Adolescent stressful life experiences and the future self

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The Self

Present

Past

Knowledge
Morals ,
Personality
Experiences,
Preferences,
Body [1]

Future

Continuity

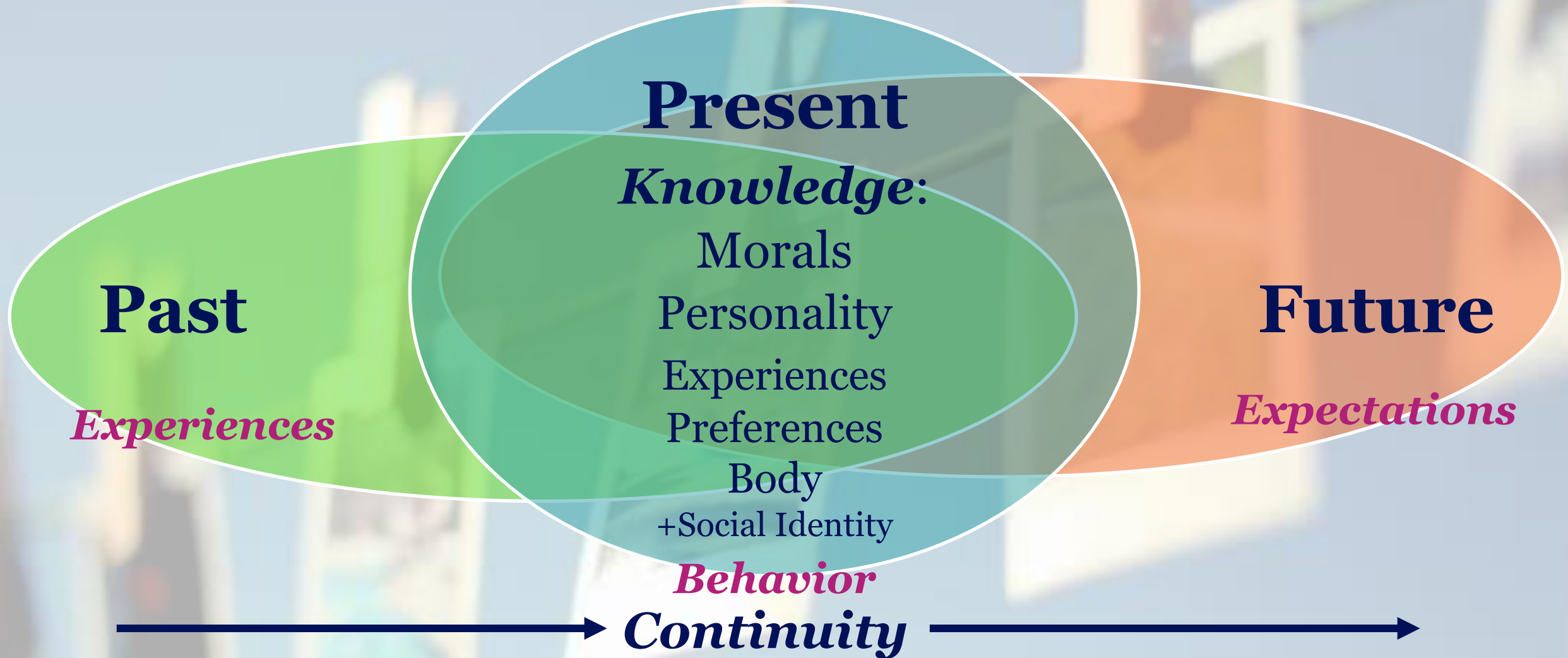1 Strohminger & Nichols, 2014

"Pragmatic" Self

"My thinking is first and last and always for the sake of my doing, and I can only do one thing at a time." - [2]William James (1890/1983, pp. 959-60)
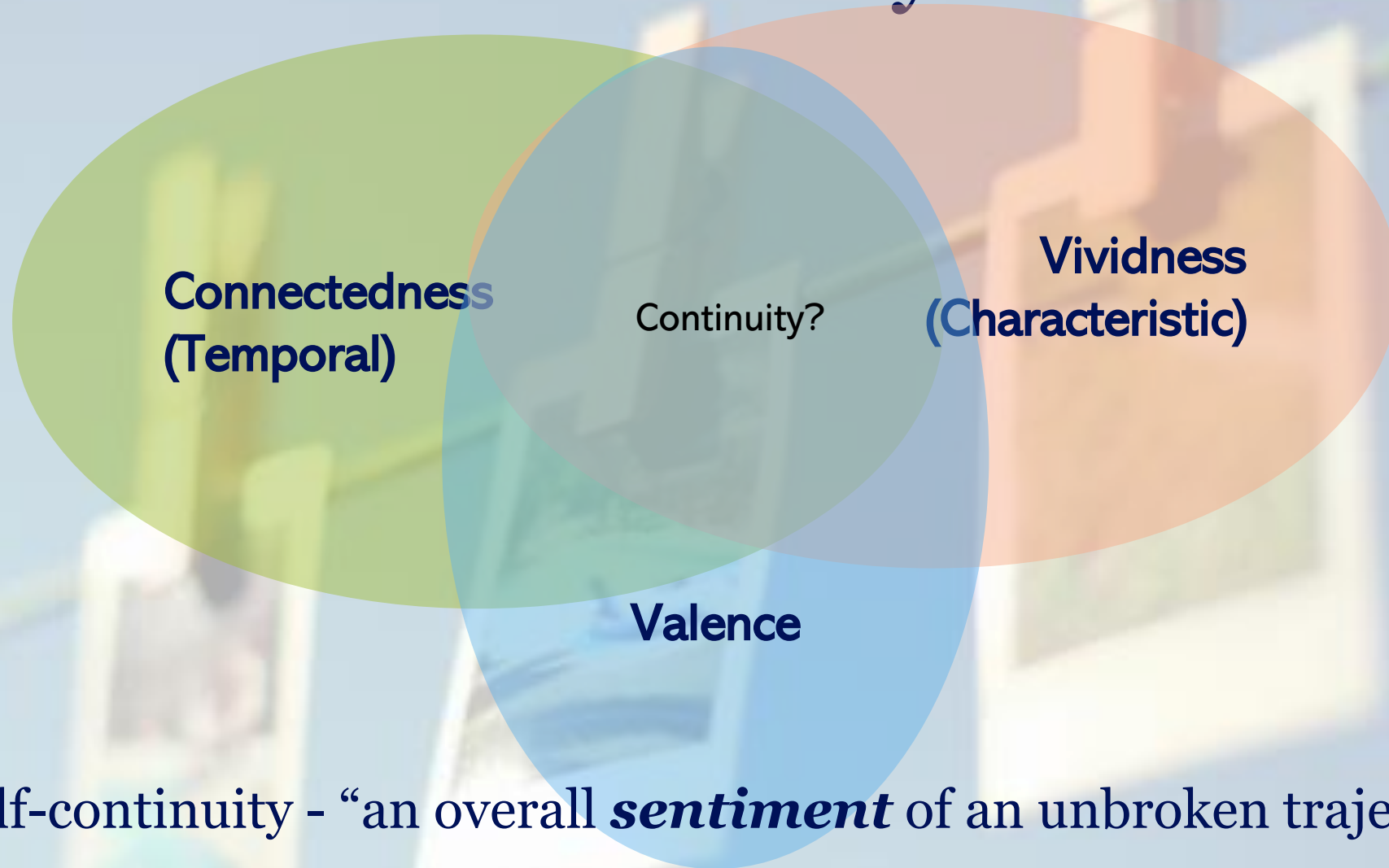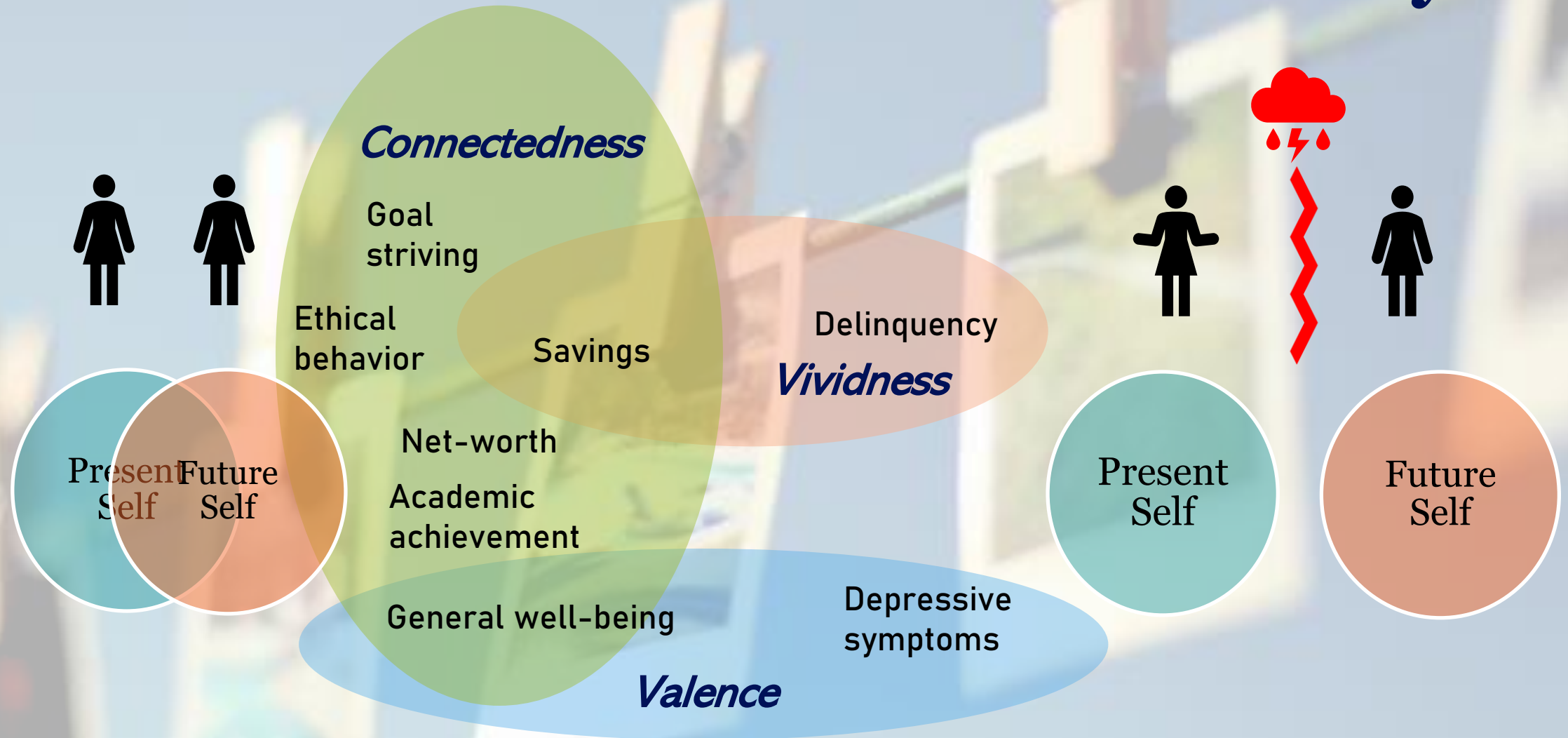
"Pragmatic" Self Forgotten

"A man slips on a spilled kebab." New Years Eve, 2016. © Joel Goodman

Self-Continuity

Present

Knowledge:

Morals

Personality

Experiences

Preferences

Body

+Social Identity

Past

Experiences

Future

Expectations

Behavior
Continuity

Future Self-Continuity Domains

Connectedness
(Temporal)

Continuity?

Vividness
(Characteristic)

Valence

Self-continuity - "an overall *sentiment* of an unbroken trajectory."[3]

[3] Sedikides, Hong & Wildschut; 2022

Outcomes of Future Self-Continuity[2,3]

