Conventional Minds: Interactivism, folk psychology, and social reality

Interactivism in Perspective: Celebrating Mark Bickhard's Contributions to the Psychology of the Whole Person

25-27 June 2021

Robert Mirski
Nicolaus Copernicus University, Toruń;
The John Paul II Catholic University of Lublin

COGS7   😎 **AWESOME**   Apr 2nd, 2003

Head of cognitive science department. Great guy, very open to one on one discussion after class. Very knowledgeable. I want to be Bickhard when I grow up.

Outline of the presentation

1. Some comments on what interactivism offers and where our problems reside
2. Interactivist critique of the dominant Theory-of-mind research on social cognition
3. The case of folk psychology
   1. The ToM perspective
   2. The interactivist perspective
   3. Folk psychological concepts of "natural" vs. conventional properties of the mind that interactivism makes sense of
4. A tentative foray into integrating emotion into the account

1. Some comments on what interactivism offers and where problems are

- What interactivism offers
  - Unparalleled comprehensive ontology of the mind and social phenomena that already contains links between social cognition and other psychological processes, which can be utilized by researchers
  - Solution of the fundamental theoretical problems of traditional, encodingist frameworks (e.g. ToM), as well as improvements on non-encodingist ones (Piaget, Gibson)
- Where interactivism remains problematic
  - The sophisticated theory does not make it easy (esp. for non-theoretically minded researchers) to apply it, to use it to generate hypotheses; two angles to it:
    - Communicating interactivism (made worse by remnant empiricism hostile to questions of metaphysics)
    - Actual study design, operationalization of the model's consequences (but see Allen, 2012; Allen & Bickhard, 2018)

2. Interactivist critique of ToM

- Theory of Mind literature – the dominant framework for the study of social cognition (at least in [cognitive and developmental] psychology and philosophy) (see, e.g. Baron-Cohen, Tager-Flusberg, & Lombardo, 2013; Fenici, 2017a; Wellman, 2018).
- A few variants and an internal theoretical debate
  - Theory theory (e.g. Gopnik, 2011; Gopnik & Wellman, 1992; Wellman, 2014)
  - Modular nativism (e.g. Fodor 1992; Leslie et al. 2004, Carruthers, 2013, 2015)
  - Two system theory (e.g. Apperly, 2011; Apperly & Butterfill, 2009; Butterfill & Apperly, 2013)
  - Simulation theory (e.g. Goldman, 2008)
- The fundamental conception of social cognition is shared:
  - They all make what Spaulding (2010) termed "the claim of broad scope of mindreading": they may disagree on how mental state attribution is done – domain-general theory, innate module, or simulation – but they agree that it is central to social cognition and they all subscribe to an encodingist ontology of the mind.

2. Interactivist critique of ToM

- Its inherent encodingism renders ToM framework untenable (Mirski & Bickhard, 2021; Mirski & Gut, 2018)
    - The copy problem and the impossibility of internalization
    - Foundationalism
    - Frame problems
    - The coordination problem
- Moreover, ToM models do not offer much possibility to link the postulated ToM mechanism with other socio-cultural phenomena, such as social roles and institutions, culturally specific concepts, emotion, language, character traits etc.
    - Characteristic of much of psychology, ToM research is highly insular – it remains constrained within the narrow set of questions and its theory does not meaningfully link with research outside it (or does but in an ad hoc manner: e.g. Westra, 2017)
    - Bias in study design and interpretation of results (see Allen & Bickhard, 2013; Ilgaz & Allen, 2020)

