

The background of the slide is a dark green field filled with numerous light green numbers of varying sizes and orientations, creating a digital or data-like aesthetic. The numbers are scattered across the entire frame, with some appearing larger and more prominent than others.


Agency – Part One

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December 25, 2021

Where We Are

Ethical Practice

- Regulation
 - Frameworks
 - Culture
 - Ourselves
- 
- Ethical practice as culture
 - Ethical practice as citizenship
 - Ethical practice as democracy
 - Ethical practice as agency

Two Roles of Agency



1. Ethics requires agency

- This is the idea that ‘ought’ entails ‘can’ – that if there is an ethical obligation, then it must be possible for a person to be able to meet that obligation

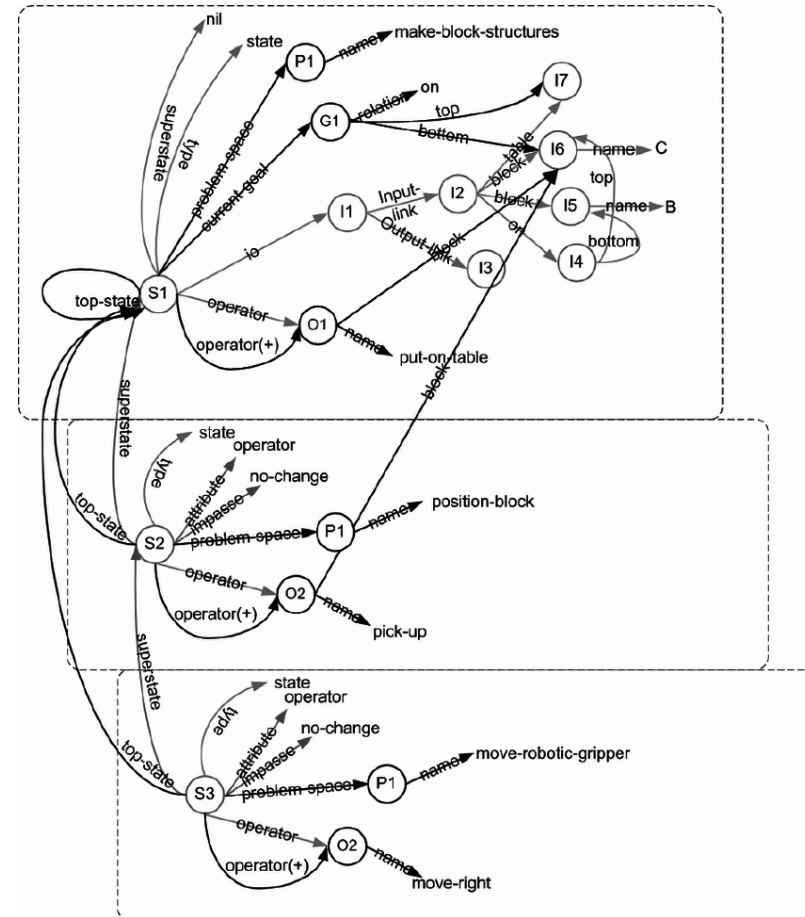
2. Agency requires ethics

- This is the idea that ‘can’ entails ‘ought’ – that is, our capacities to think, to reason, to act generate in us obligations to think, reason and act correctly
 - For example: “Kant believed that the shared ability of humans to reason should be the basis of morality, and that it is the ability to reason that makes humans morally significant.”

https://en.wikipedia.org/wiki/Kantian_ethics

The Idea of Agency

- widespread commitment to a desire-belief-intention version of agency, with a close connection between action and reasons
- This view carries over into software design, e.g. the belief–desire–intention software model (BDI)



<https://plato.stanford.edu/entries/agency/>

https://en.wikipedia.org/wiki/Belief%E2%80%93desire%E2%80%93intention_software_model

