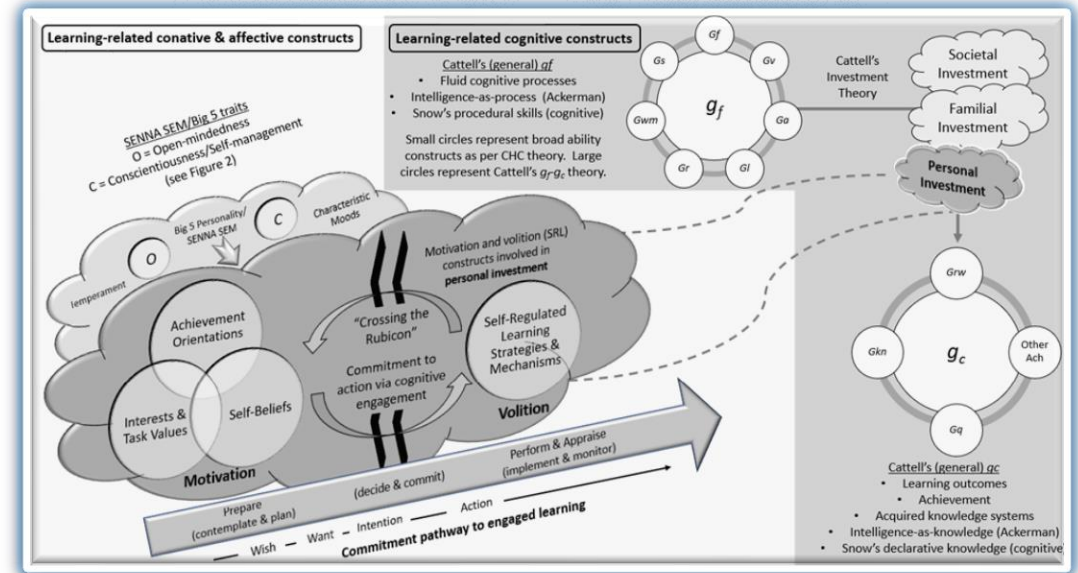# The Model of Achievement Competence Motivation (MACM):
An overview of the model
(K. McGrew 01-05-2021)

A Working Definition of Motivation

The Broad Constructs of the Model

The Model as Three Sets of Key Questions

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.

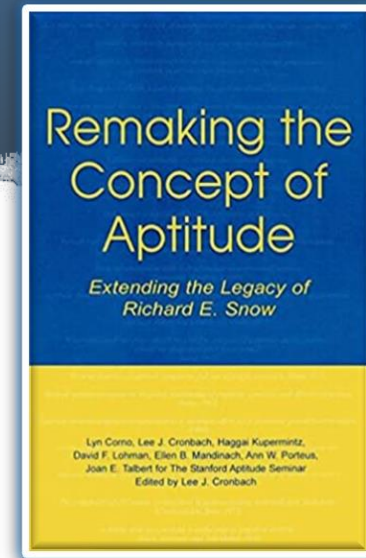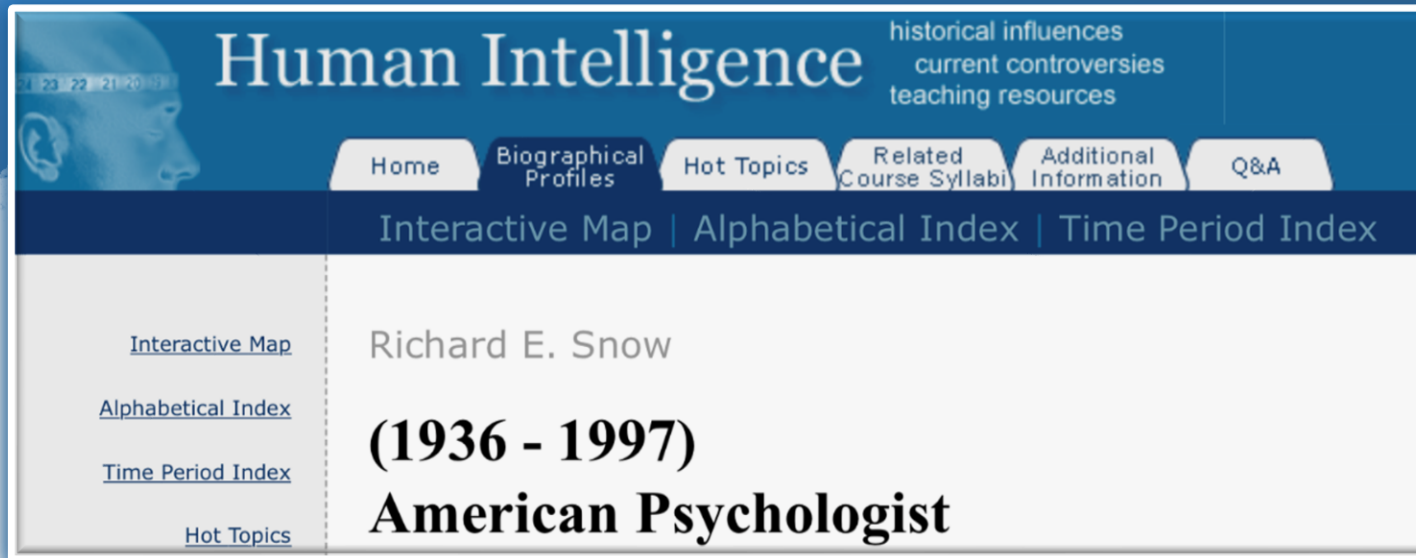# The Model of Achievement Competence Motivation (MACM):
An overview of the model
(K. McGrew 01-05-2021)

This is the second in the MACM series of on-line PPT modules.
The first, the Introduction to the model is available at:

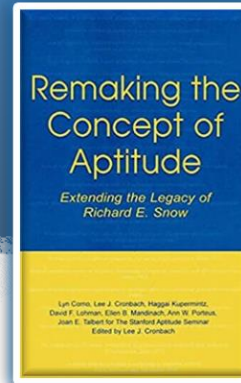https://www.slideshare.net/iapsych/the-model-of-achievement-competence-motivation-macm-part-a-introduction-of-series

MACM model heavily influenced by work of **Richard Snow**

Human Intelligence

historical influences
current controversies
teaching resources

Home | Biographical Profiles | Hot Topics | Related Course Syllabi | Additional Information | Q&A

Interactive Map | Alphabetical Index | Time Period Index

Interactive Map
Alphabetical Index
Time Period Index
Hot Topics

Richard E. Snow

(1936 – 1997)
American Psychologist

Remaking the Concept of Aptitude

Extending the Legacy of Richard E. Snow

Lyn Corno, Lee J. Cronbach, Haggai Kupermintz,
David F. Lohman, Ellen B. Mandinach, Ann W. Porteus,
Joan E. Talbert for The Stanford Aptitude Seminar
Edited by Lee J. Cronbach

Major Contributions

- Expanded the notion of "aptitude" from being purely cognitive abilities to include motivational and affective characteristics.
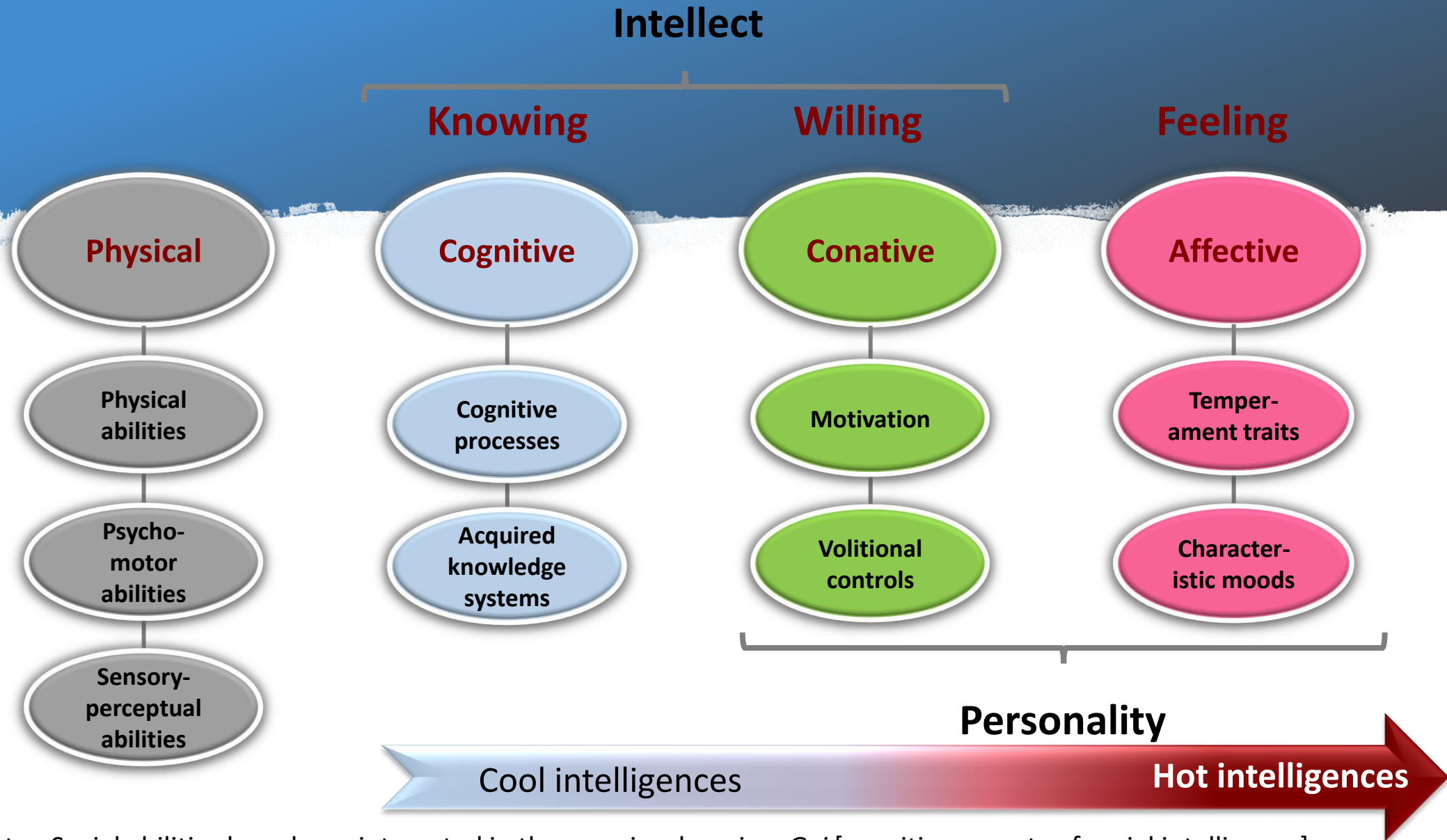
MACM model heavily influenced by work of Richard Snow