Connectedness

Goal striving

Ethical behavior

Savings

Delinquency

Vividness

Net-worth

Academic achievement

General well-being

Depressive symptoms

Valence

Present Self

Future Self

Present Self

Future Self

[4] Hershfield & Bartels; 2018
[5] Molouki & Bartels; 2017

Changing Future Self-Continuity

Past

Experiences

Present

Behavior
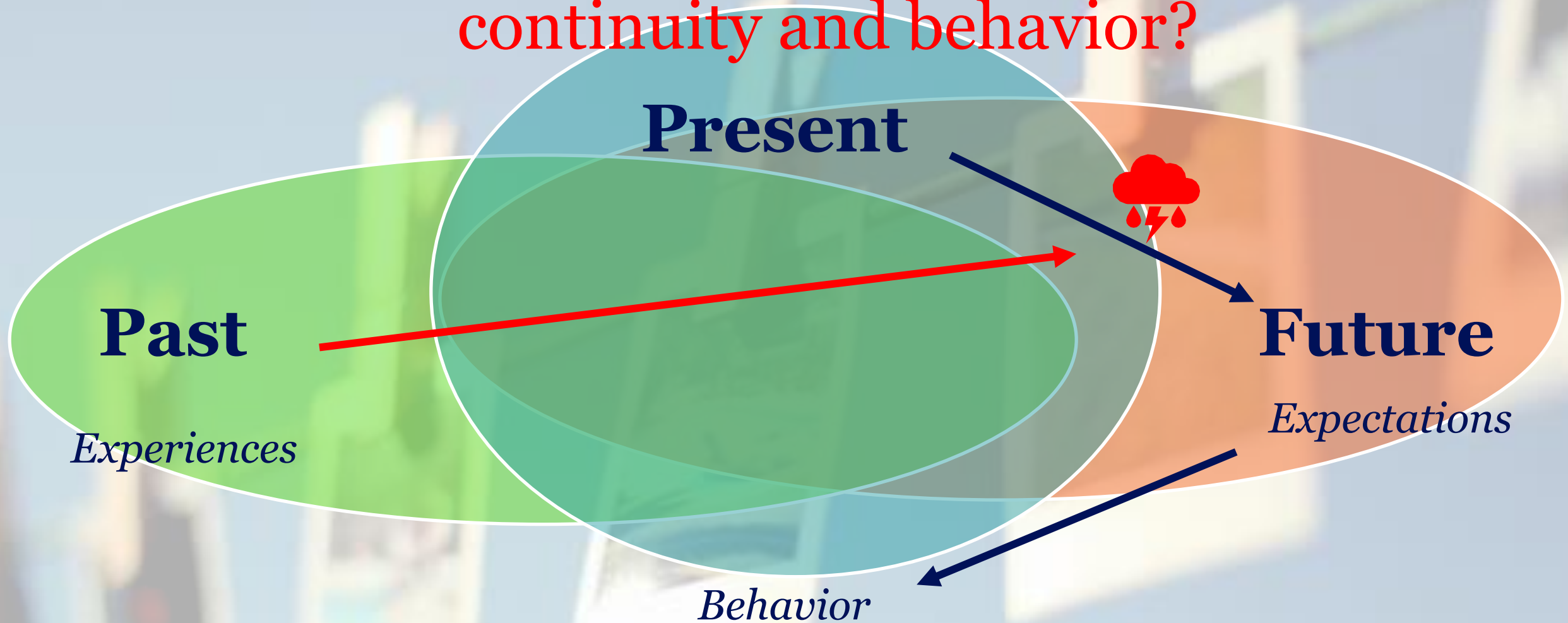
Future

Expectations

[5,6]

[7]
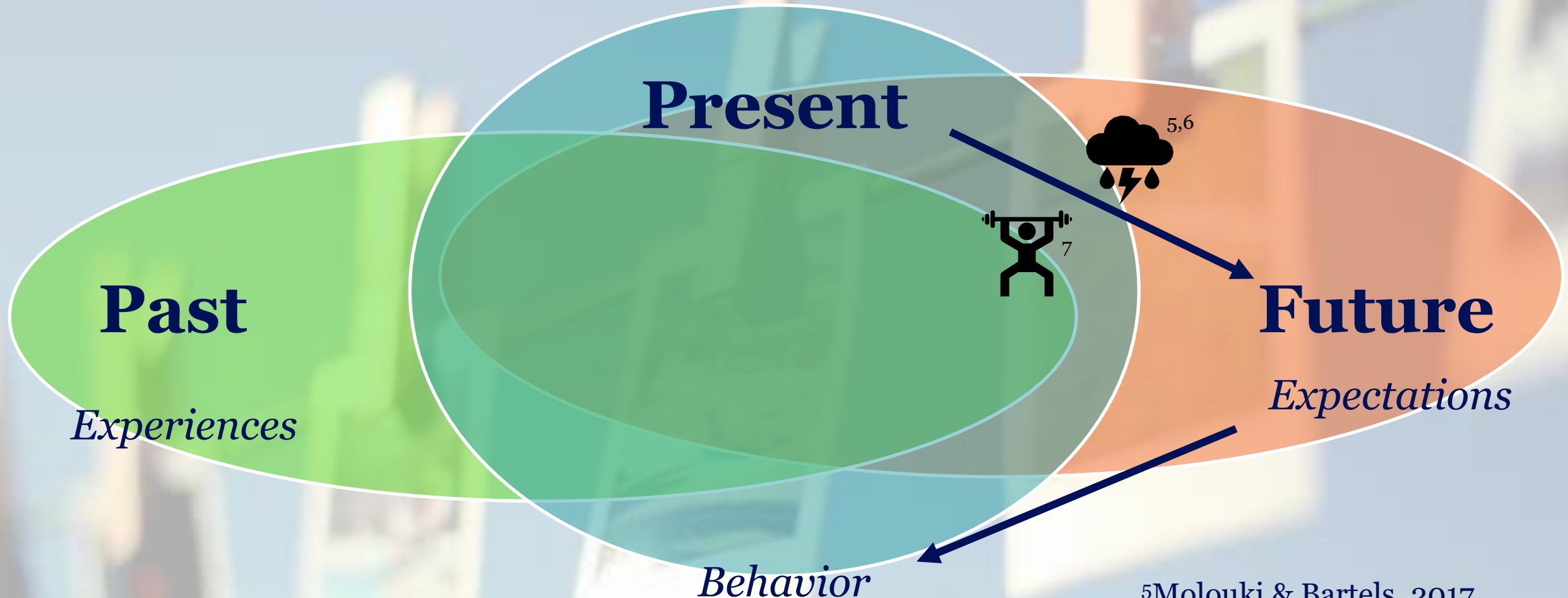
[5]Molouki & Bartels, 2017
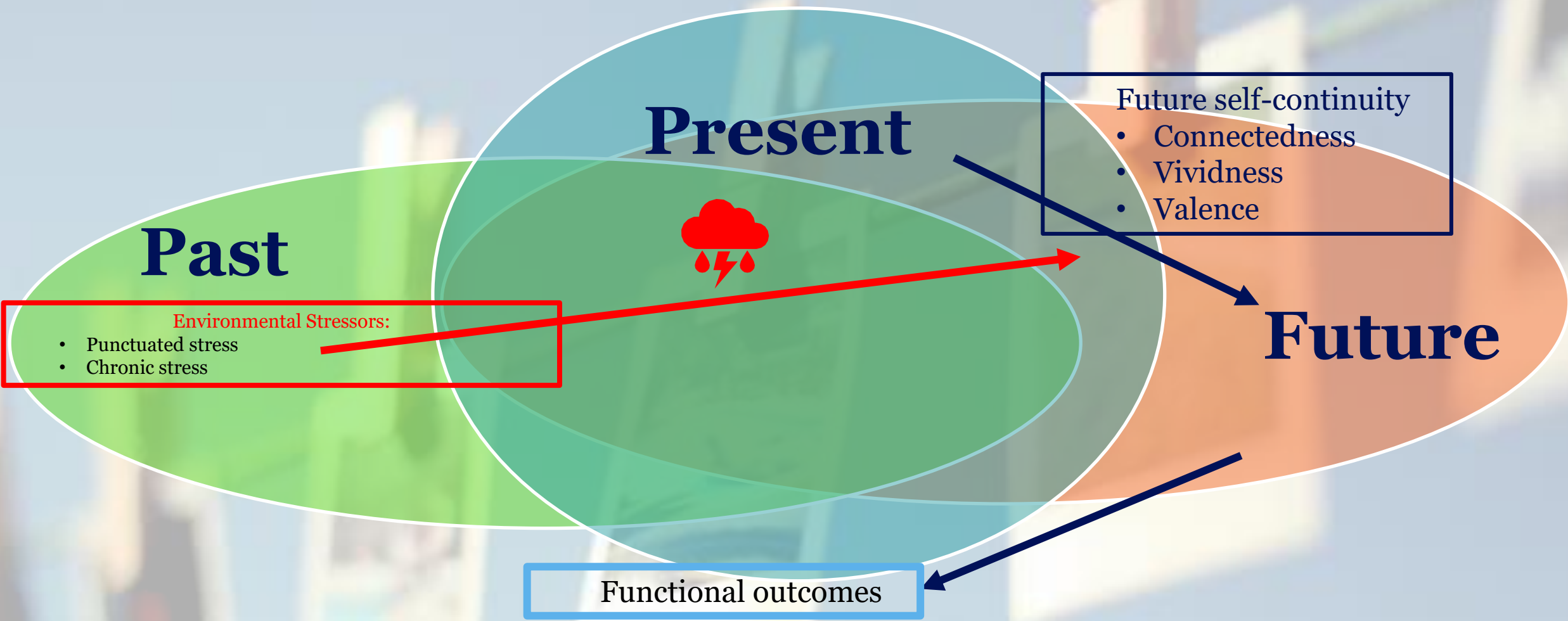[6]Bartels & Urminsky, 2011
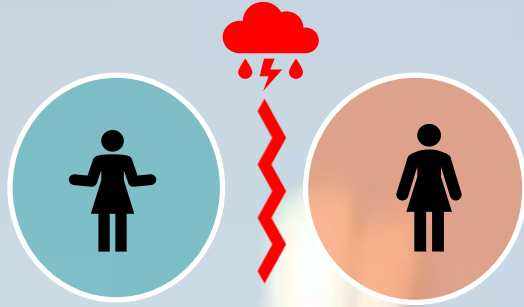[7]Hershfield, 2018

