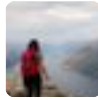


Unrolled thread from @iamconscious2

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savhannah schulz

@iamconscious2

31 tweets • 8 min read • 21 Apr 2021 08:21

This week, a wonderful group of play scholars ([@pedagogyofplay](#), [@PEDALCam](#) and PlayTrack [@interact_minds](#)) is gathering for the [#PlaySymposium](#) to engage in shared thinking of play. After some time to process, I thought it is time to capture Day 1 in a THREAD

First of all, some context. The event is closed for registration but the programme is available here:

[PLAY Symposium, 20-22 April 2021](#)

Guiding Question: What does a playful mindset for facilitators of playful learning look and feel like, and how can such mindsets be supported?



Funded by the [@LEGOfoundation](#), the event focuses on three main questions. 1. Why do we play, 2. What do we mean by play, 3. How to play (focusing on the role of the playful facilitator).

Each day, one of the three involved research groups takes charge of the program whilst drawing on the funds of knowledge of the other groups.

Let's get to Day 1 (Why play). [@Marc_M_Andersen](#) began the day by connecting play to the theory of Predictive Processing & positioned play as "a behaviour in which the agent seeks and creates surprising situations that gravitate towards sweet spots of relative complexity"



- Predictive processing model of play
- Definition:
Play is a behaviour in which the agent **seeks or creates** surprising situations that gravitate towards **sweet-spots** of relative complexity (unpredictability) with the goal of resolving surprise.

Fun in play, within the PP framing, is a sign that an agent (e.g., child) is reducing prediction error. Simplified, play is fun because we are learning.

Hereby honing in on the question of why is it that play is so fun and rewarding. An account that can also be found in [@Marc_M_Andersen](#) and [@aroepstorff](#) recent pre-print on this framework that can be found here:



PsyA

[Play in Predictive Minds: A Cognitive Theory of Play](#)

Play occurs universally in human beings, and it has been a subject of considerable academic scrutiny for over 100 years. In this article, we propose a cognitive theory of play building on recent advances in cognitive and computational neuroscience that portray the human brain as an advanced predicti...

[PsyArXiv](#)

This position, if it holds up, has interesting implications for Education. 1. It questions the

premise that schools should be highly predictable environments, 2. Joy is not only helpful for intrinsic motivation but is closely connected to learning.

In this, she prompted the participants with an intriguing puzzle: What is the relationship between mental health and play? Is there a correlation between decline of play (as argued for instance by Peter Gray) and rise in mental health difficulty?



[The decline of play | Peter Gray | TEDxNavesink](#)

In this talk, Dr. Peter Gray compellingly brings attention to the reality that over the past 60 years in the United States there has been a gradual but, over...

 [YouTube](#)

Regarding the premise that play is in decline. There is some evidence pointing at this. A recent UK study commissioned by the [@nationaltrust](#) found that children spend half the time playing outside that their parents did. See for instance:

Children spend half the time playing outside in comparison to their parents

A recent UK study commissioned by the National Trust found that children spend half the time playing outside that their parents did. The National Trust research showed that children are playing outside for an average of just over four hours a week. This compares unfavorably with 8.2 hours for their...



[Child in the City](#)

The talk was immediately followed by [@DrJennyG](#) from [@PEDALCam](#) who focused in her answer to the why with an account focusing on the social dimension of play.

In collaboration with [@VickyYiranZhao](#), Jenny presented a secondary analysis of longitudinal data of the LSAC exploring the relationship between mental health and peer play.

Methodology



- Secondary data analysis
- Growing Up in Australia: Longitudinal Study of Australian Children (LSAC) wave1-4
- Structural equation modelling

	Birth	Age 3	Age 7
Demographic factors	✓		
Temperament		✓	
Parent-child relations		✓	
Peer play		✓	
Mental health outcomes			✓



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In their analysis (building on a structural equation model), they found that peer play ability at Age 3 that there is a lower likelihood for Emotional problems at age 7.

