

Teaching & learning guide for: Challenges in the conceptualization of trait self-control as a psychological construct

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1 | AUTHORS' INTRODUCTION

Trait self-control is widely regarded as a powerful predictor of a broad range of desirable life outcomes. Trait self-control is correlated with and believed to contribute to physical and mental health, life satisfaction, interpersonal relationship quality and stability, academic and professional achievement, financial wealth, lack of criminal offending, and even the pace of biological aging (e.g., Belsky et al., 2017; de Ridder et al., 2012; Robson et al., 2020). The predictive power of trait self-control for these outcomes spans years and decades and goes beyond other important predictors of a person's life journey, including intelligence and socioeconomic status (e.g., Daly et al., 2015; Daly et al., 2016; Moffitt et al., 2011). Training interventions to foster trait self-control have been conceptualized and applied, albeit with limited success (e.g., Friese et al., 2017; Piquero et al., 2016). Other interventions have focused on situational strategies to foster goal-congruent behavior (Duckworth et al., 2018). The potential of improving self-control for individuals and society at large seems enormous.

Despite this thriving and diverse literature, foundational conceptual questions about trait self-control remain difficult to answer. There are several different theoretical perspectives on what (trait) self-control is, obfuscating what exactly the term refers to and how the construct is anchored in a nomological network of related constructs (e.g., Eisenberg et al., 2019; Inzlicht et al., 2021; Milyavskaya et al., 2019). Pervasive measures of trait self-control have demonstrated small-to-zero correlations with one another (e.g., Duckworth & Kern, 2011; Eisenberg et al., 2019; Saunders et al., 2018).

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This teaching and learning guide suggests foundational readings on the predictive power of trait self-control, its theoretical nature, issues surrounding the measurement of self-control, and directions for future research on the conceptualization of trait self-control.

2 | AUTHORS RECOMMEND

de Ridder, D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, 16, 76–99. <https://doi.org/10.1177/1088868311418749>

This meta-analysis reviews evidence from three self-report scales on how trait self-control is related to behavior in a variety of life domains, revealing trait self-control's predictive power. It also has implications for the theoretical nature of trait self-control, highlighting a stronger relationship between trait self-control and “automatic” (less deliberate, effortless) than controlled (deliberate, effortful) behavior. For many researchers (including the authors), this was a surprising result in 2012 when this article was published, as it seemed to contradict the then dominant theoretical perspective on trait self-control as the effortful inhibition of presently experienced dominant response tendencies.

Fujita, K. (2011). On conceptualizing self-control as more than the effortful inhibition of impulses. *Personality and Social Psychology Review*, 15, 352–366. <https://doi.org/10.1177/1088868311411165>

This is a conceptual article calling for a broader theoretical understanding of (trait) self-control than the effortful inhibition of presently experienced dominant response tendencies alone. It advocates for the perception of effortful inhibition as only one of many ways to exert self-control, including the regulation of the availability and the cognitive reconstrual of experienced temptations.

Inzlicht, M., Werner, K. M., Briskin, J. L., & Roberts, B. W. (2021). Integrating models of self-regulation. *Annual Review of Psychology*, 75, 1–27. <https://doi.org/10.1146/annurev-psych-061020-105721>

This is a recent review aiming to integrate pervasive self-control and broader self-regulation models on the basis of their level of analysis and how they incorporate conflict, emotion, and cognitive functioning. It paints a broad and up-to-date picture of prominent self-regulatory models and compares them along key dimensions. It also provides succinct definitions of key constructs and terms.

Kotabe, H. P., & Hofmann, W. (2015). On integrating the components of self-control. *Perspectives on Psychological Science*, 10, 618–638. <https://doi.org/10.1177/1745691615593382>

This article identifies major conceptual components in theoretical work on self-control, including desire, higher order goals, desire-goal conflict, control motivation, control capacity, control effort, and enactment constraints. It integrates these components into a theoretical framework that highlights a broad picture of general self-control processes.

