

STUDY OF THE CONSIDERATION OF PLANETARY HEALTH IN THE CAPABILITY TO CHOOSE ONE'S CAREER PATH

Sandrine GARIN

Co-direction of thesis : Valérie Cohen-Scali & Katia Terriot
Research engineer : Pascal Bessonneau

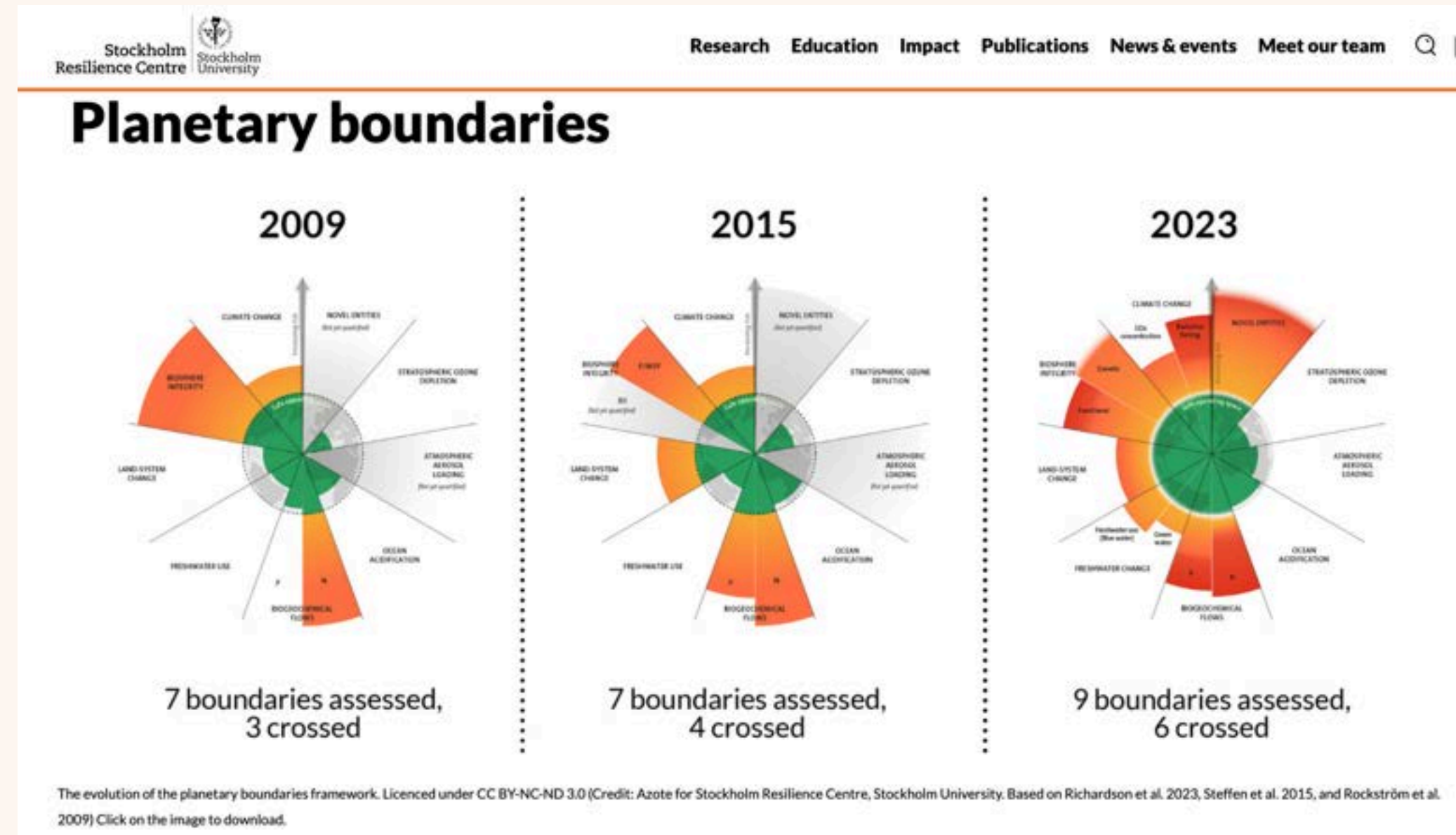
IAEVG Conference
12 novembre 2024



Context

Construct of planetary boundaries

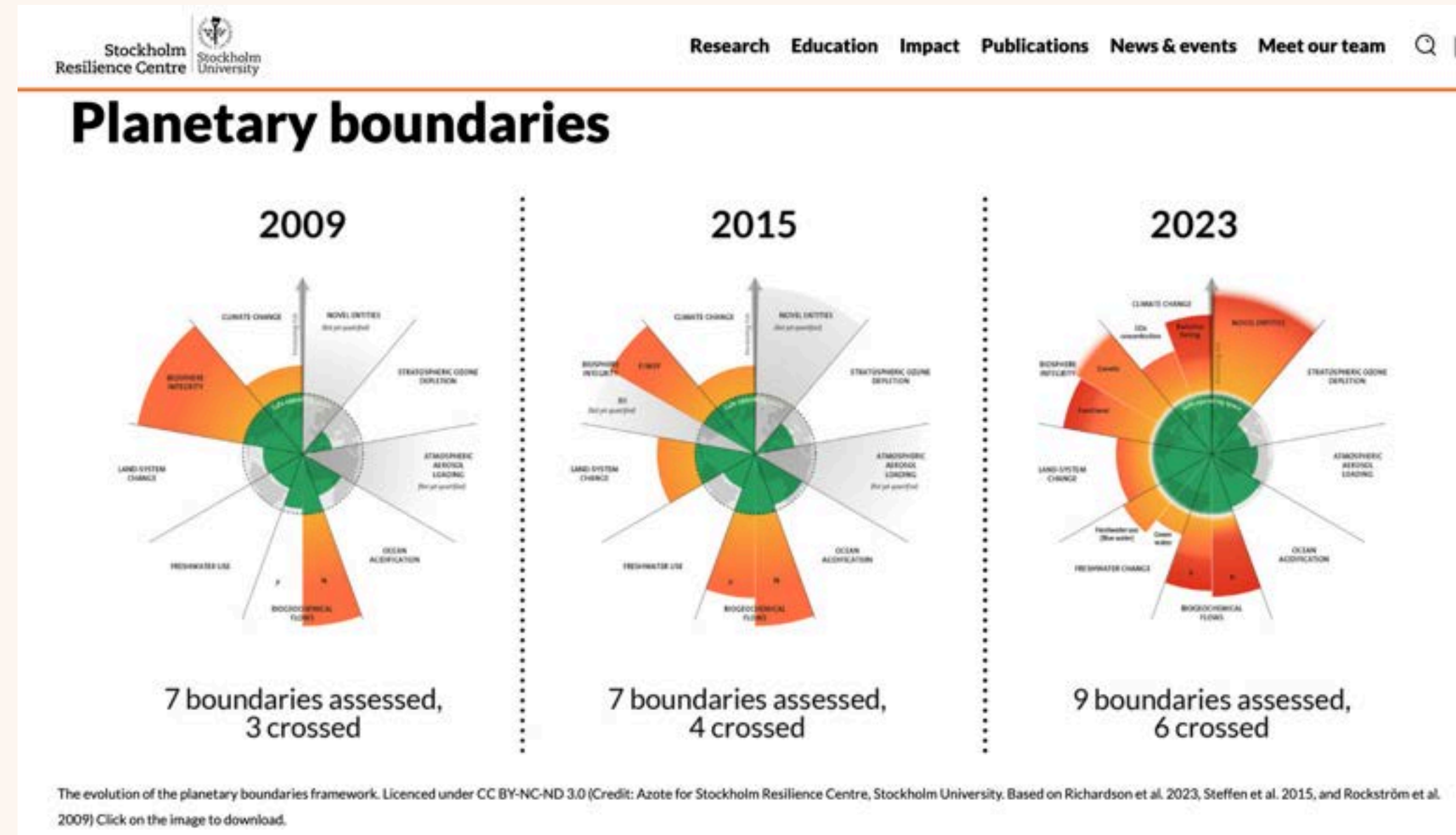
- Planetary boundaries, Rockström et al. (2009)
 - 1.8 times the Earth resources used
- Donut theory, Raworth (2018)
 - with more details
 - 7 planetary boundaries exceeded



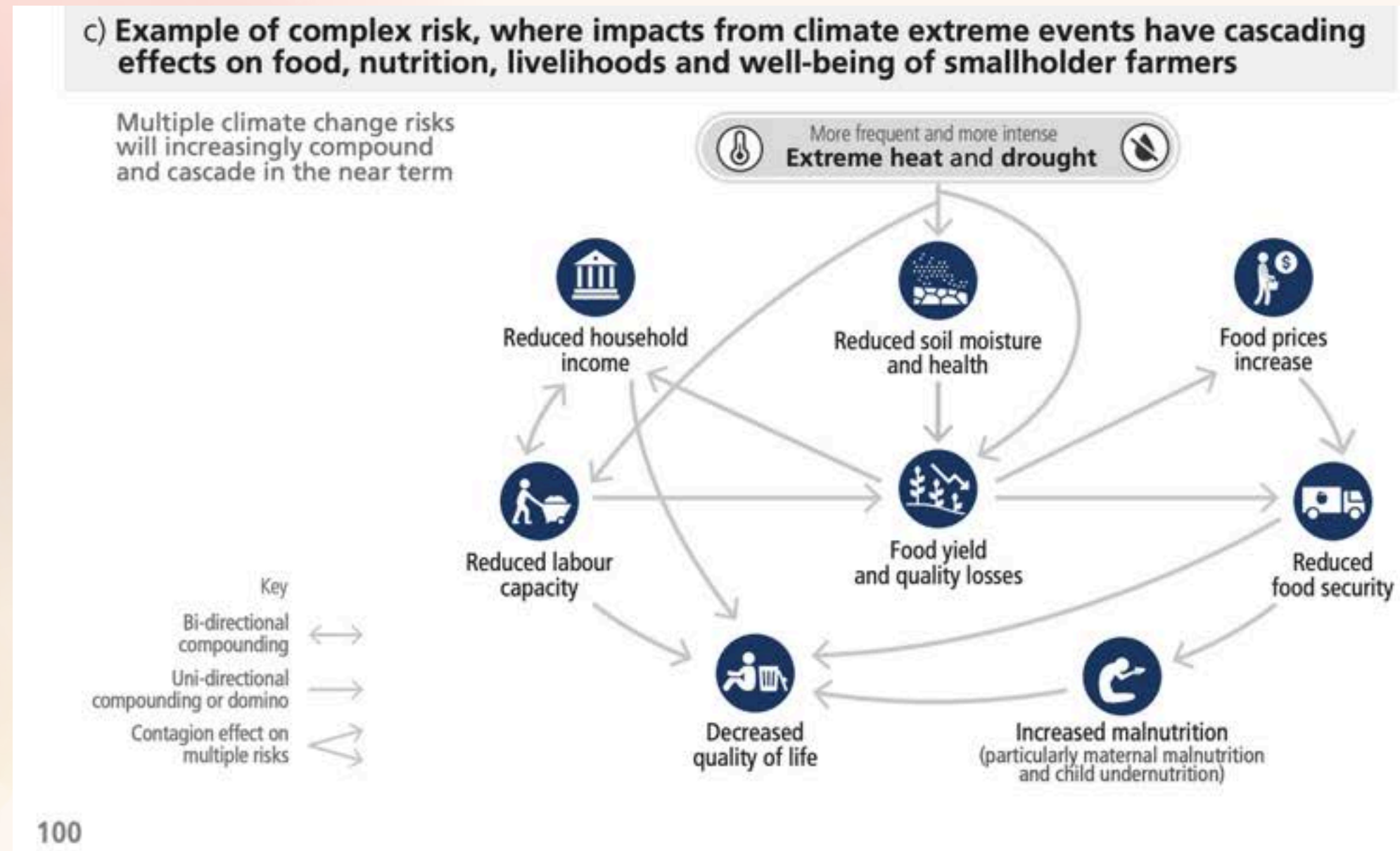
Construct of planetary boundaries

Limites planétaires, Rockström et al. (2009)

- 1,8 fois les ressources de la Terre utilisées
 - Théorie du donut, Raworth (2018)
- avec plus de détails
 - 7 limites planétaires dépassées

