CDI NICEC 2021

The Role of the Practitioner in Research

Peter McIlveen

petermcilveen@usq.edu.au

A Real Counselling Scenario—A Real Research Problem

"[Clients] were provided the standard **drop-in centre** service,…a **55-minute interview** to explore the presenting problem, its history, and other factors…(e.g., academics, employment, mental health concerns). The counseling followed a **standardized protocol** [involving] a **semistructured interview**"

- Service Experience → Research Variables

- Service Limitations → Research Parameters

- …become the applied research question:
    - What factors affected the clients' experiences and outcomes?

Alchin, C., McIlveen, P., & Perera, H. N. (2018). Negative career outlook and the working alliance in career counseling. The Career Development Quarterly, 66(3), 279-284. https://doi.org/doi:10.1002/cdq.12149

Reflexive Practice
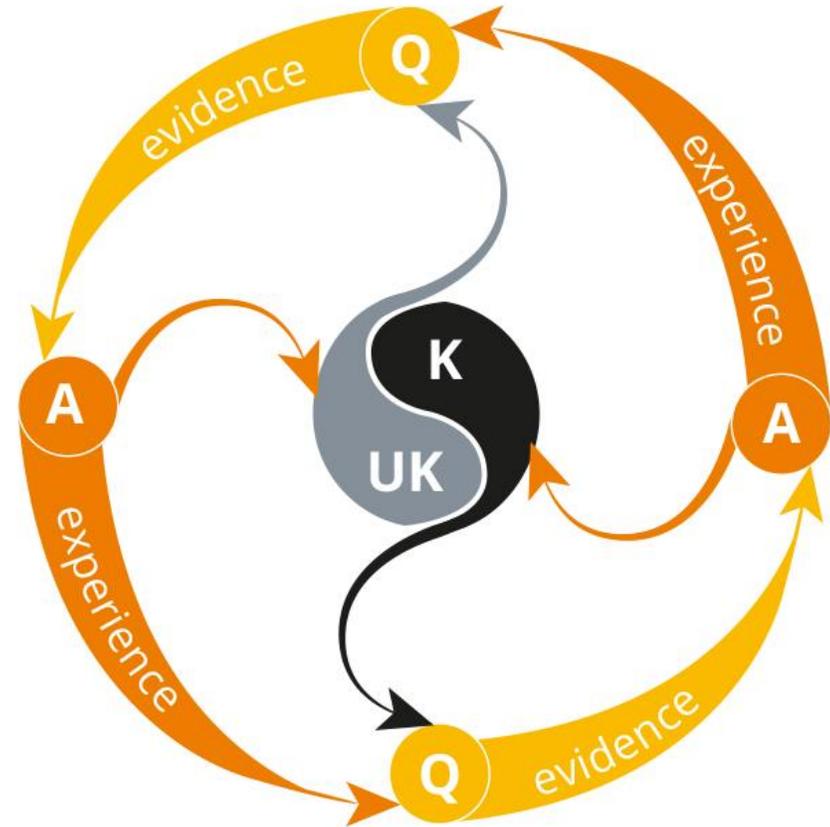
Evidence is communal

Experience is personal

Evidence binds our common practices

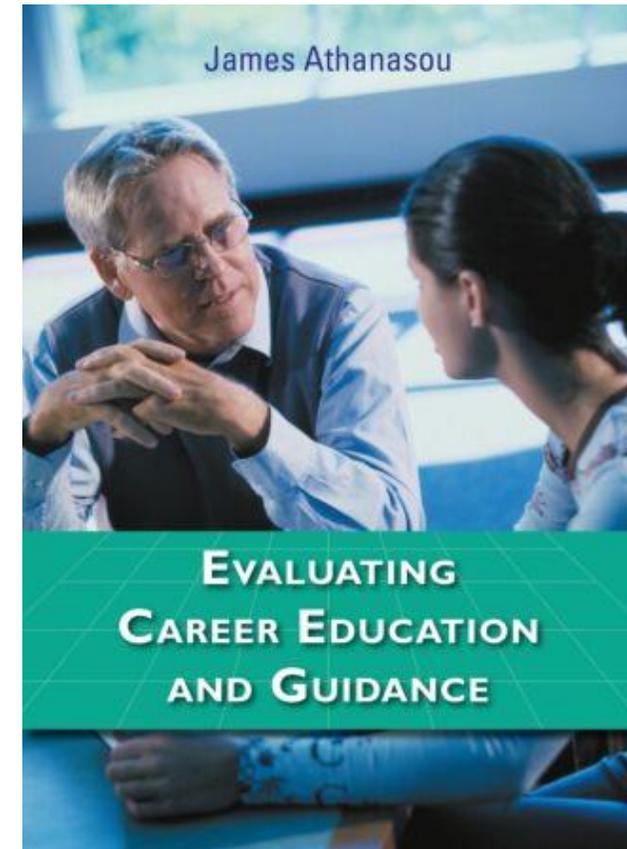Experience differentiates our individual practices