Fundamental theoretical problems

Resulting methodological problems

3. Interactivist social cognition – the Conventional Minds presentation

- Making the broad consequences of the model explicit
  - Social ontology and the place of the person in it
  - The concept of situation convention and its centrality for the study of socio-cognitive development
  - The model of language as a manipulator of situation conventions
  - The constructivism of socio-cognitive development and the role of scaffolding
  - Mostly based off of Bickhard's *Cognition, convention, and communication* (1980)
- Addressing the points of concern in the ToM-dominated research within the interactivist framework
  - False-belief task
  - Folk psychology
  - Enculturation of the child's social cognitive abilities
  - The intimate relationship between language and social cognition
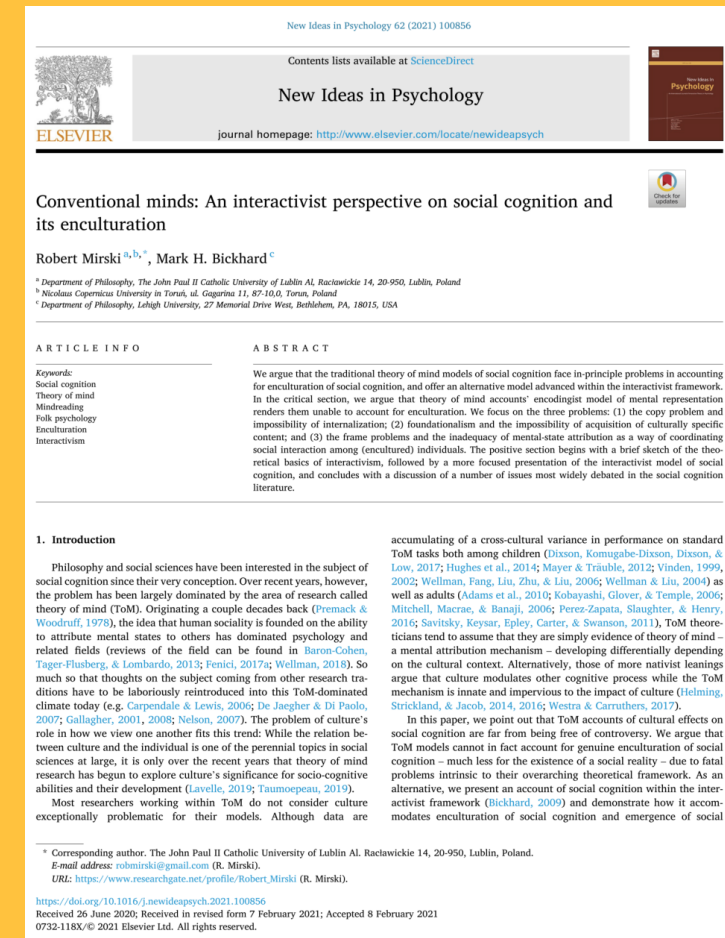
3. The case of folk psychology – the ToM perspective

- Basic question: <u>what is the relationship between processes that are basic to social cognition and the ideas about the mind that cultures have developed (folk psychology)?</u>
- ToM models do not make it clear what the relationship between the ToM mechanism and explicit folk psychological thinking is
  - An ontological gap in nativist models
  - Blurring of the difference in theory theory, ToM mechanism becoming increasingly explicit
  - It is in fact not clear what the ontology of folk psychology and basic social cognition is in the wider theoretical framework
- The consequences
  - The cross-cultural research within ToM does not address the issue of culturally specific folk psychological concepts because it lacks theory to even start to address the question
  - Neither does it address the also pertinent issues of development of cultural values, event scripts etc.
  - Cross-cultural research within ToM revolves around the timing of the development of belief-desire reasoning and its correlation with broad cultural variables (collectivism/individualism; authoritative/authoritarian parenting styles etc.)

3. The case of folk psychology – the interactivist perspective

- Basic social cognition as constituted by level 1 knowledge of situation conventions (implicit) (cf. Nelson's work on event representation, 1986)
  - Roughly in line with some other accounts – procedural social knowledge does not require mental-state attribution that is a miniature version of folk psychological reasoning (De Jaegher & Di Paolo, 2007; Fenici, 2013, 2015; Hutto, 2015)
  - (cf. Kempson, Cann, Gregoromichelaki, & Chatzikyriakidis, 2016; Rączaszek-Leonardi et al., 2018)
- Folk psychology as a reflective convention (level 2+) that abstracts certain properties of that implicit knowledge and puts it to use in various ways in which reflective thought is used more generally (see Campbell & Bickhard, 1986)
  - Level 1 social knowledge implicitly instantiates certain properties, which can be known explicitly by level 2 reflection (strictly, the same is true for levels 2+)
  - This accommodates much of what "pluralist" theory of folk psychology has argued for (e.g. Andrews, 2012; Fiebich, 2019; Newen, 2015) – such abstracted knowledge about the general properties of the mind can be used not only to predict actions of another (it rarely is, in fact), but to give reasons, excuses, explanations etc. (cf. Brandom, 1994/2000; Fenici & Zawidzki, 2020)