Milyavskaya, M., Berkman, E. T., & de Ridder, D. T. D. (2019). The many faces of self-control: Tacit assumptions and recommendations to deal with them. *Motivation Science*, 5, 79–85. <https://doi.org/10.1037/mot000108>

This article identifies insufficiently examined conceptual issues in current self-control research, including the multitude of uses of the term self-control, self-control as a capacity versus a tendency to regulate oneself, and normative assumptions in self-control research. The article provides recommendations on how to deal with each conceptual issue and derives implications for future research.

3 | ONLINE MATERIALS

https://www.youtube.com/watch?v=j0YDE8_jsHk.

This is a rather short educational and amusing video for children from National Public Radio (<https://www.npr.org/>) starring the character Cookie Monster from Sesame Street. It introduces basic ideas about self-control phenomenology and strategies. It might act as a fun opener that can be used to generally introduce the topic of self-control and foreshadow specific aspects of self-control research that will be covered at a later time.

<https://www.youtube.com/watch?v=KT9otL6pxKQ>.

This is a keynote address Terrie Moffitt gave at the International Convention of Psychological Science in 2015 about “Young children’s self-control and the health and wealth of their nation.” It highlights impressive longitudinal work spanning decades, showing self-control’s predictive power and its relevance from the individual level to the societal.

<https://in-mind.org/article/yielding-to-temptation-how-and-why-some-people-are-better-at-controlling-themselves>.

This is an article from In-Mind magazine picturing the predictive power of self-control and the processes underlying how self-control helps to achieve desirable outcomes, showing different theoretical perspectives on the construct. It is easily accessible and might serve as an introduction to self-control’s relevance and what self-control is theoretically.

<https://www.vox.com/science-and-health/2016/11/3/13486940/self-control-psychology-myth>.

This is an article from Vox depicting processes of successful self-control, especially pointing to the importance of (more) effortless forms of self-control (e.g., beneficial habits) instead of (more) effortful forms of self-control (e.g., fighting impulses in the heat of the moment with sheer force of will). It thus reflects a crucial development in self-control research in recent years.

<https://www.theorymaps.org/>

This is a website that introduces *theory mapping*, a technique for creating visual representations of scientific theory. Theory mapping is introduced and explained in detail in an excellent article by Gray (2017). The website includes a theory map of self-control by Wilhelm Hofmann (<https://www.theorymaps.org/maps>). Theory mapping can be used in class to make students think about the theoretical nature of (trait) self-control or other constructs, visually outlining elements of theoretical ideas, specifying their relationships, and providing concrete examples of the hypothesized theoretical relationships.

Some self-control researchers are active on Twitter (and other social media) and can be followed to catch up on their research and other things they talk about there. For example, you could follow Elliot Berkman (@Psychologist), Junhua Dang (@dangjunhua), Angela Duckworth (@angeladuckw), Marleen Gillebaart (@mgillebaart), Martin Hagger (@martinhagger), Marie Hennecke (@m_hennecke), Wilhelm Hofmann (@wilhelm_hofmann), Michael Inzlicht (@minzlicht), Veronika Job (@VeronikaJob), Wouter Kool (@wouterkool), Marina Milyavskaya (@MarinaMilyav), Brent Roberts (@BrentWRoberts), Brandon Schmeichel (@BJSchmeichel), Kaitlyn Werner (@kaitlynmwerner), Wendy Wood (@ProfWendyWood), or us: @lassewengerhold, @malfrise.

4 | SAMPLE SYLLABUS

Week I: Introduction/The predictive power of trait self-control.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences*, 108, 2693–2698. <https://doi.org/10.1073/pnas.1010076108>

Robson, D. A., Allen, M. S., & Howard, S. J. (2020). Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychological Bulletin*, *146*, 324–354. <https://doi.org/10.1037/bul0000227>

Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology*, *26*(6), 978–986. <https://doi.org/10.1037/0012-1649.26.6.978>

Week II: Self-control as the effortful inhibition of impulses.