Q to A to Q to A ad infinitum

Cycle of Knowledge

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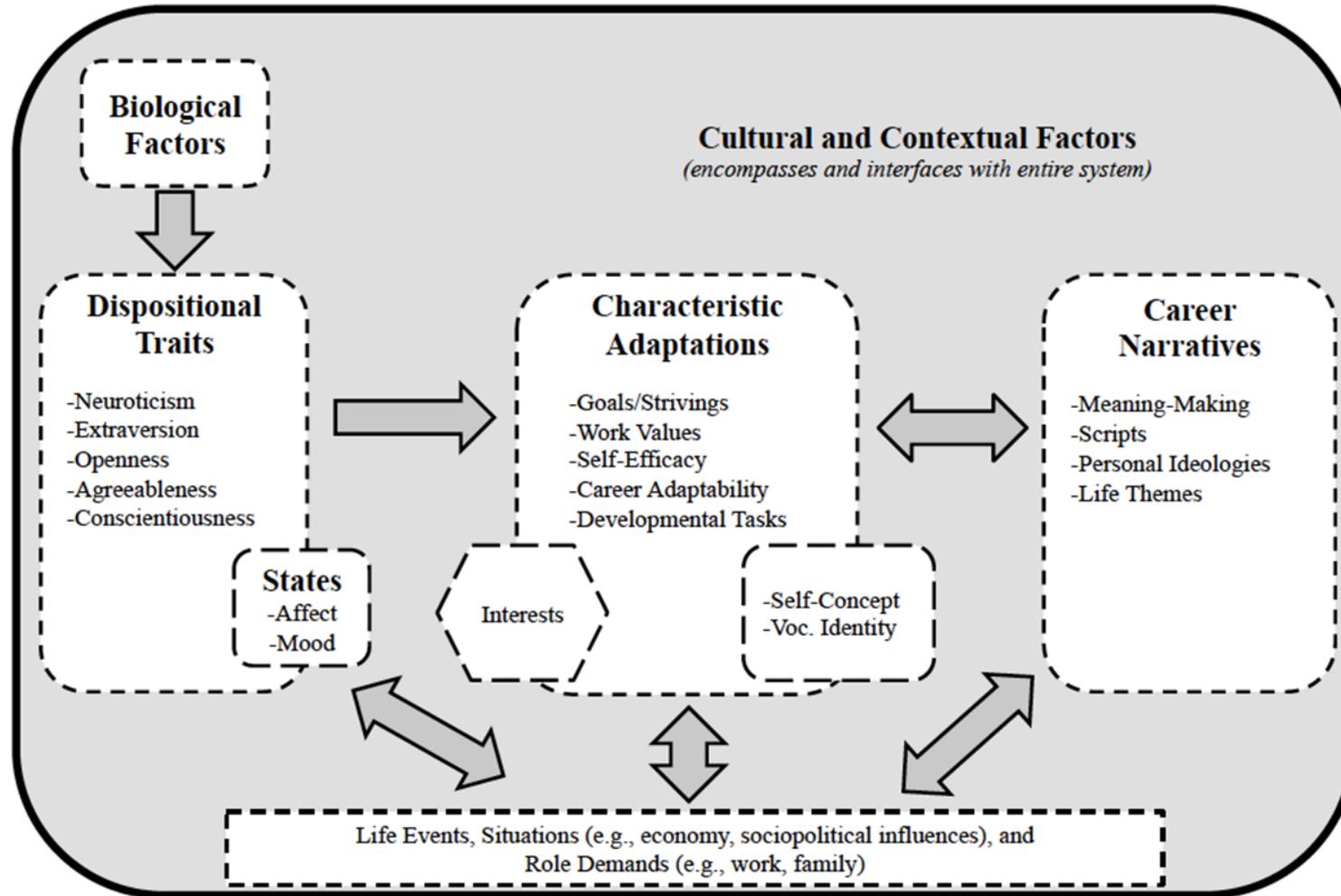
Practical Evaluative Research Questions

1. Is the service ethical?

2. To what extent does the service cover those who are most in need?

3. What are the costs, benefits, and utilities of the service?

4. Did the service achieve its key objectives?

5. What is the net effect of the service?

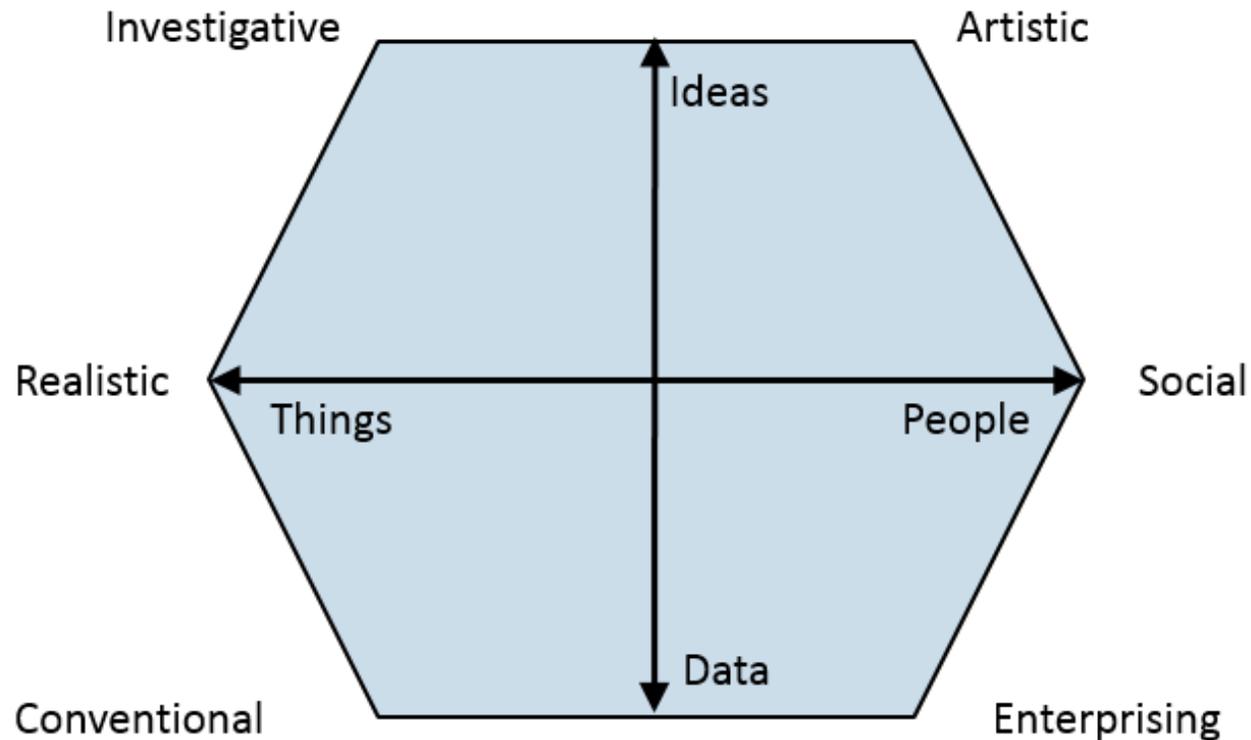6. To what extent have the perspectives or interests of all stakeholders been considered and met?