Remaking the Concept of Aptitude

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Lyn Corno, Lee J. Cronbach, Haggai Kupermintz, David F. Lohman, Ellen B. Mandinach, Ann W. Porteus, Joan E. Talbert for The Stanford Aptitude Seminar
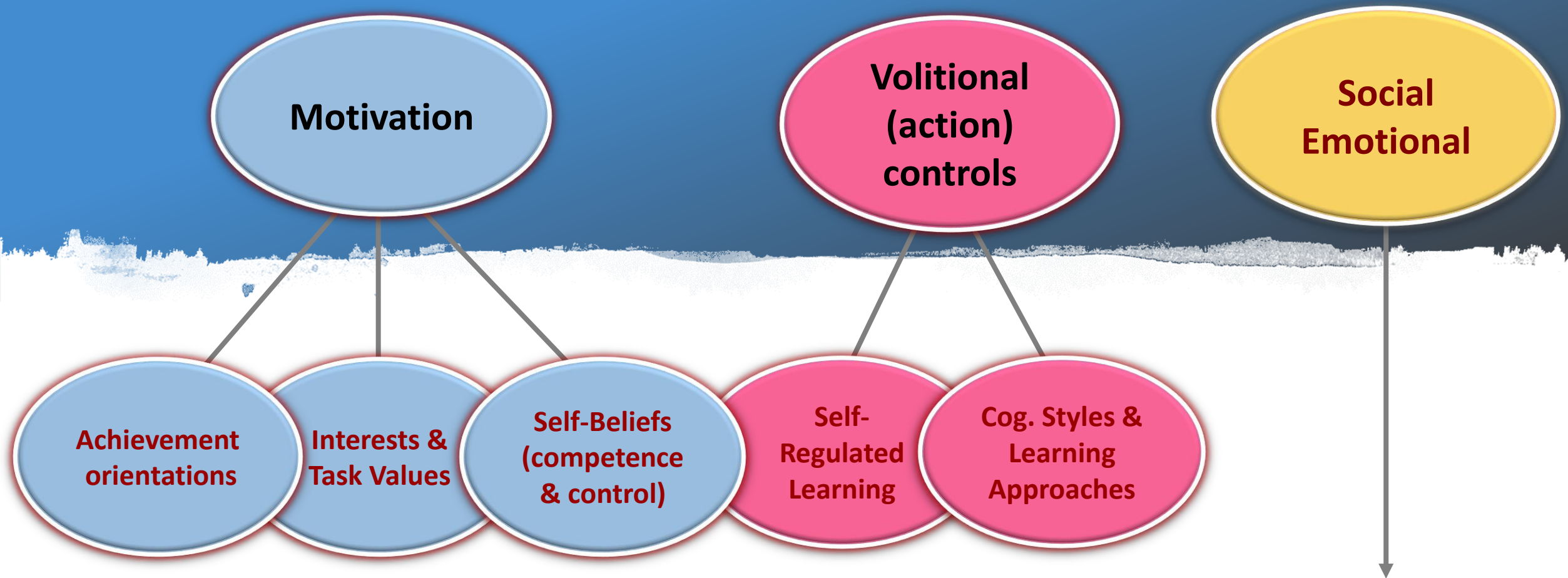Edited by Lee J. Cronbach

Ideas and Interests

Richard E. Snow is noted as having been a prominent educational psychologist who dedicated much of his life's work toward studying human aptitudes and learning environments. In his work, Snow expanded the definition of aptitude from the conventional cognitive-based strategies and abilities, to include conative and affective characteristics - conative being motivational and volitional aspects of learning and affective being temperamental and emotional aspects. He was opposed to the idea that

The big picture: An adapted Snow (Corno et al., 2002) model of aptitude (MACM revised; 10-13-16)

Intellect

Knowing   **Willing**   **Feeling**

Physical   **Cognitive**   **Conative**   **Affective**

Physical abilities   Cognitive processes   Motivation   Temper-ament traits

Psycho-motor abilities   Acquired knowledge systems   Volitional controls   Character-istic moods

Sensory-perceptual abilities

Personality

Cool intelligences   **Hot intelligences**

(Note: Social abilities have been integrated in these major domains: *Gei* [cognitive aspects of social intelligence] now in Cognitive/CHC model. Social behavior characteristics now subsumed under personality).
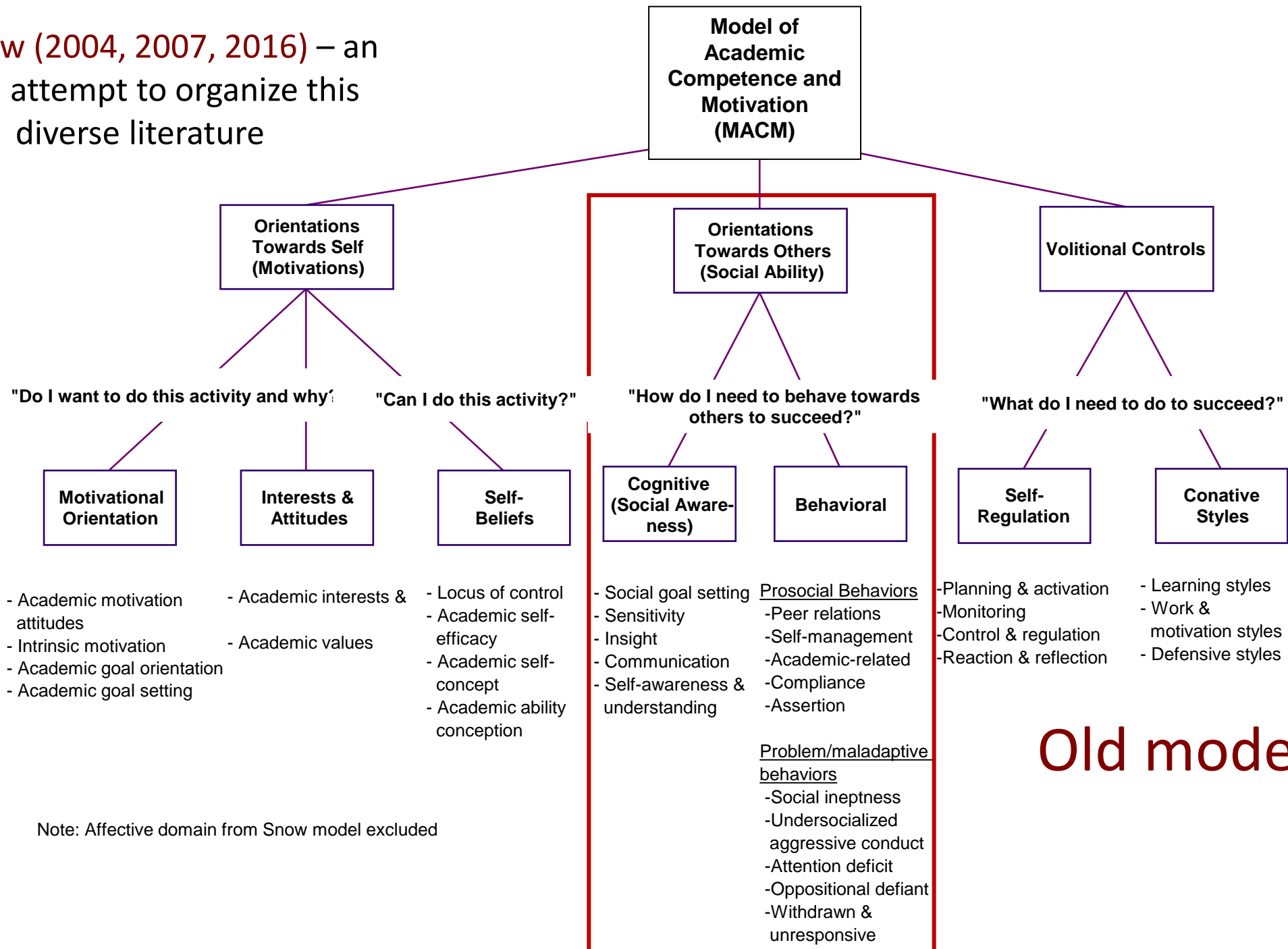
Motivation

Volitional (action) controls

Social Emotional

Achievement orientations

Interests & Task Values

Self-Beliefs (competence & control)

Self-Regulated Learning

Cog. Styles & Learning Approaches

Was included in original ESAF/MACM model but is now excluded—there are other models available for this huge domain