Baumeister, R. F., & Vohs, K. D. (2016). Strength model of self-regulation as limited resource: Assessment, controversies, update. In *Advances in Experimental Social Psychology* (Vol. 54, pp. 67–127). Academic Press. <https://doi.org/10.1016/bs.aesp.2016.04.001>

Week III: Self-control as more than the effortful inhibition of impulses.

de Ridder, D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, *16*, 76–99. <https://doi.org/10.1177/1088868311418749>

Fujita, K. (2011). On conceptualizing self-control as more than the effortful inhibition of impulses. *Personality and Social Psychology Review*, *15*, 352–366. <https://doi.org/10.1177/1088868311411165>

Week IV: Effortless self-control/anticipatory self-control.

Duckworth, A. L., Gendler, T. S., & Gross, J. J. (2016). Situational strategies for self-control. *Perspectives on Psychological Science*, *11*, 35–55. <https://doi.org/10.1177/1745691615623247>

Gillebaart, M., & de Ridder, D. T. D. (2015). Effortless self-control: A novel perspective on response conflict strategies in trait self-control. *Social and Personality Psychology Compass*, *9*, 88–99. <https://doi.org/10.1111/spc3.12160>

Week V: Motivational and choice accounts of self-control/Bridging different theoretical perspectives.

Berkman, E. T., Hutcherson, C. A., Livingston, J. L., Kahn, L. E., & Inzlicht, M. (2017). Self-control as value-based choice. *Current Directions in Psychological Science*, *26*, 422–428. <https://doi.org/10.1177/0963721417704394>

Inzlicht, M., Werner, K. M., Briskin, J. L., & Roberts, B. W. (2021). Integrating models of self-regulation. *Annual Review of Psychology*, *75*, 1–27. <https://doi.org/10.1146/annurev-psych-061020-105721>

Kotabe, H. P., & Hofmann, W. (2015). On integrating the components of self-control. *Perspectives on Psychological Science*, *10*, 618–638. <https://doi.org/10.1177/1745691615593382>

Milyavskaya, M., & Inzlicht, M. (2018). Attentional and motivational mechanisms of self-control. In D. T. D. de Ridder, M. Adriaanse, & K. Fujita (Eds.), *The Routledge International Handbook of Self-Control in Health and Well-Being* (1st ed., pp. 11–23). Routledge. <https://doi.org/10.4324/9781315648576-2>

Week VI: Measurement of (trait) self-control.

Duckworth, A. L., & Kern, M. L. (2011). A meta-analysis of the convergent validity of self-control measures. *Journal of Research in Personality*, *45*, 259–268. <https://doi.org/10.1016/j.jrp.2011.02.004>

Friedman, N. P., & Gustavson, D. E. (2022). Do rating and task measures of control abilities assess the same thing? *Current Directions in Psychological Science*, *31*(3), 262–271. <https://doi.org/10.1177/09637214221091824>

Manapat, P. D., Edwards, M. C., MacKinnon, D. P., Poldrack, R. A., & Marsch, L. A. (2021). A psychometric analysis of the Brief Self-Control Scale. *Assessment*, *28*(2), 395–412. <https://doi.org/10.1177/1073191119890021>

Pilcher, J. J., Morris, D. M., & Erikson, D. N. (2022). Self-control measurement methodologies: An integrative approach. *Psychological Reports*. Advance online publication. <https://doi.org/10.1177/003329412111067969>

Wennerhold, L., & Friese, M. (2020). Why self-report measures of self-control and inhibition tasks do not substantially correlate. *Collabra: Psychology*, *6*, 9. <https://doi.org/10.1525/collabra.276>

Week VII: Strengthening (trait) self-control.