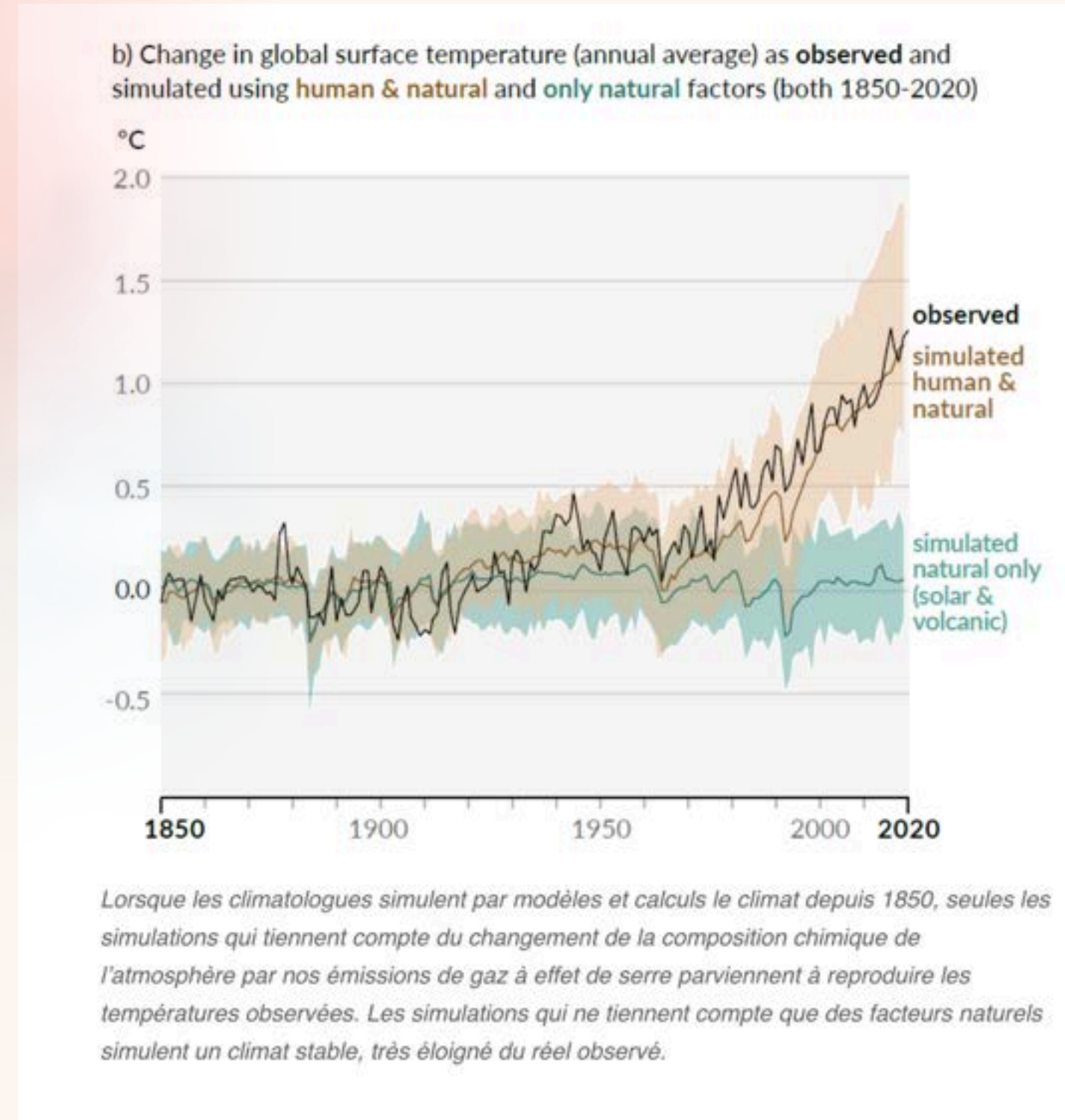


Impact of the crisis on human people



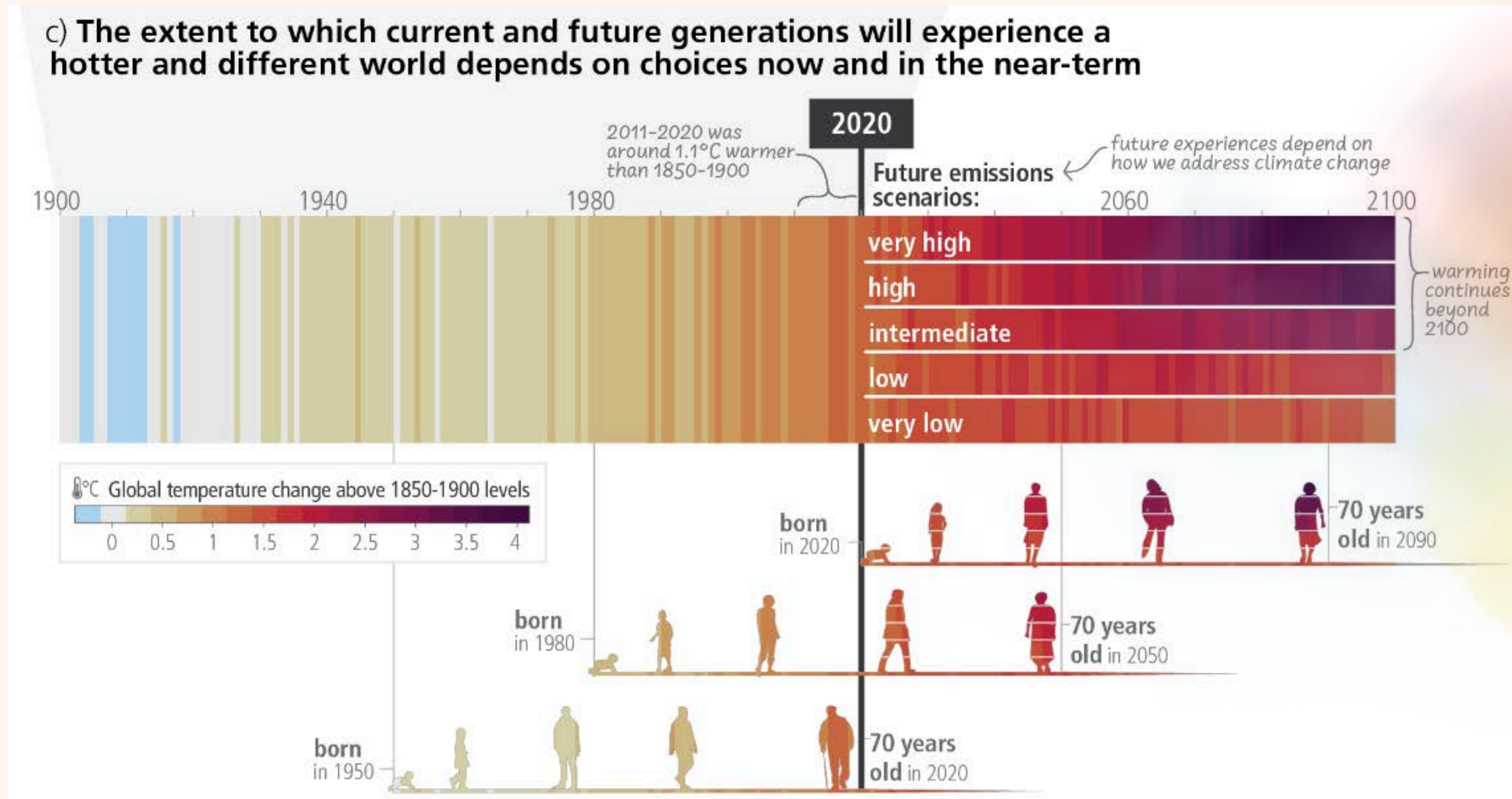
- The climate crisis affects professional life

Human impacts on the environment



Professional activities have an impact on the climate crisis

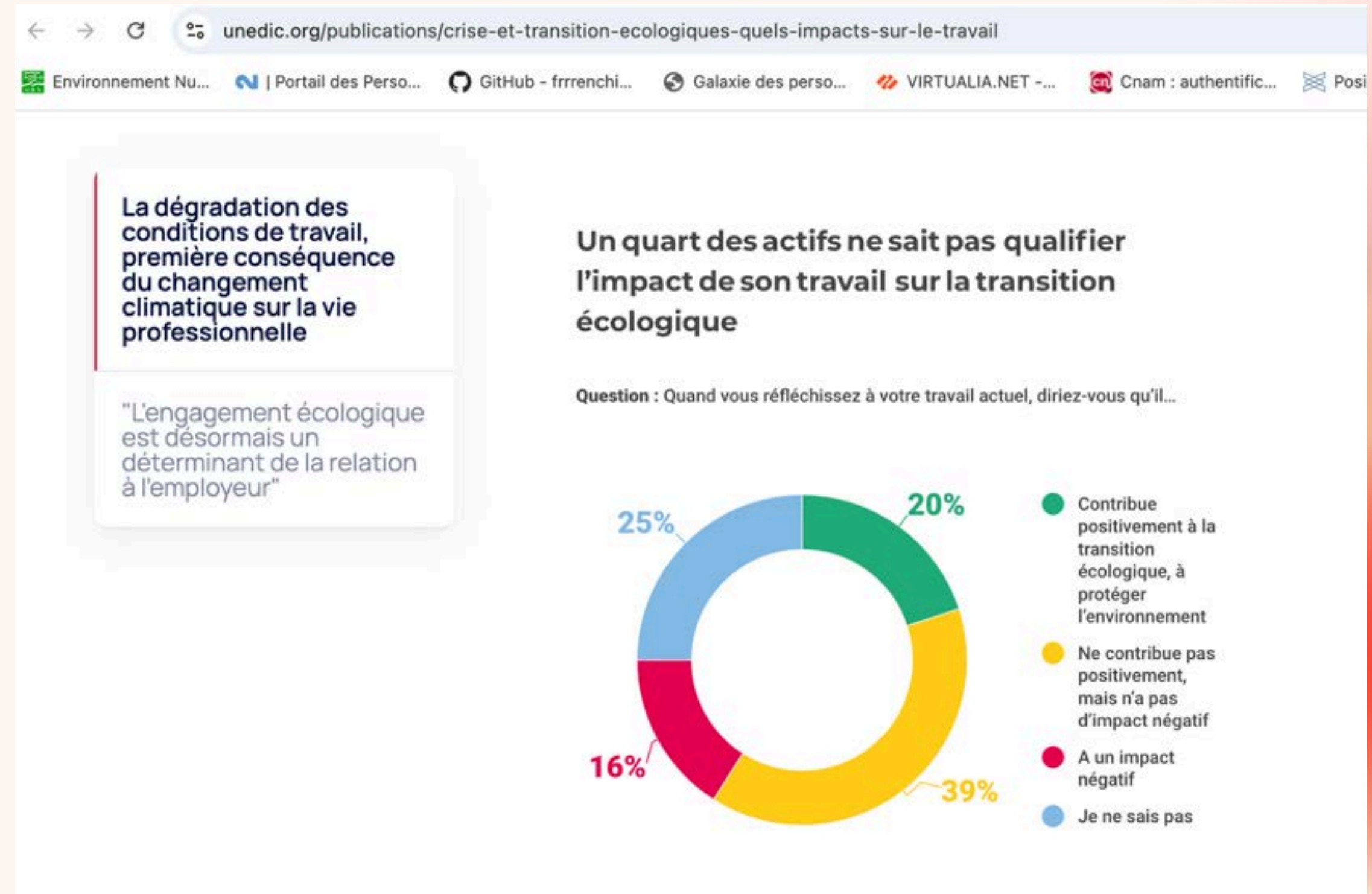
Environmental crisis : a question of choice



3 scenarios are thought : with effort, without and the middle

Professional activities and environmental crisis, in France

- 80% of French workers
 - don't know their impacts (25%)
 - know that there is no impact (16%)
 - 39% = no participation but no impact
- 20% = participating in the ecological transition



At source, a difficulty in finding one's bearings when entering university

88%

New French students say they felt free to formulate their wishes on Parcoursup

34.9%

In 2018, only 34.9% graduated in 3 years and 65.1% repeated or reoriented (EESR report, 2023).

in France, a problem to make a career decision after secondary school

88%

New French
students say they
felt free to
formulate their
wishes on
Parcoursup

**Sen (1992, 2000) makes a
relevant difference
between formal and real
freedom**

**Real freedom would then consists of benefiting from
sufficient environmental resources (family, school,
institutional support, etc.), which psychological
resources could convert into the capability to choose
(Fernagu, 2022).**

34.9%

In 2018, only 34.9%
graduated in 3 years and
65.1% repeated or
reoriented (EESR report,
2023).

Introduction



THEORY OF CAPABILITIES (SEN,1992,2000) AND FIELD OF GREEN GUIDANCE

1. a systemic reading of the question of choice

- The capability approach draws on a systemic perspective to understand the possibility of choosing (capability) in a favorable or unfavorable (enabling or disabling, unabling) environment.

3. Aim : the relevance of applying this theory in the field of guidance

- Equity between individuals is based on the balance between the external resources (enabling environment) and the internal resources (psychological) of the individual.

4. In terms of the capability to make a decision : vocational identity as internal resources

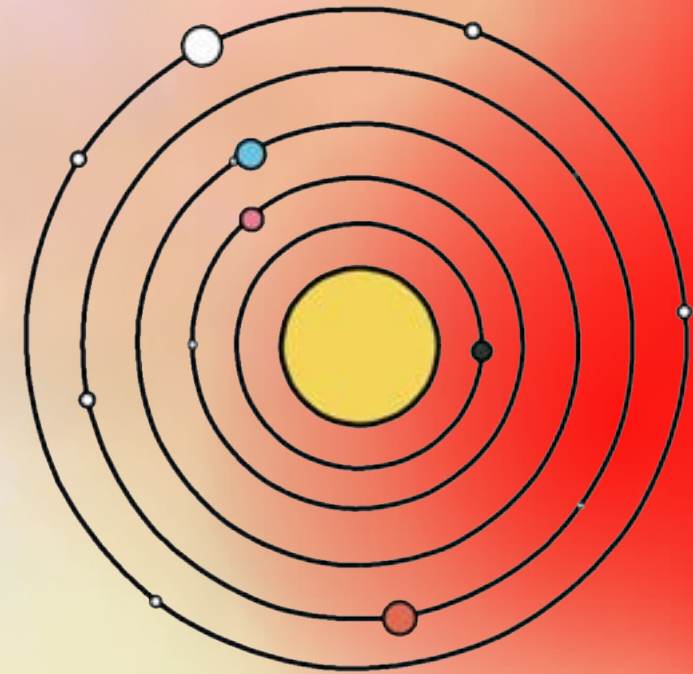
- vocational identity is this perception or awareness of one's personality traits, skills, strengths, interests, and goals.

5. In terms of the capability to make a decision : parental support and decent education as external resources

- parental support is identified by student as the first support.
 - This support impacts the process of exploration, self esteem (Bryant, Zvonkovic and Reynolds, 2006).
 - But it depends on the quality of relation parent/child (Vignoli and al. 2005).
- decent education (Duffy and al. 2022) :
 - From Psychology of Working Theory, PWT,(Duffy and al. 2016).
 - construct thought as predicator of decent work
 - well-being, well learning (relation with teachers, classmates), material and psychological conditions, with a good climate

6. In terms of the capability to make a decision : self-determination

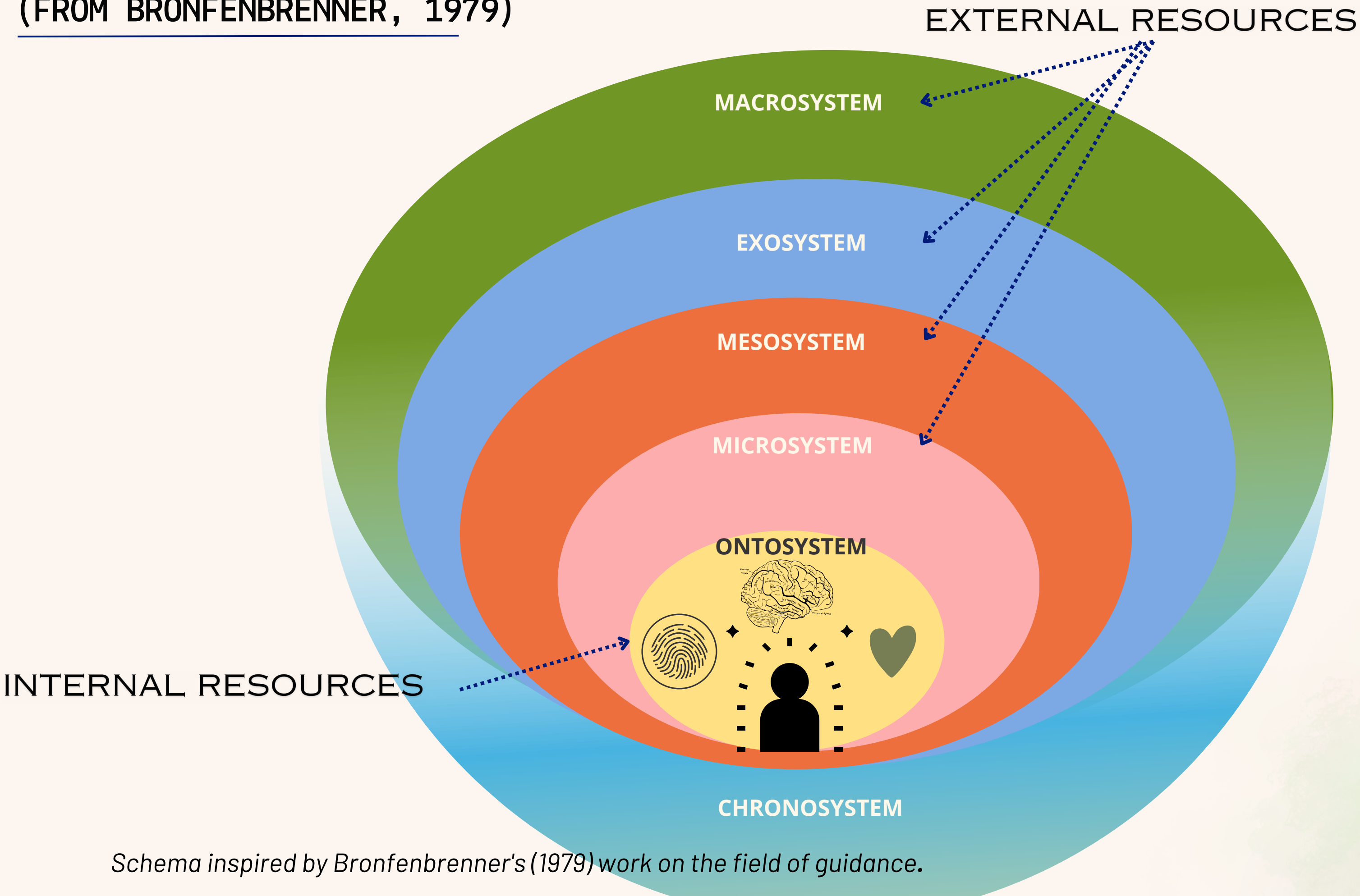
- self-determination (Deci, Ryan, 2000) meets basic psychological needs and enables well-being = the goal of CA
- DeHaan, Hirai and Ryan, 2016