MACM currently addresses two major conative domains of learner characteristics
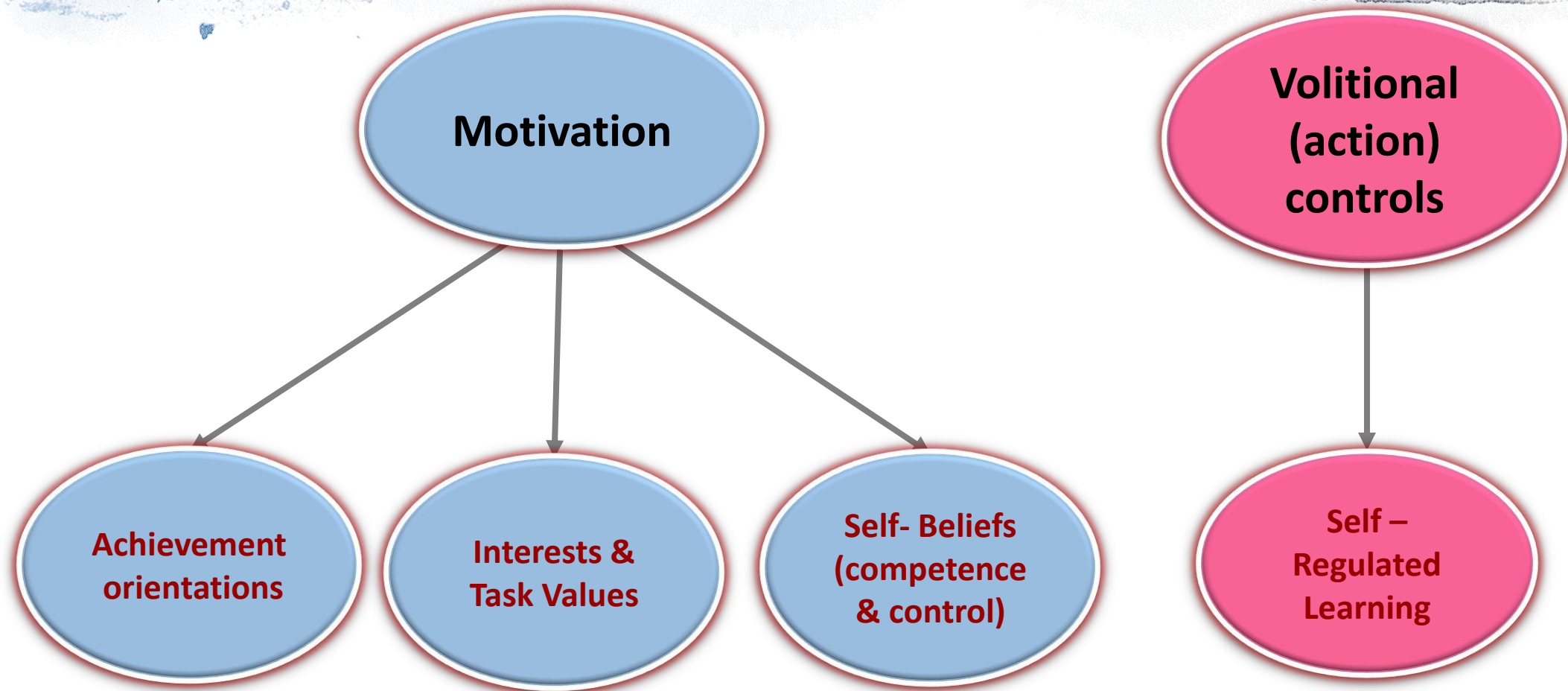
McGrew (2004, 2007, 2016) – an initial attempt to organize this diverse literature

Model of Academic Competence and Motivation (MACM)

Orientations Towards Self (Motivations)

Orientations Towards Others (Social Ability)

Volitional Controls

"Do I want to do this activity and why?"

"Can I do this activity?"

"How do I need to behave towards others to succeed?"

"What do I need to do to succeed?"

Motivational Orientation

Interests & Attitudes

Self-Beliefs

Cognitive (Social Aware-ness)

Behavioral

Self-Regulation

Conative Styles

- Academic motivation attitudes
- Intrinsic motivation
- Academic goal orientation
- Academic goal setting

- Academic interests &
- Academic values

- Locus of control
- Academic self-efficacy
- Academic self-concept
- Academic ability conception

- Social goal setting
- Sensitivity
- Insight
- Communication
- Self-awareness & understanding

Prosocial Behaviors
 -Peer relations
 -Self-management
 -Academic-related
 -Compliance
 -Assertion

Problem/maladaptive behaviors
 -Social ineptness
 -Undersocialized aggressive conduct
 -Attention deficit
 -Oppositional defiant
 -Withdrawn & unresponsive

-Planning & activation
-Monitoring
-Control & regulation
-Reaction & reflection

- Learning styles
- Work & motivation styles
- Defensive styles

Note: Affective domain from Snow model excluded

Old model

We have an embarrassment of riches—and a serious need to make order out of chaos

- Need for Achievement Theory
- Intrinsic Motivation Theory
- Goal Setting Theory
- Attribution Theory
- Achievement Goal Theory
- Interest Theory
- Self-efficacy Theory
- Self-worth Theory
- Self-regulation Theory
- Self-determination theory
- ......

- Social-emotional learning
- Cognitive & student engagement
- Self-determination
- Habits of Mind
- Growth mindset
- Executive functions
- Self-beliefs
- Competence perceptions
- Dispositions and drivers
- Grit
- Planning, monitoring, adjusting
- .....

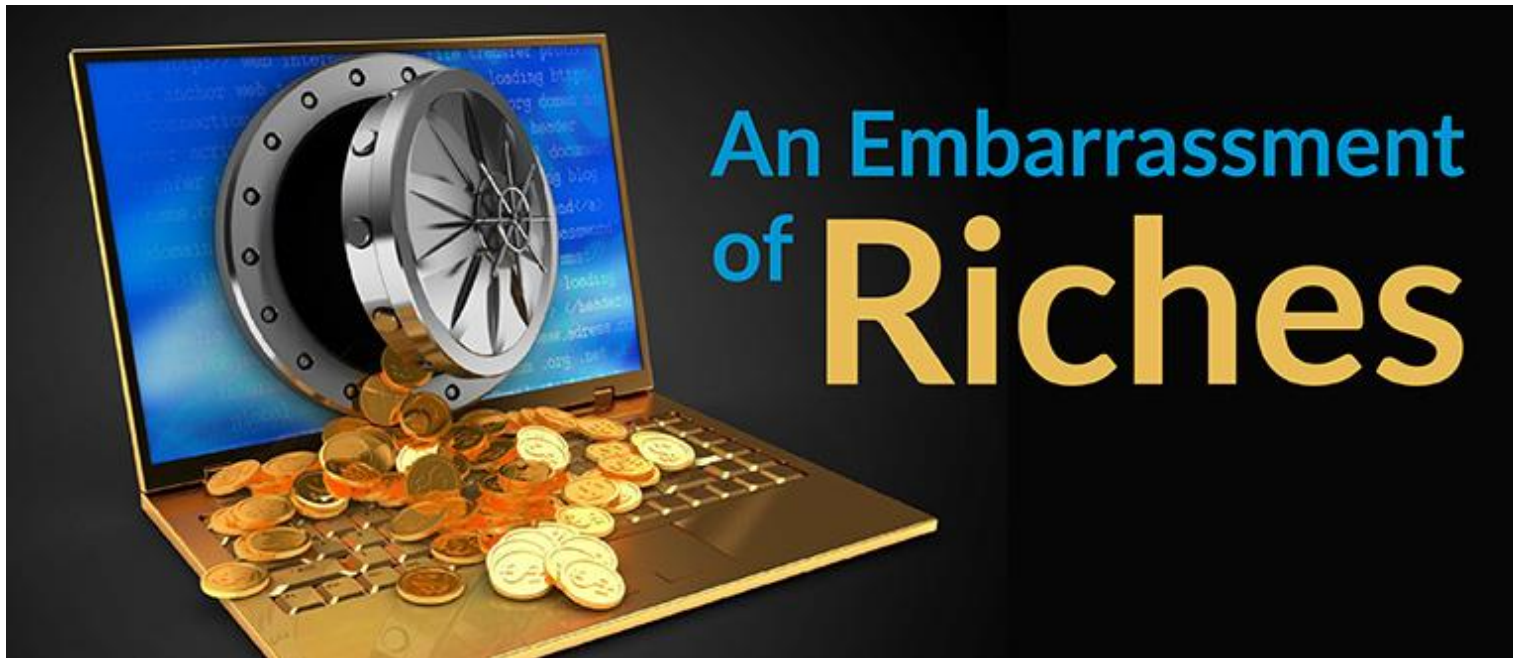# The framework needs to use clear and consistent construct definitions

MEASUREMENT AND
ADJUSTMENT SERIES
EDITED BY LEWIS M. TERMAN

INTERPRETATION
OF EDUCATIONAL
MEASUREMENTS

BY TRUMAN LEE KELLEY, PH.D.
Professor of Education and Psychology
Stanford University

WORLD BOOK COMPANY
Yonkers-on-Hudson, New York
and Chicago, Illinois
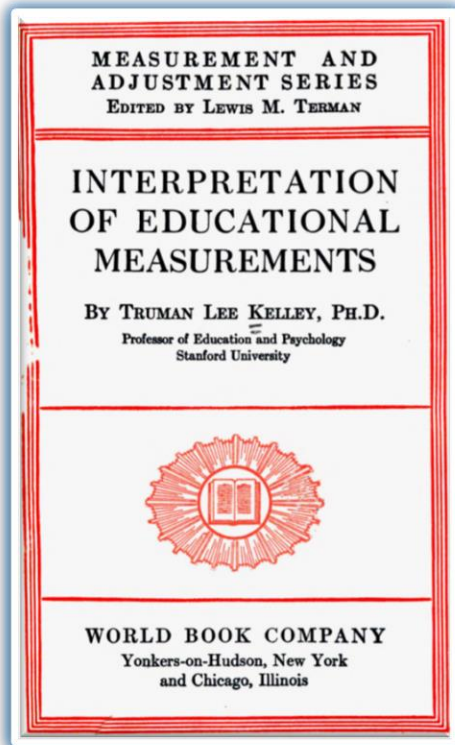
(Kelly, 1927)

The jingle-jangle-jungle is when erroneous assumptions are made that two different things are the same because they have the same name (jingle fallacy) or are identical or almost identical things are different because they are labeled differently (jangle fallacy)

(Schneider & McGrew, 2018)

The framework needs to use clear and consistent construct definitions: Here is an article demonstrating the jingle-jangle jungle