Athanasou, J. A. (2007). Evaluating career education and guidance. ACER.

"Measurable" Career Concepts

An Integrative Perspective

Rottinghaus, P. J., & Miller, A. D. (2013). Convergence of personality frameworks within vocational psychology. In B. W. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (4th ed., pp. 105-131). New York, NY: Routledge.

Established Model of Interests

Investigative — Artistic — Realistic — Social — Conventional — Enterprising
Ideas / Things / People / Data
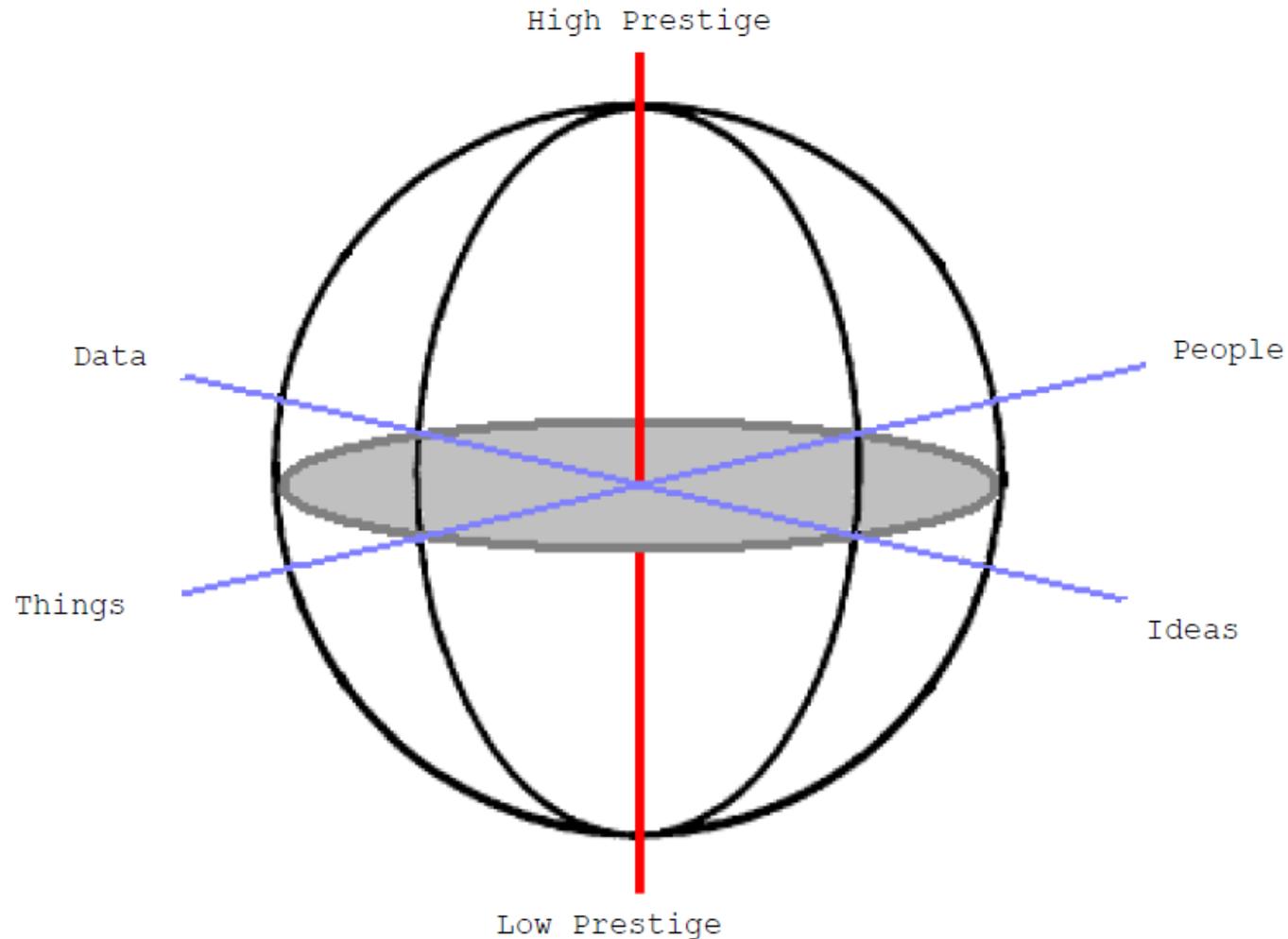
Prediger, D. J. (1982). Dimensions underlying Holland's hexagon: Missing link between interests and occupations? *Journal of Vocational Behavior, 21*(3), 259-287. doi: 10.1016/0001-8791(82)90036-7
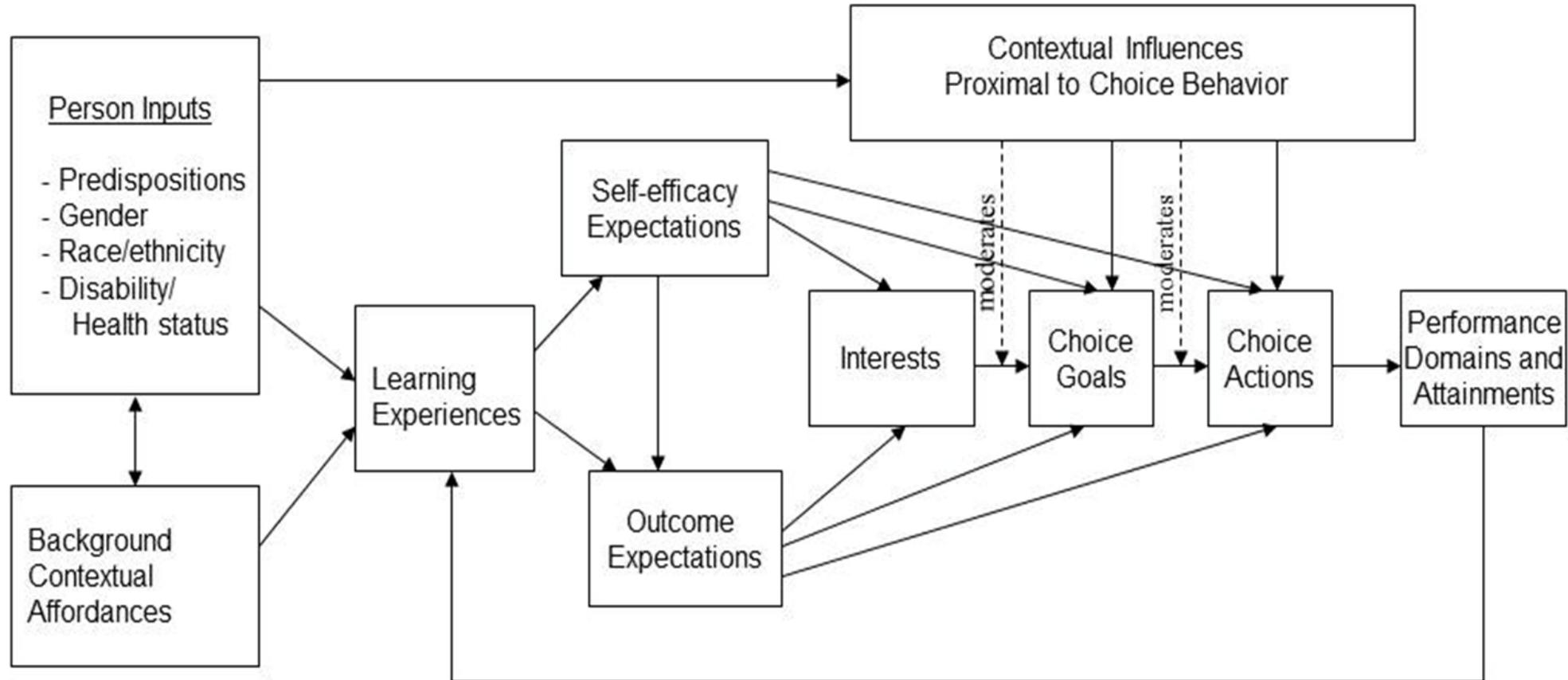
Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.