External and internal resources



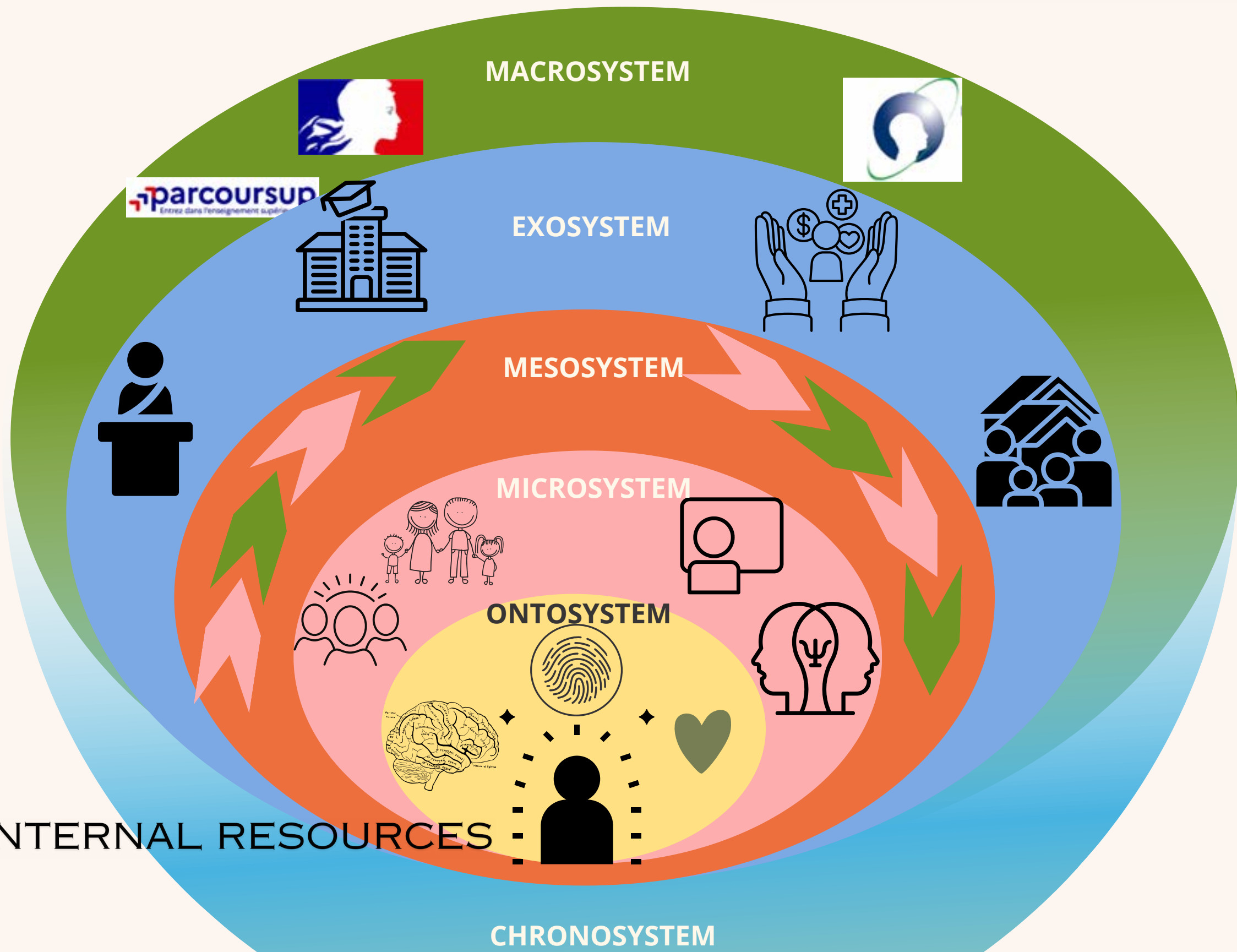
THE ENABLING ENVIRONMENT OF STUDENT
(FROM BRONFENBRENNER, 1979)



Schema inspired by Bronfenbrenner's (1979) work on the field of guidance.

THE ENABLING ENVIRONMENT OF STUDENT (FROM BRONFENBRENNER, 1979)

EXTERNAL RESOURCES



MACROSYSTEM

- Department
- Platform PARCOURSUP
- Laws, norms, culture...

MESOSYSTEM

interactions between different systems

EXOSYSTEM

- neighborhood
- academy
- social services, urban policy

MICROSYSTEM

- family
- school : teachers, psychologist, director...
- classmates, friends

ONTOSYSTEM

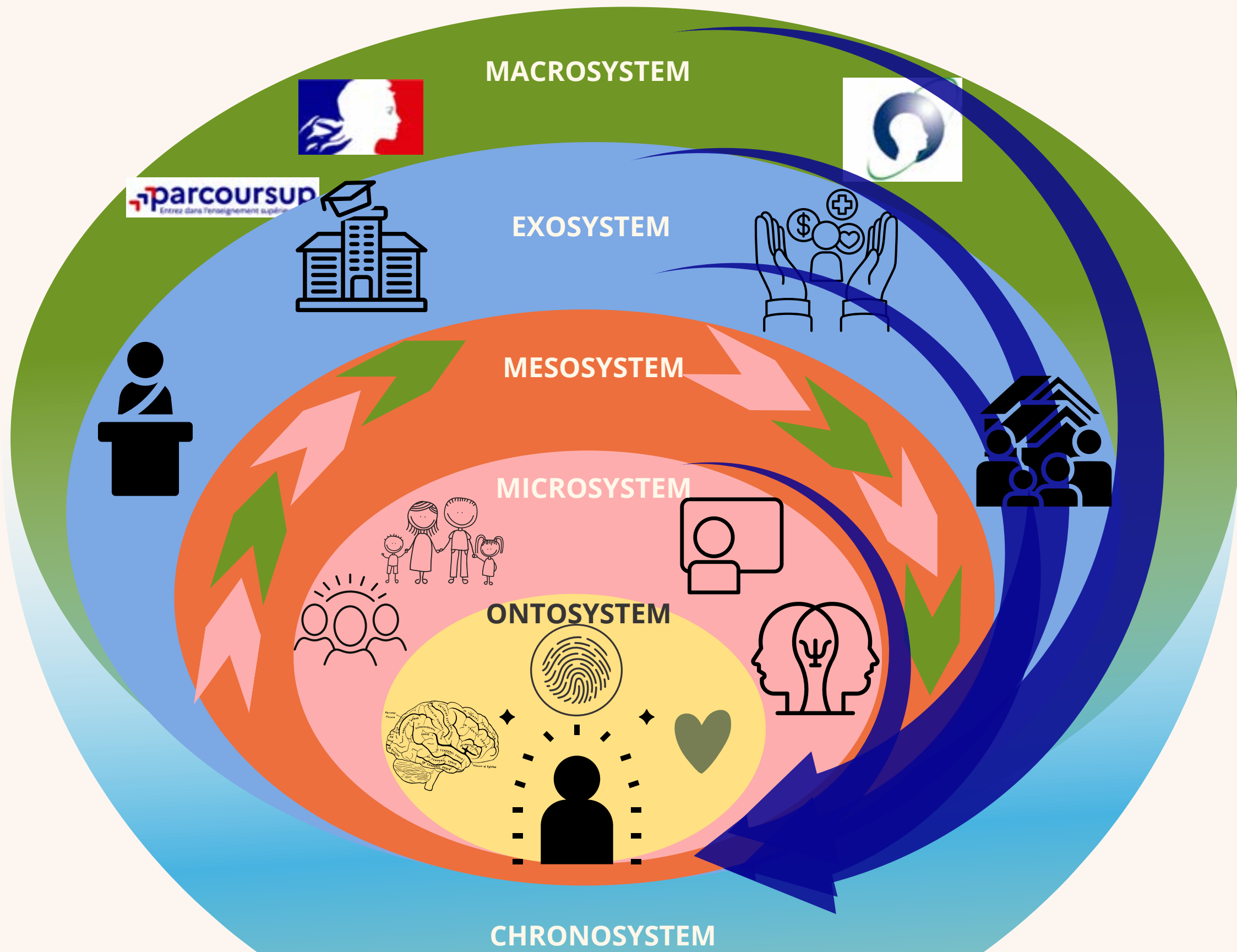
- cognitives and émotionnal capacities
- vocational identity
- mental and physical health

CHRONOSYSTEM

- evolution of interactions between systems over time

Schema inspired by Bronfenbrenner's (1979) work on the field of guidance.

THE ENABLING ENVIRONMENT OF STUDENT (FROM BRONFENBRENNER, 1979)



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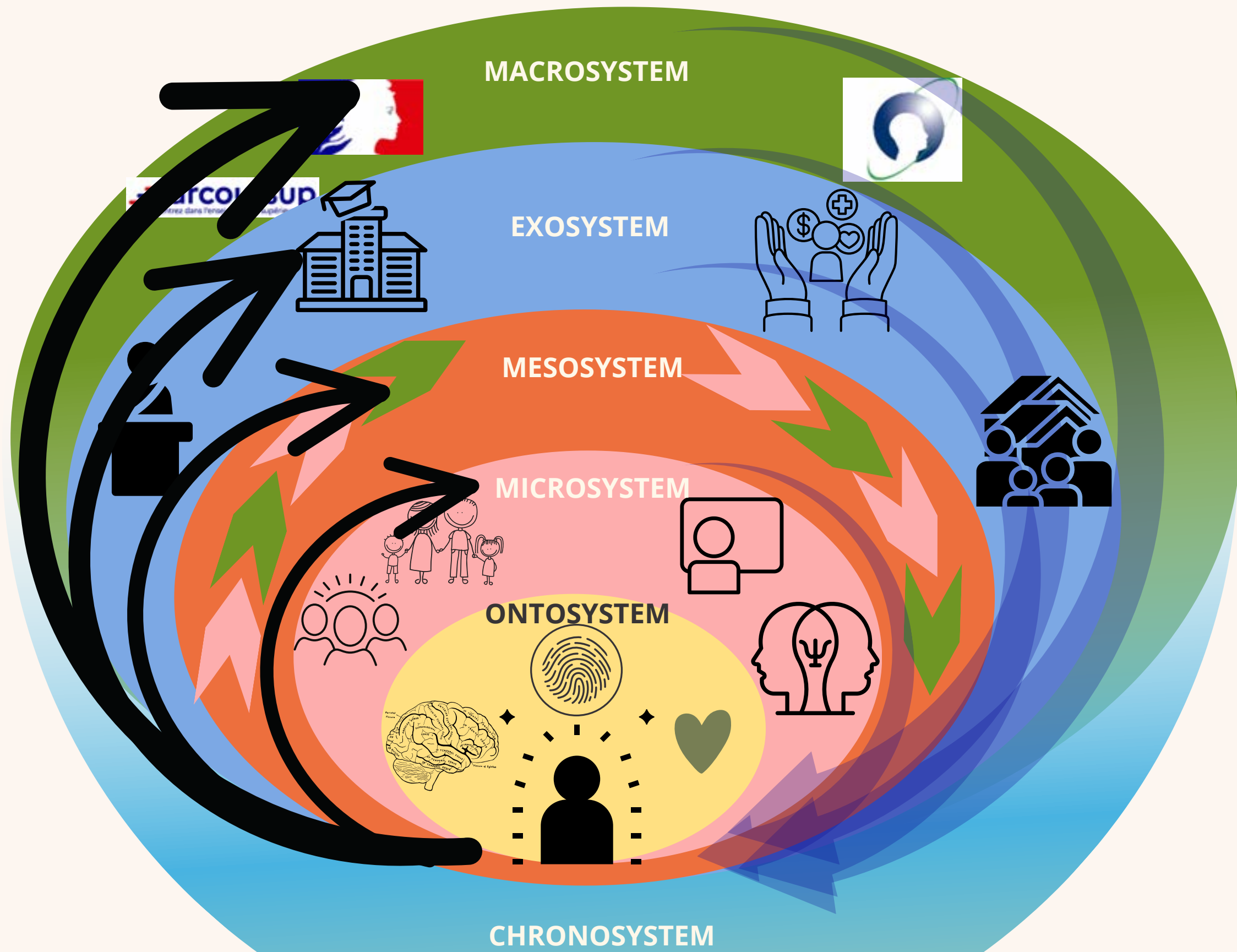
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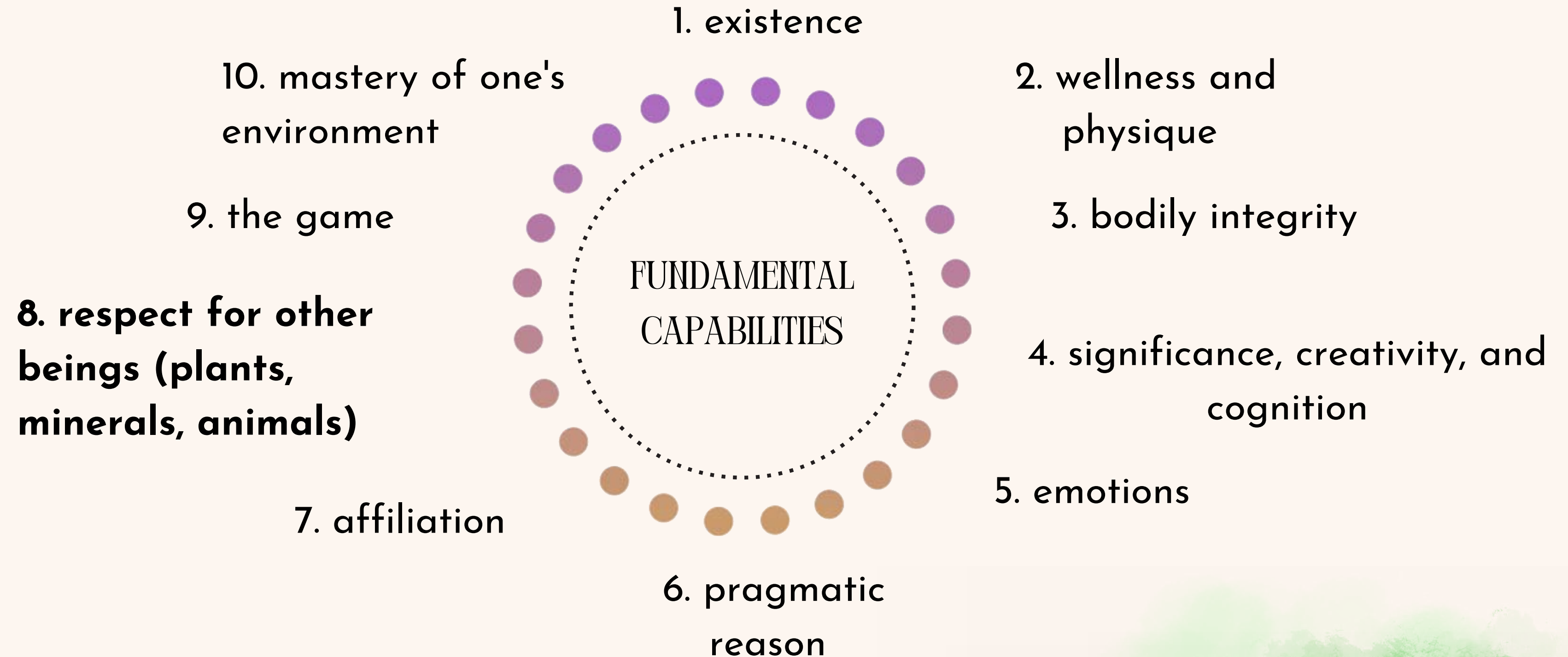