Fig. 1. Some of the many postulated socioemotional constructs (white and green ovals) organized around commonly used descriptions (brown ovals). These constructs are postulated or measured as representing typical behavior (white), maximal effort (dark green), or both (light green) and can be divided into lower-level facets or factors (e.g., specific emotion-regulation strategies). This is only a higher-order overview.
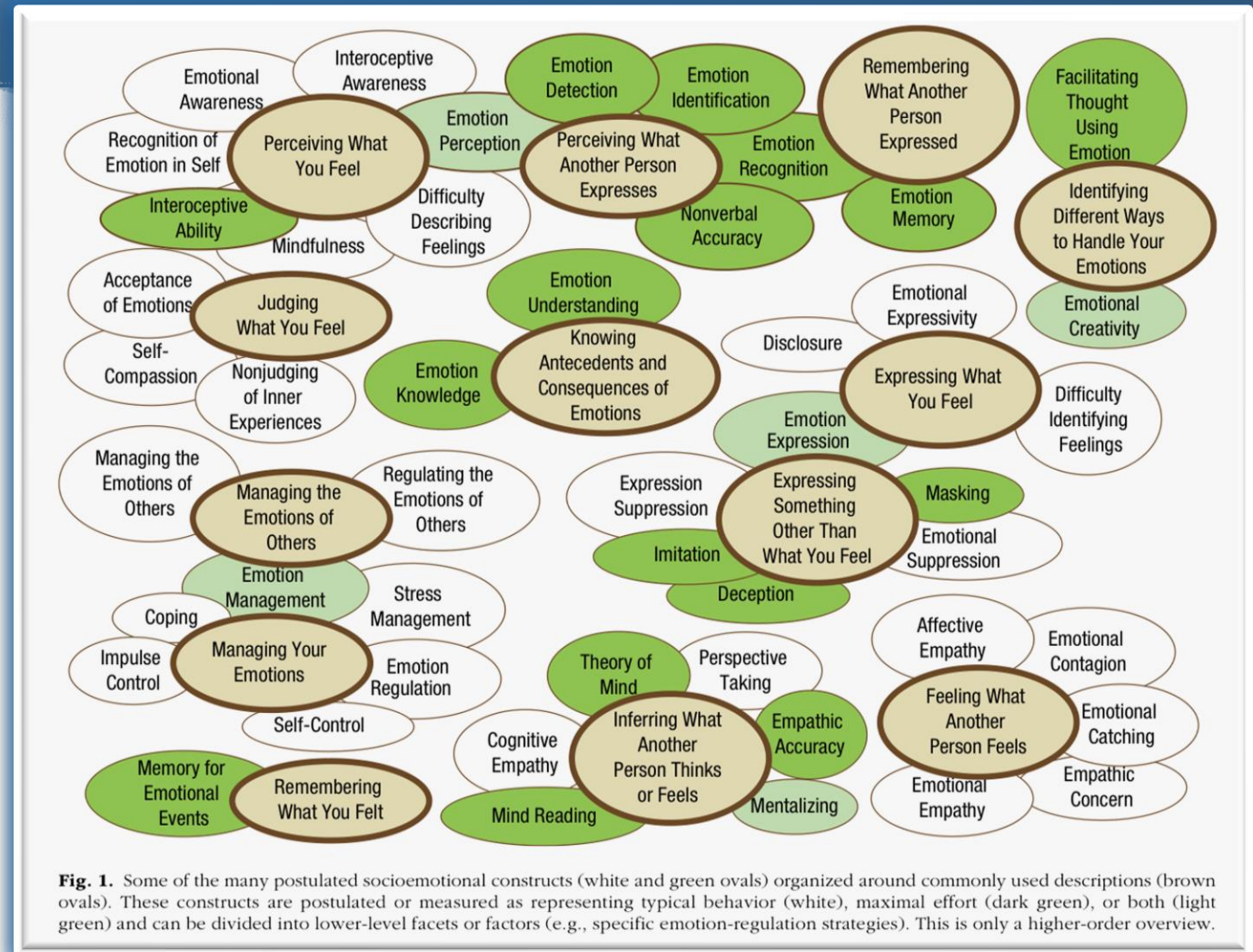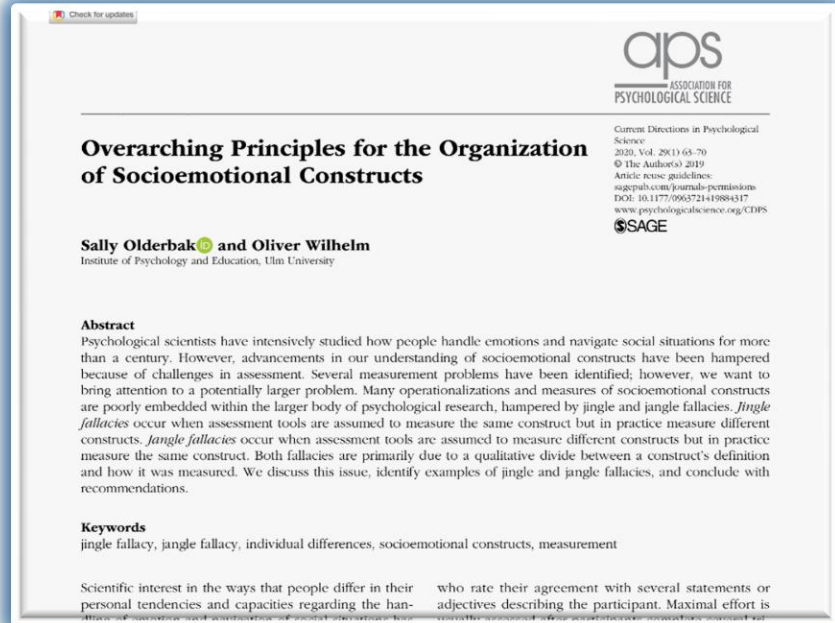
We have an **embarrassment of riches**—and a serious need to **make order out of chaos**

We need to develop a common taxonomy and nomenclature

Cattell-Horn-Carroll (CHC) Periodic Table of Human Abilities (v2.5)

A major MACM goal is to facilitate the process of developing a common nomenclature for these constructs...like the CHC periodic table of cognitive elements

We need to develop a common taxonomy and nomenclature:
One personality example

Toward a Periodic Table of Personality: Mapping Personality Scales Between the Five-Factor Model and the Circumplex Model

Stephen A. Woods
University of Surrey

Neil R. Anderson
Brunel University

PERIODIC TABLE OF PERSONALITY

	E	A	C	ES	O
E+	E+E+/E–E– **GR** Gregariousness 0.82	A+E+/A–E– **WA** Warmth 1.15	C+E+/C–E– -- 0.49	ES+E+/ES–E– **PE** Positive Emotionality 2.47	O+E+/O–E– **IC** Ingenuity / Creativity 1.65
E–		A+E–/A–E+ -- 0.33	C+E–/C–E+ **CA** Cautiousness 0.66	ES+E–/ES–E+ **EC** Emotional Control 0.82	O+E–/O–E+ -- 0.00
A+	E+A+/E–A– **AF** Affiliation 2.14	A+A+/A–A– -- 0.33	C+A+/C–A– -- 0.16	ES+A+/ES–A– **CM** Calmness 3.96	O+A+/O–A– -- 0.49
A–	E+A–/E–A+ **LC** Leadership (Control) 1.32		C+A–/C–A+ -- 0.16	ES+A–/ES–A+ -- 0.33	O+A–/O–A+ **CE** Critical Enquiry (vs. Rule Conformity) 0.99
C+	E+C+/E–C– **WP** Work Pace 0.82	A+C+/A–C– -- 0.16	C+C+/C–C– **OR** Orderliness 1.98	ES+C+/ES–C– **SO** Socialization 1.32	O+C+/O–C– -- 0.49
C–	E+C–/E–C+ -- 0.16	A+C–/A–C+ -- 0.49		ES+C–/ES–C+ -- 0.33	O+C–/O–C+ **UC** Unconventionality 3.13
ES+	E+ES+/E–ES– **SP** Social Poise 0.82	A+ES+/A–ES– **PL** Pleasantness 1.98	C+ES+/C–ES– **DU** Dutifulness 1.32	ES+ES+/ES–ES– **ST** Stability 1.15	O+ES+/O–ES– **EF** Efficiency of Thought / Inquisitiveness 1.32
ES–	E+ES–/E–ES+ **EX** Expressiveness 0.82	A+ES–/A–ES+ **ES** Emotional Sensitivity 0.99	C+ES–/C–ES+ -- 0.00		O+ES–/O–ES+ -- 0.49
O+	E+O+/E–O– **LB** Leadership (Boldness) 3.79	A+O+/A–O– -- 0.16	C+O+/C–O– **ID** Industriousness 0.82	ES+O+/ES–O– -- 0.49	O+O+/O–O– **IL** Intellect 0.99
O–	E+O–/E–O+ -- 0.00	A+O–/A–O+ **NU** Nurturance (vs. Self-reliance) 1.48	C+O–/C–O+ **IF** Inflexibility 1.48	ES+O–/ES–O+ -- 0.16	

We need to develop a common taxonomy and nomenclature:
One Big 5 Social-Emotional example—An institute in Brazil is doing some of the leading work in this area

AMERICAN PSYCHOLOGICAL ASSOCIATION

Psychological Assessment

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http://dx.doi.org/10.1037/pas0000591

Social-Emotional Skill Assessment in Children and Adolescents: Advances and Challenges in Personality, Clinical, and Educational Contexts

Loes Abrahams and Gina Pancorbo
Ghent University and Institute Ayrton Senna, São Paulo, Brazil

Ricardo Primi
University of San Francisco and Institute Ayrton Senna, São Paulo, Brazil

Daniel Santos
University of São Paulo and Institute Ayrton Senna, São Paulo, Brazil

Patrick Kyllonen
Educational Testing Service, Princeton, New Jersey

Oliver P. John
University of California, Berkeley, and Institute Ayrton Senna, São Paulo, Brazil

Filip De Fruyt
Ghent University and Institute Ayrton Senna, São Paulo, Brazil

We need to develop a common taxonomy and nomenclature:
One Big 5 Social-Emotional example—An institute in Brazil is doing some of the leading work in this area

Table 1

Social-Emotional Skill Domains and Facets (Primi et al., 2017)