Personal Globe Inventory

Tracey, T. J. G. (2002). Personal Globe Inventory: Measurement of the spherical model of interests and competence beliefs. *Journal of Vocational Behavior, 60*(1), 113-172. doi: http://dx.doi.org/10.1006/jvbe.2001.1817
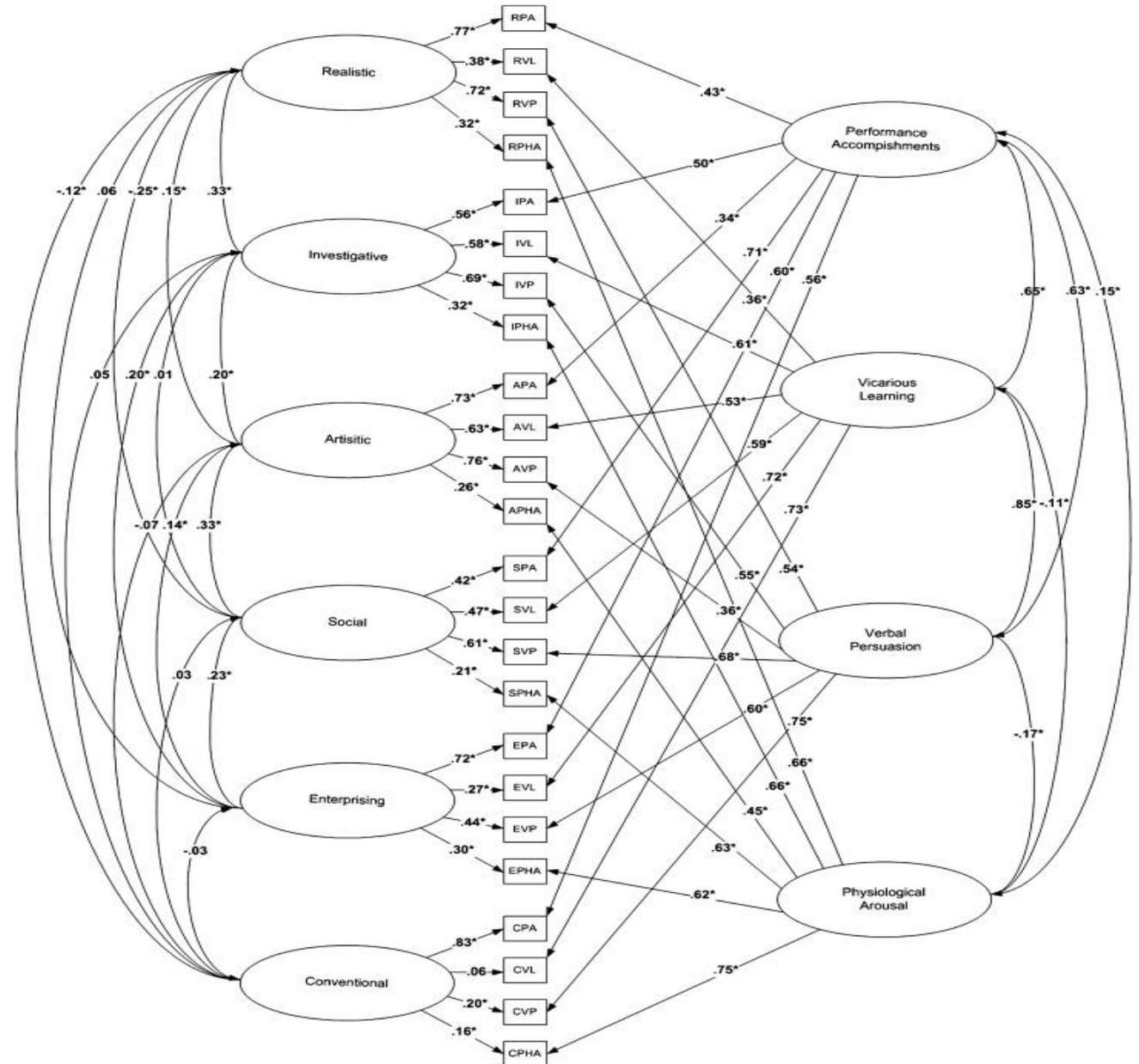
Social Cognitive Career Theory