SEM result

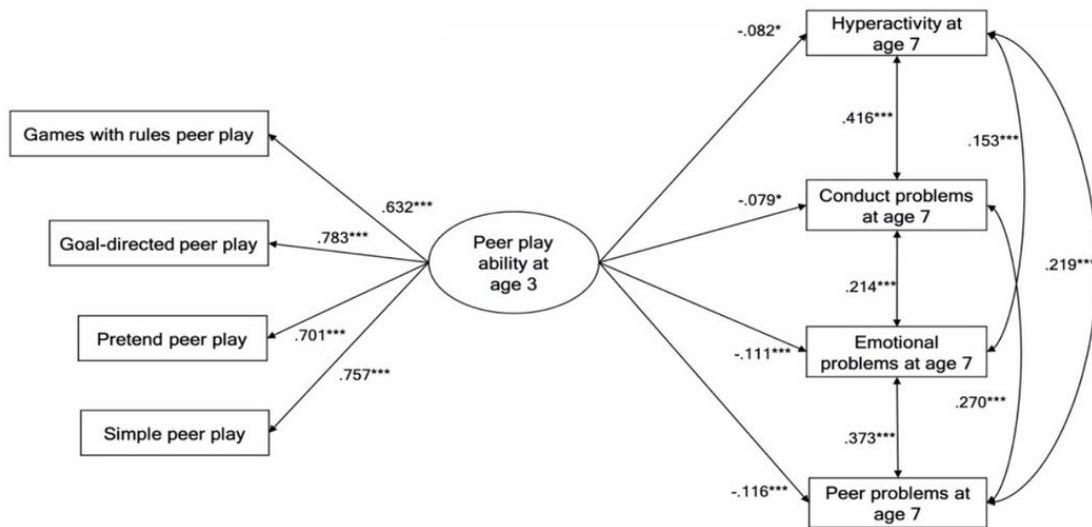


Figure 1. Standardised path coefficients of the relations between peer play ability at age 3 and psychosocial outcomes at age 7 for the entire population while controlling for independent variables and covariates



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The take-aways below really nicely capture the importance of pursuing this further.

[@VickyYiranZhao](#) please let me know if I can add some additional references to your work

Conclusions and implications

- While controlling for known biological, environmental and maternal influences, **peer play ability at age 3 was significantly associated with lower risks** of hyperactivity, conduct problems, emotional problems and peer problems at age 7.
- Children's peer play ability at age 3 can be included as an **assessment criterion** for identifying children potentially high-risk for mental health problems at age 7
- Peer play could be used as a **context to develop social cognitive skills, self-regulation skills and problem-solving abilities** but research with experimental design are called to explore the potential causal effects.
- **A direction worth pursuing further!**



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Since this event is about engaging in shared thinking, the first talks were followed by lengthy discussion. With such an interdisciplinary audience it was so intriguing how the positioning of a new construct can help you reflect about your own work.

Some puzzles that arose:

How is the predictive model related to Bayesian approaches to understanding learning in children (and humans)? A: Highly compatible (For those interested, see [@wawiese](#) & Metzinger, 2017, <https://philpapers.org/rec/WIEVPPF>)

What do different disciplines mean when we speak of flow and surprise in relation to play? For example, surprise as a visible behaviour vs an internal process of prediction error

Moving to Part 2 of the day and a very timely talk by [@HT100_Lynneth](#) on "The role of play experiences in helping children cope with stress and trauma". Work that has been done in collaboration with Claire Liu and Jill Popp.

I was so appreciative of the diverse range of geographies included in this review and the settings explored (e.g., play in war and conflict, play in health care settings, ...) I will link to the review once available.

Building on a recent lit rev, a strong arg. can be made that play can reduce stress and trauma in vast range of settings. For instance, playful learning activities, such as socio-dramatic play, increase positive feelings and promotive cognitive skills critical for emotion reg.

To start with, Lynne responds to the question of the day. She argues that children play (amongst other things) "because [it] provides a safe environment for children to develop coping skills for the future and manage stress and the effects of trauma in the present."

Before jumping in to the last talk of the day (me), I would like to take a quick break to acknowledge the incredible supportive environment I find myself in. Thanks to all for the input to my talk, and a special thank you to [@lieberothdk](#) for a very heart-warming intro



In my talk, I focused on the often assumed premise that play helps children learn. I specifically wanted to hone in on the word learn in this.

[Q] Why do children play?

[P] Play helps children **learn.**

[ARG] **Play facilitates opportunities for reflection to occur.**

[ARG] **Reflection allows for “intellectualizing” of play experience**

Much of the current argumentation around this [P] in play lit focuses on an evolutionary account: we play because it prepares us to navigate future uncertainties (i.e., fights, hunting,...). In other words, play spends energy on the proximate level, but ensures fitness ultimately

learn.

Proximate Children play because it is fun and rewarding.

[ARG] Evolutionary Account

Ultimate
increases
fitness

Intelligent species play because it (amongst other things) prepares for navigating future uncertainties.



These accounts focus on accounts of play, where agents (incl. children) play for play's sake. Play here is autotelic. Yet, most of us relate to play also in formalised learning spaces, where learning \approx explicit knowledge and play \approx guided/facilitated play

“Learning through play *in schools* involves play *with a purpose.*”