Domain	Facet	Definition
Self-management	Determination	Setting goals and high standards, motivating oneself, working very hard, and applying oneself fully to the task, work, or project at hand.
	Organization	Possessing organizational skills and meticulous attention to detail that are useful for planning and executing plans to reach longer-term goals.
	Focus	Focusing attention and concentrating on the current task, and avoiding distractions.
	Persistence	Overcoming obstacles to reach important goals.
	Responsibility	Possessing time management skills, being punctual, and honoring commitments.
Engaging with others	Social initiative	Approaching and connecting with others, both friends and strangers, initiating, maintaining, and enjoying social contact and connections.
	Assertiveness	Speaking up, voicing opinions, needs, and feelings, and exerting social influence.
	Enthusiasm	Showing passion and zest for life; approaching daily tasks with energy, excitement, and a positive attitude.
Amity	Compassion	Using empathy and perspective taking skills to understand the needs and feelings of others, acting on that understanding with kindness and consideration of others.
	Respect	Treating others with respect and politeness.
	Trust	Assuming that others generally have good intentions and forgiving those that have done wrong.
Negative-emotion regulation	Stress modulation	Modulating anxiety and response to stress.
	Self-confidence	Feeling satisfied with self and current life, having positive thoughts about self, and maintaining optimistic expectations.
	Frustration tolerance	Regulating temper, anger, and irritation; maintaining tranquility and equanimity in the face of frustrations.
Open-mindedness	Intellectual curiosity	Mustering interest in ideas and a passion for learning, understanding, and intellectual exploration.
	Creative imagination	Generating novel ways to think about or do things through experimenting, tinkering, learning from failure, insight, and vision.
	Artistic interest	Valuing, appreciating, and enjoying design, art, and beauty, which may be experienced or expressed in writing, visual and performing arts, music, and other forms of self-actualization.

SEÇÃO TEMÁTICA | *THEMATIC SECTION*
COMPETÊNCIAS SOCIOEMOCIONAIS | *SOCIO-EMOTIONAL COMPETENCES*

Mapping self-report questionnaires for socio-emotional characteristics: What do they measure?

Mapeando instrumentos de autorrelato de competências socioemocionais: o que eles medem?

Ricardo **PRIMI**[1,5] iD 0000-0003-4227-6745
Daniel Domingues dos **SANTOS**[2,5] iD 0000-0002-2605-2736
Nelson **HAUCK**[1,5] iD 0000-0003-0121-7079
Filip De **FRUYT**[3,5] iD 0000-0002-5552-0754
Oliver Peter **JOHN**[4,5] iD 0000-0003-0171-0971

Table 1

Socio-emotional Big Five Model and Its Relationship to Six Important Frameworks for Socio-emotional Skills

Socio-emotional frameworks	C	N	O	E	A
Socio-emotional Big Five model					
Core themes (De Raad, & Shouwemburg, 1996)	Task oriented behavior, will to achieve.	Affect and emotional regulation.	Imagination, intellect, autonomy.	Expression of energy and power.	Love, aceptance, peacefulness interpersonal relationships.
Educational related features (Poropat, 2009 and De Raad, & Shouwemburg, 1996)	Will to achieve, sustained effort and goal setting, compliance with and concentration on homework, learning- related time management and effort regulation.	Self-efficacy, confidence, adaptive mastery-oriented style in the face of obstacles and negative emotionality, perceived self control over outcomes.	Desire for learning, intellectual drive and engagement, interest, idea production, creativity and originality.	Energy and socialization that could facilitate and/or prevent learning.	Cooperation with learning processes, compliance with teacher instructions.
Frameworks					
Organizational for Economic Co-operationa dn Development (OECD) Longitudinal Study of Skills Development in Cities	Achieving goals.	Managing emotions.		Working with others (engagement).	Working with others (getting along).
Colaborative for Academic, Social and Emotional Learning (CASEL)	Responsible decision-making, Self-management.	Self-management.	Self-awareness.		Relationship skills, Social awareness.
California Office to Reform Education (CORE)	Self-Management.	Growth Mindset, Self-Efficacy.			Social awareness
CHICAGO consorsium	Academic perseverance, learning strategies, academic behaviours.	Academic mindset.		Social Skills .	Social Skills.
National Research Council Review	Intra-personal: work ethic/ conscientiousness Type 1 self-regulation (metacognitive skills, including forethought, performance, and self- reflection).	Intra-personal: Positive Core Self-Evaluation Type 2 self-regulation (self- monitoring, self-evaluation, self- reinforcement).	Intra-personal: intellectual openness.	Inter-personal: leadership.	Inter-personal: teamwork and collaboration.
Partnership for 21st Century Skills	Initiative and Self-Direction, Productivity and Accountability, Responsibility.	Flexibility and Adaptability.	Flexibility.	Leadership, Initiative.	Social and Cross-Cultural Skills.
Strive Together Network	Academic self-efficacy, Grit/ perseverance, Self-regulated learning/ study skills.	Growth mindset/ mastery orientation, Emotional competence.			

We need to develop a common taxonomy and nomenclature: An interesting reading "motivation" formal concept analysis literature review and synthesis

Motivation Terminology in Reading Research: A Conceptual Review

Kristin Conradi · Bong Gee Jang · Michael C. McKenna

Abstract Despite the importance of motivation in understanding the development and practices of reading, problems persist in how motivation-related constructs are defined and investigated. This article reports a concept analysis of how 12 terms have been used in current reading research. Selection criteria resulted in the identification of 92 data-based articles published in 28 peer-reviewed journals from 2003 to 2013. Over the period examined, there was a steady increase in the number of studies reported. Most were conducted in North America and Europe. Only 17 % of the studies offered explicit definitions of the target constructs they examined. Another 64 % relied on various forms of implicit definitions, and 19 % provided no definitions of any kind. Usage problems frequently occurred as well. These included instances of vague associations among terms, occurring in 20 % of the studies, synonymous reference to distinctly different constructs in 32 %, and inaccurate statements made about constructs in 20 %. Although a variety of motivation theories were used to ground the investigations, some 22 % were essentially atheoretical. These difficulties were unrelated to the impact factor of the journals in which they appeared. Possible causes are discussed, together with suggestions for improvement.

Keywords Conceptual review · Motivation · Reading · Instruments

We need to develop a common taxonomy and nomenclature: An interesting reading "motivation" formal concept analysis literature review and synthesis

1. Identify and name the concept of interest.
2. Identify surrogate terms and relevant uses of the concept.
3. Identify and select an appropriate realm (sample) for data collection.
4. Identify the attributes of the concept.
5. Identify the references, antecedents, and consequences of the concept, if possible.
6. Identify concepts that are related to the concept of interest.
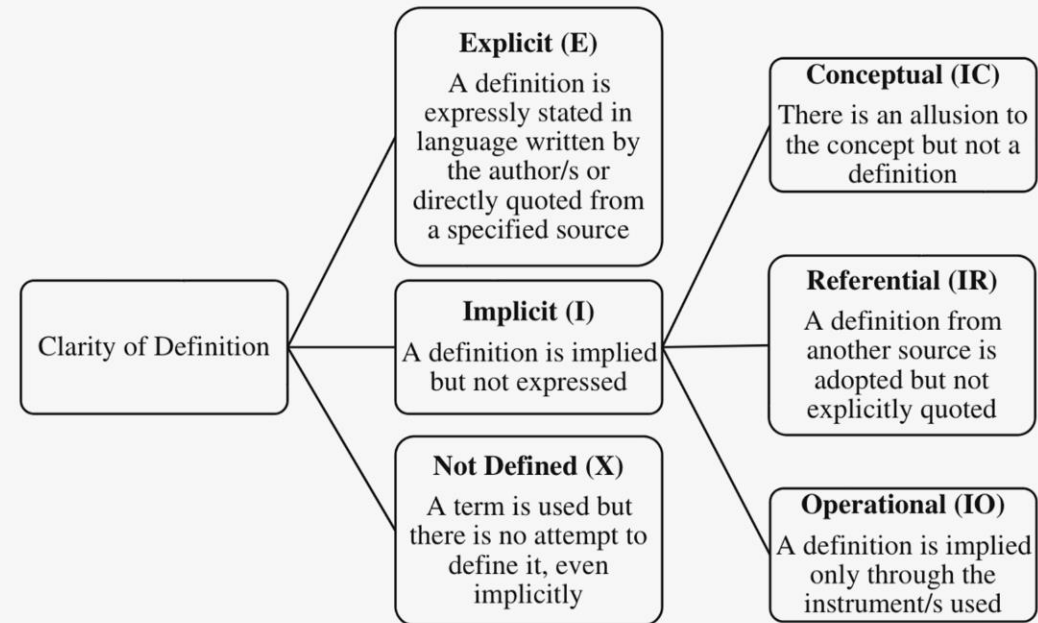7. Identify a model case of the concept

Clarity of Definition

Explicit (E)
A definition is expressly stated in language written by the author/s or directly quoted from a specified source

Implicit (I)
A definition is implied but not expressed

Not Defined (X)
A term is used but there is no attempt to define it, even implicitly

Conceptual (IC)
There is an allusion to the concept but not a definition

Referential (IR)
A definition from another source is adopted but not explicitly quoted

Operational (IO)
A definition is implied only through the instrument/s used

Fig. 1 Categories of definitional clarity. Of note, although Murphy and Alexander used distinct language to describe IC and IO, they used a single, combined code that included both. For the purpose of a nuanced discussion, we chose to code these instances separately. In addition, when the term was not defined at all, even implicitly, we coded it as "X" and left the definition column blank