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology, 60(4)*, 557-568. doi: 10.1037/a0033446
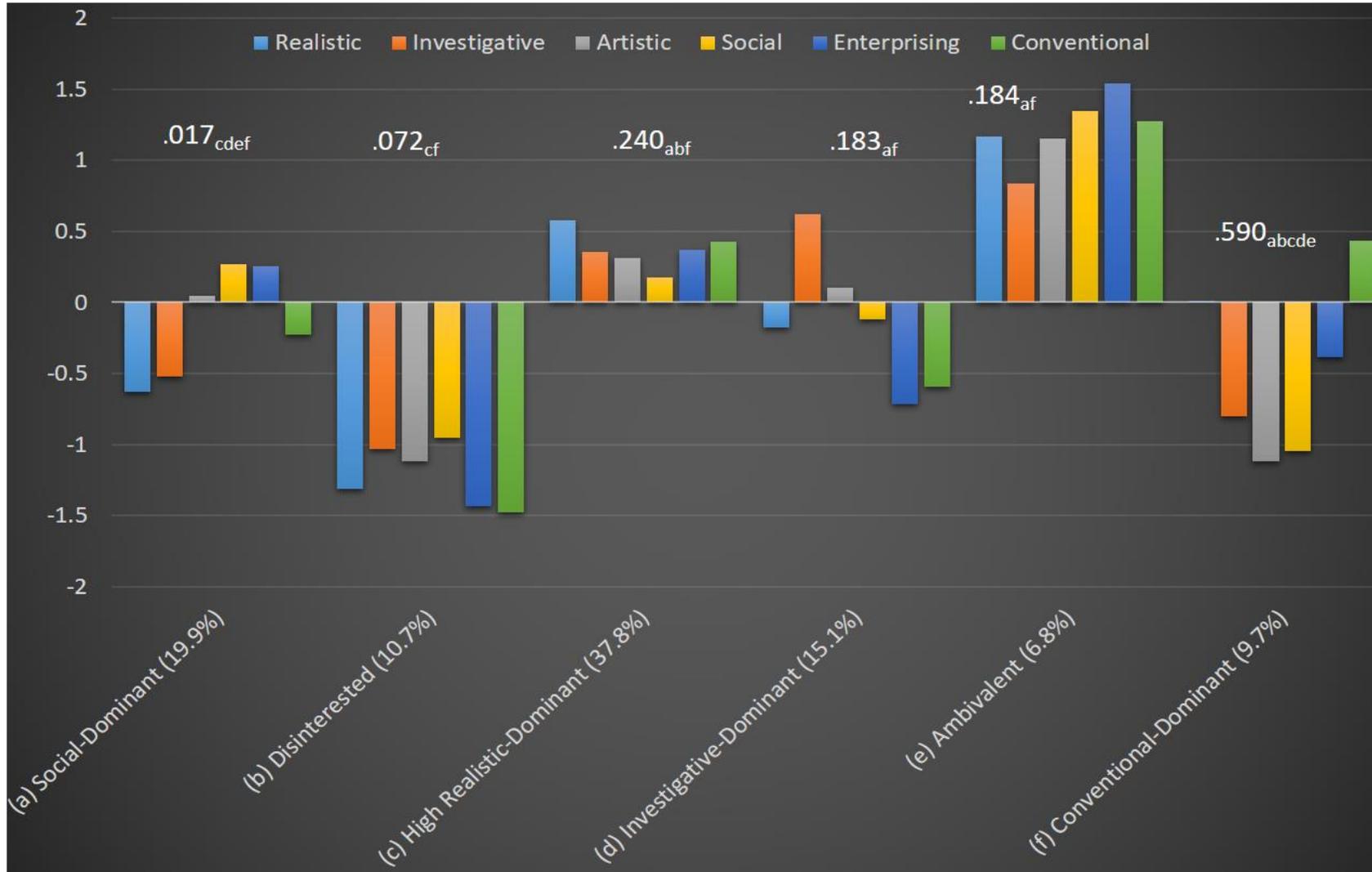
The Missing Link

Tokar, D. M., Buchanan, T. S., Subich, L. M., Hall, R. J., & Williams, C. M. (2012). A structural examination of the Learning Experiences Questionnaire. *Journal of Vocational Behavior, 80*(1), 50-66. doi: https://doi.org/10.1016/j.jvb.2011.08.003

Interest Predicts STEM Choice

Participants

- *N* = 764 university students
- Subsample 1: Mean age = 31.71 (SD = 11.06) and 74.9% female
- Subsample 2: Mean age = 31.94 (SD = 11.47) and 76.7% female
- Approximately, 18% of students were enrolled in STEM degrees

Perera, H. N., & McIlveen, P. (2018) Vocational interest profiles: Profile replicability and relations with the STEM major choice and the Big-Five. *Journal of Vocational Behavior, 106.* doi:https://doi.org/10.1016/j.jvb.2017.11.012

Cautionary Note: Beware the Box

"I am an XYZ"
"I am not an XYZ"

categorical **choice**
is not
categorical **type**

Why Measure What?

