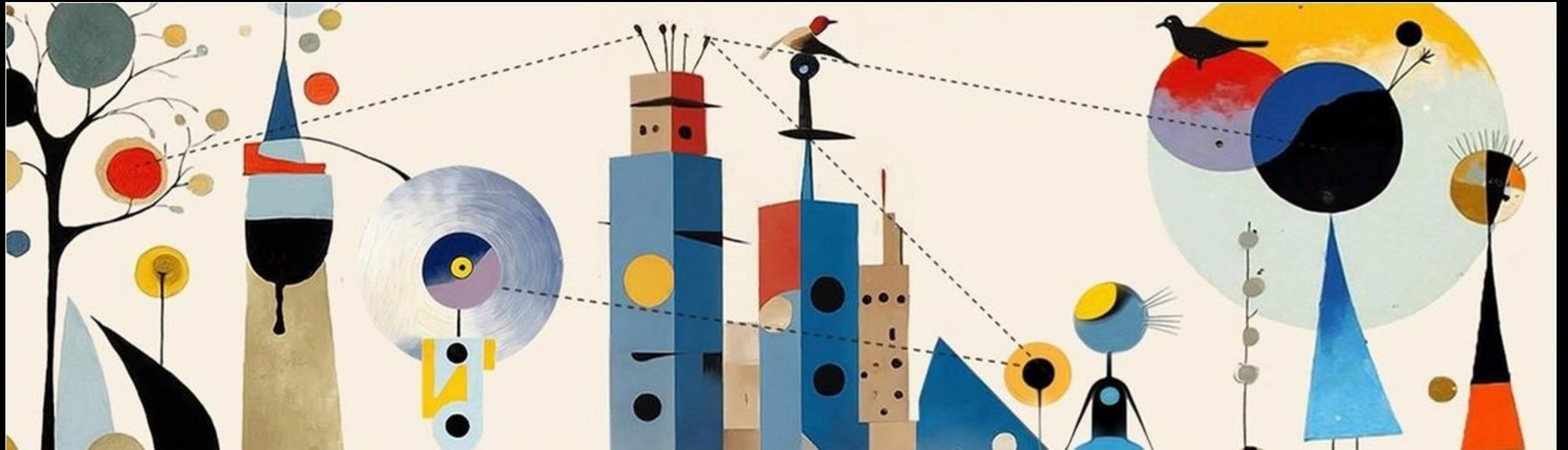




Inbetween All or Nothing

Degrees of Reciprocity in Asymmetric Social Interactions

Anna Strasser



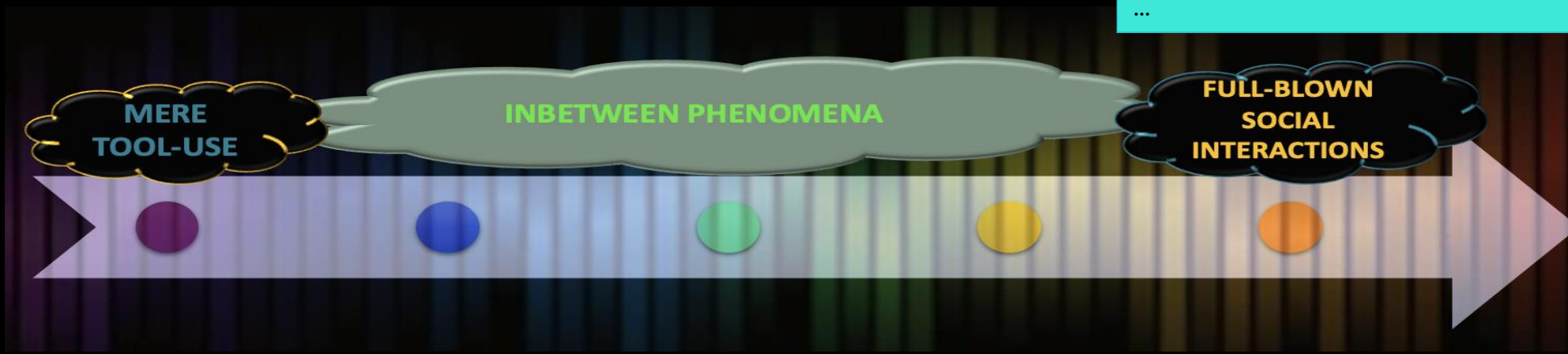
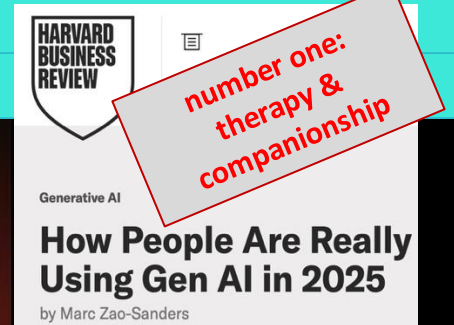
LANGUAGE ABILITIES ARE A GAME CHANGER WHEN IT COMES TO SOCIAL INTERACTIONS