We need to develop a common taxonomy and nomenclature: An interesting reading "motivation" formal concept analysis literature review and synthesis
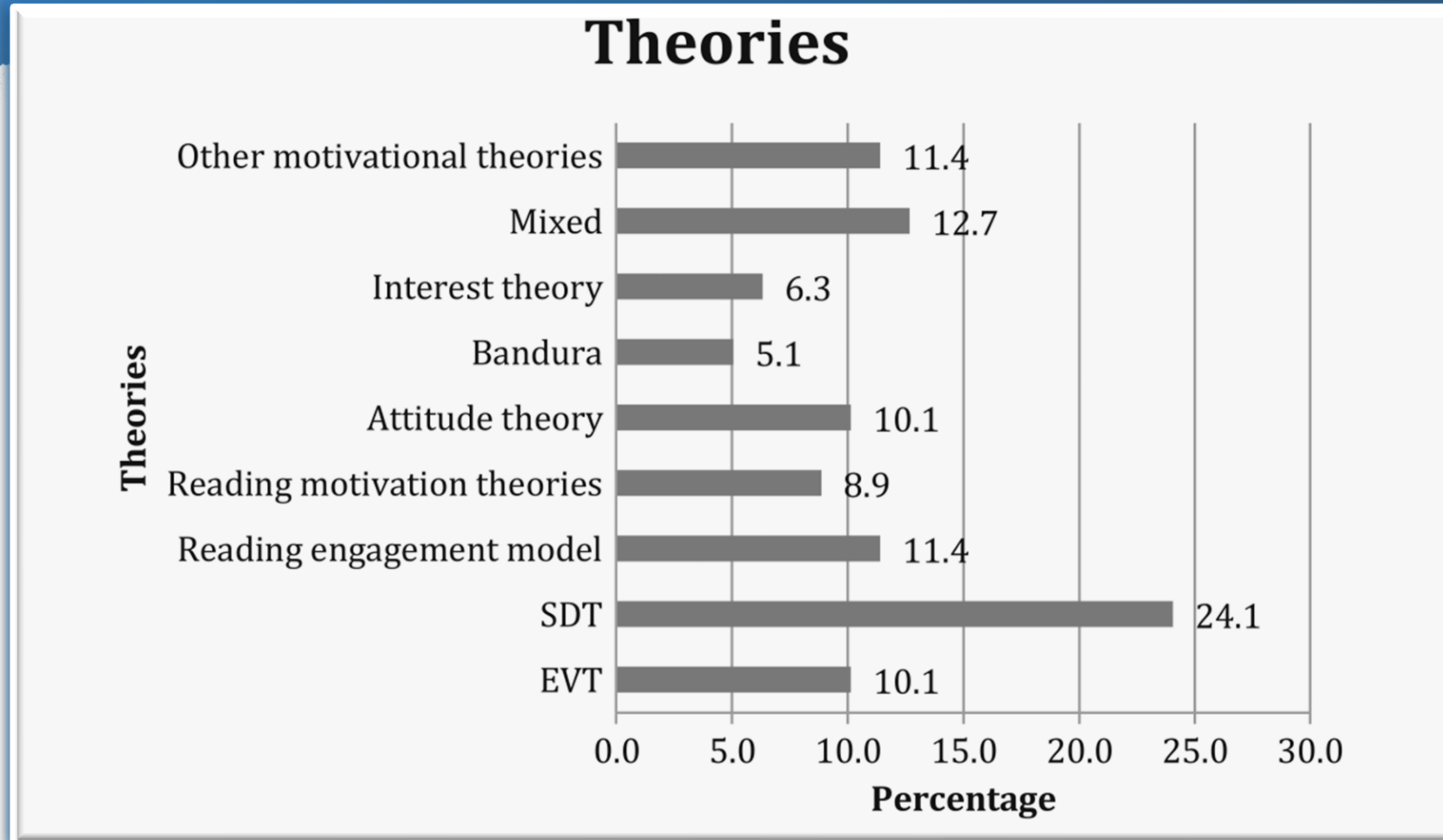
We need to develop a common taxonomy and nomenclature: An interesting reading "motivation" formal concept analysis literature review and synthesis

Table 5 Consensus Definitions

Construct	Definition
Agency	A reader's perceived capacity to determine involvement in reading processes and activities
Attitude	A set of acquired feelings about reading that consistently predispose an individual to engage in or avoid reading
Expectancy	The extent to which an individual believes that a reading experience will result in success or failure
Goal	An individual's orientation and intentions toward reading
Interest	A positive orientation toward reading about a particular topic. An *individual interest* is a relatively stable and enduring positive orientation toward reading about a particular topic; a *situational interest* is a context-specific, often momentary, positive orientation toward reading about a particular topic
Reading motivation	The drive to read resulting from a comprehensive set of an individual's beliefs about, attitudes toward, and goals for reading. *Intrinsic motivation* is the drive to read for internal purposes, such as deriving pleasure, attaining personal goals, or satisfying curiosity; *extrinsic motivation* is the drive to read for external purposes, such as rewards or recognition
Self-concept	An individual's overall self-perception as a reader, including one's sense of competence and the role ascribed to reading as a part of one's personal identity
Self-efficacy	The judgment of one's ability to accomplish a specific reading task
Value	An individual's beliefs about the extent to which reading is generally useful, enjoyable, or otherwise important

Constructs identified very similar to MACM "motivation" domain constructs. A demonstration of a method to help disentangle the mitigation "jungle mangle jungle"
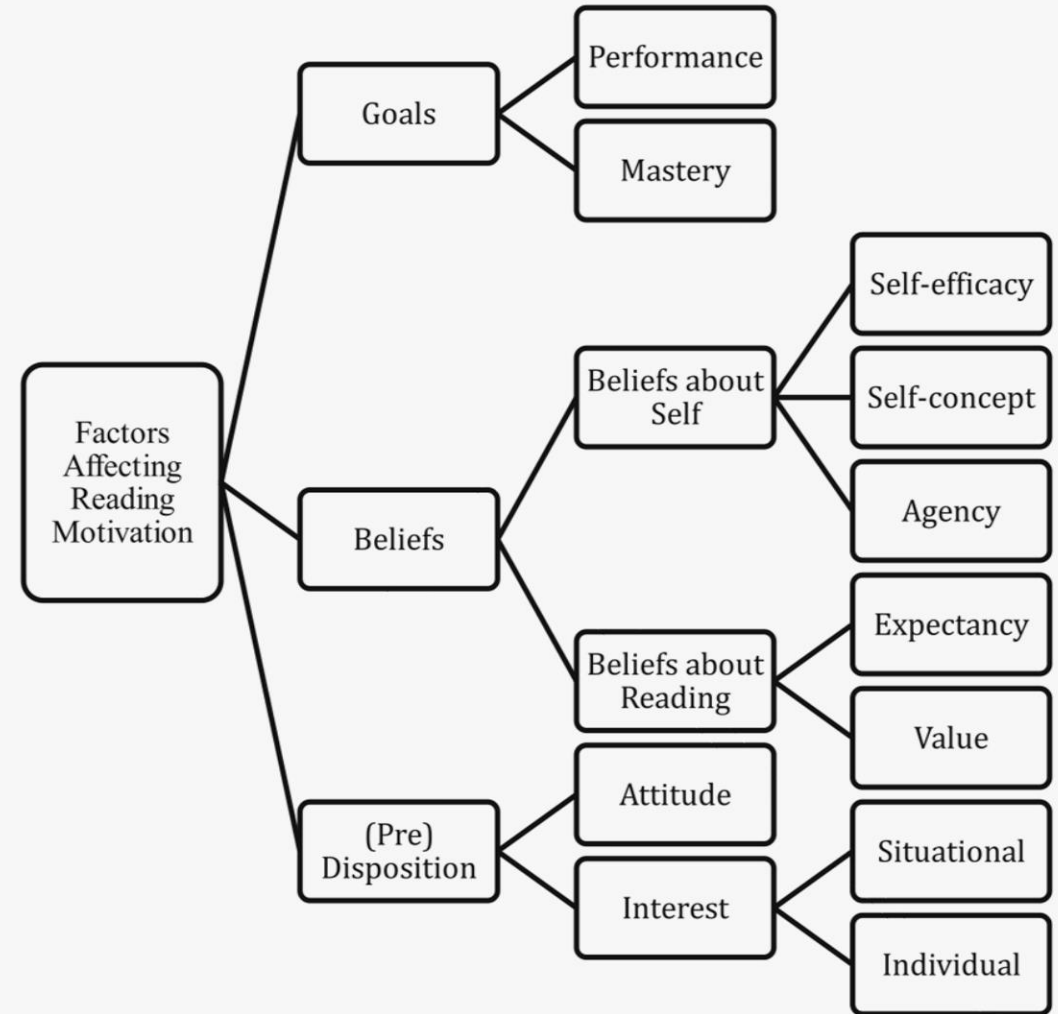

Educ Psychol Rev (2014) 26:127–164

Fig. 9 A Hierarchy of motivation-related constructs

Learning-related conative constructs

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?