HYPOTHESIS

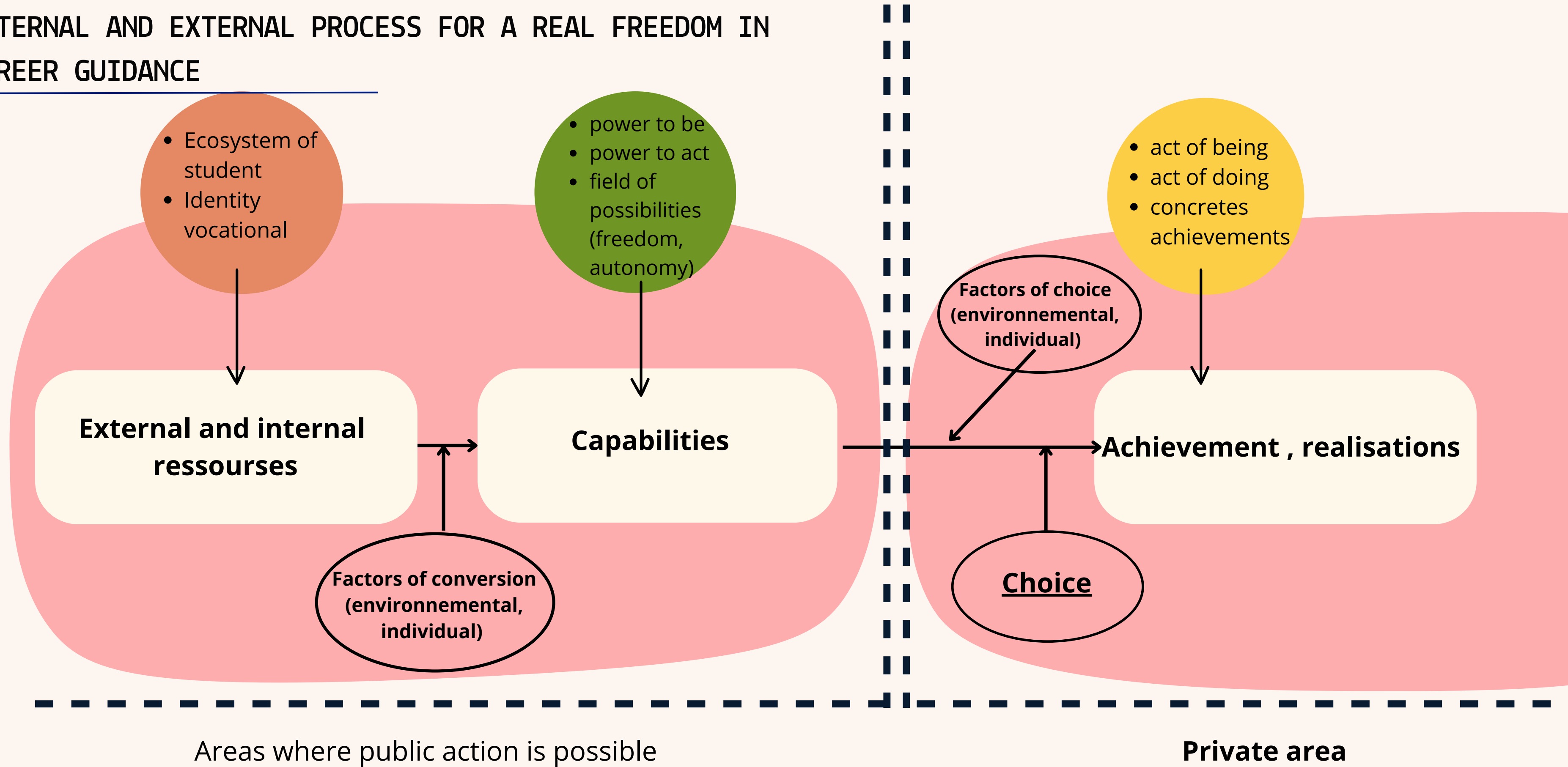
- MACROSYSTEM
 - Department
 - Platform PARCOURSUP
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 - interactions between différents systems
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 - neighborhood
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Schema inspired by Bronfenbrenner's (1979) work on the field of guidance.

10 CAPABILITIES, NUSSBAUM (2012)

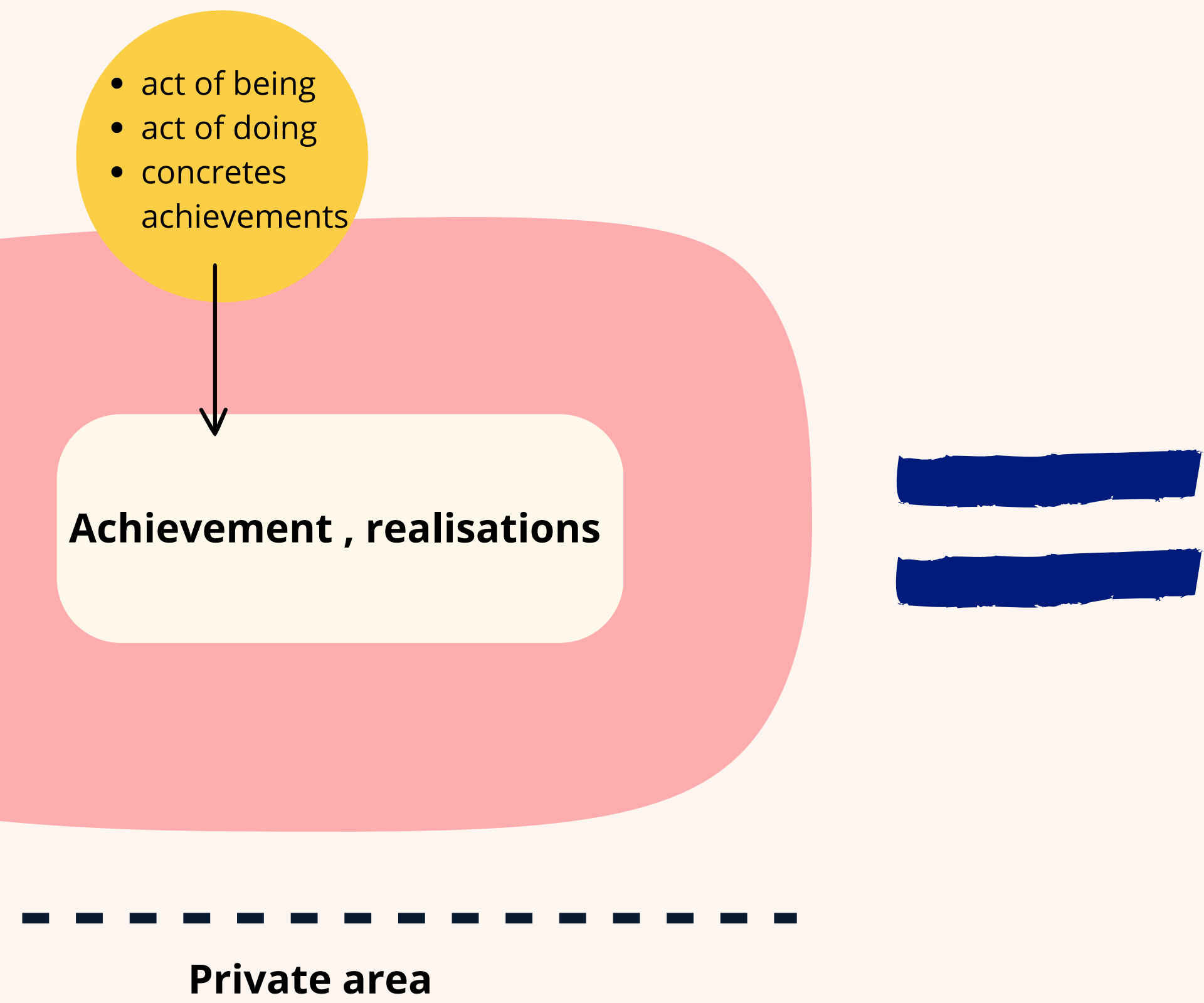


INTERNAL AND EXTERNAL PROCESS FOR A REAL FREEDOM IN CAREER GUIDANCE



Schema based of Sen (1992), Bonvin and Farvaque (2008) and Fernagu-Oudet (2012)

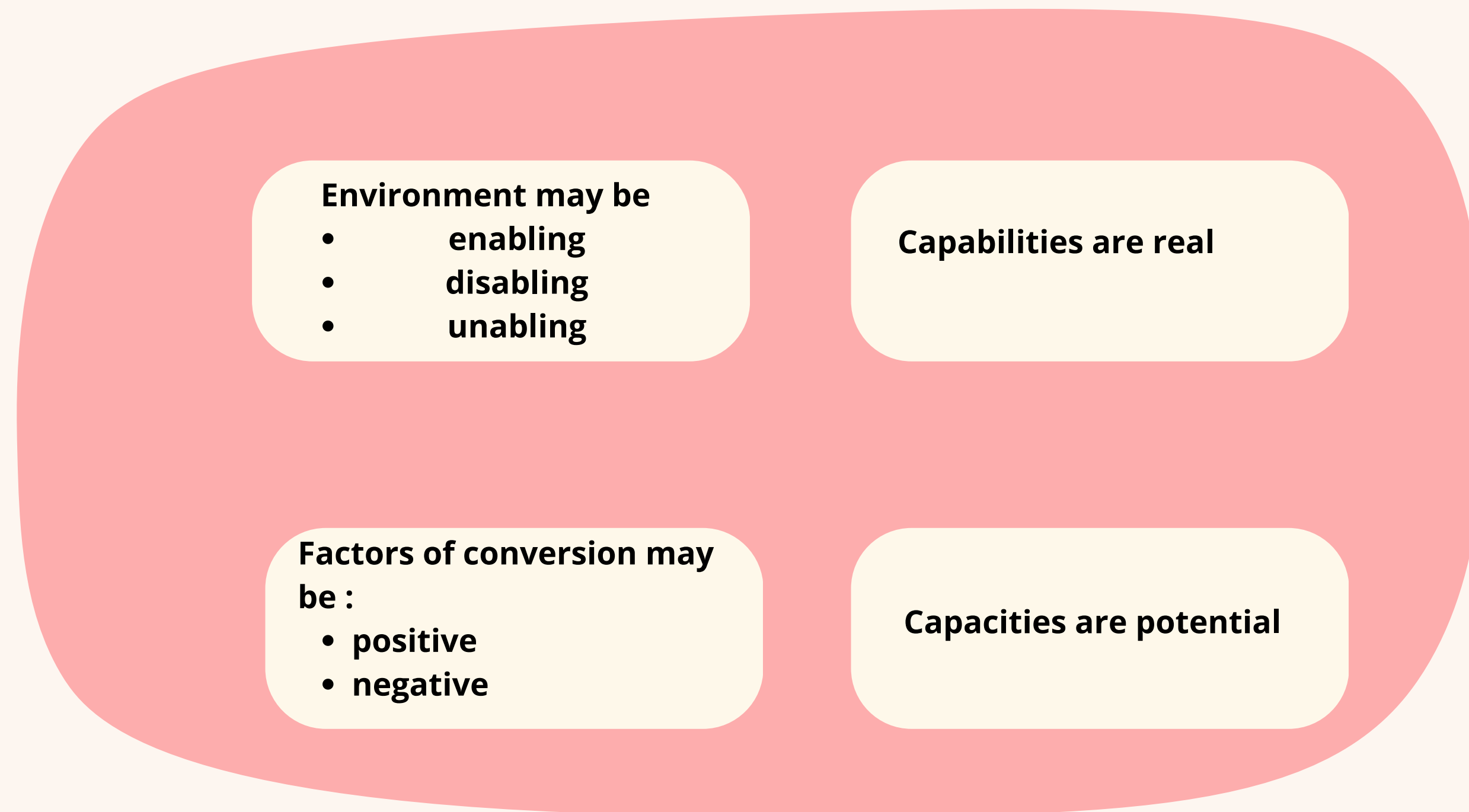
INTERNAL AND EXTERNAL PROCESS FOR A REAL FREEDOM



- **In capability to choose as a citizen**

- Sen waits from citizen to make a choice in including more parameters than himself/herself and his/her family
- **8th capability** : “to be able to develop an awareness of and a relationship with animals, plants and the natural world” (Nussbaum, 2012)
- including the **planetary health** in my choice of citizen
 - Reminder :
“planetary health is the health of human civilisation and the state of the natural systems on which it depends” (Whitmee and al., 2015)

INTERNAL AND EXTERNAL PROCESS FOR A REAL FREEDOM IN CAREER GUIDANCE



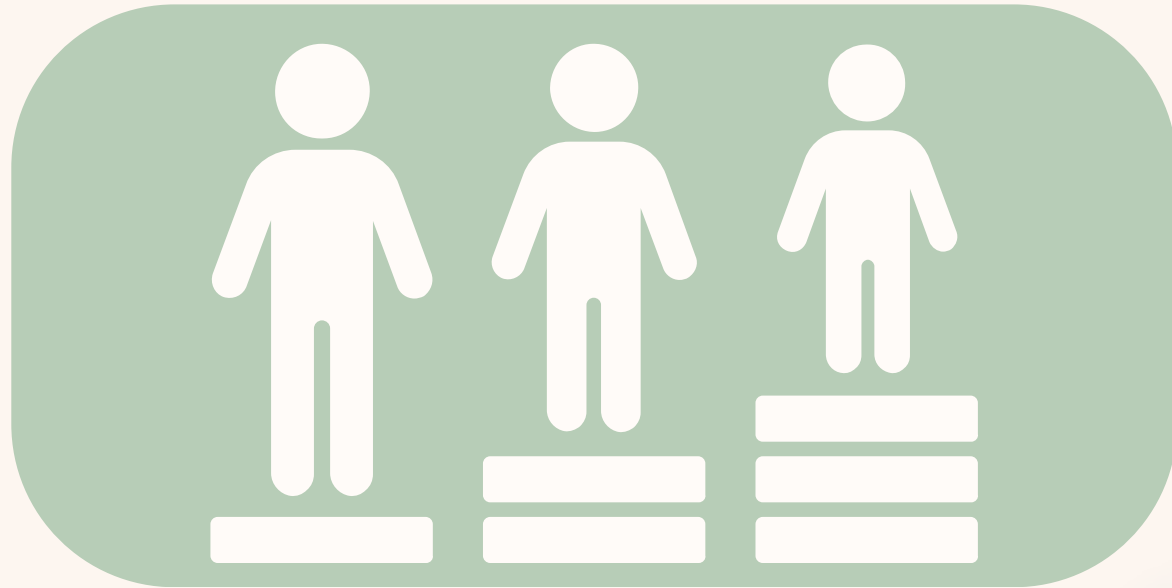
Internal resources :
vocational identity

Commitment	surface exploration	commitment	identification in commitment	self doubt	flexibility of commitment
Diffused identity	⊖	⊖	⊖	⊕	⊕
Foreclosed identity	⊖	⊕	⊕	⊖	⊖
Moratorium	⊕	⊖	⊖	⊕	⊕
Moratorium on questioning	⊕	=	=	=	=
Undifferentiated	=	=	=	=	=
Achieved identity	⊕	⊕	⊕	⊕	⊕

Schema based of Erikson (1968, 1972) Marcia (1966), Porfeli et al. (2019)