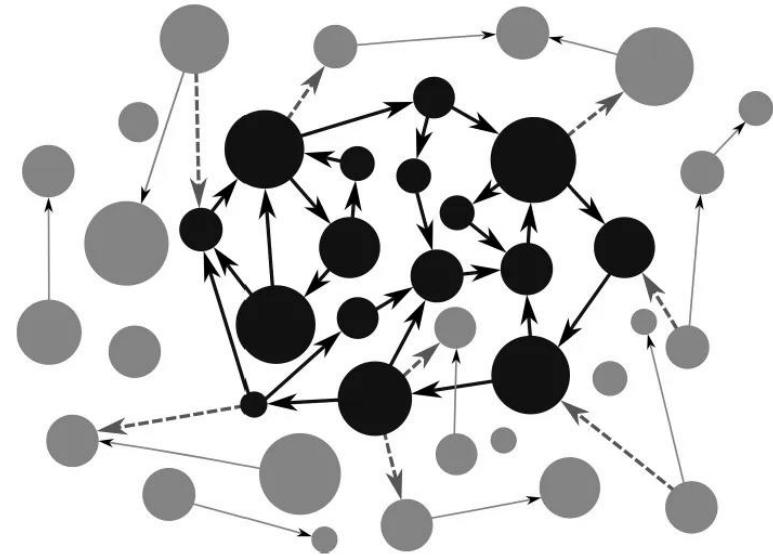
See also https://link.springer.com/chapter/10.1007/3-540-49057-4_1

And (1970) <https://www.researchgate.net/publication/2596320> The Belief-Desire-Intention Model of Agency

Image: SOAR <https://www.researchgate.net/publication/228398068> An introduction to Soar as an agent architecture

Agency Without Mental Representations

- BDI theories usually explain agency in terms of representations
 - that is, “in terms of intentional mental states and events that have representational contents (typically, propositional contents)”.
- But there are beings capable of genuine agency without representational states (e.g. an embodied enactive approach to mind)



Varela, in his 1979 book, *Principles of Biological Autonomy*, presented autonomy as a generalization of the concept of autopoiesis (cellular self-production).

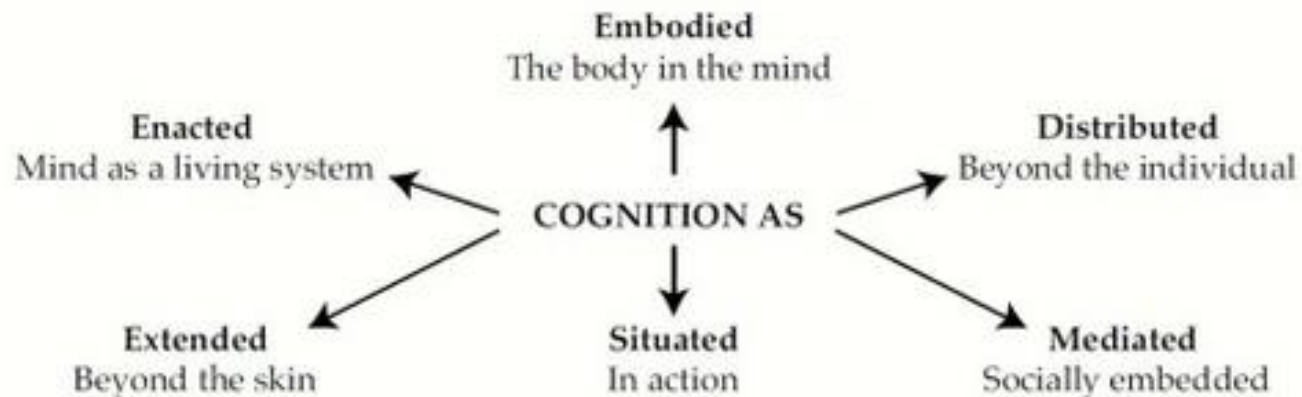
<https://plato.stanford.edu/entries/agency/>

<https://philosophyofbrains.com/2017/01/27/the-enactive-approach.aspx>

Extended Mind Thesis

The claim that minds or cognitive systems can extend into the environment. Two ways of expressing this:

- EMT1: Mental states extend beyond an organism's physical boundary
- EMT2: The right unit of analysis in cognitive science is the entire cognitive system, or at least large parts thereof



Overextension: The Extended Mind and Arguments from Evolutionary Biology
Armin Schulz