Future Self-Continuity Process
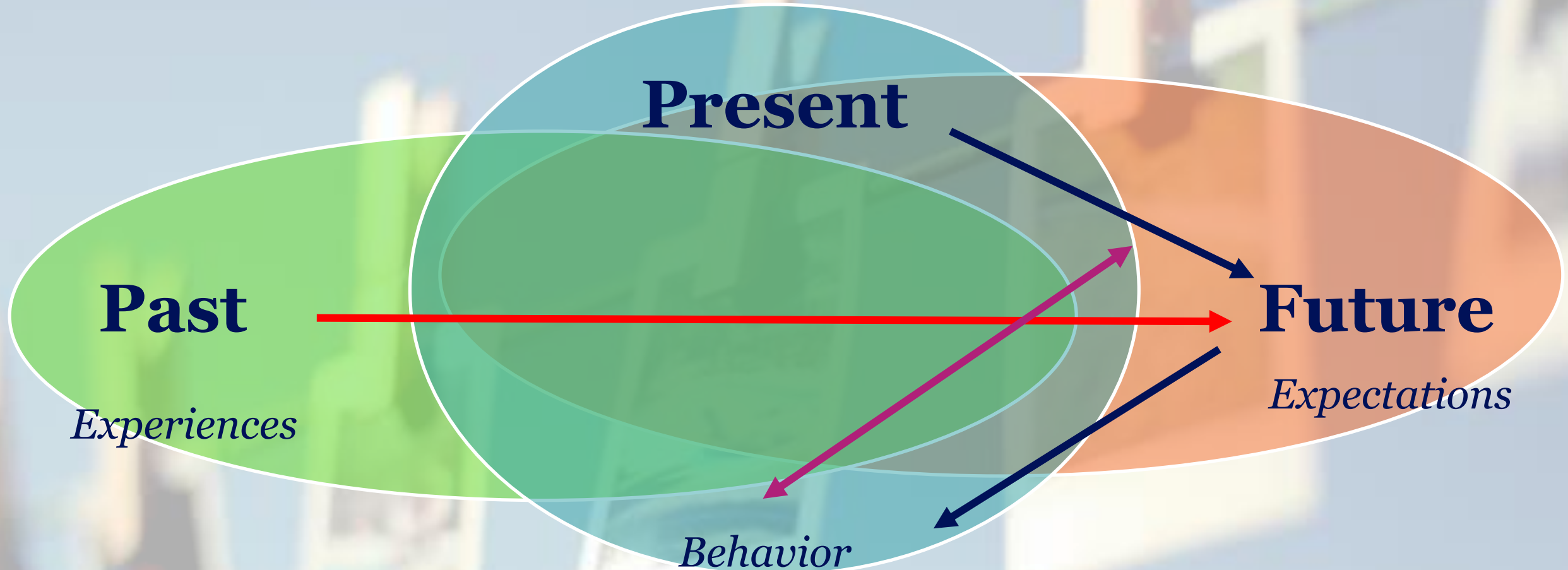
1. How does past experiences affect future self-continuity and behavior?
2. How do behaviors affect future self-continuity over time?

