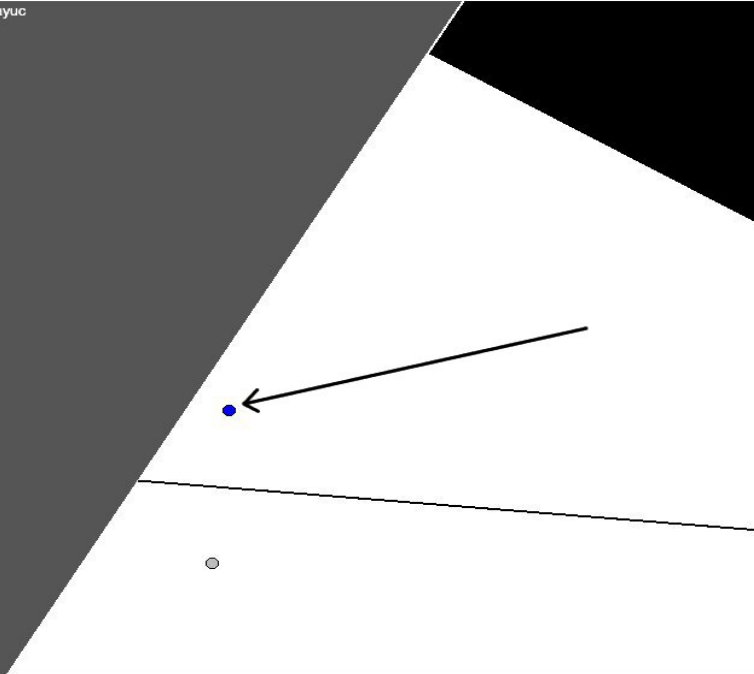
Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions





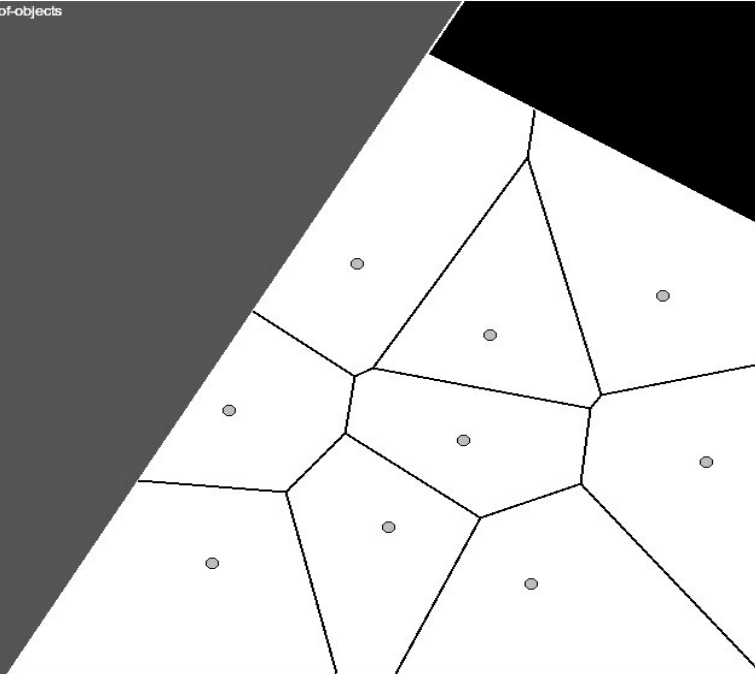


Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

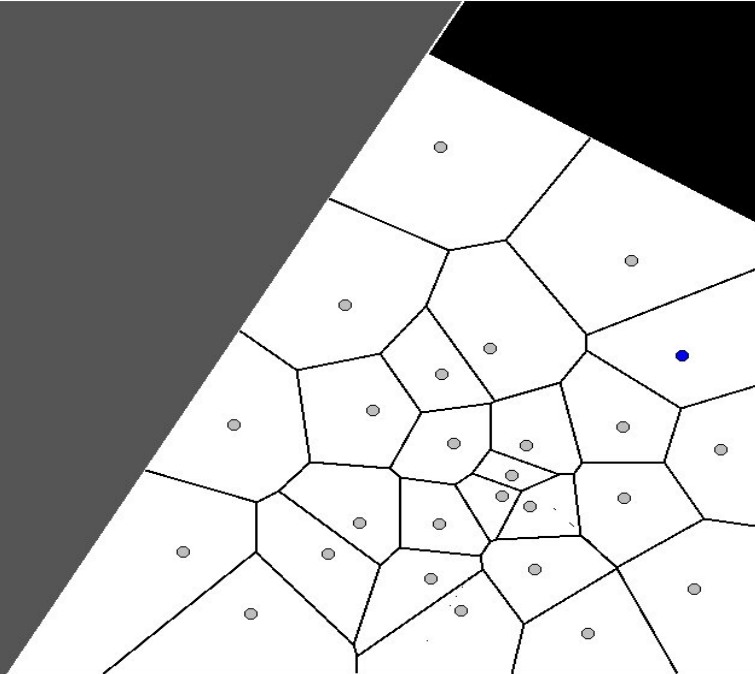


Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions



Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

LOGICAL STRUCTURE

Components

Parameters

Contextual Objects

Contextual Action-Events

Change Name

Understanding Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

bicycle

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

(Loading composite.avi)