- Duckworth, A. L., Milkman, K. L., & Laibson, D. (2018). Beyond willpower: Strategies for reducing failures of self-control. *Psychological Science in the Public Interest*, 19(3), 102–129. <https://doi.org/10.1177/1529100618821893>
- Friese, M., Frankenbach, J., Job, V., & Loschelder, D. D. (2017). Does self-control training improve self-control? A meta-analysis. *Perspectives on Psychological Science*, 12, 1077–1099. <https://doi.org/10.1177/1745691617697076>
- Fujita, K., Orvell, A., & Kross, E. (2020). Smarter, not harder: A toolbox approach to enhancing self-control. *Policy Insights from the Behavioral and Brain Sciences*, 7(2), 149–156. <https://doi.org/10.1177/2372732220941242>
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Week VIII: (Trait) self-control's nomological network.

- Duckworth, A. L., & Gross, J. J. (2014). Self-control and grit: Related but separable determinants of success. *Current Directions in Psychological Science*, 23, 319–325. <https://doi.org/10.1177/0963721414541462>
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- Nigg, J. T. (2017). Annual research review: On the relations among self-regulation, self-control, executive functioning, effortful control, cognitive control, impulsivity, risk-taking, and inhibition for developmental psychopathology. *Journal of Child Psychology and Psychiatry*, 58, 361–383. <https://doi.org/10.1111/jcpp.12675>
- Roberts, B. W., Lejuez, C., Krueger, R. F., Richards, J. M., & Hill, P. L. (2014). What is conscientiousness and how can it be assessed? *Developmental Psychology*, 50, 1315–1330. <https://doi.org/10.1037/a0031109>

Week IX: Challenges in conceptualizing (trait) self-control.

- Milyavskaya, M., Berkman, E. T., & de Ridder, D. T. D. (2019). The many faces of self-control: Tacit assumptions and recommendations to deal with them. *Motivation Science*, 5, 79–85. <https://doi.org/10.1037/mot0000108>
- Wennerhold, L., & Friese, M. (2022). Challenges in the conceptualization of trait self-control as a psychological construct. *Social and Personality Psychology Compass*, e12726. <https://doi.org/10.1111/spc3.12726>

5 | FOCUS QUESTIONS

1. What is the target phenomenon of (trait) self-control research? Speculate on why self-control seems to be relevant in such a broad range of life domains.
2. Which theoretical perspectives on the nature of (trait) self-control can be distinguished? What exactly makes them different?
3. How can (trait) self-control be measured? Which measures are predominantly associated with which theoretical perspectives on (trait) self-control? Why do some pervasive measures of (trait) self-control show small-to-zero correlations?
4. What are current challenges in conceptualizing (trait) self-control? How can they be addressed?
5. How can (trait) self-control be localized in a nomological network of related constructs, such as conscientiousness or grit?

6 | SEMINAR/PROJECT IDEA

Group or individual project: What do pervasive measures of trait self-control assess?

Groups or individual students will examine specific (groups of) measurement instruments assessing (trait) self-control, such as self-report scales (e.g., the Self-Control Scale; Tangney et al., 2004) or behavioral inhibition tasks (e.g., the Stroop task; Stroop, 1935). Specifically, students will examine which theoretical notions of trait self-control are covered by these instruments and to what extent. On the basis of these considerations, students will elaborate on which outcomes these measures might predict strongly or not so strongly (and why). Additionally, students might (a) think about how to examine their ideas in an empirical study, and/or (b) look for evidence with regard to their ideas in the literature. Students will present and discuss their results in class.

Group project: What is trait self-control?

Using the knowledge they have acquired in this class, groups of students will develop a proposal for a state-of-the-art conceptualization of trait self-control and present it in class to discuss it. The conceptualization should include a precise definition of trait self-control. Students will use theory mapping (see the "Online Materials" section above) to visualize their conceptualization. Students should explain how they arrived at their final conceptualization: Were there specific notions in the self-control literature that influenced them particularly much or not so much? If so, why? Were there challenges they grappled with? If so, how did they try to address the challenges? How does the conceptualization fit into a nomological network of trait self-control and related constructs?

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