Motivation

Achievement Orientations
-Intrinsic Motivation
-Academic Goal Orientation
-Academic Motivation
-Academic Goal Setting

Interests and Task Values
-Need for Cognition
-Academic Interests & Attitudes
-Academic Values

Self-Beliefs
-Locus of Control (control)
-Academic Ability Conception (control)
-Academic Self-Efficacy (competence)
-Academic Self-Concept (competence)

Educ Psychol Rev (2014) 26:127–164

Goals — Performance, Mastery

Factors Affecting Reading Motivation — Beliefs — Beliefs about Self — Self-efficacy, Self-concept, Agency

Beliefs about Reading — Expectancy, Value

(Pre) Disposition — Attitude; Interest — Situational, Individual
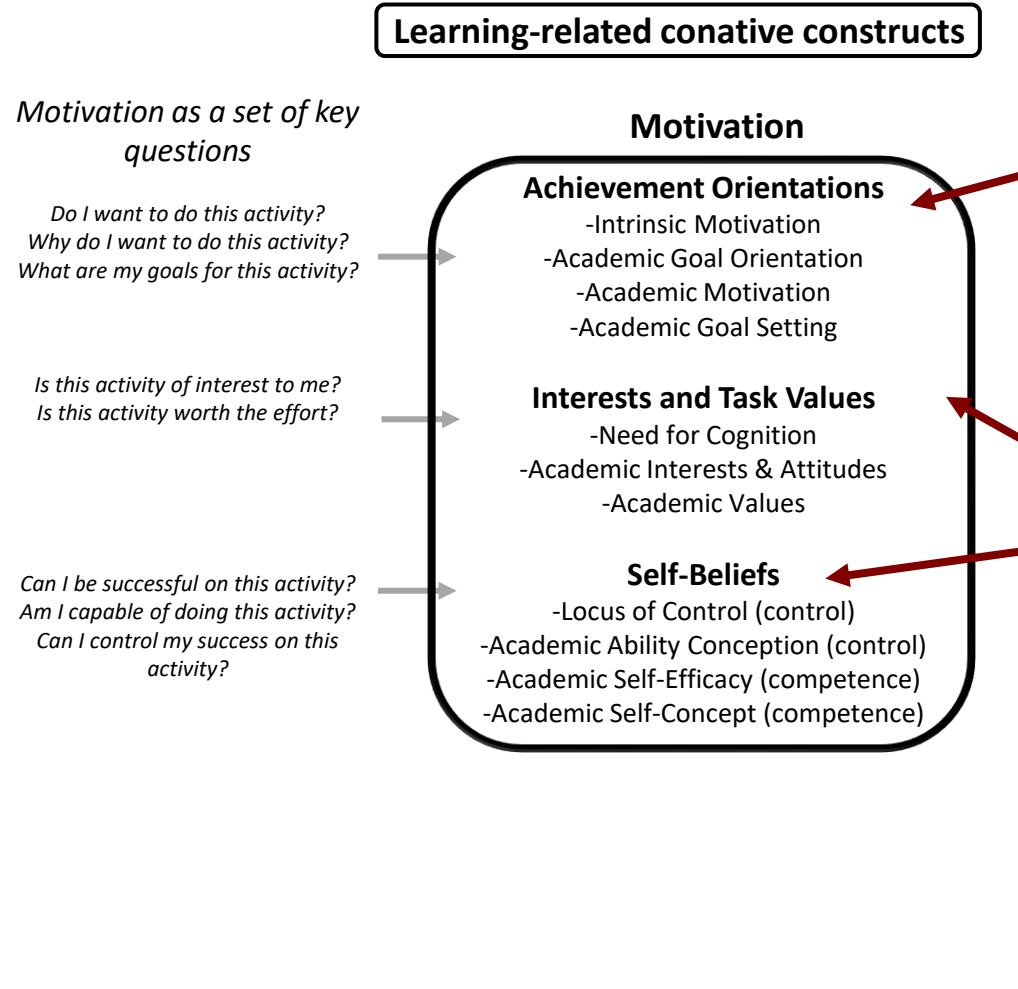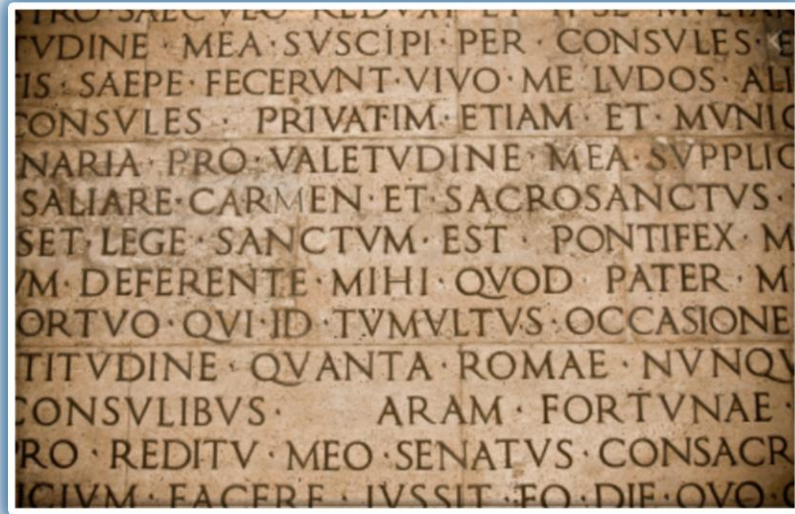
Fig. 9 A Hierarchy of motivation-related constructs

Motivation has no consensus definition

The Latin derivative of motivation means "to move" - movere

Motivation theories are typically concerned with the energization and direction of behavior (Pintrich, 2003)

Motivation has no consensus definition

7

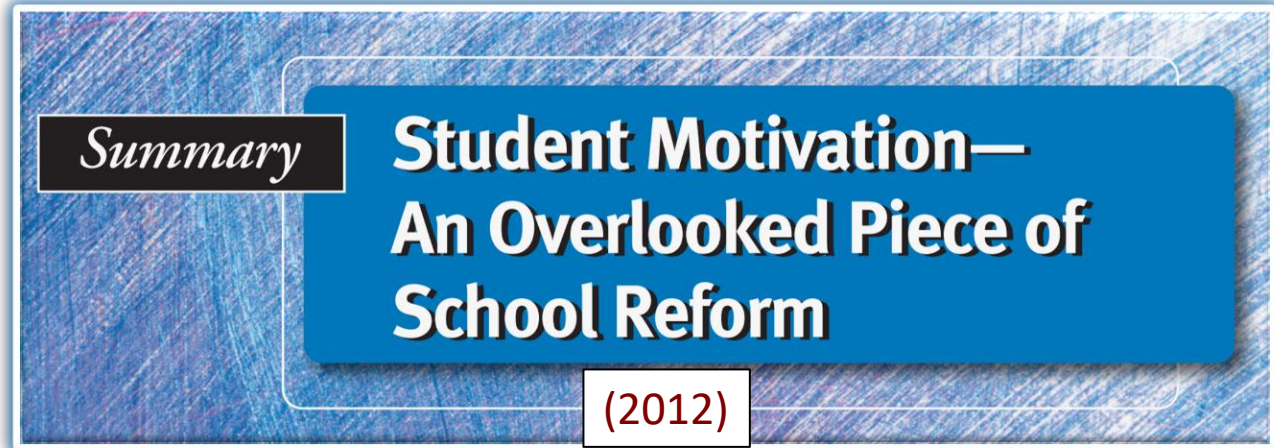**Motivation**

LISA LINNENBRINK-GARCIA
Michigan State University

ERIKA A. PATALL
University of Texas, Austin

(Handbook of Educational Psychology, 2016)

Motivation refers to the processes of both **initiating** and **sustaining** behavior

The study of motivation in educational psychology goes beyond thinking of students as motivated or unmotivated to examine how their self-related beliefs, cognitions, goals, and experiences shape engagement and learning. Importantly, these self-related motivational beliefs are thought to be "cognitive, conscious, affective, and often under control of the individual"

Motivation has no consensus definition

Center on Education Policy
Graduate School of Education
and Human Development

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E-mail: cep-dc@cep-dc.org
Web: www.cep-dc.org

Summary **Student Motivation— An Overlooked Piece of School Reform**

(2012)

Motivation...is such an amorphous and difficult subject. To even to define motivation is challenging, let alone to measure it.

While researchers use different frameworks to think and define motivation, they essentially agree on the **four** major dimensions that contribute to student motivation.

Four Dimensions of Motivation	
Dimensions	**Indicators**
Competence *(Am I capable?)*	The student believes he or she has the ability to complete the task.
Control/autonomy *(Can I control it?)*	The student feels in *control* by seeing a direct a link between his or her actions and an outcome. The student retains *autonomy* by having some choice about whether or how to undertake the task.
Interest/value *(Does it interest me? Is it worth the effort?)*	The student has some *interest* in the task or sees the *value* of completing it.
Relatedness *(What do others think?)*	Completing the task brings the student social rewards, such as a sense of belonging to a classroom or other desired social group or approval from a person of social importance to the student.

Sources: Bandura, 1996; Dweck, 2010; Murray, 2011; Pintrich, 2003; Ryan & Deci, 2000; Seifert, 2004.

© Center on Education Policy   The George Washington University   Graduate School of Education and Human Development 2012

While researchers use different frameworks to think and define motivation, they essentially agree on the four major dimensions that contribute to student motivation.

Four Dimensions of Motivation

- **Competence** — The student believes he or she has the ability to complete the task.

- **Control/autonomy** — The student feels in control by seeing a direct link between his or her actions and an outcome and retains autonomy by having some choice about whether or how to undertake the task.

- **Interest/value** — The student has some interest in the task or sees the value of completing it.

- **Relatedness** — Completing the task brings the student social rewards, such as a sense of belonging to a classroom or other desired social group or approval from a person of social importance to the student.

Sources: Bandura, 1996; Dweck, 2010; Murray, 2011; Pintrich, 2003; Ryan & Deci, 2000; Seifert, 2004

44 Intelligence and Motivation

Priyanka B. Carr and Carol S. Dweck

Motivational factors – which can include beliefs, nonintellectual skills, and affect – are those **factors that influence the pursuit of goals**.

We argue that motivation is much more than simply a motor that turns actions on or off and more than simply a desire to do well. Motivation, importantly, also involves **beliefs** (e.g., beliefs about the nature of one's intelligence), **nonintellectual skills** (e.g., the ability to enforce self-discipline to achieve one's goals), and **affect** (e.g., how much one enjoys learning in a particular area) – all of which influence people's ability to pursue intellectual goals effectively.

Sternberg, R. J., & Kaufman, S. B. (Eds.). (2011). *The Cambridge handbook of intelligence*. Cambridge University Press.