1. Does past experiences affect future self-continuity and behavior?

Present

Past

Future

Experiences

Expectations

Behavior

Past

Present

Future

Environmental Stressors:
- Punctuated stress
- Chronic stress

Future self-continuity
- Connectedness
- Vividness
- Valence

Functional outcomes

Study 1: Environmental Stress In Adolescence

Data:
- 4 Waves at age 13, 15, 17 and 20
- 1070 Swiss participants
- Limitation: Only age 20 has future self-continuity data!

Analysis:
- Regression of accumulated environmental stress at each age on future self-continuity
- Partial correlations on outcomes of environmental stress and future self-continuity

Environmental Stressors:
- Punctuated stress:
  - accumulation of 22 stressful life events (e.g., moving home, death in family, illness, caregiver unemployment, failing grade, violent and/or sexual victimization)
- Chronic stress:
  - Corporal discipline
 - inconsistent discipline
  - Socioeconomic status

Outcomes at age 20:

Future self-continuity
- Connectedness
- Vividness (n = 291)
- Valence

Functional outcomes:
- General well-being
- Delinquency (14 act variety score)
- Family/Credit Card Debt (above 100 Swiss Francs)
- Academic level (compulsory/college-track)
- Not employed, in education, or training (NEET)

AGE 17-20

AGE 15-17

AGE 13-15

AGE 11-13

Future Self-Continuity

Functional Outcomes
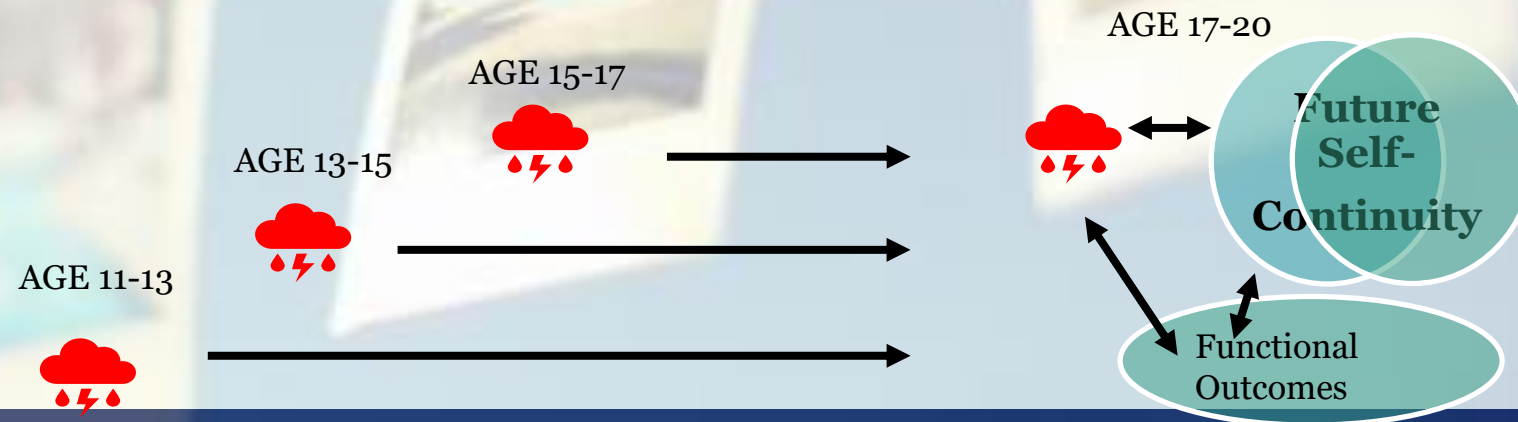
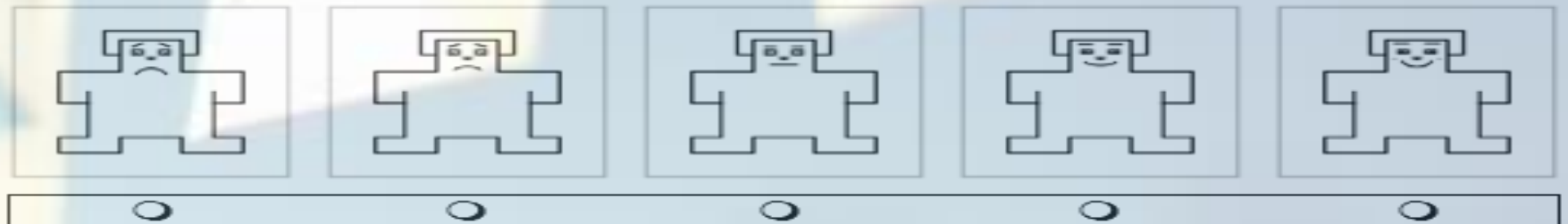# Zum Schluss: Wie siehst du dich in Zukunft?

Future Self Vividness:
1. I find it easy to imagine myself in 10 years.
2. I have a clear idea of who I am in 10 years
3. Its easy to describe myself in 10 years

Bitte gib für jede Aussage unten an, wie sehr du damit einverstanden bist oder nicht.

	gar nicht einver-standen	nicht einver-standen	eher nicht einver-standen	weder noch	eher einver-standen	sehr einver-standen
Ich finde es einfach, mich in 10 Jahren vorzustellen.	○	○	○	○	○	○
Ich habe kein klares Bild von mir in 10 Jahren.	○	○	○	○	○	○
Es fällt mir leicht zu beschreiben, wie ich in 10 Jahren sein werde.	○	○	○	○	○	○

Future Self Connectedness: choose from among the circles which best represents the connection between your actual and your future self in 10 years.

In der nächsten Frage bezeichnet der Kreis "aktuelles Selbst" dich, wie du heute bist, und der Kreis "zukünftiges Selbst" dich, wie du in 10 Jahren sein wirst.
Bitte wähle jenes Paar von Kreisen, welches das Ausmass an Verbindung zwischen deinem aktuellen und deinem zukünftigen Selbst in 10 Jahren gefühlsmässig am besten darstellt. Du kannst zwischen sieben Stufen auswählen. Oben links bedeutet gar keine Verbindung, unten rechts eine sehr starke Verbindung.