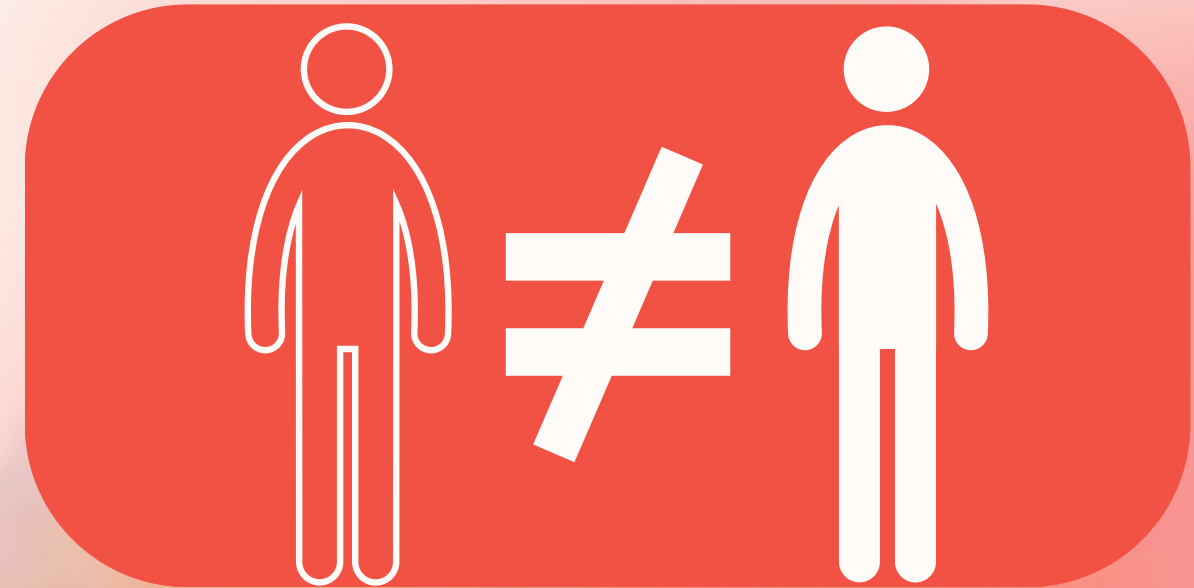
⚠ exploration in depth

2 types of freedom for Sen (2000)



real freedom

- enabling environment
- basic needs
- psychological , physical resources



formal freedom

- no basic needs
- unabling or disabling environment
- and/or lacks sufficient mental
- and/or handicap situaton

2 types of freedom for Sen (2000)



real freedom

- enabling environment
- basic needs
- psychic resources

HYPOTHESIS 1

Real freedom

- enabling environment
- a vocational identity of the achieved identity type
- enabling the expression of a strong sense of freedom, It means strong self-determination



formal freedom

- no basic needs
- disabling environment
- and/or lacks sufficient mental

HYPOTHESIS 2

formal freedom

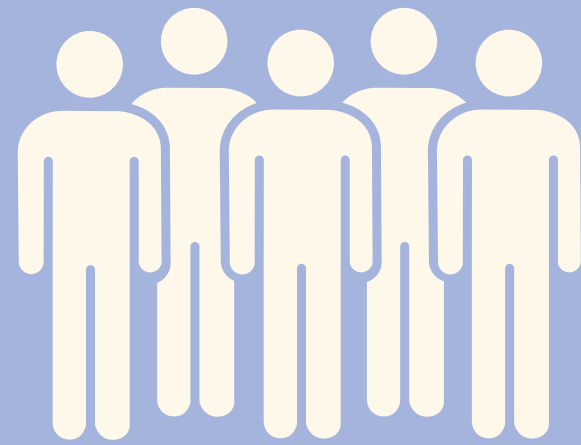
- the combination of an disabling/unabling environment
- a diffused or foreclosed identity
- with the expression of a weak sense of freedom / low self-determination



Quantitative study



Methodology



Participants

- 163 pupils
- 141 new students
- 3 schools
- 1 university

01



Scales

- perception of parental support
 - Dangoisse et Nils, 2019
- decent education
 - Terriot, rapport, 2019, Duffy et al. 2022
- vocational identity
 - Lannegrand et Perchec, 2016

02



- basics needs
- mental and physical health
 - Santé publique, vol.30, n°6
- health planetary
- feeling of freedom / self determination
 - Brasselet et Guerrien, 2019

03



Méthodologie

- quantitative
- Jamovi
- R

04

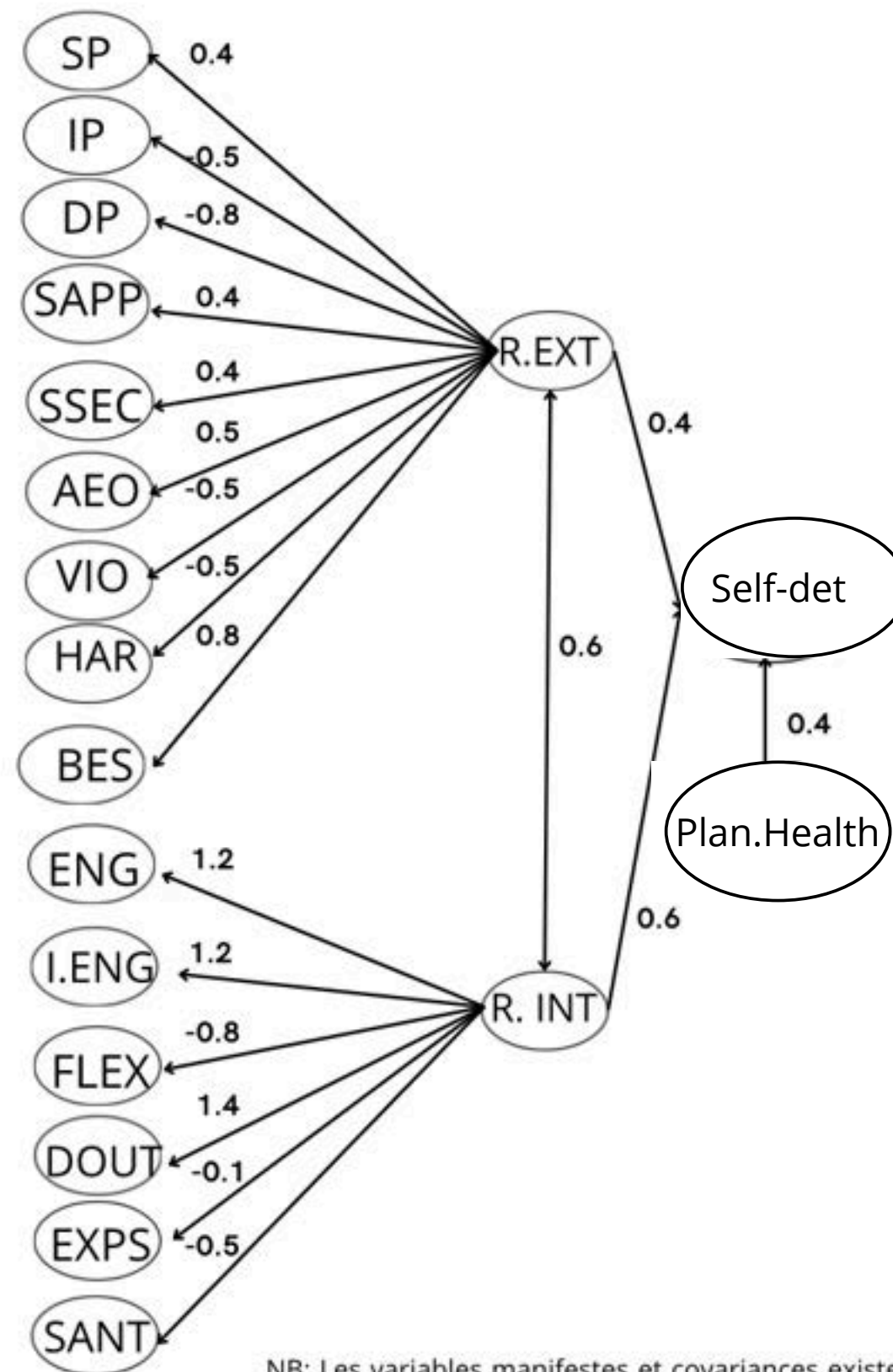




Structural equation modeling



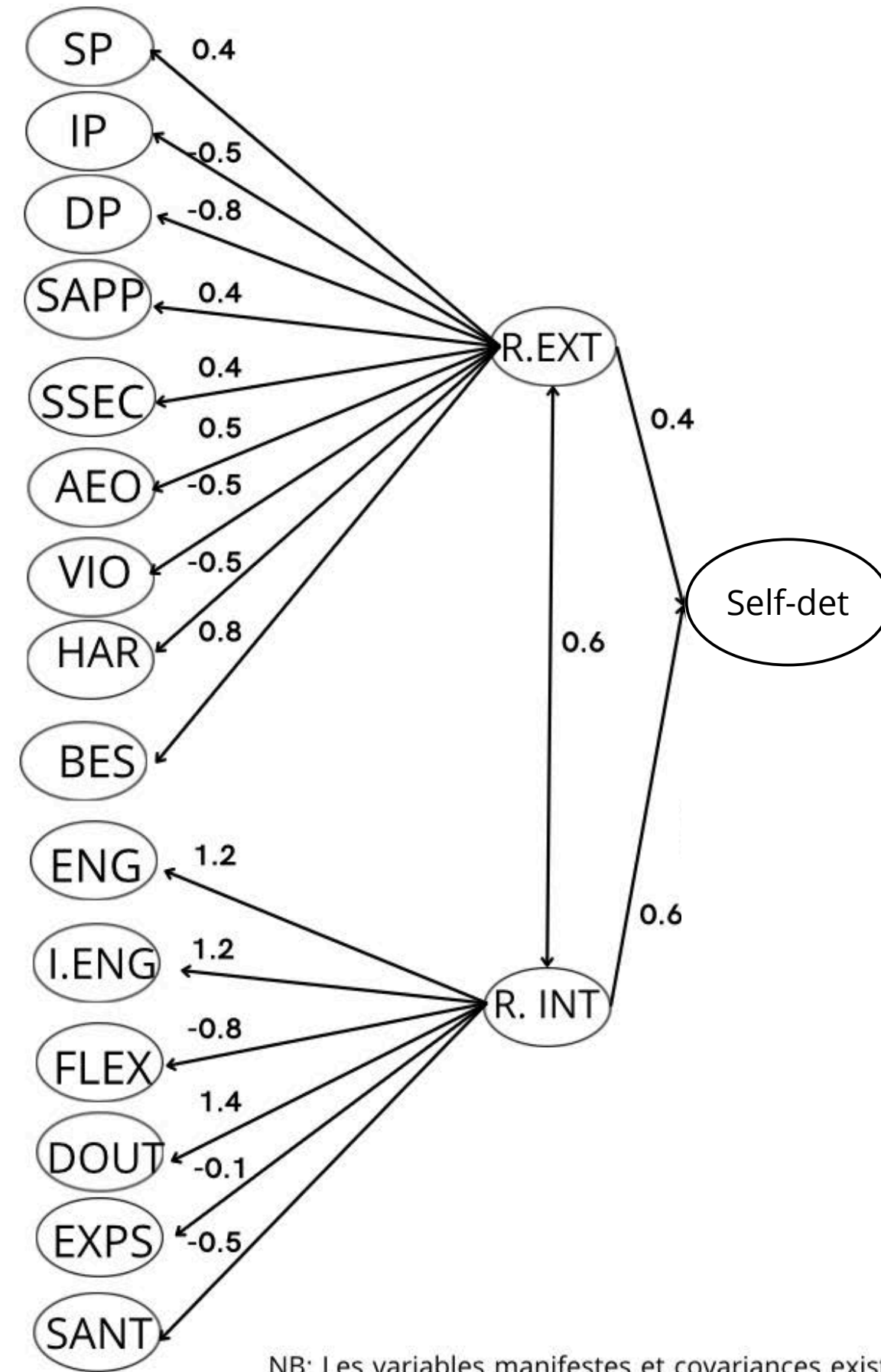
Four factors model : first SEM



NB: Les variables manifestes et covariances existent mais ne sont pas montrées pour plus de lisibilité.

Alternative design

Plan.Health



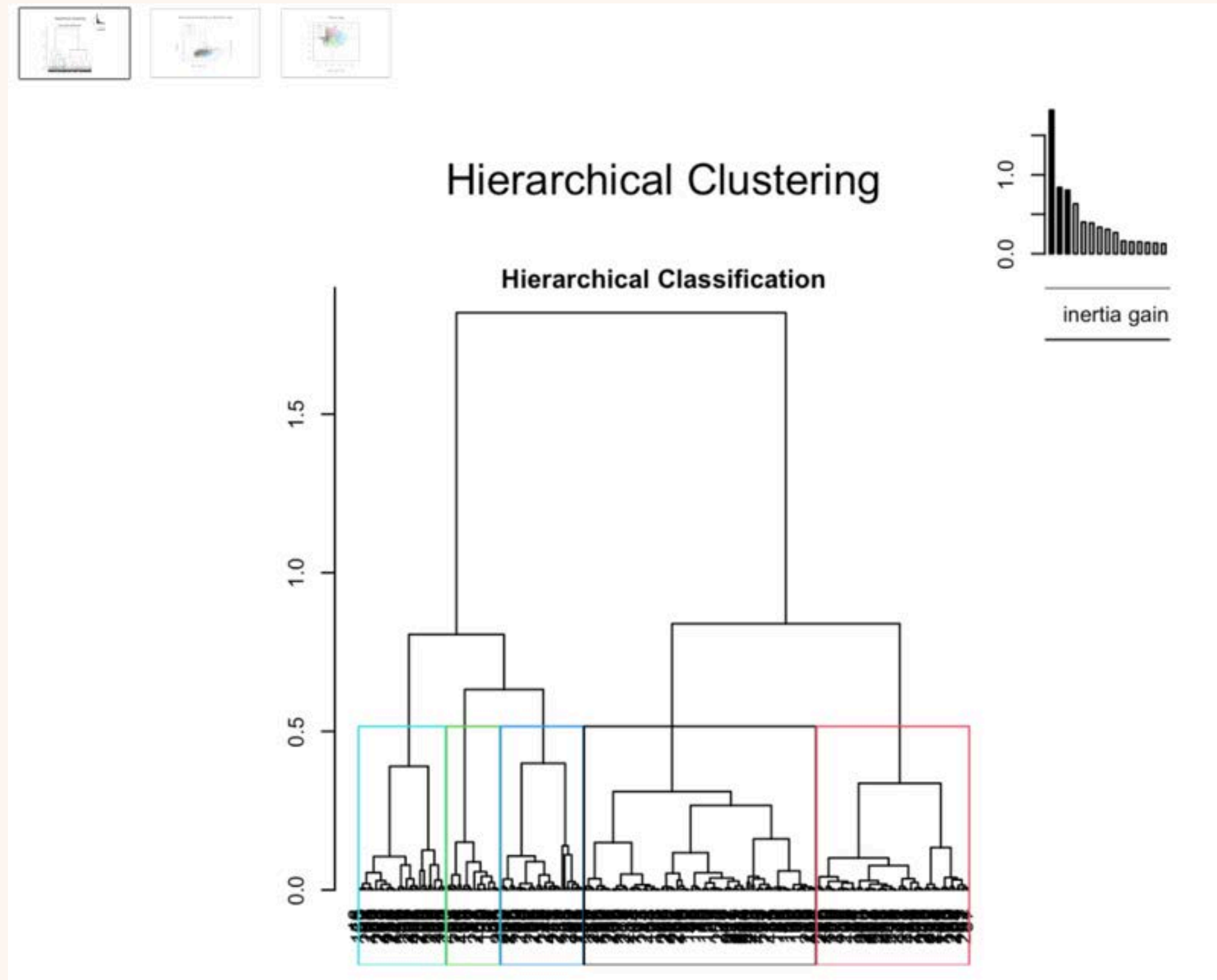
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Clustering