3. The case of folk psychology – folk psychological concepts of "natural" vs. conventional properties of the mind

- Some of the properties abstracted by a given folk psychology are characteristic of <u>knowing in general</u>, but some of them are characteristic of <u>the conventional organization of the mind in the particular culture</u>
  - Belief/desire concepts wide-spread because they capture a non-conventional properties of the mind and thus highly useful – intrinsic constraints on knowing at large; seem to be culturally universal (Wierzbicka, 2005, p. 265; cf.; Wierzbicka, 2006)
  - Culturally specific properties of minds (i.e. the properties of conventionalized minds) can also be abstracted and become part of a given culture's folk psychology, and their role in the social reality can be just as important as that of belief and desire
    - This opens the door for studying the child's acquisition of culturally specific folk psychological ideas, such as Chinese "face" or Welsh "Hiraeth", and makes the status of such concepts clear
    - Many near-universal folk psychological concepts also capture properties of the mind that are of conventional provenance – e.g. permission, disappointment, denial etc. - the properties that they capture do not characterize minds in general, but only encultured or conventionalized minds (and most cultures usually instantiate them and include them in their folk psychologies).
- Conclusion: interactivism offers a much more comprehensive framework for studying the cultural nature of folk psychological reasoning and its development than ToM; though the question of operationalization remains to be worked out.

Interactivist emotion recap

- Level-1 anticipation does not represent (i.e. form anticipations about) its own properties, such as its stability/certainty.) – it interacts with the environment only.
- **Emotion**
  - Allows level-1 anticipations to interact with their own uncertainty
    - The information about uncertainty is already present in basic learning, but there it is only used for destabilization/stabilization of microgenesis
    - Emotion turns that information into a feature that is interactable by level 1 knowing
  - Allows the organism to represent situations on the basis of uncertainty (e.g. uncertainty in situation involving a big animal; involving other person obstructing a goal etc.), which is argued to give us different emotions.

Emotion literature themes

Main aspects of emotions that emotion literature acknowledges:
1. Motivational (cf. physiological)
2. Cognitive / intentional
3. Evaluative
4. Phenomenal / feeling

Basic emotions and interactivism

- There seem to be a number of "innate emotion circuits" that are generalized behavioral heuristics for some typical challenges in the organism's life
  - Panksepp (1982; Panksepp and Watt, 2011) proposes seven basic emotions (FEAR, PANIC, EXPECTANCY/SEEKING, RAGE, LUST, PLAY, CARE).
  - Basic emotions are subcortical processes that "supply the major unconditioned stimuli and responses" (Panksepp & Watt, 2011, p. 389); they evoke distinct behaviors and autonomic-visceral arousals.
  - EXPECTANCY, for instance, evokes foraging/exploratory behavior and in natural circumstances activates when corresponding homeostatic imbalances obtain.
  - In short, basic emotions are in Panksepp's model general modes of functioning that modulate behavior and bodily processes in ways that turned out to be adaptive in the phylogenetic past as reactions to some general circumstances.
  - This is consistent with interactivism: Panksepp's basic emotions will be highly general innate heuristics for addressing "basic" kinds of microgenetic uncertainty. For instance, upon cognizing an unknown big animal, microgenesis will destabilize, and the organism will have innately available heuristics for dealing with this kind of uncertainty - it will start behaving in the way that Panksepp's FEAR captures.