Increasing use of GenAI chatbots that offer themselves to serve as collaborators, companions, friends, or therapists

➤ **NECESSARY TO RETHINK WHAT CONSTITUTES SOCIAL INTERACTION**

- we need new notions to characterize those instances of a social reality
- and elaborate on their potential limitations

Name	user numbers	source
Chatbots specialized on Companionship		
Replika	25 millions	(Bernardi, 2025)
Character.AI	20 millions	(Pataranutaporn, 2025)
My AI	150 millions	(Bernardi, 2025)
Xiaolce	660 millions	(Zhou et al., 2020)
Candy AI, HeraHaven AI, OurDream AI, SecretDesires AI, AIAllure, GPTGirlfriend, DreamGF AI, MyDreamCompanion AI, Couple.me AI, Alice AI, Kupid AI,		
Chatbots		
ChatGPT	many of the 700 millions	(Chatterji et al., 2025)
Claude	...	
...		



**I What role could / should we ascribe to GenAI systems?**

- Property-based versus relational approaches

CONSIDER BOTH THE SOCIAL REALITY AND THE PROPERTIES OUR INTERACTION PARTNERS HAVE.

II Integrate insights from both approaches with the help of Inbetweenism

- *a multidimensional spectrum of social interactions*

AI SYSTEMS WITH A MINIMAL FORM OF AGENCY & SOCIO-COGNITIVE ABILITIES CAN QUALIFY AS COLLABORATORS IN ASYMMETRIC JOINT ACTIONS WITHOUT CONSCIOUSNESS.

III Limitations

of current AI systems as social interaction partners

CURRENT AI SYSTEMS WITHOUT EMOTIONS ARE NOT WELL-EQUIPPED TO ESTABLISH A THERAPEUTIC RELATIONSHIP.

Slides can be downloaded
at <https://www.denkwerkstatt.berlin/ANNA-STRASSER/TALKS>



What role could or should we ascribe to GenAI systems?



CAN AI SYSTEMS SERVE AS SOCIAL COUNTERPARTS?

Hardcore instrumentalist view

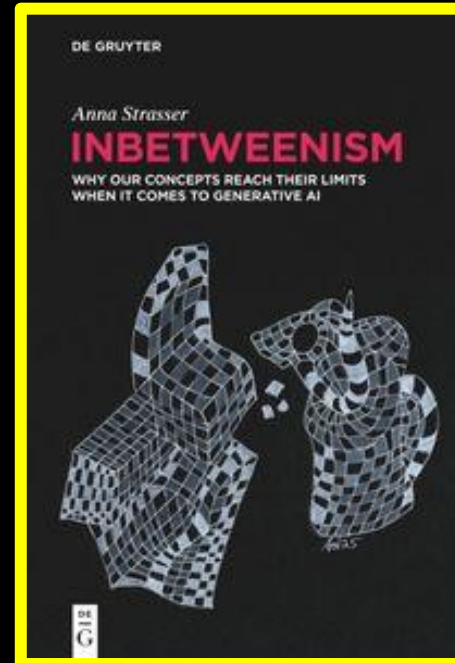
no agency
no intelligence
no consciousness



- AI systems cannot have a social status in human-machine interactions.