<https://people.ku.edu/~a382s825/Overextension%20PSD%20ORDER%20AI.pdf>

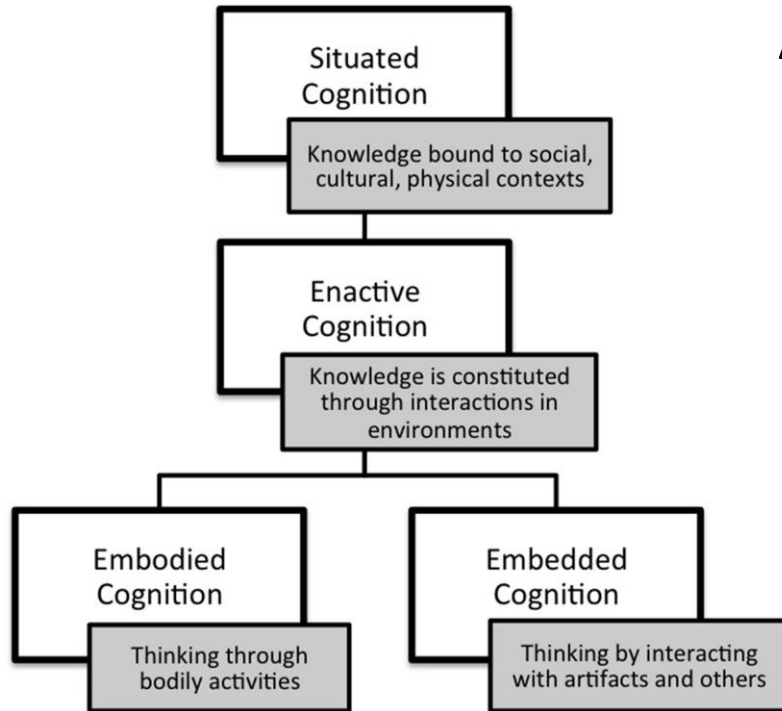
Also:

https://en.wikipedia.org/wiki/Extended_mind_the_sis

Image:

<https://ronbc.wordpress.com/2012/03/30/proposing-an-extremely-embedded-mind/>

Embodied and Enacted Cognition



As described by Mark Rowlands, mental processes are:

- Embodied involving more than the brain, including a more general involvement of bodily structures and processes.
- Embedded functioning only in a related external environment.
- Enacted involving not only neural processes, but also things an organism does.
- Extended into the organism's environment.

Mark J. Rowlands, 2010 *The New Science of the Mind: From Extended Mind to Embodied Phenomenology*

https://books.google.ca/books?id=AiwjpL-0hDgC&pg=PA51&redir_esc=y#v=onepage&q&f=false

Above quoted from https://en.wikipedia.org/wiki/Extended_mind_thesis

Image: <https://www.frontiersin.org/articles/10.3389/fpsyg.2015.01978/full>

Agency in Non-Human Entities

- ‘the Stock market wants / reacts / etc’
- Eduardo Kohn in *How forests think*
- Anna Tsing: global trade in matsutake mushrooms displays “patterns of unintentional coordination” between multiple actors
- Hamilton and Mitchell: sheep, humans, and dogs embedded in a complex web of relations, markets, and terrains

		Agents					
		Things (natural)	Things (cultural)	Non-human living beings (natural)	Non-human living beings (cultural)	Human beings	Social entities
		<i>examples</i>					
		<i>tsunamis, Northern lights, vernal pools, Martian rocks</i>	<i>speed bumps, sewing machines, teapots, adzes</i>	<i>grizzly bears, California poppies, truffles, protozoa</i>	<i>house cats, Dolly the sheep, GMO corn, Bourbon roses</i>	<i>OOPSLA organizers, software engineers, Internet users</i>	<i>OOPSLA, ISO, Doctors without Borders</i>
Agencies	Conditional agency	+	+	+	+	+	+
	Need-based agency	-	-	+	+	+	-
	Delegated agency	-	+	-	+	+	+
	Act according to own biological needs	-	-	-	-	+	+
Act according to own cultural needs	-	-	-	-	+	+	
Realize intentions of (other) human beings	-	+	-	+	+	+	

Examples from: <https://journals.sagepub.com/doi/10.1177/0731121420921897>

See <https://anthrosource.onlinelibrary.wiley.com/doi/full/10.1111/aman.13628> for a criticism

Image: <http://www.oopsla.org/2005/ShowEvent.do?id=76>

Some Conceptions of Agency

Not an exhaustive survey, but an exploration of some examples of discussions around more traditional conceptions of agency



Agency and Power

“There is a need to revise and redefine existing power structures while advocating for ethics and empathy in digital and hybrid spaces. Members of the community need to problematize the complexities of these interactions, and prepare all children to participate in complex democratic discourses using diverse digital tools.