Effective Activities

Career interventions	Effect Size	Magnitude*
Computer guided	0.11	small
Workbooks	0.42	large
Self-report inventories	0.45	large
Counselor dialogue	0.33	large
Counselor support	0.83	large
Counselor cognitive restructuring	0.27	large
Vocational exploration	0.72	large
Values clarification	0.52	large
Psychoeducation	0.51	large
World of work information	0.25	typical
Personal performance accomplishment	0.99	large
Modeling	0.26	typical
Increased environmental support	0.31	large
Decreased perceived barriers	0.43	large

Whiston, S. C., Li, Y., Goodrich Mitts, N., & Wright, L. (2017). Effectiveness of career choice interventions: A meta-analytic replication and extension. *Journal of Vocational Behavior, 100*, 175-184. doi: 10.1016/j.jvb.2017.03.010

*Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. *Personality and Individual Differences, 102*, 74-78. doi: https://doi.org/10.1016/j.paid.2016.06.069

Personalization Matters

Modality	Effect Size	Magnitude*
Individual counselling	0.771	large
Individual test interpretation	0.265	typical
Group counseling	0.586	large
Group test interpretation	0.464	large
Workshop	0.307	large
Class	0.619	large
Computer alone	0.067	small
Computer plus counselor	0.149	small

Whiston, S. C., Li, Y., Goodrich Mitts, N., & Wright, L. (2017). Effectiveness of career choice interventions: A meta-analytic replication and extension. *Journal of Vocational Behavior, 100*, 175-184. doi: https://doi.org/10.1016/j.jvb.2017.03.010

*Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. *Personality and Individual Differences, 102*, 74-78. doi: https://doi.org/10.1016/j.paid.2016.06.069

The Evidence is In: It Works

Outcome	Effect Size	Magnitude*
Vocational identity	0.21	typical
Career maturity	0.40	large
Career decidedness	0.30	large
Career decision-making self-efficacy	0.45	large
Perceived environmental support	0.24	typical
Perceived career barriers	0.13	small
Outcome expectations	0.18	typical/small

Whiston, S. C., Li, Y., Goodrich Mitts, N., & Wright, L. (2017). Effectiveness of career choice interventions: A meta-analytic replication and extension. *Journal of Vocational Behavior, 100*, 175-184. doi: 10.1016/j.jvb.2017.03.010

*Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. *Personality and Individual Differences, 102*, 74-78. doi: https://doi.org/10.1016/j.paid.2016.06.069
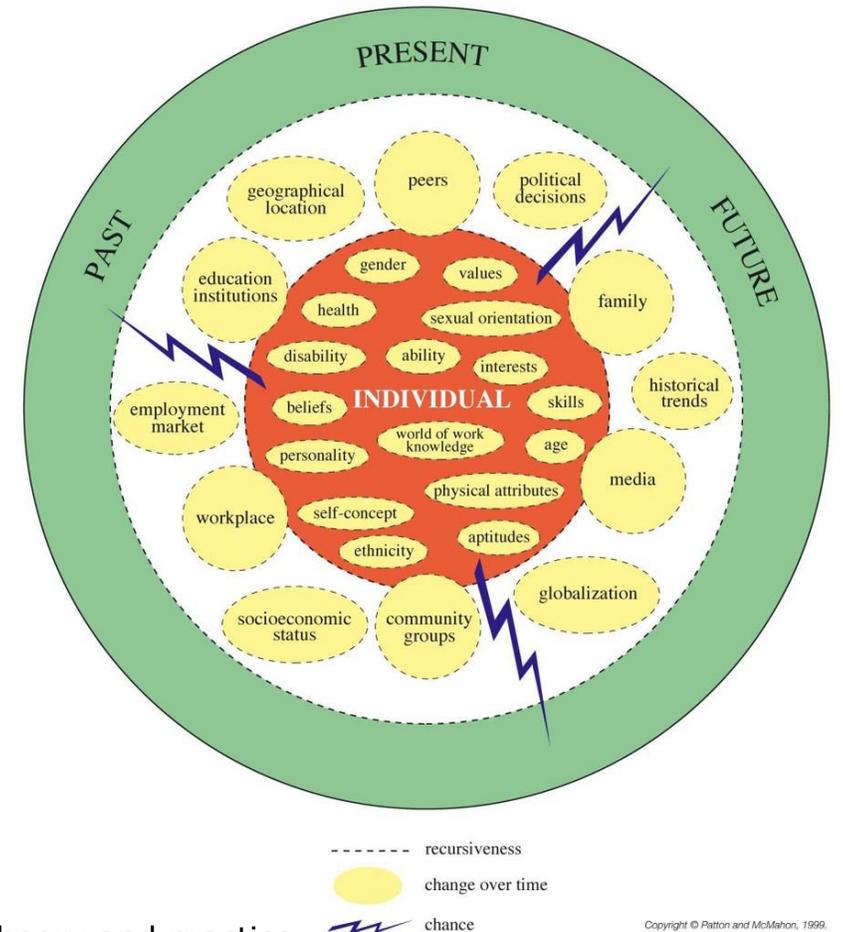
Target the Appropriate Factors
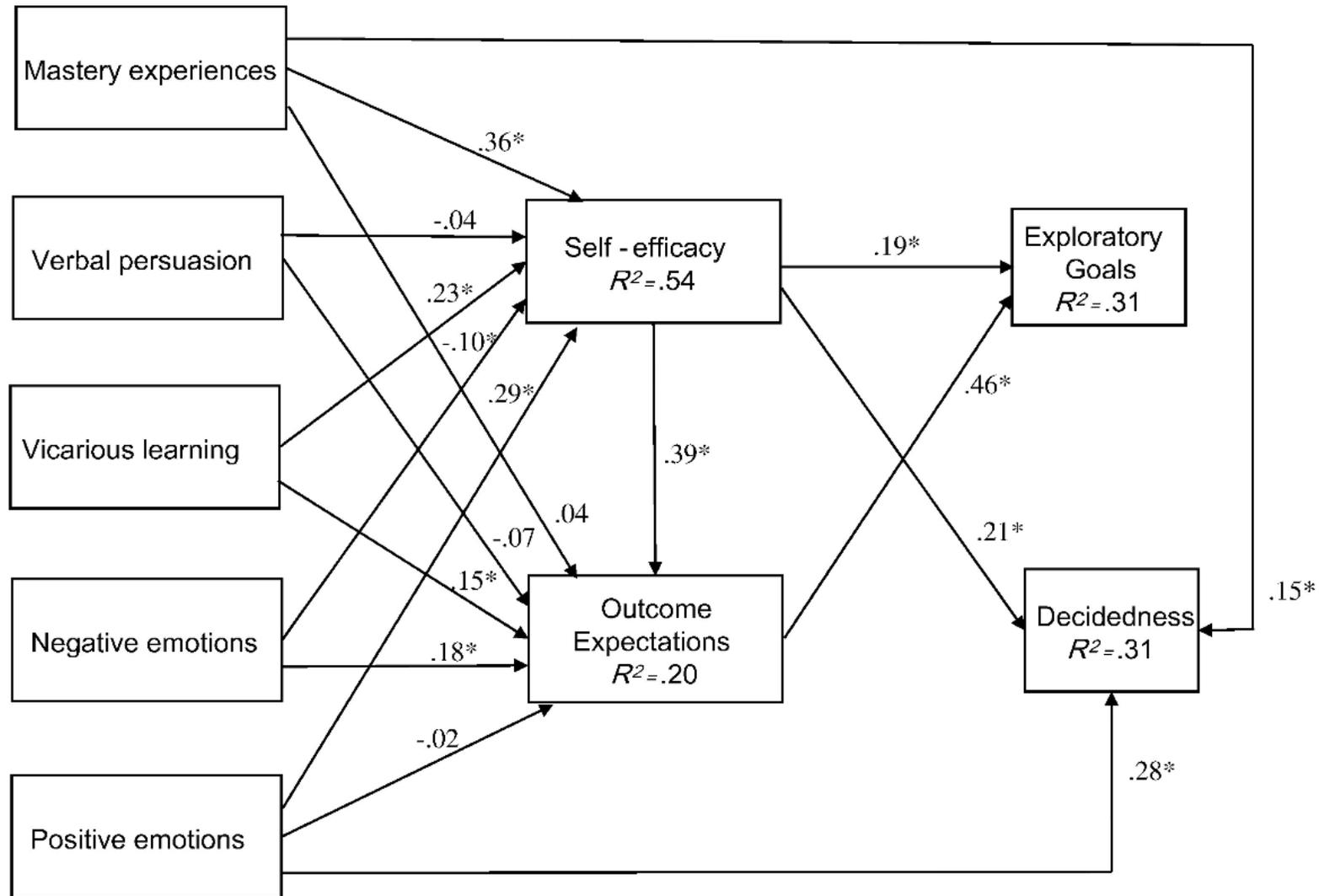
Lent, R. W., Ireland, G. W., Penn, L. T., Morris, T. R., & Sappington, R. (2017). Sources of self-efficacy and outcome expectations for career exploration and decision-making: A test of the social cognitive model of career self-management. *Journal of Vocational Behavior, 99*, 107-117. doi: 10.1016/j.jvb.2017.01.002