UNDERATTRIBUTION

- challenged by observations that these systems are significantly infiltrating our social spheres



In expectation of AGI view

full-fledged
agency
intelligence
consciousness



- The whole demanding package of conditions that we require from humans can, in principle, also be fulfilled by sophisticated machines.

OVERATTRIBUTING

- seem to ignore differences between machines and humans

What should count as a justified ascription practice?

PROPERTY-BASED VERSUS RELATIONAL APPROACHES



PROBLEMS OF PROPERTY-BASED APPROACHES

- no agreed-on strategy for deciding whether an entity really possesses a required property
 - we haven't solved the Other Mind problem
 - nor have we developed agreed-on measurement practices
 - only looking at outputs does not inform us of whether the processing that leads to certain outputs captures conditions we pose on thinking, reasoning, or other mental processes
 - huge variety of positions that differ in what specific properties are required for abilities and properties and how they could be operationalized

PROPERTIES WHICH ARE SUPPOSED TO ESTABLISH MORAL OR
SOCIAL STATUS ARE BOTH METAPHYSICALLY AND
EPISTEMOLOGICALLY PROBLEMATIC

PROBLEMS OF RELATIONAL APPROACHES

- taking our attitude towards an interaction partner as a reason for ascribing a social role to them might in some cases be inappropriate,
 - lead to the risk of being overinclusive and arbitrary

IT IS HARD TO ANTICIPATE AND DETERMINE
WHAT BELONGS TO OUR SOCIAL REALITY

No hope for a consensus?

IT IS UNCLEAR WHICH PROPERTIES AND ABILITIES WE ARE JUSTIFIED IN ASCRIBING TO THEM.

CONCEPTUAL PROBLEM:

there are now phenomena in our world for which we lack adequate notions

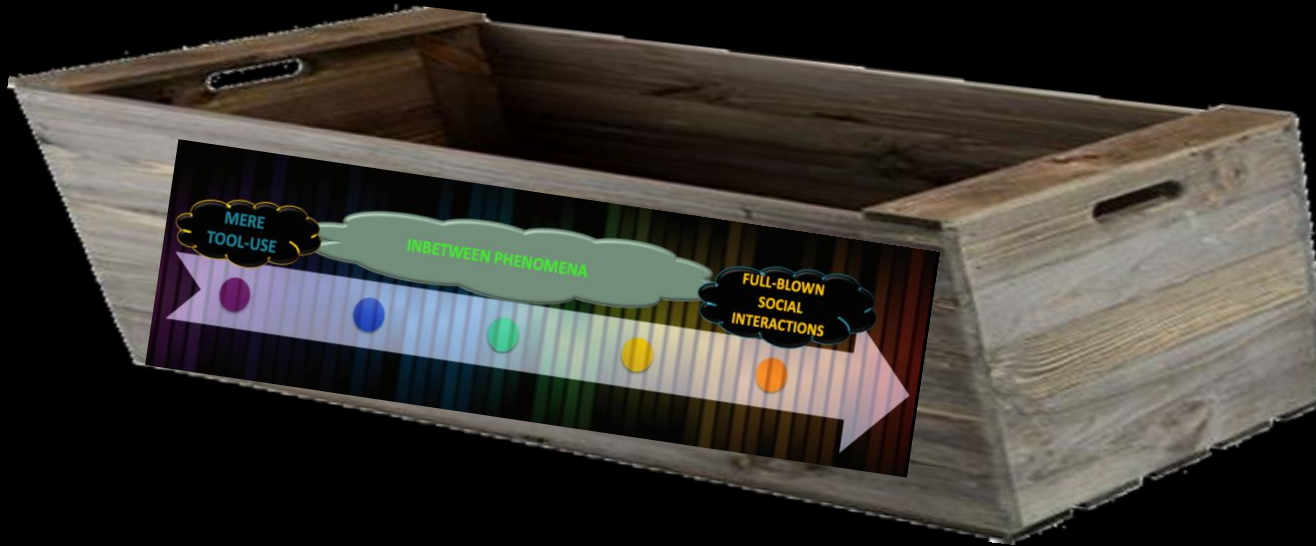
Neither standard philosophical theorizing nor dichotomous ordinary concepts enable us to think well about these in-between phenomena.