Ian O'Byrne <https://wiobyne.com/building-ethical-communities/>

Ethics of Power



- This is a theme that will sound familiar to educators. "Data ethics is not only about power—it also is power"
"Power for governments, companies, self-proclaimed experts and advisors and even academic disciplines to point out the problems and their solutions, to set the priorities for what role data technologies should play in our human lives and in society."
- Don't ask if artificial intelligence is good or fair, ask how it shifts power
"Those who could be exploited by AI should be shaping its projects."

Power as Limitation



- Jaron Lanier: "The problem is not the Internet or social media in a broad sense but rather specifically the use of the algorithms... people being directed rather than exploring and that makes the world small."
- Small. That's a really good word for it. Like, when I'm looking for something to watch on YouTube, I feel the walls of the algorithm closing in on me.

Jaron Lanier (2021). Was the Internet a Horrible Mistake? Honestly with Bari Weiss. Podcast.

<https://www.honestypod.com/podcast/episode/2a738715/was-the-internet-a-horrible-mistake> Stefanie Panke, 2021
Social Media: Time for a Break?, AACE Review, <https://www.aace.org/review/social-media-time-for-a-break/>

Resilience

- UNICEF: resilient children—those equipped with skills in areas such as communication, conflict resolution and self-efficacy—are more likely to make appropriate choices when using social media
- Fostering resilience: "protective factors" in three major categories:
 - caring and supportive relationships
 - positive and high expectations
 - opportunities for meaningful participation



BUT: “correlates of resilient outcomes are generally so modest that it is not possible accurately identify who will be resilient to potential trauma and who not”

UNICEF: <https://www.unicef.org/eap/press-releases/build-resilience-children-help-them-stay-safe-social-media>

Bonnie Benard, 1995, Fostering Resilience in Children. ERIC Digest. <https://eric.ed.gov/?id=ED386327>

George A. Bonanno, 2021: <https://www.tandfonline.com/doi/full/10.1080/20008198.2021.1942642>

Self-Determination

- Self-Determination Theory (SDT) and “basic psychological needs”
 - competence (feeling one is effective in meeting environmental demands)
 - autonomy (feeling authentic, acting with volition, having input)
 - relatedness (feeling connected with and cared for by significant others)

Duda & Appleton

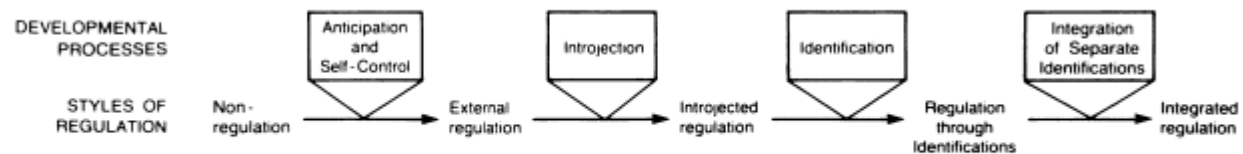


FIGURE 1. The internalization continuum of organismic integration theory representing the movement from nonregulation to fully self-determined regulation, as well as the developmental processes involved in the transitions.