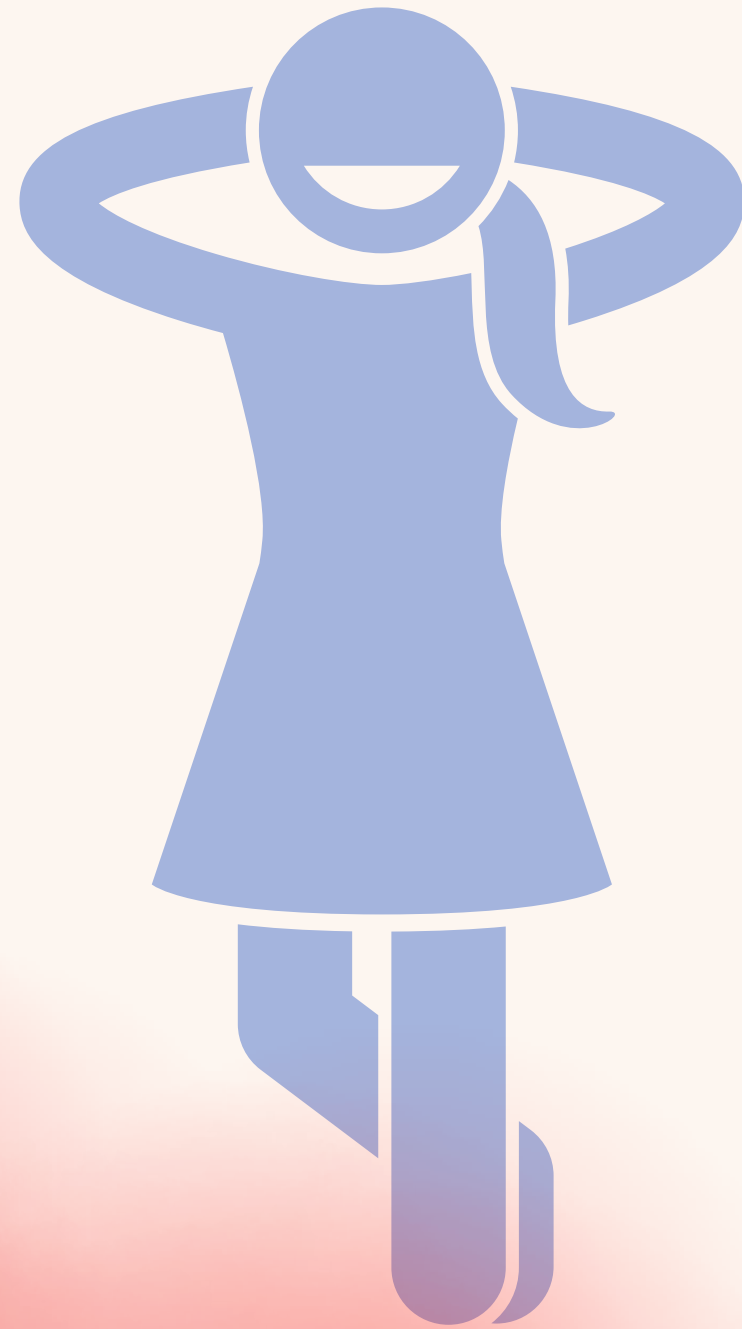
5 clusters

1	2	3	4	5
78	66	54	44	29



R package : Factominor

Profile 1 : the carefree



EXTERNAL RESOURCES

- father is an executive/manager
- parents are supportive
- school : feeling of learning, perceived teacher support,
- basic needs (food, housing, health, etc.)

INTERNAL RESOURCES

- Vocationnal identity
 - only engagement and identification with commitment

EXPRESSION OF CAPABILITY TO CHOOSE

- no specific features on self-determination

CAPABILITY TO CHOOSE AS A CITIZEN

- no specific features on health planetary

- enabling environment ?
- self-determination ?
- health planetary = no priority
- 78 individuals

\$`1`										
		v.test	Mean in category	Overall mean	sd in category	Overall sd	p.value			
Score_sent_apprent		8.639198	13.487179	10.853933	1.7595424	3.183968	5.660880e-18			
Score_Ens_Orien		8.422688	12.392659	9.627376	2.4562929	3.429567	3.679437e-17			
Score_sent_secu		8.191384	11.451016	9.035857	2.5978859	3.079918	2.582395e-16			
Score_IV_Eng		5.729673	19.243539	16.498039	3.7448996	5.005439	1.006247e-08			
Score_IV_Id_Eng		5.581677	21.583676	19.218107	3.0794045	4.427122	2.382106e-08			
scorePCBeng		2.196177	18.000603	17.011765	4.2995325	4.703365	2.807930e-02			
Score_IV_ExploSurf		-2.150340	14.164201	15.161538	4.7171847	4.844907	3.152831e-02			
Score_BesEle		-2.499526	7.818814	8.373494	1.7399413	2.318118	1.243596e-02			
scorePCBdeseng		-2.986743	6.259199	7.217557	2.1099340	3.351818	2.819671e-03			
Score_Harcel		-3.403252	3.177481	3.843511	0.6911024	2.044328	6.658883e-04			
Score_Violence		-4.774240	5.422979	6.996198	2.5545698	3.442193	1.803870e-06			
Score_Sante		-5.806349	10.134412	12.896825	4.6028820	4.969767	6.384972e-09			
Score_IV_Flexi		-6.873609	10.829440	13.898785	3.5462870	4.664568	6.259751e-12			
Score_IV_Doute		-8.052077	7.713811	11.677291	2.8669960	5.141848	8.140078e-16			

Profile 2 : women as citizen



- mainly women

EXTERNAL RESOURCES

- father is unemployed
- parents are supportive
- school : perceived teacher support,

INTERNAL RESOURCES

- Vocationnal identity
 - flexibility, surface exploration, doubt and identification with commitment

EXPRESSION OF CAPABILITY TO CHOOSE

- self determination strong

CAPABILITY TO CHOOSE AS A CITIZEN

- health planetary including

- enabling environment
- strong psychic resources
- self-determination ok
- health planetary = INCLUDING!!!!
- 66 individuals

\$`2`									
		v.test	Mean in category	Overall mean	sd in category	Overall sd		p.value	
Score_IV_ExploSurf		6.506343	18.542541	15.161538	3.5693501	4.844907	7.700207e-11		
Score_SanPla		5.874268	15.628196	13.351562	3.3529178	3.613402	4.247170e-09		
Score_IV_Flexi		5.223048	16.511900	13.898785	3.9364006	4.664568	1.760014e-07		
scorePCBeng		4.393557	19.228164	17.011765	3.6995690	4.703365	1.115110e-05		
Score_IV_Doute		3.161421	13.420802	11.677291	3.9901559	5.141848	1.570014e-03		
Score_Sante		3.075289	14.536075	12.896825	4.8058284	4.969767	2.102986e-03		
Score_Ens_Orien		2.954573	10.714195	9.627376	2.8445304	3.429567	3.131018e-03		
Score_Sent_lib		2.103370	15.302195	14.771654	2.4754615	2.351694	3.543348e-02		
Score_IV_Id_Eng		2.060289	20.196409	19.218107	2.9821595	4.427122	3.937092e-02		
scorePCBinter		-2.255874	7.441516	8.428016	2.7117319	4.077170	2.407852e-02		
Score_Harcel		-2.635585	3.265614	3.843511	0.7434377	2.044328	8.399240e-03		
scorePCBdeseng		-2.684934	6.252313	7.217557	1.9819093	3.351818	7.254411e-03		

Profile 3 : the younger



- mainly pupils

EXTERNAL RESOURCES

- father is a worker and mother is unemployed
- parents are supportive
- school : no feeling of learning, no perceived teacher support, no feeling of security

INTERNAL RESOURCES

- Vocationnal identity
 - only engagement but no doubt, no flexibility, no surface exploration

EXPRESSION OF CAPABILITY TO CHOOSE

- no specific features on self-determination

CAPABILITY TO CHOOSE AS A CITIZEN

- no health planetary included in a choice

- enabling environment ? not really!
- weak psychic resources
- self-determination ?
- health planetary = no priority
- 54 individuals

\$`3`									
		v.test	Mean in category	Overall mean	sd in category	Overall sd		p.value	
Score_IV_Eng		3.384364	18.564706	16.498039	4.2219608	5.0054395	7.134326e-04		
age		-2.289479	17.537037	17.814126	0.5997828	0.9920465	2.205152e-02		
scorePCBinter		-2.418954	7.224816	8.428016	3.1342400	4.0771699	1.556520e-02		
scorePCBdeseng		-3.329986	5.855881	7.217557	1.6406912	3.3518179	8.685028e-04		
Score_Sent_lib		-3.493656	13.769321	14.771654	1.6684290	2.3516940	4.764546e-04		
Score_IV_Doute		-3.578550	9.432492	11.677291	3.3616439	5.1418479	3.455062e-04		
Score_IV_Flexi		-3.649311	11.822087	13.898785	3.3303405	4.6645676	2.629445e-04		
Score_IV_ExploSurf		-4.247234	12.651140	15.161538	4.6250130	4.8449066	2.164256e-05		
Score_SanPla		-4.267161	11.470486	13.351562	3.3393448	3.6134024	1.979765e-05		
Score_sent_secu		-5.069693	7.130958	9.035857	2.3973880	3.0799179	3.984570e-07		
Score_Ens_Orien		-6.191078	7.037037	9.627376	2.4264206	3.4295670	5.975411e-10		
Score_sent_apprent		-6.257685	8.423221	10.853933	2.7435874	3.1839678	3.907352e-10		

Profile 4 : without any support



EXTERNAL RESOURCES

- parents are disengaged
- school : no feeling of learning, no perceived support,

INTERNAL RESOURCES

- Vocational identity
 - only doubt and flexibility
 - without engagement and without identification with commitment

EXPRESSION OF CAPABILITY TO CHOOSE

- no specific features on self-determination

CAPABILITY TO CHOOSE AS A CITIZEN

- health planetary is not included

- unabling environment
- weak psychic resources
- self-determination ?
- health planetary = no priority
- 44 individuals

\$`4`										
		v.test	Mean in category	Overall mean	sd in category	Overall sd	p.value			
Score_IV_Doute		8.118960	17.447936	11.677291	4.911713	5.141848	4.701955e-16			
Score_IV_Flexi		5.613238	17.518127	13.898785	4.270467	4.664568	1.985756e-08			
scorePCBdeseng		4.113680	9.123525	7.217557	3.869117	3.351818	3.894013e-05			
Score_SanPla		-2.052902	12.326172	13.351562	2.788555	3.613402	4.008204e-02			
Score_sent_apprent		-3.489373	9.318182	10.853933	2.777938	3.183968	4.841555e-04			
scorePCBeng		-4.981576	13.772995	17.011765	3.999441	4.703365	6.306859e-07			
Score_Ens_Orien		-5.032668	7.241531	9.627376	2.647195	3.429567	4.837011e-07			
Score_IV_Eng		-8.488401	10.624866	16.498039	3.678850	5.005439	2.095005e-17			
Score_IV_Id_Eng		-9.690936	13.287598	19.218107	4.216729	4.427122	3.294941e-22			

Profile 5 : at risk



EXTERNAL RESOURCES

- parents are disengaged or interfering
- school
 - no feeling of security, no perceived teacher support
 - bullying, violence
- basic needs (food, housing, health, etc.) not covered

INTERNAL RESOURCES

- Vocational identity
 - only self-doubt

EXPRESSION OF CAPABILITY TO CHOOSE

- **self-determination**

CAPABILITY TO CHOOSE AS A CITIZEN

- no specific features on health planetary

- **unabling environment**
- **basics needs**
- **weak psychic resources**
- **self-determination !**
- **health planetary = no priority**
- **29 individuals**

		v.test	Mean in category	Overall mean	sd in category	Overall sd	p.value
Score_Harcel	10.014953		7.442880	3.843511	3.887537	2.044328	1.310240e-23
Score_Violence	7.755876		11.689655	6.996198	3.940098	3.442193	8.773602e-15
scorePCBdeseng	7.497766		11.635694	7.217557	4.824130	3.351818	6.491457e-14
scorePCBinter	6.131043		12.822622	8.428016	5.242050	4.077170	8.730491e-10
Score_Sante	5.363189		17.582649	12.896825	3.769163	4.969767	8.176549e-08
Score_BesEle	3.737266		9.896552	8.373494	2.040028	2.318118	1.860322e-04
Score_IV_Doute	2.341837		13.794203	11.677291	4.185182	5.141848	1.918908e-02
Score_Sent_lib	2.079882		15.631550	14.771654	2.474627	2.351694	3.753634e-02
Score_Ens_Orien	-2.434469		8.159565	9.627376	2.671110	3.429567	1.491365e-02
Score_sent_secu	-4.333106		6.689655	9.035857	2.305966	3.079918	1.470200e-05

Profils Latents Analysis

Results of latents profiles analysis

vars	Cluster	effet	Mean.in.Cat	Overall.Mea	sd.in.Cat.	Overall.sd	pvalue	signif
Score2_Senli	2	-4,77421	-0,66294	-4,7E-17	1,110694	1	0	<0.001
Score2_PCBeng	2	-3,64241	-0,43694	-4,7E-17	0,959527	1	0	<0.001
Score2_PCBint	2	1,803694	0,241806	-4,7E-17	1,072327	1	0,071	.
Score2_PCBdes	2	2,89631	0,39997	-4,7E-17	1,104598	1	0,004	***
Score2_SAPL	2	-1,41602	-0,15368	-4,7E-17	0,868089	1	0,157	
Score2_Sentap	2	-4,16939	-0,46148	-4,7E-17	0,88532	1	0	<0.001
Score2_Sentse	2	-3,49453	-0,37033	-4,7E-17	0,847667	1	0	<0.001
Score2_Ensor	2	-5,65434	-0,57672	-4,7E-17	0,815839	1	0	<0.001
Score2_Vio	2	0,821148	0,086865	-4,7E-17	0,846151	1	0,412	
Score2_Harc	2	-0,70941	-0,08116	-4,7E-17	0,915124	1	0,478	
Score2_Bes	2	-0,20453	-0,02481	-4,7E-17	0,97039	1	0,838	
Score2_IVEng	2	-16,411	-1,30262	-4,7E-17	0,634902	1	0	<0.001
Score2_IViden	2	-16,4447	-1,53935	-4,7E-17	0,748747	1	0	<0.001
Score2_IVflex	2	5,64433	0,657	-4,7E-17	0,931055	1	0	<0.001
Score2_IVdou	2	-9,77176	-1,12441	-4,7E-17	0,920397	1	0	<0.001
Score2_IVexpsu	2	-3,29923	-0,35549	-4,7E-17	0,861872	1	0,001	<0.001
pas d'autodetermination								
pas de soutien parental								
parents désengagés								
pas de sentiment d'apprentissage								
pas de sentiment de sécurité								
pas de soutien enseignant								
pas d'identification engagement								
pas d'engagement								
flexibilité								
pas de doute								
pas d'exploration								



- no self-determination
- no parental support
- disengaged parents
- no sense of learning
- no sense of security
- no teacher support
- no identification commitment
- no commitment
- flexibility
- no doubt
- no exploration

Results of latents profiles analysis

3 clusters

4 clusters

6 clusters

[illegible]

Results of latents profiles analysis

environnement capacitant en 3 clusters	cluster 1	cluster 2	cluster 3		environnement capacitant en 4 clusters	cluster 1	cluster 2	cluster 3	cluster 4		environnement capacitant en 6 clusters	Cluster 1	cluster 2	cluster 3	cluster 4	cluster 5	cluster 6	
	pas de parents désengagés	pas d'autodet	autodet +			autodet +	pas d'autodet	pas d'autodeter	autodet ++			pas de santé planétaire	pas d'autodetermin ation	pas d'autodetermin ation	autodet +	autodeterminati on +	pas de désengagement	
	pas de parents interferents	pas de soutien parental	parents engagés			pas de soutien parental	pas de perception de soutien parental	parents engagés	parents engagés			pas d'engagement	perception d'absence de soutien parental	santé planétaire incluse	soutien parental	pas d'interference	bseoins élémentaires couverts	
	pas de sentiments d'apprentis age	parents interférents	pas de parents interferents			pas de parents interférents	parents interférents	parents interférents	pas d'interfère nce			pas d'identification engagement	parents désengagés	pas d'engagement	pas de désengagement	pas de désengagement	engagement +	
	pas victime de harcèlement	parents désengagés	pas de parents désengagés			pas de sentiment d'apprentis age	parents désengagés	pas de parents désengagés	pas de désengage ment			pas de flexibilité	pas de sentiment d'apprentissage	flexibilité +	santé planétaire incluse	engagement +	identification engagement +	
	genre ?	pas de sentiment de sécurité	sentiment apprentissage +			pas victime de harcèlement	pas de sentiment de sécurité	pas victime	sentiment d'apprent			doute +	pas de sentiment de sécurité	pas de doute	sentiment d'apprentissage +	pas de flexibilité	pas de flexibilité	
		pas de soutien enseignant +	sentiment de sécurité +			genre ?	pas de sentiment d'apprentis age	flexibilité +	sentiment sécu			pas d'exploration de surface	pas de soutien enseignant	exploration surf +	sentiment de sécurité +	doute +	pas d'exploration surf	
		victime violence	soutien enseignants perçu +				victime de violence		perception soutien enseignant				pas d'identification engagement		engagement +	pas d'exploration surf		
		victime harcèlement	pas victime			autodet + même avec un environnement incapacitant	victime de harcèlement		pas victime				pas d'engagement		identification engagement +			
		besoins élémentaire s non couverts	besoins élémentaire s couverts				besoinsélé non couverts		besoinsélé couverts				flexibilité		pas de flexibilité			
		pas d'identificati on à l'engagement	engagemen t +				pas d'identificati on à l'engagement	engagemen t										
		pas d'engagement	identificatio n engagement t +				pas de doute		identificatio n à l'engagement				pas d'exploration		explo surf fort			
		flexibilité +	pas de flexibilité				genre = plus d'hommes		doute ++			1	2	3	4	5	6	
		pas de doute	doute +						pas de flexibilité			14,8	17,43	20,72	22,04	15,79	9,21	
		genre plus de femmes			effectifs	1	2	3	4									
	1	2	3			31,91	27,3	20,39	20,39									
	45,39	32,89	21,71															