people fight to rescue notions, which in their view should remain reserved for describing distinguishing features of humans



social reality in which people entertain all kinds of social interactions with GenAI Systems



ASCRIBING A SOCIAL ROLE TO ARTIFICIAL COUNTERPARTS, WE NEED TO CONSIDER BOTH THE SOCIAL REALITY AND THE PROPERTIES OUR INTERACTION PARTNERS HAVE.

QUASI-SOCIAL ASYMMETRIC SOCIAL INTERACTIONS

mere tool-use

quasi-social
human-animal
interactionsocial adult-adult
interactionSINGLE-SIDED
SOCIALITYquasi-social
human-machine
interactionquasi-social adult-
infant interactionFULL-BLOWN SOCIAL
INTERACTION

Asymmetric cases of joint actions

PARADIGMATIC EXAMPLE OF SOCIAL INTERACTIONS THAT COULD BE APPLICABLE TO ARTIFICIAL SYSTEMS

INTELLECTUALIST CONCEPTIONS

- ❖ philosophers tend to describe ideal cases



FULL-FLEDGED AGENCY BY
DONALD DAVIDSON

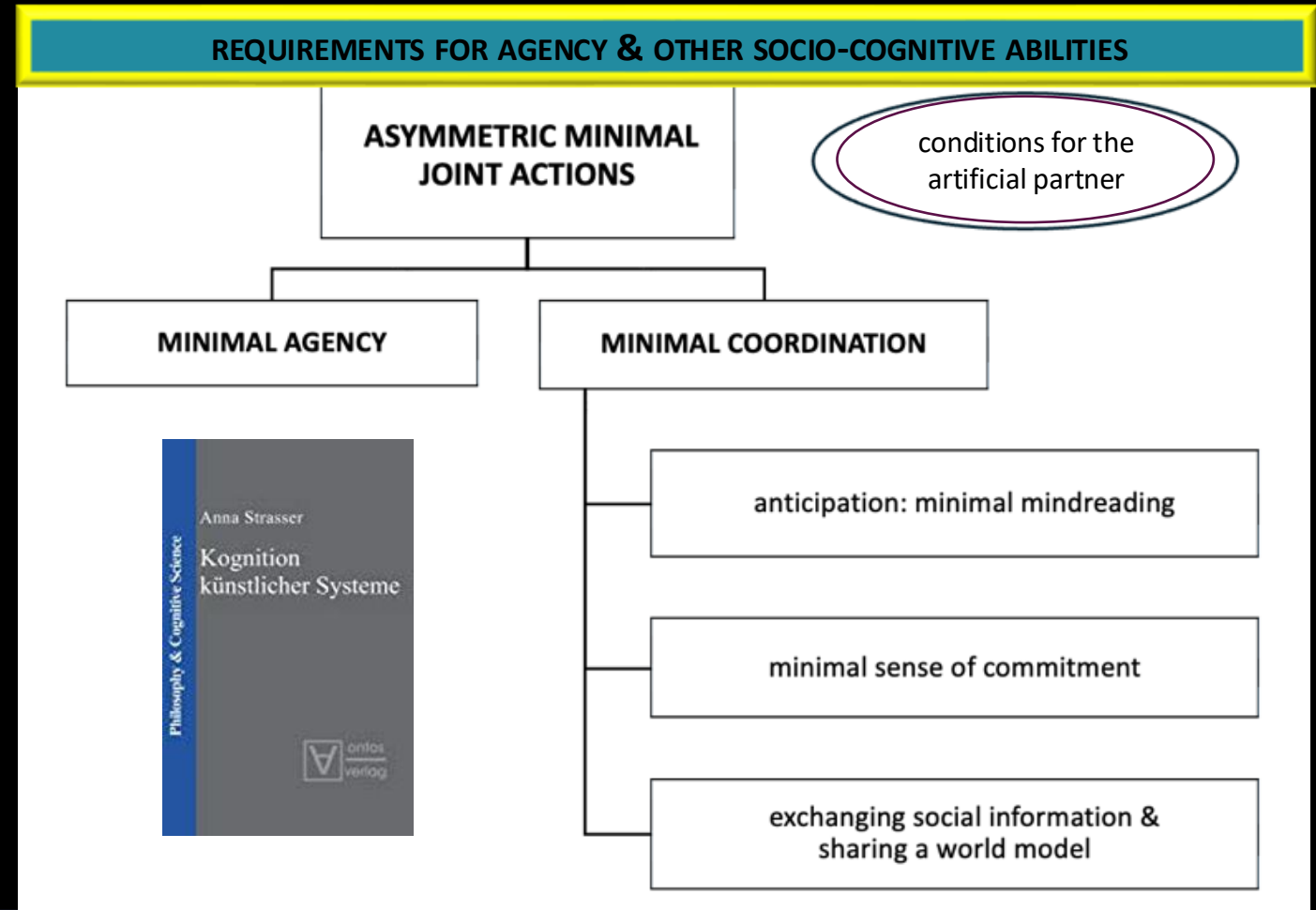
- ❖ children, non-human animals, and artificial systems tend to fall through the conceptual net