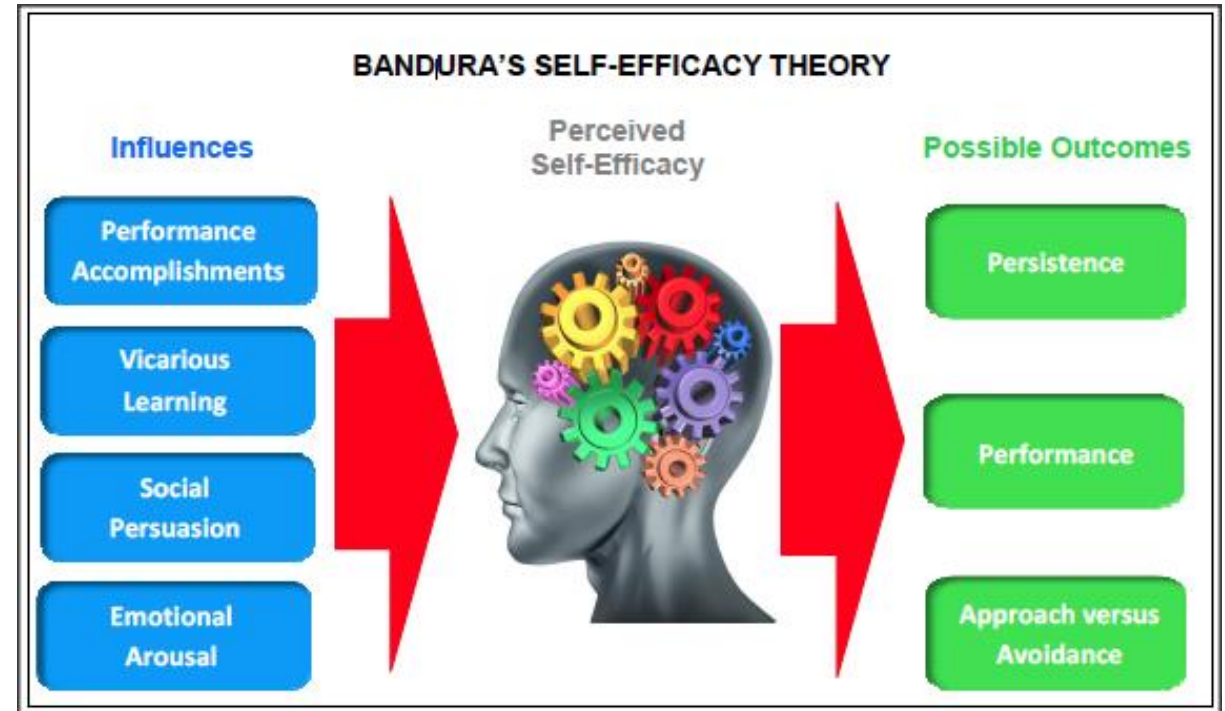
Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Berlin: Springer Science & Business Media. <https://doi.org/10.1007/978-1-4899-2271-7> esp. pp 154-160, image p. 139

Joan L. Duda, Paul R. Appleton, in *Sport and Exercise Psychology Research*, 2016 <https://www.sciencedirect.com/topics/social-sciences/self-determination-theory>

Self-Efficacy

“Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997).”

- Mastery experiences
- Vicarious experiences
- Verbal persuasion and feedback
- Physical signals