Future Self Valence: choose which picture expresses how you feel about your future self in 10 years.
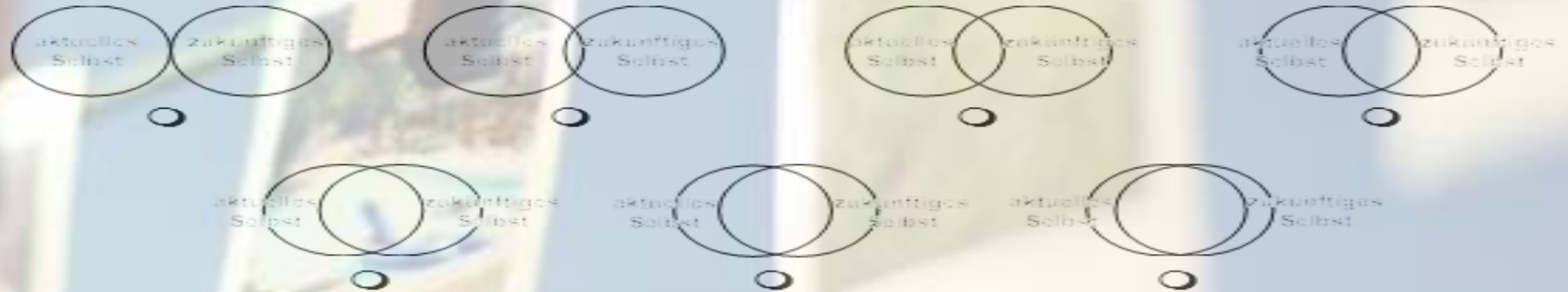
Bitte wähle jetzt unten jenes Bild aus, das am besten darstellt, wie du dich gegenüber deinem „zukünftigen Selbst" in 10 Jahren fühlst.

Study 1: Environmental Stress In Adolescence

1. *What environmental stressors in adolescence associate with future self-continuity?*

Accumulation over all time is associated with connectedness (and vividness; not shown)
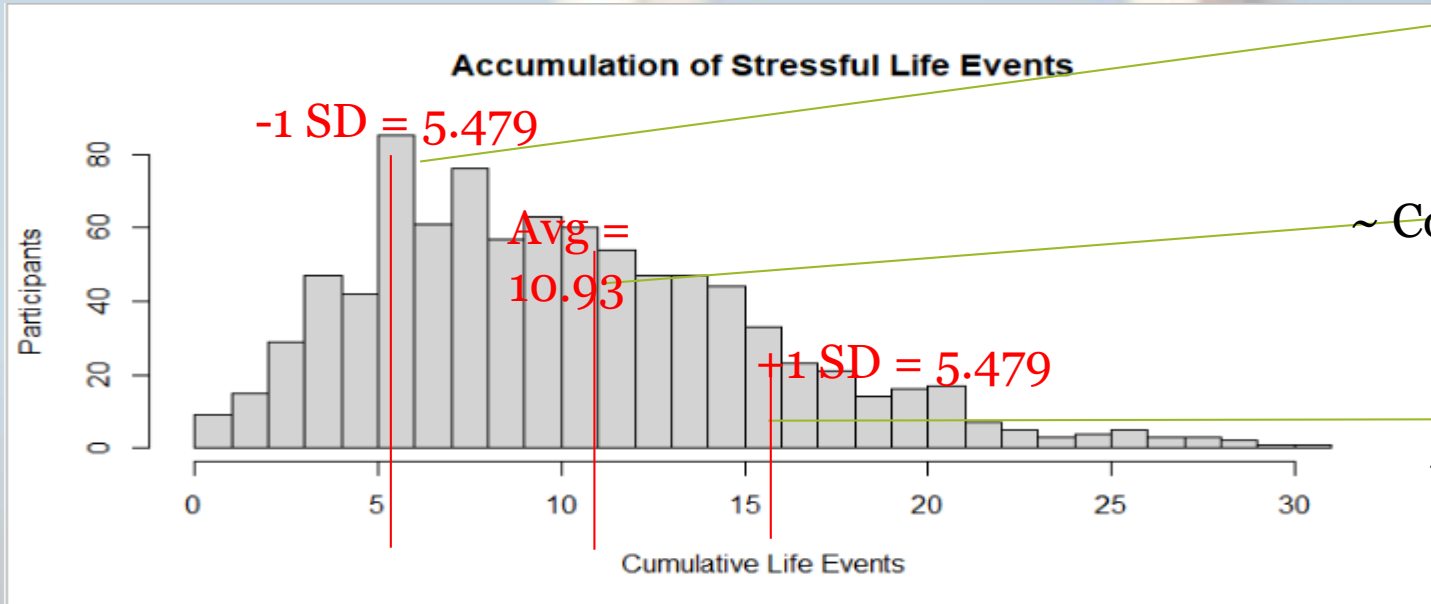
~ Connectedness 3.8

~ Connectedness 4.1

~ Connectedness 4.4
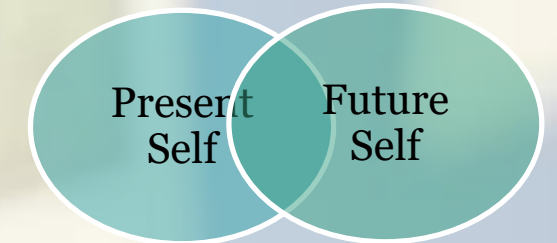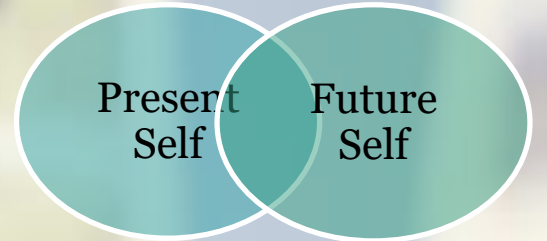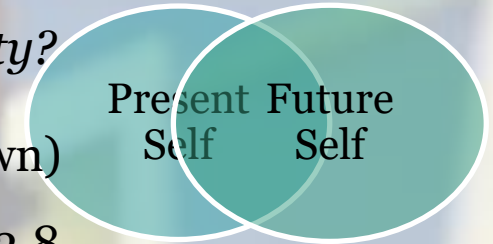
- Accumulation over all time is associated with connectedness (and vividness; not shown). Differences of .5 in connectedness and vividness are meaningful to behavior in experiments.
- Participants with really stressful or stress-free lives had meaningful changes in future self-connectedness
- Model proportion of explained deviance small at .03

2. At what age do stressors associate with future self-continuity in adulthood?

- Stressful life experiences experienced later in life are most impactful to future self-continuity and outcomes

- SES and corporal punishment at 13-15 are associated with less future self-vividness at age 20