Basic emotions as scaffolds for ontogenetic construction

- A major initial basic emotional response in humans seems to be crying: The child cries as a response to anticipatory uncertainty.
- Given the highly social nature of humans, figuring out what the cause of the uncertainty is is offloaded onto the caregivers: guidebooks for parents offer all kinds of methods of identifying what the child is crying about, you just tick off potential reasons in sequence – has she eaten? Is she lying comfortably? Is it gases? Etc. It's a limited set of potential reasons in the case of infants.
- Given variation and selection learning, the child can learn to modify crying behavior to cue the caregiver as to what the crying is about (such learning can follow random variation and selection – successful cuing speeds up the parental resolution of uncertainty and so is selected on that basis)
  - This effectively gives us the child's gradual differentiation of emotion-based (i.e. uncertainty based) representation and initial emergence of different emotions
  - And it makes human emotions deeply social at the very outset – uncertainty is first successfully interacted with by communicative conventional acts (possibly highly idiosyncratic, specific to the particular child-caregiver diad).
  - When the child becomes more independent, she can address the basic uncertainties herself, though this requires relearning of how emotion should be dealt with and is part of emotional development
  - However, there is no reason why the caregiver cannot continue to be used as a resource – not necessarily for dealing with uncertainties directly, but for learning of how to deal with them.
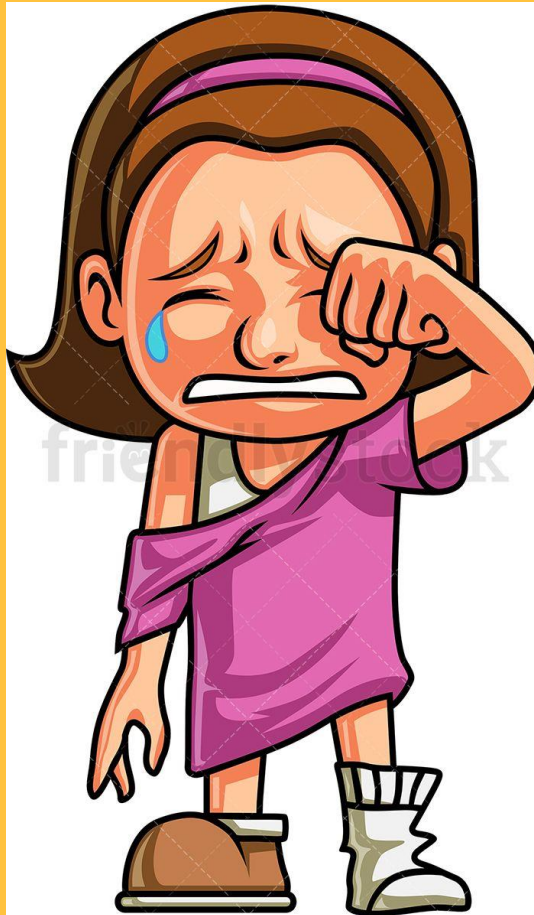
An example

An example

Anticipatory failure evokes emotional feedback (the system detects anticipatory uncertainty).

An example

Thanks to the internal/functional aspect of emotion, the child can react to its own state of anticipatory uncertainty by – for instance – crying.

An example

Crying is an effective heuristic for evoking an adult's guidance

The adult approaches and resolves the uncertainty with the child: either by structuring interaction (let's talk it out with your friend), or by explaining (your friend is having a bad day etc. that's why he behaved like that)

An example

The heuristics for resolving the uncertainty are retained as emotion-based action "programs" (representation[s]) for handling such situations in the future (including "internal action", namely – explicit thought). And given the interactivist anticipatory model, such "programs" effectively form different kinds of emotions in the child.

Explanations offered in emotional episodes might be the necessary step for the acquisition of folk psychology and enculturation more generally, and might be crucial for proper socialization – lack of such guidance can lead to social anxiety and different negative social emotions.

Conclusions and material for discussion

- Interactivism offers a comprehensive framework for studying social cognition and its development (and the whole person!)
  - Folk psychology
  - Emotion
- The need for operationalization remains open, but the emotion direction already suggests one way of designing an experiment – inquiry about correlation between different parental strategies for dealing with the child's emotional situations and their socio-cognitive skills

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