- **unabling or disabling environment**
 - > vocational identity not developped
 - > apart from **flexibility +**
- **enabling environment**
 - > vocational identity developped
 - > apart from **flexibility -**

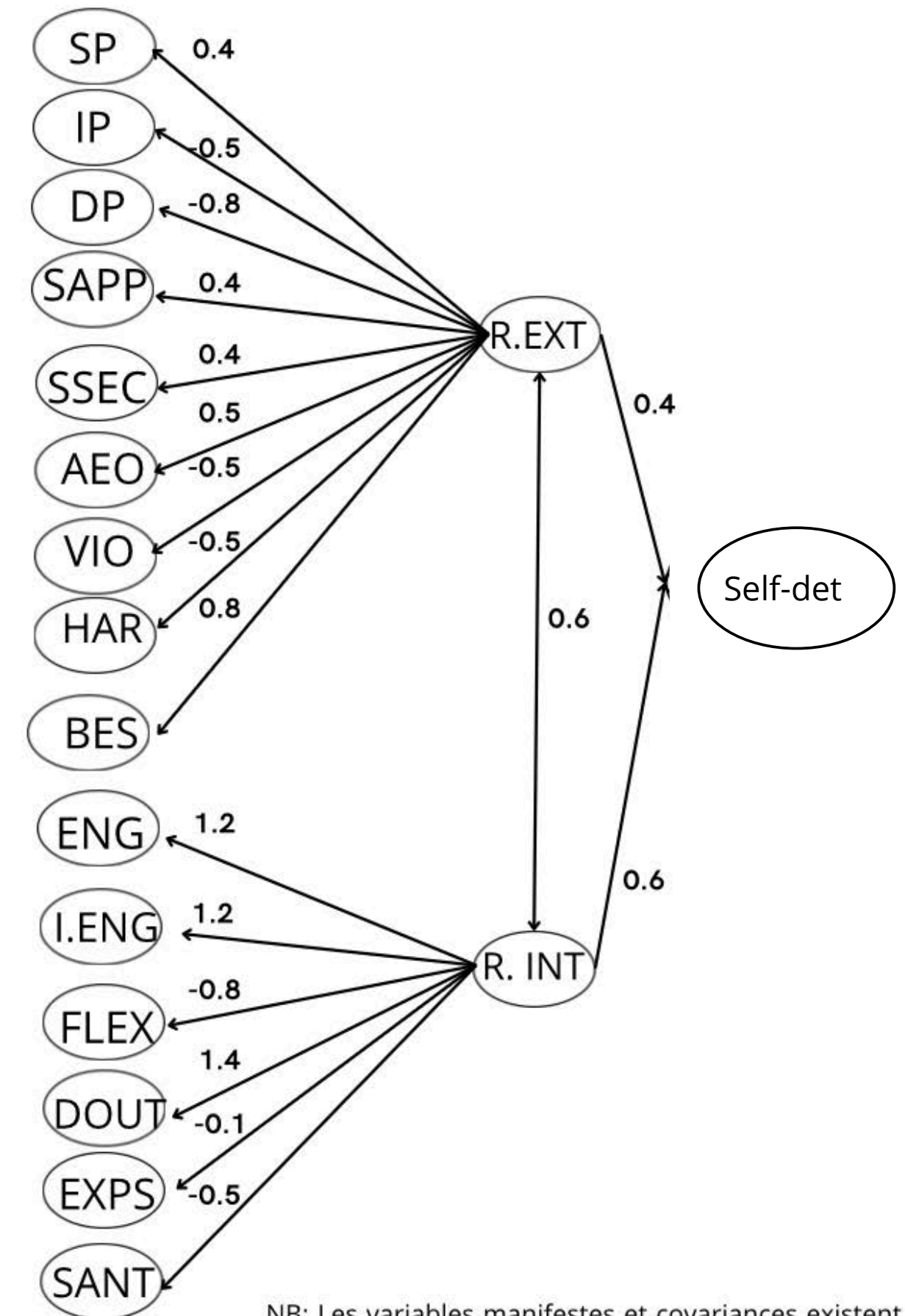
Discussion

Beautiful perspective
to understand the
importance to
sensibilize at the
planetary health

Change of mindset

- not to be thought of
as an extra effort
- it helps develop our
capability to choose

Plan.Health



NB: Les variables manifestes et covariances existent mais ne sont pas montrées pour plus de lisibilité.

- enabling environment ?
- weak psychic resources
- self-determination ?
- health planetary = no priority
- 78 individuals

- enabling environment
- strong psychic resources
- self-determination ok
- health planetary = INCLUDING!!!!
- 66 individuals

- enabling environment ? not really!
- weak psychic resources
- self-determination ?
- health planetary = no priority
- 54 individuals

- unabling environment
- weak psychic resources
- self-determination ?
- health planetary = no priority
- 44 individuals

- unabling environment
- basics needs
- weak psychic resources
- self-determination !
- health planetary = no priority
- 29 individuals

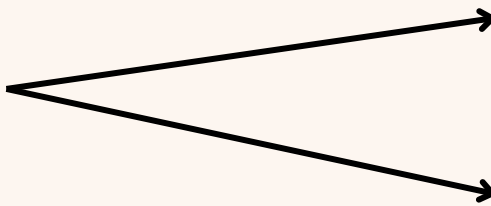


Applying the capabilities approach changes our understanding of students' profiles, their capability to choose according to their environment, including (or not) planetary health.

Questions of gender on ontosystemic level



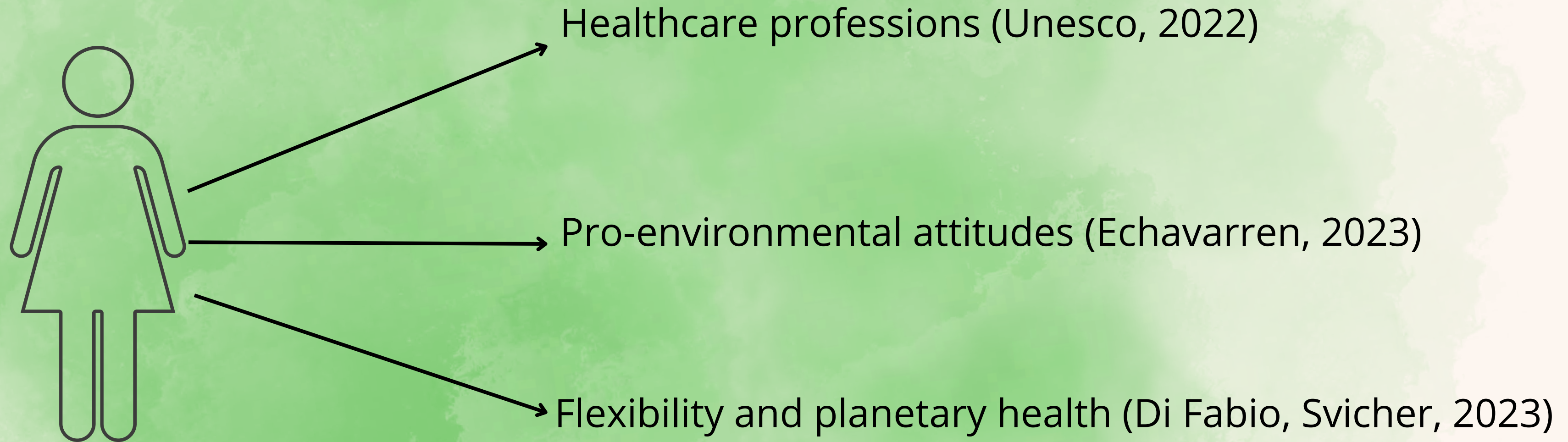
- Girls < care (no STEM)
 - Boys < science and prestigious job
- (UNESCO, 2022, TIMSS 2019)



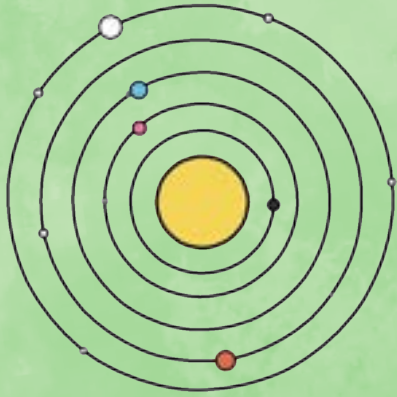
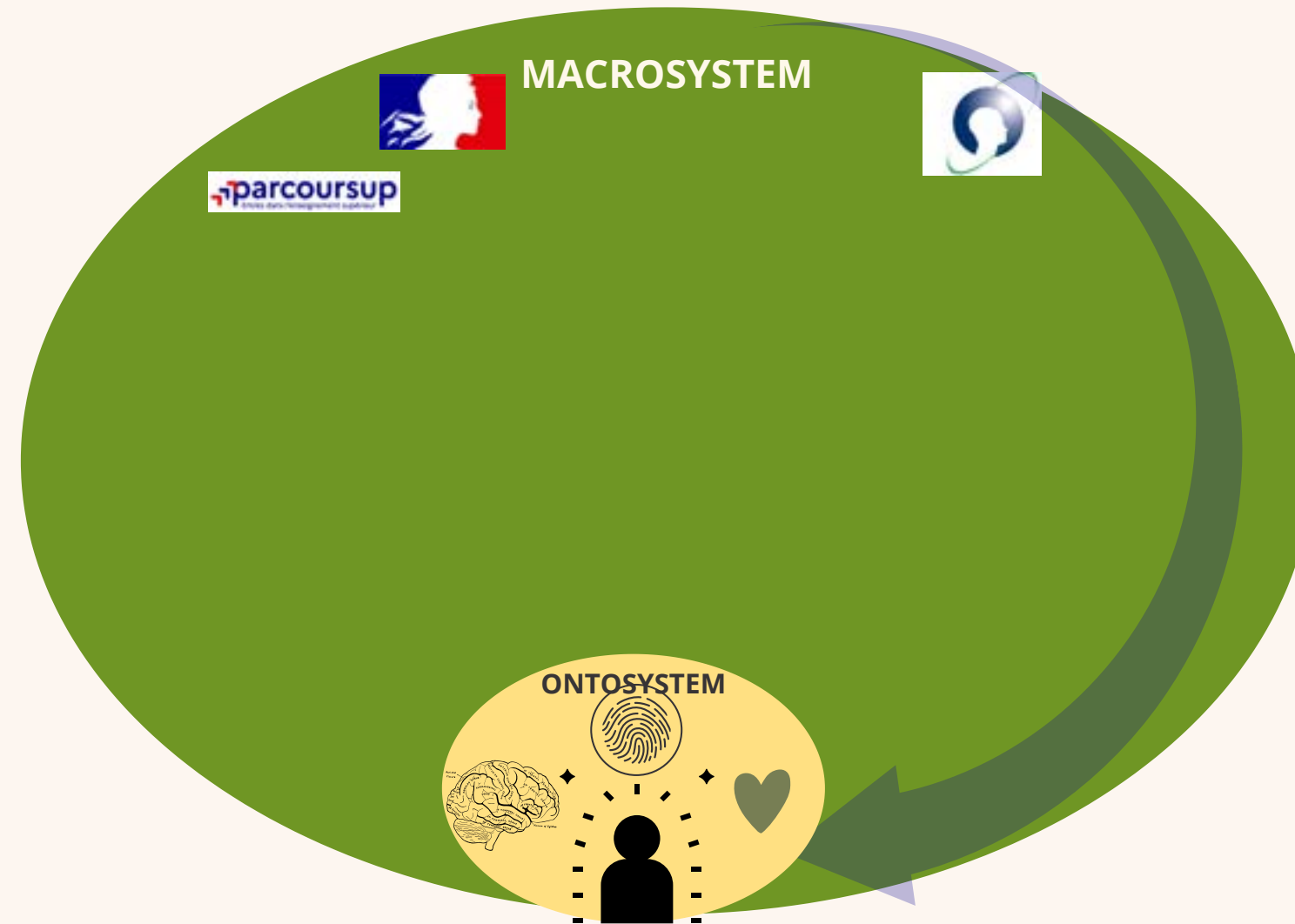
inequality : women's leadership
=
question of green guidance (intersectionality)