Process Analysis

What factors influence clients' **utilization** of services, active **engagement** in the intervention, and sustained **application** of their new knowledge and skills?

- Client

- Practitioner

- Client-and-Practitioner (Working Alliance)

- Intervention modality

- Service organization

Patton, W., & McMahon, M. (2014). Career development and systems theory: Connecting theory and practice. (3rd ed.). Sense Publishers.

Working Alliance Inventory

http://wai.profhorvath.com/

Working Alliance Inventory (Horvath & Greenberg, 1989)

- **Task**: "As a result of these sessions I am clearer as to how I might be able to change"

- **Bond**: "[practitioner] and I respect each other"

- **Goal**: "[practitioner] and I have established a good understanding of the kind of changes that would be good for me"
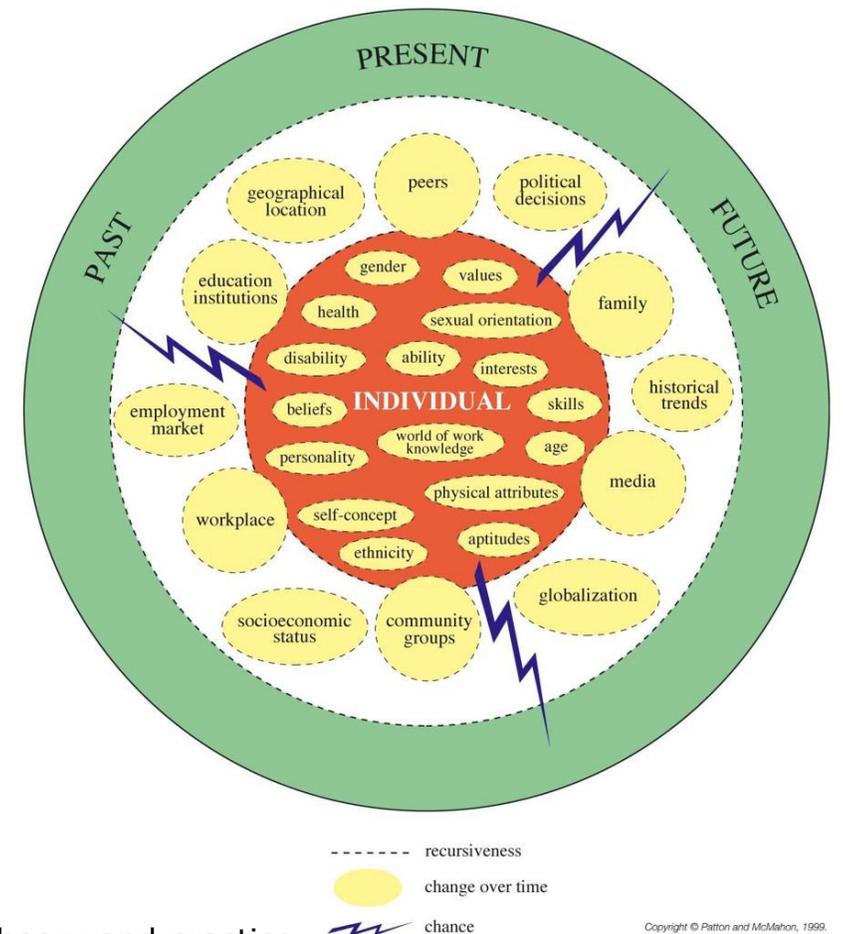
- Short forms are accessible