Artist: Lorin Strasser



GRADUALIST APPROACHES & MINIMAL NOTIONS



Does this help regarding the ascription problem?



WE DO NOT KNOW WITH CERTAINTY WHETHER THE CURRENT AI SYSTEMS FULFILL THE PROPOSED CONDITIONS

Any application of a conceptual framework raises empirical questions, namely, questions about the extent to which certain conditions (minimal abilities and properties) are fulfilled by the entity in question.

I put some hope on the further progress of so-called interpretability technics, and expect that further analysis of our social reality will add reasons to see that there are HMIs that can best be described as asymmetric joint actions.

I can avoid the critical (and, from my view, hopeless) debate concerning the ascription of consciousness.

MY CLAIM

There are forms of agency and intelligence that do not require consciousness —
the three features are not always served in one package!

(Strasser 2026b)

FUTURE RESEARCH

- establish cross-disciplinary approaches considering social and technical factors of our ascription practice concerning the social status of artificial systems

→ may lead to a lucky marriage of ideas of the property-based and relational approaches

Multidimensionality is a complex matter

If we do not focus on adult humans as the only type of social partners

- WE SHOULD EXPECT THAT THERE ARE SEVERAL DIMENSIONS ALONG WHICH WE CAN CHARACTERIZE VARIOUS INSTANCES OF MORE OR LESS SOCIAL INTERACTIONS

COMPLEX SOCIAL SKILLS WILL NOT EMERGE IN AN INSTANT NOT

- *developmentally in humans*
- *phylogenetically in animal evolution*
- *technologically in the design of AI systems*

Interactions between a fully social agent and some partner – whether human, machine, or animal – that is not cognitively capable of full-fledged social joint action but that does respond in a way that productively invites further social responses from the social partner

But there are, of course, many more instances of social interactions that may require other conditions as the ones I elaborated for asymmetric joint actions.