Questions of gender on ontosystemic level

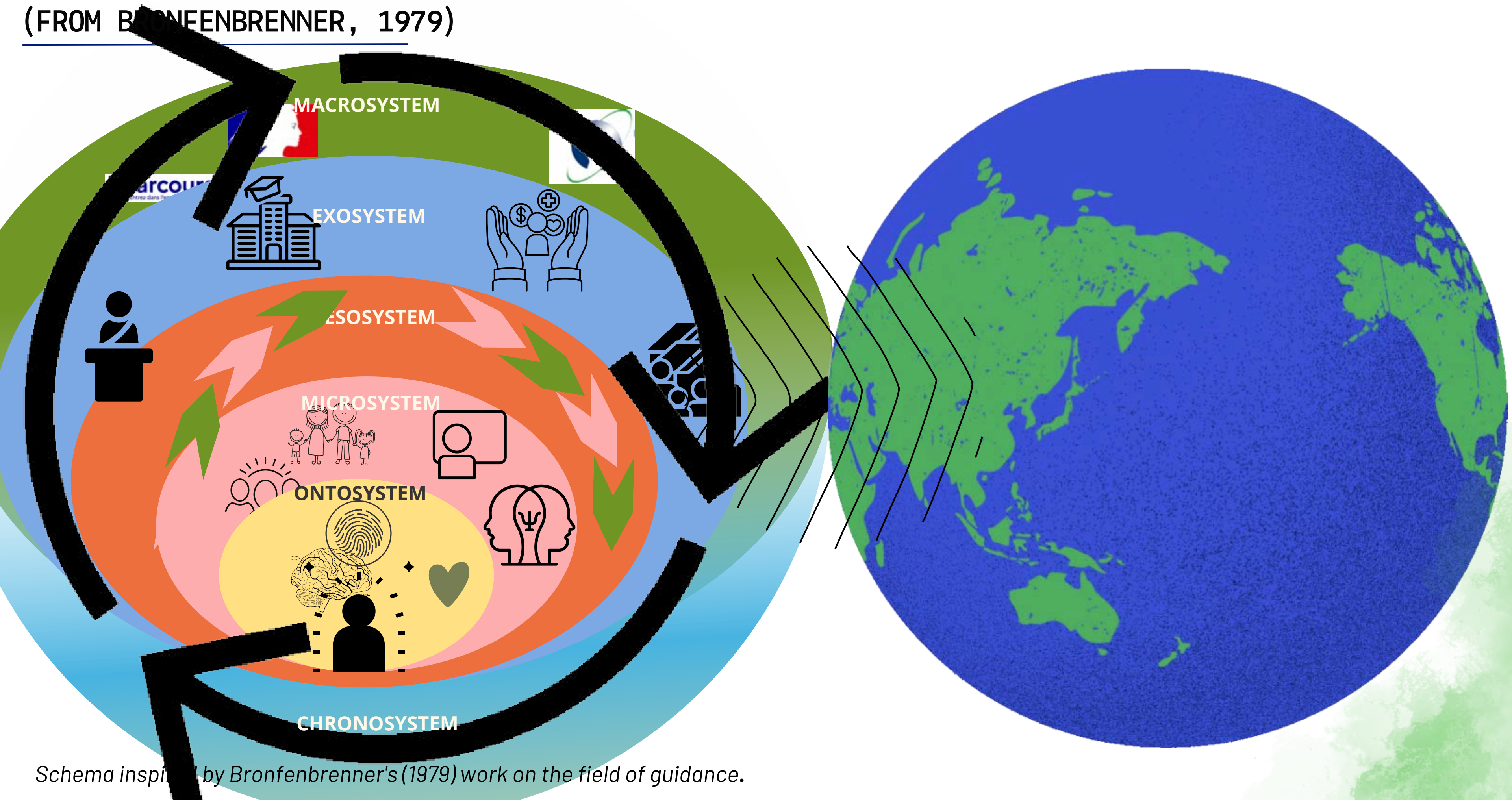


Questions of gender on macrosystemic level



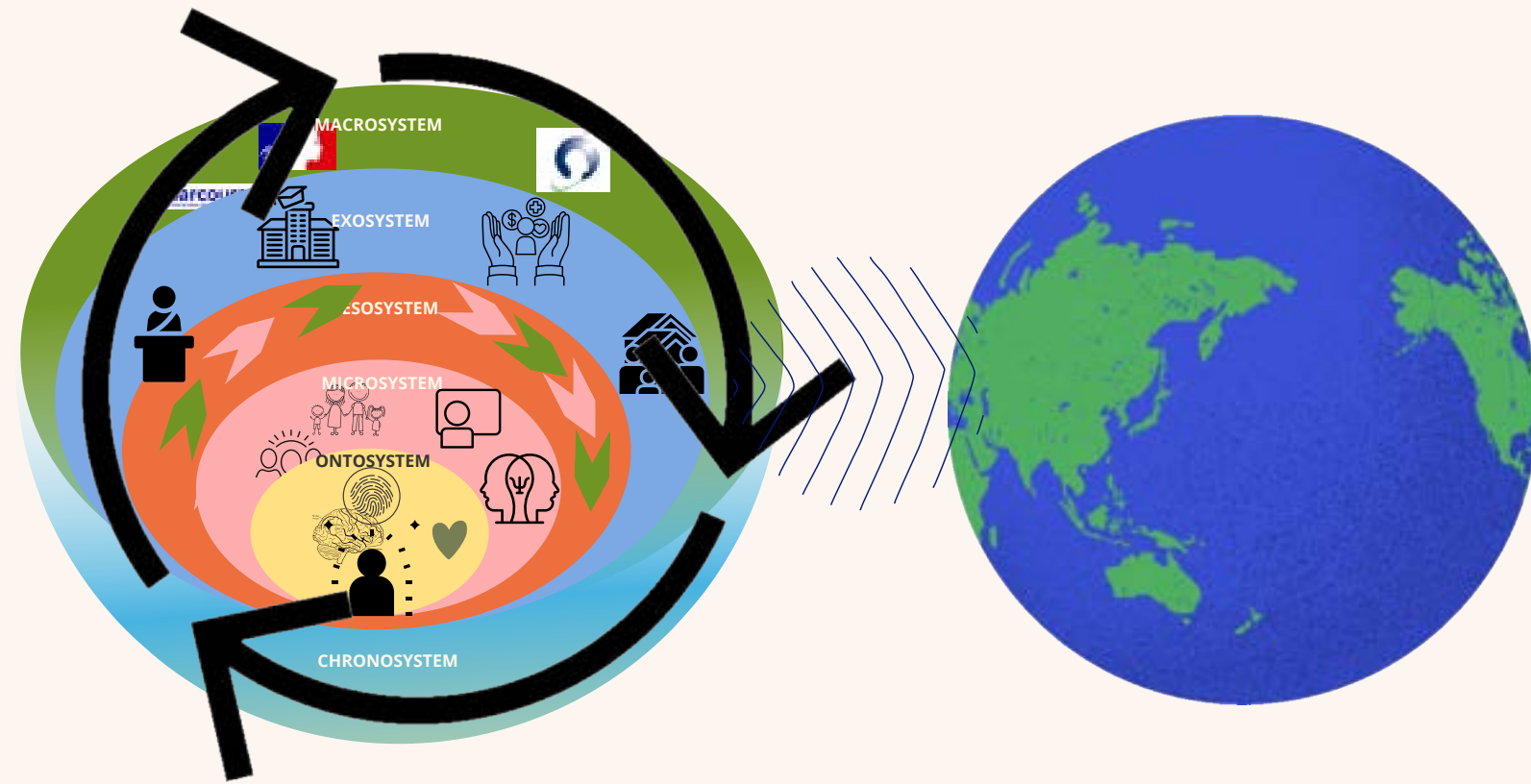
- Environmental crisis increases gender inequality
- Girls / question of leadership
- boys / flexibility / planetary health

THE ENABLING ENVIRONMENT OF STUDENT (FROM BRONFENBRENNER, 1979)



Schema inspired by Bronfenbrenner's (1979) work on the field of guidance.

The psychology of sustainability and sustainable development



Di Fabio and Svicher, 2024 :

- new science
- study on multi layers
- < positive psychology focuses on strategy of coping and well-being (more than eco-anxiety)
- AC focuses on the agentivity

The eco-generativity : a skill from green guidance !

Fabio and Svicher, 2024:

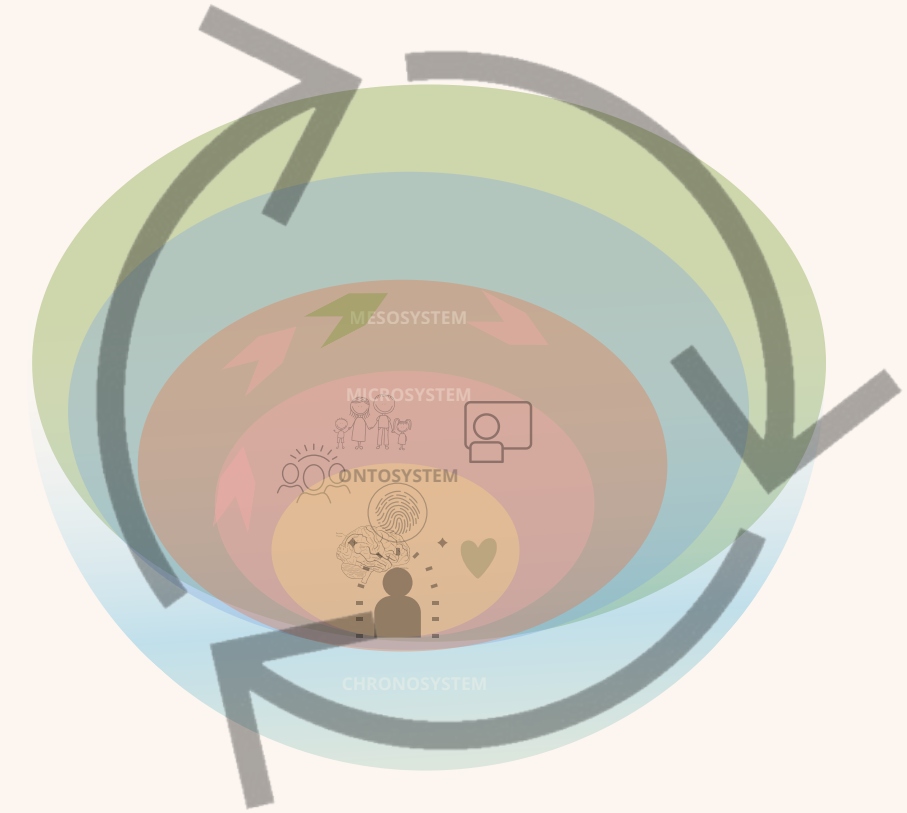
From Erikson and the issue of engagement (vocational identity)

- ecological generativity
- social generativity
- environmental identity
- agentivity

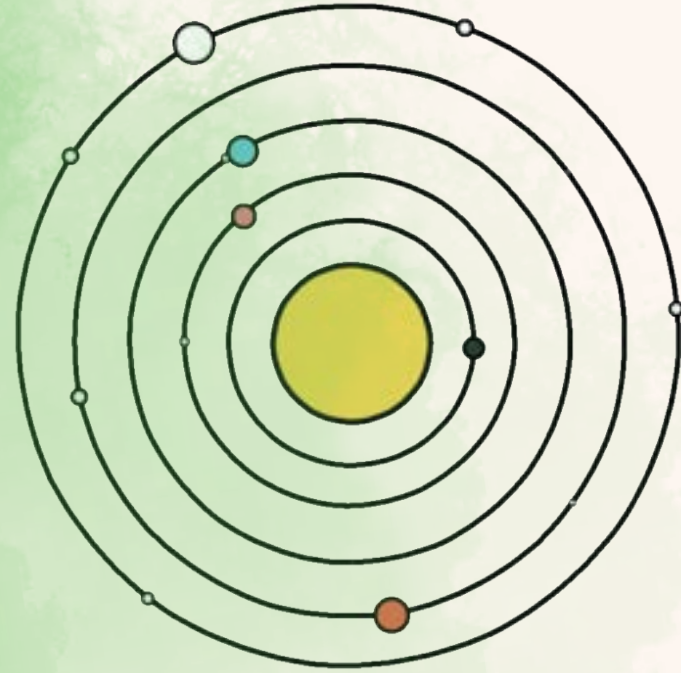


Green guidance and permacicular guidance

- promotion of job market on recycling
- only with 1% economic growth
- Dominique Bourg, 2018



The macrosystem belongs to the echosystem too. It is not outside, or even above, the ecosystem.

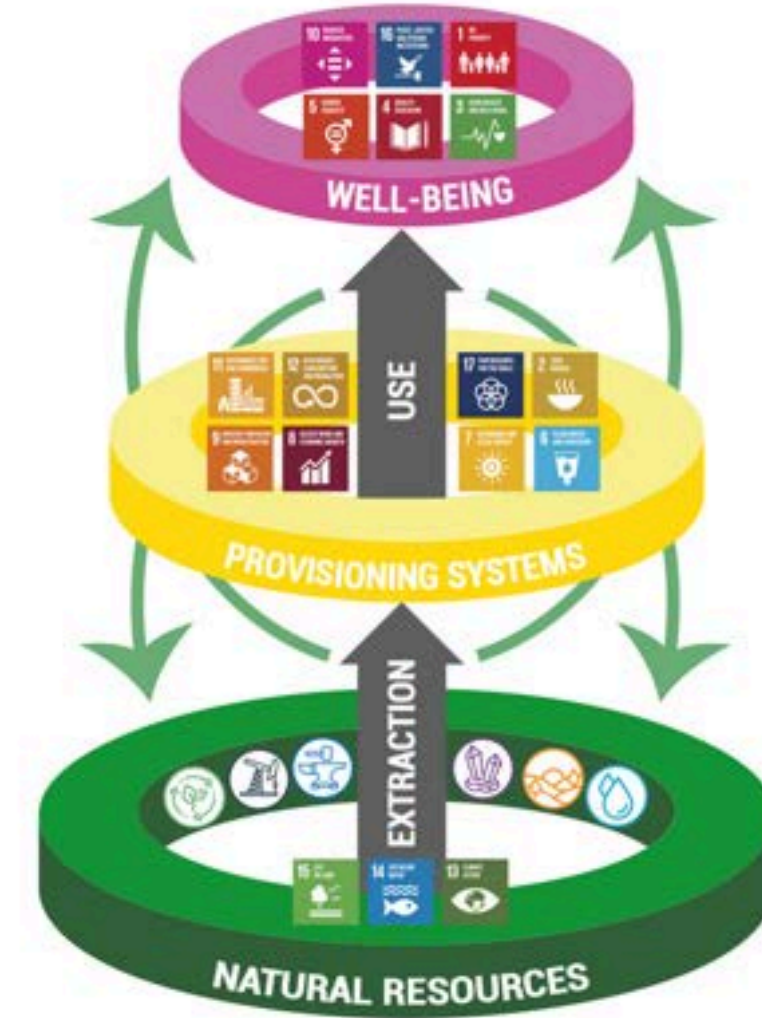


1.8. For solutions that go beyond incremental or isolated changes, the “provisioning systems” concept facilitates an integrated and systemic approach to decision-making

The lack of systemic approaches and approaches that include consumption considerations – also called demand side as they address the demand for goods and/or services – is a major impediment to current policy approaches towards complex and interrelated sustainability challenges. The 2030 Agenda for Sustainable Development²⁶ reflects an understanding that sustainability challenges (the 17 SDGs) should be addressed holistically. Assessments based on modelling and policy evaluation have shown that policies designed with a narrow scope can hinder progress elsewhere and negatively impact overall goals of sustainable human well-being.²⁷ In particular, strategies based on policy interventions that do not account for modes of resource use in a systemic way can have major unintended consequences.²⁸ It remains difficult to translate such system change visions into concrete policies and plans for action.

“Provisioning system” is a recent and increasingly relevant concept that groups together ecological, technological, institutional and social elements that interact to transform natural resources to satisfy human needs (Fanning *et al.* 2020). The concept enables an integrated consideration of how material and political-economic dimensions interact to shape resource use to deliver social outcomes (Schaffartzik *et al.* 2021). Figure 1.4 depicts how provisioning systems

Figure 1.4: From natural resources to provisioning systems and societal well-being.



Food and nutrition Mobility Built Environment Energy

Source: Adapted from UNEP (2021b – Figure ES.1) and O’Neil *et al.* (2018 – Figure 1). Design concept by: Namita Sharma and Iris Lassus.

**Kiitos aktiivisesta kuuntelustanne
!**

Sandrine GARIN

PhD Student

sandrine.garin@lecnam.fr - Joignable sur Teams

Cnam - CRTD - Centre de Recherche sur le Travail et le Développement

References

- Bonvin, J.-M., & Farvaque, N. (2007). L'accès à l'emploi au prisme des capacités¹, enjeux théoriques et méthodologiques. *Formation emploi*, 98, 9-22. <https://doi.org/10.4000/formationemploi.1550>
- Brasselet, C., & Guerrien, A. (2010). Sentiment de liberté et influence dans la décision d'orientation scolaire : effets sur la motivation scolaire des élèves en classe de première. *Orientation scolaire et professionnelle*, 39, 437–459.
- Chen, Z., & Solberg, V. S. H. (2018). Pathways from caring and engaging adults to youth vocational identity: The mediational roles of career search self-efficacy and goal capacity. *Youth & Society*, 50(6), 780-800.
- Deci, E.L., & Ryan, R.M. (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Fernagu, S. (2022). L'approche par les capacités dans le champ du travail et de la formation : vers une définition des environnements capacitants ? *Travail et Apprentissages*, 23, 40-69.
- L'état de l'Enseignement supérieur et de la Recherche en France (2023). L'accès à l'enseignement supérieur. Edition n°16, fiche 21.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3, 551–558. <http://dx.doi.org/10.1037/h0023281>
- SEN, A. (2000). *Repenser l'inégalité*. Paris, Le Seuil.
- Lannegrand-Willems, L. et Perche, C. (2017) Évaluer les processus de l'identité vocationnelle de l'adolescence à l'entrée dans l'âge adulte : validation française du « Vocational Identity Status Assessment » (VISA), *European Review of Applied Psychology*, 67/Issue 2, 91-102.