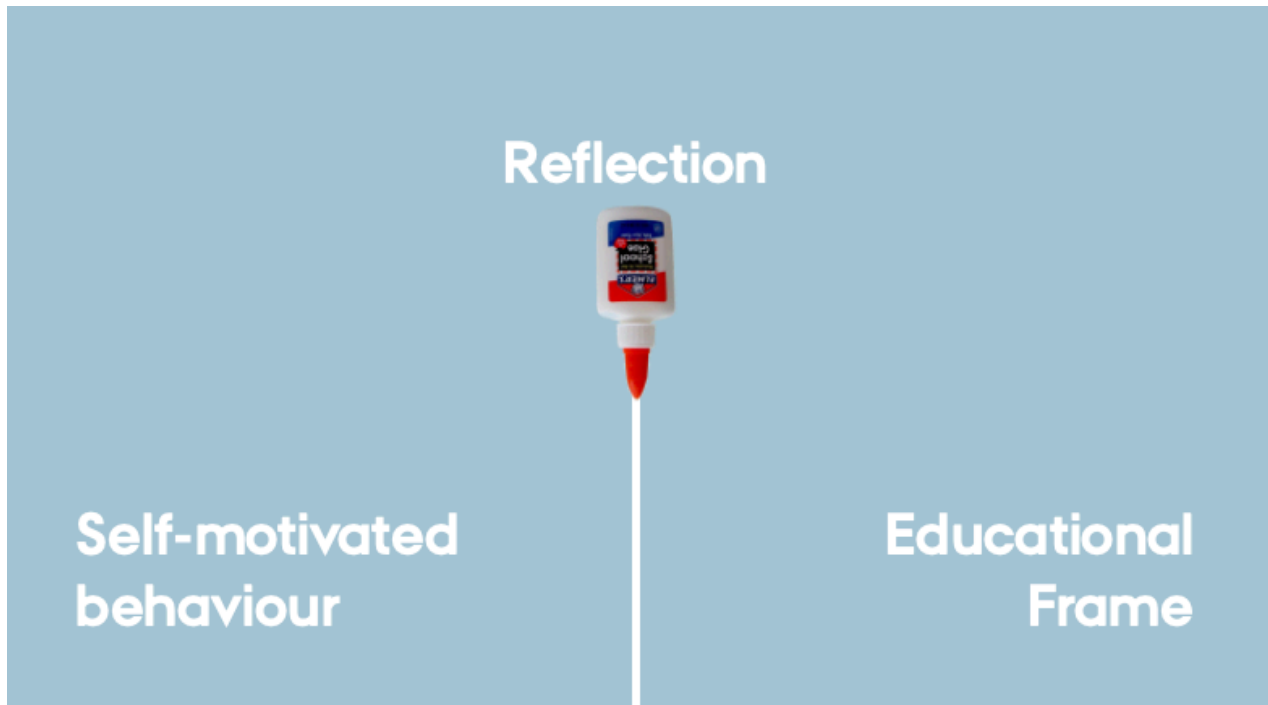
Pedagogy of Play Blog (2019, January 31)

[Q] Can play help children learn in formalized learning environments where...

Learning \approx explicit knowledge

Play \approx guided/facilitated play

When considering the first talk on play and PP, this sets up a problem space: Schools are highly predictable + guided play increases the likelihood that the agent will miss reaching a sweet spot of complexity (since the agency lies in most cases with the facilitator).

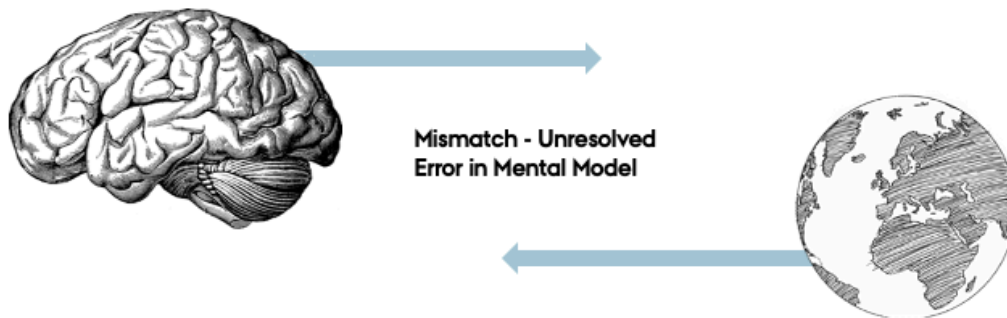


Reflection (in most accounts, see for instance Rodgers summary of reflective accounts) begins with a perplexing situation - a felt surprise - that needs to be interpreted to be able to process it in systematic way.

My solution of how this disconnect could be addressed is reflection. Reflection hereby understood as the conscious process to navigate unresolved uncertainty.

[DEF]

Reflection: Conscious process to navigate unresolved uncertainty. Simplified: Conscious processing of surprise.



Reflection also allows for the "intellectualisation" of experience into educational knowledge. Play hereby can play an important role at introducing surprises to the agent that can then be resolved and addressed through reflection

[No Title]

[ARG] **Play facilitates opportunities for reflection to occur as it provides perplexing experiences that can illicit the reflection process.**

[ARG] **For Educators: Reflection also allows for "intellectualizing" of play experience**

(e.g., translating procedural knowledge of Scratch into declarative knowledge on coding)

There is more to be said about this, but I should leave some arguments for future threads.

The ensuing discussion from these two talks also surfaced a lot of interesting questions. The one that stuck with me most is: Can play happen too soon and interrupt play?

Day 2 continues here:

<https://twitter.com/iamconscious2/status/1384842802744410112?s=20>

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