
These slides are provided as supplements to *The Model of Achievement Competence Motivation (MACM): Standing on the shoulders of giants* (McGrew, in press, 2021—for special issue on motivation in *Canadian Journal of School Psychology*). The slides in this PPT/PDF module can be used without permission for educational (not commercial) purposes.
This is the fifth (final) in the MACM series of on-line PPT modules.

The first, the Introduction to the model is available at:


The second, the Model Overview is available at:


The third, the Motivation Domains Defined is available at:

https://www2.slideshare.net/iapsych/the-model-of-achievement-competence-motivation-macm-part-c-the-motivation-domains-defined

The fourth, the Volition/Self-regulated Learning Domains Defined is available at:


The Model of Achievement Competence Motivation (MACM): Crossing the Rubicon Commitment Pathway Model to Learning

(K. McGrew 01-07-2021)
A proposed Model of Achievement Competence Motivation (MACM): Integration of Snow’s affective (aff) and conative (con) construct domains (affcon) (McGrew, 2020)

**Motivation**
- Achievement Orientations
  - Intrinsic Motivation
  - Academic Goal Orientation
  - Academic Motivation
  - Academic Goal Setting
- Interests and Task Values
  - Need for Cognition
  - Academic Interests
  - Academic Values
- Self-Beliefs
  - Locus of Control (control)
  - Academic Ability Conception (control)
  - Academic Self-Efficacy (competence)
  - Academic Self-Concept (competence)

**Volition***
- Self-regulated learning (SRL) strategies & phases
  - Prepare
    - Forethought
    - Plan & Activate
  - Perform
    - Control
    - Monitor
    - Regulate
  - Appraise
    - React & Reflect
    - Evaluate

**Temperament**
- Big 5 personality trait constructs
  - Openness (O)
    - Intellectual curiosity
    - Creative
    - Imagination
    - Artistic interest
  - Conscientiousness (C)
    - Determination
    - Organization
    - Focus-Persistence
    - Responsibility
  - Neuroticism (N)
  - Extraversion (E)
  - Agreeableness (A)

**Characteristic Moods**
- Negative-emotion regulation (N)
  - Stress modulation
  - Self-confidence
  - Frustration tolerance
- Engaging with others (E)
  - Social initiative
  - Assertiveness
  - Enthusiasm
  - Amity (A)
    - Compassion
    - Respect
    - Trust

**SENA SEMS**
- Open-mindedness (O)
- Intellectual curiosity
- Creative
- Imagination
- Artistic interest
- Conscientiousness (C)
- Determination
- Organization
- Focus-Persistence
- Responsibility
- Neuroticism (N)
- Extraversion (E)
- Agreeableness (A)

**Motivation as a set of key questions**
- Do I want to do this activity?
- Why do I want to do this activity?
- What are my goals for this activity?
- Is this activity of interest to me?
- Is this activity worth the effort?
- Can I be successful on this activity?
- Am I capable of doing this activity?
- Can I control my success on this activity?
- What do I need to do to succeed at this activity?
- How am I doing on this activity?
- What do I need to do differently?

- Bold font designates constructs or domains drawn or adapted from Richard Snow’s model of aptitude (Corno et al, 2002).
- Wide shaded arrows represent causal relations or cyclical phase stages.
* Snow model included “conative styles” under volition. This construct domain is not included in the MACM model given the lack of robust validity research regarding work and learning styles.
** SENNA SEMS = SENNA social-emotional skills measurement scale and model.
The “Rubicon” motivation-to-action cycle framework

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**The Best-Laid Plans**

*Modern Conceptions of Volition and Educational Research*

LYN CORNO

(1993)

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FIGURE 1. Simplified recursive model of action control (after Heckhausen & Kuhl, 1985)
The “Rubicon” motivation-to-action cycle framework

Today “crossing the Rubicon” is an idiom describing a decision point of no return. It is based on Julius Caesar's historical crossing of the Rubicon river that precipitated the Roman Civil War. [https://en.m.wikipedia.org/wiki/Crossing_the_Rubicon](https://en.m.wikipedia.org/wiki/Crossing_the_Rubicon).
Heckhausen proposed the Rubicon model of action phases, which contrasts motivational and volitional mind-sets before and after transitioning the decisional Rubicon.

The idea is that processes of information search, appraisal, and interpretation are being functionally adapted and bundled into mind-sets so that they can optimally serve a specific phase in the decision about and pursuit of action goals. The Rubicon model conceptualizes the transition from one mind-set to another as discrete and triggered by the decision for a particular action goal. The predecisional motivation mind-set was referred to as deliberative and characterized by realistic, objective, and broad information search and processing, whereas the postdecisional volitional mind-set was conceptualized as implemental and focused on realizing the goal, biased, and narrowly focused. The Rubicon model has had substantial influence on further developments in the field of motivation around the concepts of implementation intentions, intents and nonconscious activation and pursuit of goals, motivational metaprocesses and phase-adequacy of mental processes, as well as goal disengagement and action crisis.
The “Rubicon” MACM Commitment to Pathway to Learning Model

FIGURE 1. Simplified recursive model of action control (after Heckhausen & Kuhl, 1985)
Explanatory Model Types: A Simple Model – But Still to Obtuse and Abstract for Effective Communication

FIGURE 2. Dynamic spheres of conation in the academic domain. (Constructs derive from sources such as Lepper, 1988; Markus & Nurius, 1986; Pintrich, 1990; Snow, 1989a; Weiner, 1990)
Explanatory Model Types: A Simple Model – But Still to Obtuse and Abstract for Effective Communication
Learning-related conative & affective constructs

SENNAS SEM/Big 5 traits
O = Open-mindedness
C = Conscientiousness/Self-management

Cattell’s (general) gf
• Fluid cognitive processes
• Intelligence-as-process (Ackerman)
• Snow’s procedural skills (cognitive)

Small circles represent broad ability constructs as per CHC theory. Large circles represent Cattell’s $g_f/g_c$ theory.

Learning-related cognitive constructs

Cattell’s Investment Theory

Societal Investment

Familial Investment

Personal Investment

Cattell’s (general) $g_c$
• Learning outcomes
• Achievement
• Acquired knowledge systems
• Intelligence-as-knowledge (Ackerman)
• Snow’s declarative knowledge (cognitive)