"in career counseling, most of the correlations between the working alliance and various outcome measures were significant and hovered around **.30**, which is consistent with findings related to the correlation between the working alliance and the outcome in psychotherapy." (Whiston et al., 2016)

Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. Journal of Counseling Psychology, 36, 223-233. https://doi.org/10.1037/0022-0167.36.2.223
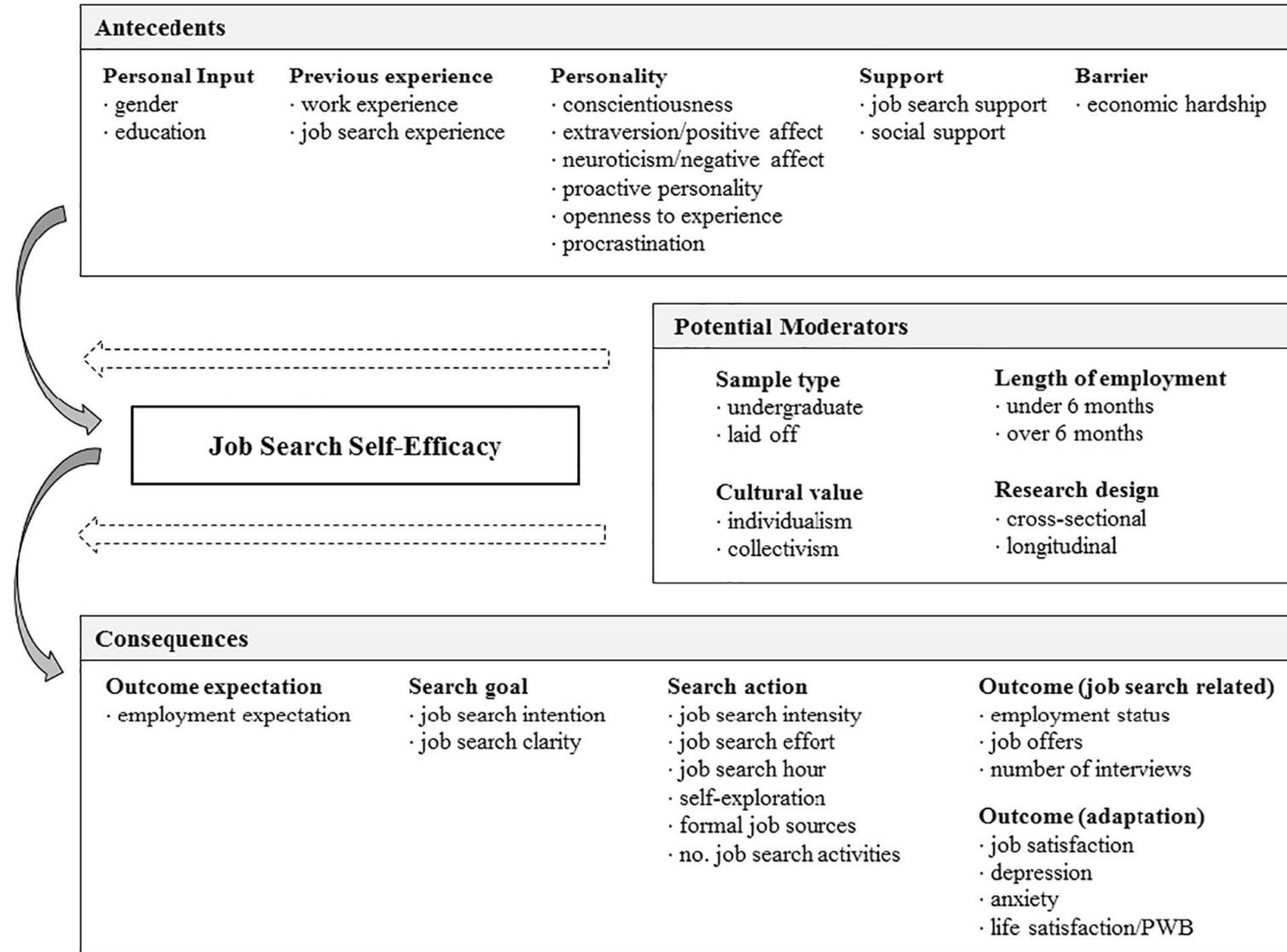
Whiston, S. C., Rossier, J., & Baron, P. M. H. (2016). The working alliance in career counseling: A systematic overview. Journal of Career Assessment, 24(4), 591-604. https://doi.org/10.1177/1069072715615849

Outcome Analysis

- Timeframe
  - Immediate, short-term, long-term
- Domains
  - Cognitive, behavioural, and emotional
  - Social and family
  - Economic
  - Non-career (e.g., K10 for mental health)
- Manifest and Latent
  - Directly observable (e.g., number of job applications)
  - Indirectly measured (e.g., self-efficacy for job applications)

Patton, W., & McMahon, M. (2014). Career development and systems theory: Connecting theory and practice. (3rd ed.). Sense Publishers.

Job Search Efficacy

Kim, J. G., Kim, H. J., & Lee, K.-H. (2019). Understanding behavioral job search self-efficacy through the social cognitive lens: A meta-analytic review. Journal of Vocational Behavior, 112, 17-34. https://doi.org/https://doi.org/10.1016/j.jvb.2019.01.004

Simple Pre-Post Data Collection

Design	Control Group (No/Yes) and Follow-up
No control group	All clients receive the same service, simultaneously (e.g., group, class) or sequentially (e.g., individually). Measure immediately before and after each service.
Wait list control group	Wait list* clients receive alternative service while waiting for actual service which is initially unavailable due to resources. Measure immediately before and after each service. Compare wait service and actual service.
Alternatives	
Pre : $Post_1Post_2$	Measure to follow-up weeks later to track change improvements or losses
Pre_1Pre_2 : $Post_1Post_2$	Measure twice (or more) before to determine stability; measure to determine stability before service.

*CAVEAT: the ethical considerations of "denying" a service are a challenge to implementing genuine random assignment used for true experiments to determine the effectiveness of counselling services. Waitlist controls are a fair compromise.

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Write to the Author/s

Cycle of Knowledge

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