HMIs can qualify as instances in this multidimensional spectrum of social interactions as asymmetric joint actions that happen in the domain of working

POTENTIAL DISRUPTIVE EFFECTS
OF GENAI IN VARIOUS SOCIAL
DOMAINS.

SOME OF OUR SOCIAL INTERACTIONS

- may require being less asymmetric,
- may demand that both interaction partners exhibit emotions and reflective rationality

My Claim

AI THERAPISTS CANNOT
CONTRIBUTE TO A THERAPEUTIC
RELATIONSHIP IN WHICH
EMOTIONAL CO-REGULATION IS
HAPPENING

Approaching potential limitations of AI therapists

GENERAL CRITICAL ASPECTS

RISK OF HARMING PATIENTS

- even though ever-new guardrails are introduced to at least partially mitigate this danger

BUT

- no fully successful alignment method that can rule out dangerous & inappropriate responses regarding suicidal thoughts, psychosis, trauma

CASES OF SUICIDES, EXACERBATION OF PSYCHOSIS, RETRAUMATIZATION

DESKILLING & DEPENDENCY

- AI systems support their users in emotional self-regulation
- BUT**
- unlimited availability may contribute to a decline in the ability to regulate one's own emotions without the AI system
 - risk of an unhealthy emotional attachment, which can lead to emotional dependence

EMOTIONAL DESKILLING & DEPENDENCY

UNLIMITED AVAILABILITY

- in view of the waiting lists for therapy places, this is naturally appealing
- BUT**
- feeding the expectation of uninterrupted availability may not enable us
 - * to have better relationships with other humans
 - * to build a secure attachment without constantly needing to reassure ourselves that the other person is available

AI THERAPIST MIGHT PREPARE US TO HAVE MORE RELATIONSHIPS WITH OTHER AIs AND TO VALUE THEM MORE HIGHLY BECAUSE THEY ARE CONSTANTLY AVAILABLE

DATA PROTECTION

- experienced as a safe, useful practice space in which we can experiment with aspects of our own personality, which can help us find our identity
- BUT**
- this technology comes with all the serious concerns about data protection
 - private & intimate information is stored, and we cannot be sure that it will not be used against our interests

POTENTIAL MISUSE OF SHARED INFORMATION

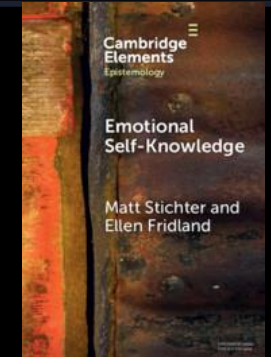
Workshop on Artificial Joint Intentionality (AJI):
Skilled Social Interactions in the Age of AI

DATE	ORGANIZERS
6-8 November 2025	Cameron Buckner, University of Florida, US; Anna Strasser, DenkWerkstatt Berlin, Germany; Amber Ross, University of Florida, US; Duncan Purves, University of Florida, US; Kirk Ludwig, Bloomington, US

Ellen Fridland: Coregulation & the AI therapist



Ellen Fridland
King's College London (GB)
The Brookline Center for Community
Mental Health (US)



WHAT MAKES THERAPY EFFECTIVE IS THAT IT CAN CHANGE/HEAL THE PREDICTIONS OF OUR AFFECTIVE SYSTEMS

→ THE EMOTIONS WE EXPERIENCE AS WE ENCOUNTER THE WORLD

➤ The therapeutic relationship plays a significant role in making psychotherapy effective.

❖ good evidence

- **strong alliance** can improve well-being,
- **empathy** can play a role in reducing anxiety, depression, and other personality disorders
- **empathic relationships** can contribute to positive self-esteem and affirmation, which in turn can contribute to mental health

➤ AND ALL THIS HAS TO DO WITH EMOTIONS

EMBODIED RELATIONAL MODEL OF EMOTIONS

- ❖ relational affective models that are developed in early childhood through interpersonal interaction
 - **capacity for intrapersonal affective regulation, which enables us to care for ourselves on an affective level and form secure attachments with others**
 - **enable us to navigate, guide, regulate our interpersonal & social interactions**
- ❖ without social interactions, we would probably not be able to develop the variety of emotional states, and our ability to self-regulate them
 - research dramatically shows the extent to which reduced interactions negatively impact emotional development

How are emotions developed?