- Corporal punishment from 11-13 associated with less future self-valence at age 20

- Small proportion of explained deviance

	Dependent variable:		
	Connectedness	Vividness	Valence
Accumulated Stressful Life Events			
Wave 5	-0.071	0.015	-0.021
	(-0.183, 0.040)	(-0.168, 0.198)	(-0.079, 0.037)
Wave 6	0.008	-0.011	0.032
	(-0.108, 0.124)	(-0.205, 0.183)	(-0.029, 0.092)
Wave 7	-0.052	-0.078	-0.019
	(-0.167, 0.062)	(-0.264, 0.109)	(-0.079, 0.041)
Wave 8	-0.217***	-0.124	-0.030
	(-0.324, -0.109)	(-0.308, 0.061)	(-0.086, 0.027)
Chronic Stressors			
SES	0.05	-0.134*	-0.029
	(-0.050, 0.149)	(-0.299, 0.031)	(-0.081, 0.023)
Wave 5 Inconsistent	0.013	0.050	0.031
	(-0.096, 0.122)	(-0.135, 0.234)	(-0.026, 0.089)
Wave 6 Inconsistent	-0.038	0.007	-0.038
	(-0.156, 0.080)	(-0.201, 0.214)	(-0.099, 0.024)
Wave 7 Inconsistent	0.022	-0.087	-0.013
	(-0.091, 0.135)	(-0.276, 0.102)	(-0.072, 0.047)
Wave 5 Corporal	-0.096	0.096	-0.072*
	(-0.210, 0.018)	(-0.112, 0.304)	(-0.131, 0.012)
Wave 6 Corporal	-0.030	-0.240*	-0.021
	(-0.152, 0.092)	(-0.462, 0.018)	(-0.084, 0.043)
Wave 7 Corporal	-0.026	0.161	-0.012
	(-0.142, 0.090)	(-0.039, 0.362)	(-0.073, 0.049)
Control			
Gender	0.032	-0.049	-0.016
	(-0.167, 0.230)	(-0.400, 0.301)	(-0.120, 0.088)
Constant	4.137***	3.773***	4.080***
	(3.995, 4.279)	(3.491, 4.055)	(4.006, 4.154)
Observations	864	233	866
R^2	0.045	0.068	0.022
Adjusted R^2	0.031	0.017	0.008
Residual Std. Error	1.495 (df = 851)	1.248 (df = 220)	0.788 (df = 853)
F Statistic	3.311*** (df = 12; 851)	1.335 (df = 12; 220)	1.610* (df = 12; 853)

# Study 1: Environmental Stress In Adolescence

3. How do past stress and future self-continuity relate to concurrent outcomes?

Correlations (*r*) and partial correlations (*pr*) of stressful life experience, future self-continuity domains, and concurrent outcomes.

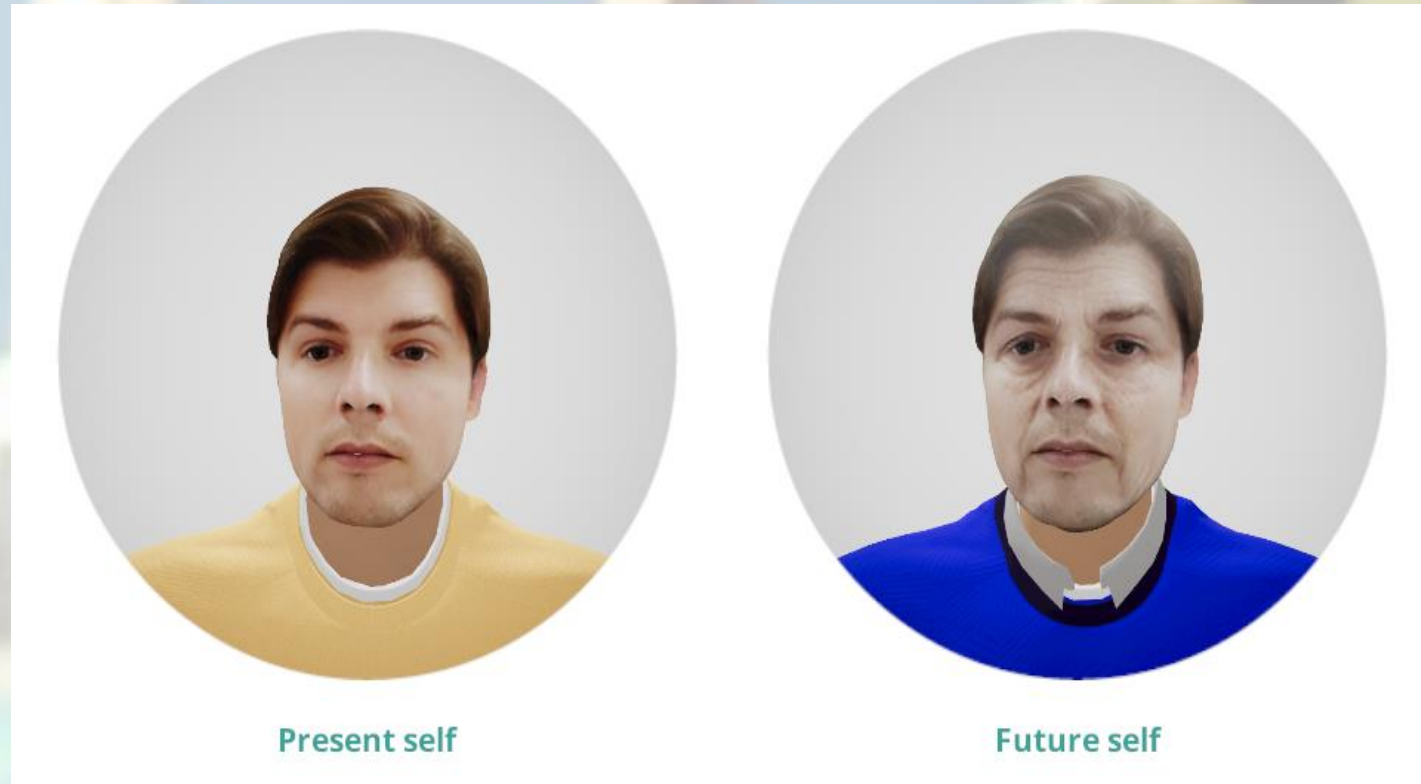|	Concurrent Outcomes									
	Well-being		Delinquency		Debt (no/yes)		Education (low/high)		NEET (no/yes)	
Variables	*r*	*pr*	*r*	*pr*	*r*	*pr*	*r*	*pr*	*r*	*pr*
W5 SLE	-.06	-.01	.14***	.04	.16***	.08	-.15***	-.06	.10**	.07
W6 SLE	-.04	-.01	.14***	.05	.15***	.04	-.15***	-.06	.07*	.02
W7 SLE	-.10**	-.04	.16***	.01	.13***	.03	-.11***	.01	.04	-.02
W8 SLE	-.10**	.03	.29***	.24***	.19***	.07	-.11***	-.04	.13***	.04
W5 Inconsistent	-.03	-.01	.09*	.04	.10**	.04	-.10**	-.06	-.01	-.02
W6 Inconsistent	-.05	.01	.05	.01	.10**	.07	-.05	-.03	-.03	-.02
W7 Inconsistent	-.08*	-.04	.05	-.01	.06	-.01	-.03	.01	-.03	-.03
W5 Corporal	-.08*	-.02	.10**	.04	.05	-0.03	-.09**	-.03	.02	-.06
W6 Corporal	-.08*	.02	.08*	-.02	.11***	0.04	-.10**	.01	.06	.01
W7 Corporal	-.09**	-.06	.13***	.08	.13***	0.08	-.11**	-.03	.02	.03
W5 SES	.06	.05	.09*	.12***	-.06	-0.04	.44***	.42***	-.08*	-.06
W8 Connectedness	.17***	.12**	-.08*	-.01	-.10**	-0.07	.16***	.11**	-.09**	-.06
W8 Valence	.44***	.40**	-.10*	-.07	-.08*	-0.04	.01	-.01	-.09**	-.12**
W8 Vividness	.28***	--	-.12	--	-.07	--	-.08	--	-.07	--