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

(Loading fading.avi)

Take-home message

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.
 - ▶ Robert Rupert and Frederick Adams & Kenneth Aizawa would all appear to be begging the question.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.
 - ▶ Robert Rupert and Frederick Adams & Kenneth Aizawa would all appear to be begging the question.
 - ▶ At the same time, Andy Clark has no clear principled reason for allowing cognition out into the world but not any element of consciousness.

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.
 - ▶ Robert Rupert and Frederick Adams & Kenneth Aizawa would all appear to be begging the question.
 - ▶ At the same time, Andy Clark has no clear principled reason for allowing cognition out into the world but not any element of consciousness.
- ▶ Certain “extreme” cases of empathy provide instances of when the self/other distinction gets blurred or drops out altogether.

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.
 - ▶ Robert Rupert and Frederick Adams & Kenneth Aizawa would all appear to be begging the question.
 - ▶ At the same time, Andy Clark has no clear principled reason for allowing cognition out into the world but not any element of consciousness.
- ▶ Certain “extreme” cases of empathy provide instances of when the self/other distinction gets blurred or drops out altogether.
- ▶ The phenomenologists’ notion of “direct experience” is onto something important, but the claim they are making should be much more bold.

Take-home message

- ▶ The dividing line between agent and environment, self and other cannot simply be taken for granted.
 - ▶ Robert Rupert and Frederick Adams & Kenneth Aizawa would all appear to be begging the question.
 - ▶ At the same time, Andy Clark has no clear principled reason for allowing cognition out into the world but not any element of consciousness.
- ▶ Certain “extreme” cases of empathy provide instances of when the self/other distinction gets blurred or drops out altogether.
- ▶ The phenomenologists’ notion of “direct experience” is onto something important, but the claim they are making should be much more bold.
- ▶ Like any metaphysical argument, the proof is not in any particular empirical evidence but in explanatory power: *if* one assumes *this*, then *here* is what follows.

References

- ▶ Hogenboom, M. (2013). Psychopathic criminals have empathy switch. *BBC News*, 25 July 2013. <http://www.bbc.com/news/science-environment-23431793> (accessed 15 December 2016).

Understanding
Empathy

Joel Parthemore

Empathy:
Theme and
variations

Theory of mind,
and the
alternatives

Modeling
empathy and
emotions

Conclusions

References

- ▶ Hogenboom, M. (2013). Psychopathic criminals have empathy switch. *BBC News*, 25 July 2013. <http://www.bbc.com/news/science-environment-23431793> (accessed 15 December 2016).
- ▶ Krueger, J. (2013). Merleau-Ponty on shared emotions and the joint ownership thesis. *Continental Philosophy Review*, **46**: 509-531.

References

- ▶ Hogenboom, M. (2013). Psychopathic criminals have empathy switch. *BBC News*, 25 July 2013. <http://www.bbc.com/news/science-environment-23431793> (accessed 15 December 2016).
- ▶ Krueger, J. (2013). Merleau-Ponty on shared emotions and the joint ownership thesis. *Continental Philosophy Review*, **46**: 509-531.
- ▶ Parthemore, J. (2013). Autism as philosophical insight: The enactive response to the tendency to pathologize. *AISB Symposium on From Mental "Illness" to Disorder and Diversity: New Directions in the Philosophical and Scientific Understanding of Mental Disorder*, 20-22 April 2015, University of Kent, UK.

References

- ▶ Hogenboom, M. (2013). Psychopathic criminals have empathy switch. *BBC News*, 25 July 2013. <http://www.bbc.com/news/science-environment-23431793> (accessed 15 December 2016).
- ▶ Krueger, J. (2013). Merleau-Ponty on shared emotions and the joint ownership thesis. *Continental Philosophy Review*, **46**: 509-531.
- ▶ Parthemore, J. (2013). Autism as philosophical insight: The enactive response to the tendency to pathologize. *AISB Symposium on From Mental "Illness" to Disorder and Diversity: New Directions in the Philosophical and Scientific Understanding of Mental Disorder*, 20-22 April 2015, University of Kent, UK.
- ▶ Zahavi, D. (2010). Empathy, embodiment and interpersonal understanding: From Lipps to Schutz. *Inquiry*, **53**(3): 285-306.