CO-REGULATION BETWEEN CHILDREN & CAREGIVERS

- emotions are shaped through the interpersonal interaction
- having a reliable counterpart can prove helpful in coping with emotions or behaviors
- bodily expression of emotions play an important role
 - e.g. transfer effects of a regulated nervous system from one person to another can play a role in promoting emotional balance

How can a therapeutic process change emotions?

RENEWED CO-REGULATION

IF

- we lose essential parts of the capacity to care for ourselves on an affective level and form secure attachments with others

THEN

- our well-being is in danger & a renewed co-regulation may be beneficial

Functional role of therapy

EFFECTIVENESS OF PSYCHOTHERAPY IS AT LEAST PARTLY ATTRIBUTABLE TO THE THERAPEUTIC RELATIONSHIP BETWEEN THERAPIST & CLIENT, IN WHICH EMOTIONAL CO-REGULATION IS HAPPENING

A RENEWED EMOTIONAL CO-REGULATION

- offers a possible mechanism that enables us to initiate a reconfiguration/recalibration of our affective predictions and reactions
- to change emotions and enable us to better navigate, guide and regulate our social interactions

Repeated co-regulation with a sensitive, empathetic therapist

- can shift the client's affective predictions,
- enable them to break out of behavioral patterns,
- foster a greater capacity for intrapersonal affective regulation,
- ultimately enabling them to care for themselves on an affective level

GOAL OF THERAPY:

RECONFIGURE AFFECTIVE SCHEMAS & PREDICTIONS TO FORM SECURE ATTACHMENTS WITH OTHERS

CAN DISEMBODIED, UNEMOTIONAL ATTEMPTS AT EMOTIONAL CO-REGULATION RECALIBRATE INGRAINED ATTACHMENT PATTERNS?

CAN AN AI THERAPIST TEACH THEIR CLIENTS SELF-REGULATION THROUGH CO-REGULATION?

WITHOUT BEING EMBODIED?

- no interaction with ANS signals, which play a role in attuning
 - unable to maintain affective covariation or reciprocity
 - ability to convey emotional signals via body language/facial expressions/tone of voice is rather limited
 - no access to physiological/biocultural information
- ✓ without mutual ANS covariation
- **role physiological/biocultural information plays in co-regulation could be very minimal**
- even though studies indicate that face-to-face therapy is still more effective than Zoom therapy

WITHOUT EMOTIONS?

IF the relational theory of emotion is right

- THEN human therapists are capable of teaching their clients emotional self-regulation through emotional co-regulation because they have emotions

! not without mutual affective covariation

- **legitimate doubts whether AI systems without emotions are well-equipped to act as therapists**

Conclusion

ASCRIBING A SOCIAL ROLE TO ARTIFICIAL COUNTERPARTS, WE NEED TO CONSIDER BOTH THE SOCIAL REALITY AND THE PROPERTIES OUR INTERACTION PARTNERS HAVE.

AI SYSTEMS WITH A MINIMAL FORM OF AGENCY & SOCIO-COGNITIVE ABILITIES CAN QUALIFY AS COLLABORATORS IN ASYMMETRIC JOINT ACTIONS WITHOUT CONSCIOUSNESS AND WITHOUT EMOTIONS.

CURRENT AI SYSTEMS WITHOUT EMOTIONS ARE NOT WELL-EQUIPPED TO ACT AS THERAPISTS OR EVEN AS PARTNERS IN THE SPHERE OF LIVING TOGETHER BECAUSE EMOTIONS ARE RELATIONAL (CO-REGULATION).

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