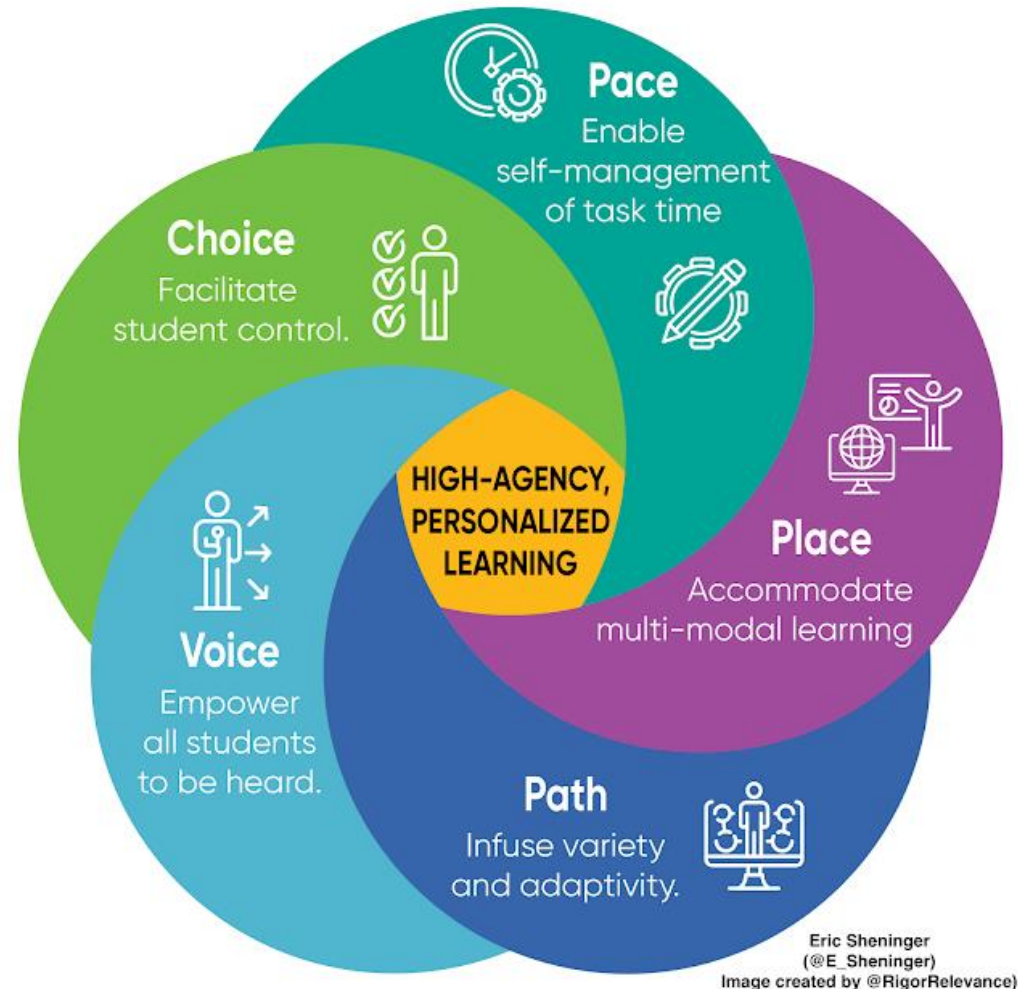


APA <https://www.apa.org/pi/aids/resources/education/self-efficacy>

Image: <https://www.ovpconsulting.com/weekly/2018/11/16/086p3teoj8d0dbvuwb51sh7qkc63c>

Laura Ritchie, 2016, Fostering Self-Efficacy in Higher Education Students, pp. 25-30

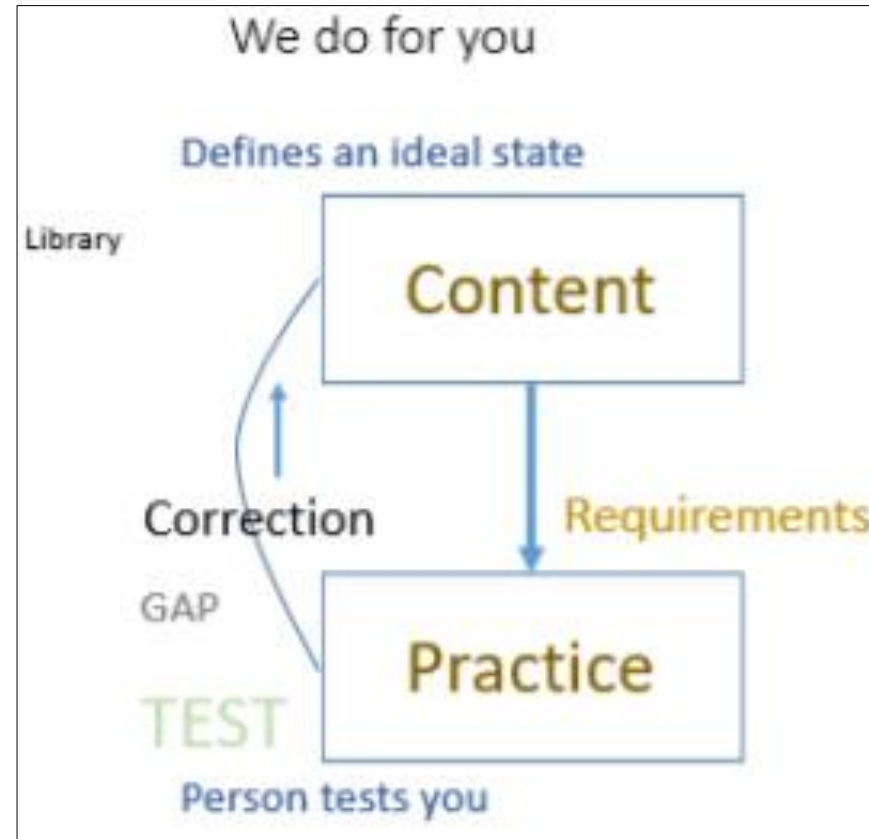
Dimensions of Learner Agency



Eric Sheninger's approach: "There are many strategies that educators were implementing well before the pandemic that hold more value now. Regardless of the terminology used, these represent more personalized pathways that focus on student agency leading to empowerment and more ownership of the learning experience."

<http://esheninger.blogspot.com/2020/09/high-agency-in-remote-and-hybrid.html>

Free Learning and Control Learning



<https://www.downes.ca/presentation/172>
<https://www.downes.ca/presentation/380>