- Connectedness and valence associated with better functional well-being
- Also, account for part of the shared variance from stress and SES
- Valence boundary evidence: People who don't like their future tend to not seek employment or education

Study 2: Reciprocal Relationship of Behavior and Future Self-Continuity in Adulthood

Age 20

Age 23

Future Self-Continuity

Future Self-Continuity

- Substance abuse
- Delinquency

- Substance abuse
- Delinquency
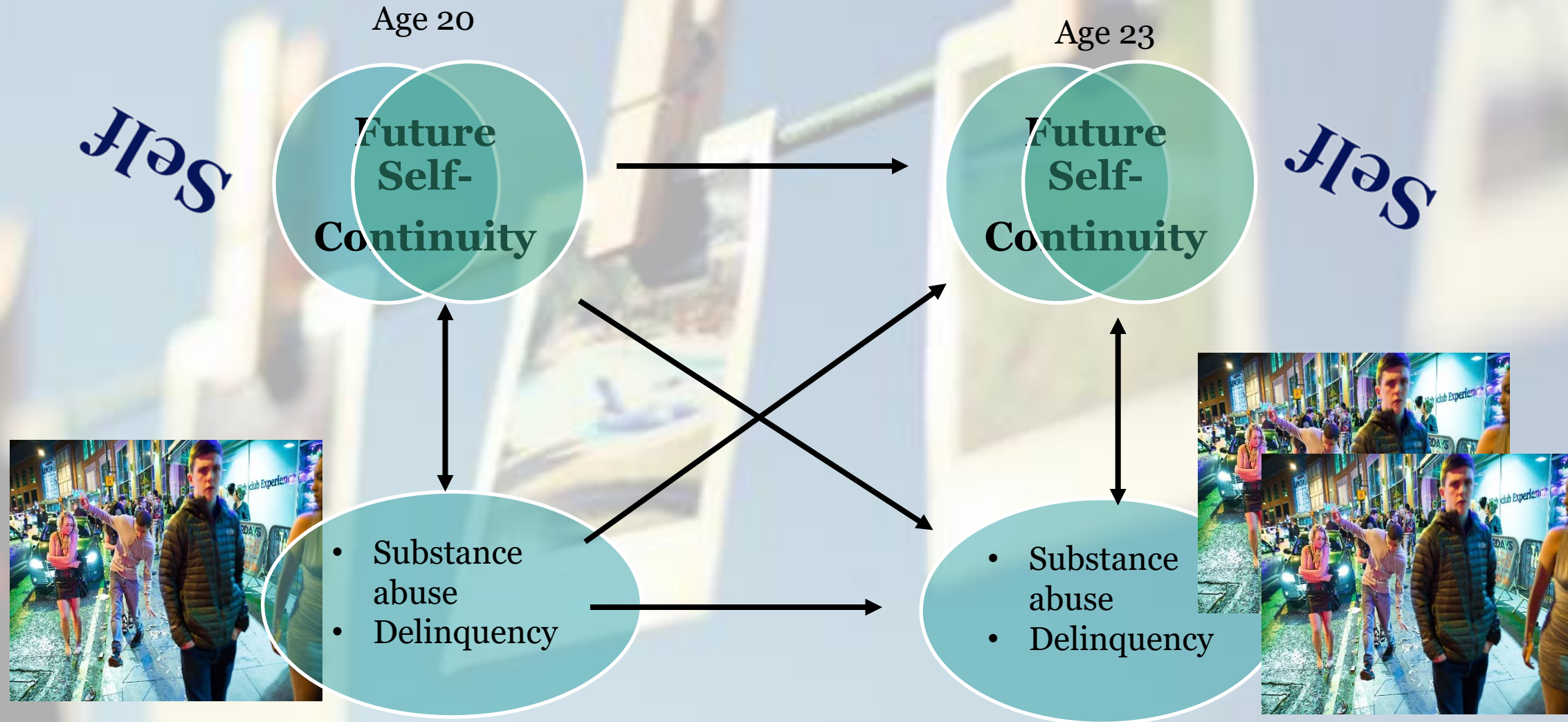
Conclusion

- Self-regulation: "Think before you act": salience + vividness

Present self   Future self

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6. Bartels, D. M., & Urminsky, O. (2011). On intertemporal selfishness: How the perceived instability of identity underlies impatient consumption. *Journal of Consumer Research, 38*(1), 182–198. https://doi.org/10.1086/658339

7. Hershfield, H. E., John, E. M., & Reiff, J. S. (2018). Using vividness interventions to improve financial decision making. *Policy Insights from the Behavioral and Brain Sciences, 5*(2), 209–215. https://doi.org/10.1177/2372732218787536

Thank you!