Still a classic reference book

(2002)

Development of Achievement Motivation

Edited by Allan Wigfield and Jacquelynne S. Eccles

A Volume in the Educational Psychology Series

-Over 40 years of research on achievement motivation
-McClelland et al. (1950's – 1960's *N-Ach*)

-*Achievement motivation* refers to motivation in situations in which individual's competence is at issue (Nicholls, 1984; in Wigfield & Eccles, 2002)
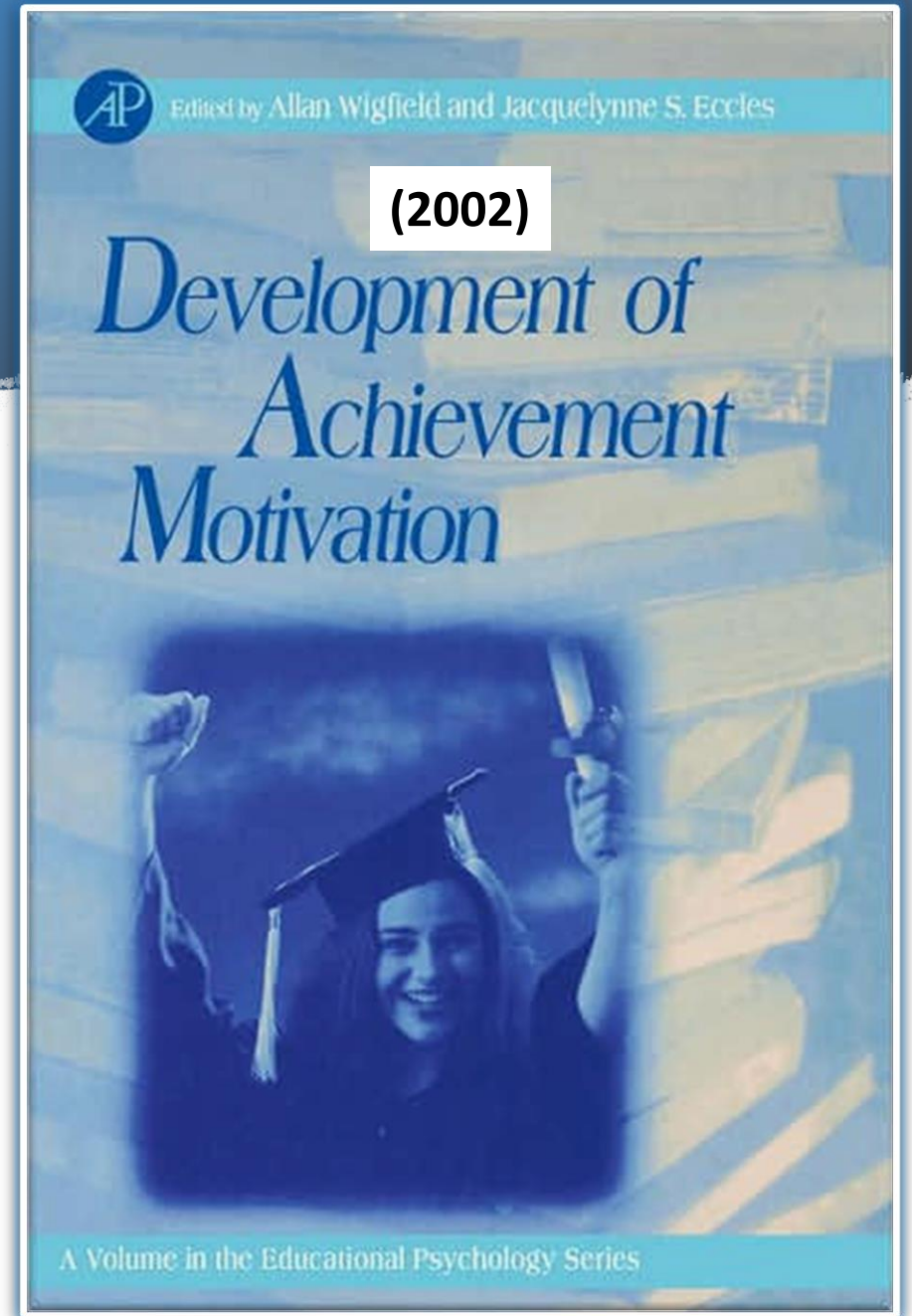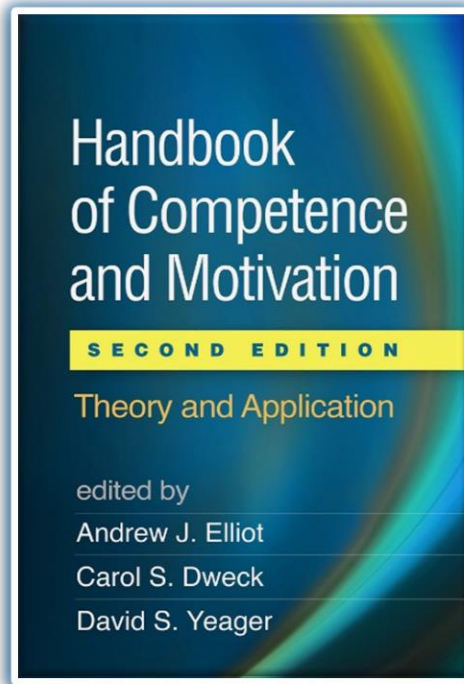
Competence Motivation
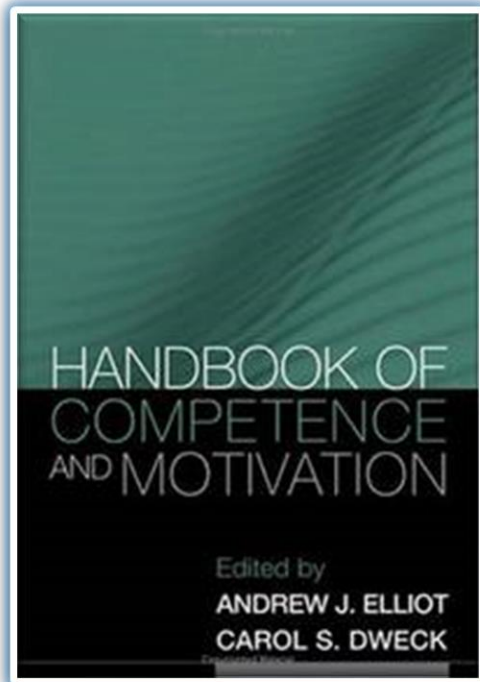
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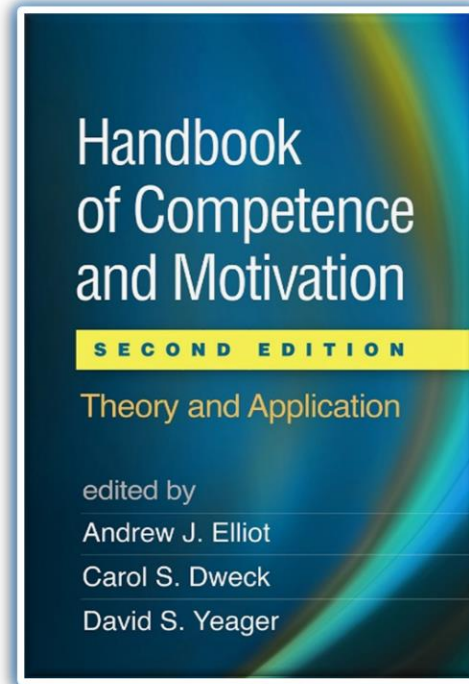
(2017)

Competence motivation encompasses the appetitive energization and direction of behavior with regard to effectiveness, ability, sufficiency, or success (Elliott, Dweck & Yeager, 2017)

Achievement Competence Motivation: A working definition

Achievement competence motivation encompasses the initiation and direction of persistent, sustained and self-regulated behavior towards a satisfactory level of success on cognitively implicit or explicit academic goals

(Thanks to Elliott, Dweck & Yeager, 2017)

The framework must integrate different strands of psychological research

**Motivation Interventions in Education:
A Meta-Analytic Review**

Rory A. Lazowski
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University of Virginia
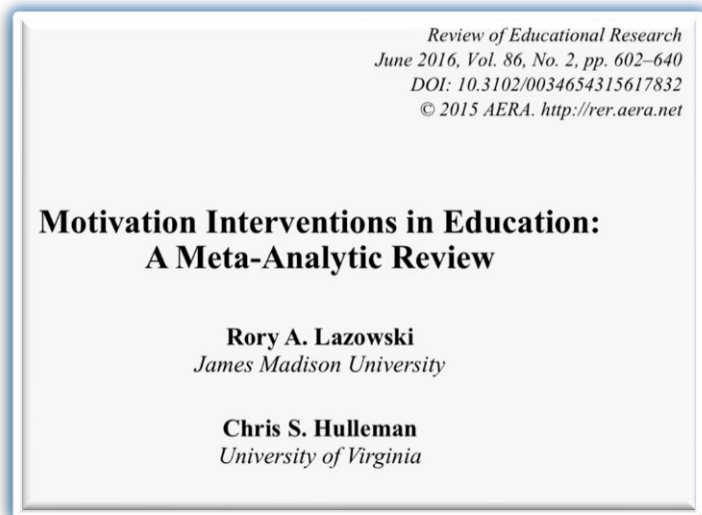
The diverse nature of motivation and associated processes has been studied from multiple perspectives in psychology—cognitive, developmental, educational, social—and generated an extensive list of constructs and theoretical frameworks, resulting in an extensive research literature.

The framework must integrate different strands of psychological research
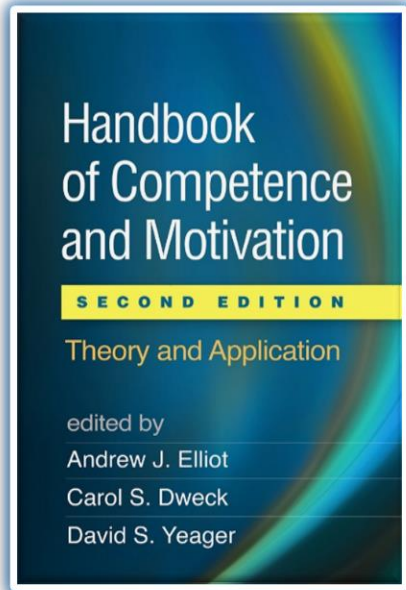
Navigating this dizzying array of constructs can be a challenge even for the seasoned researcher. In education, Schunk, Pintrich, and Meece (2013) are on their fourth edition of a textbook that summarizes, but does not synthesize, motivation constructs and theories relevant to education.

Although there may be a need for a synthetic theory of motivation in education, this task was too big even for Schunk et al.'s book, so we will not attempt it here.

Motivation: As Three Sets 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?

Can I **control my success** on this activity?
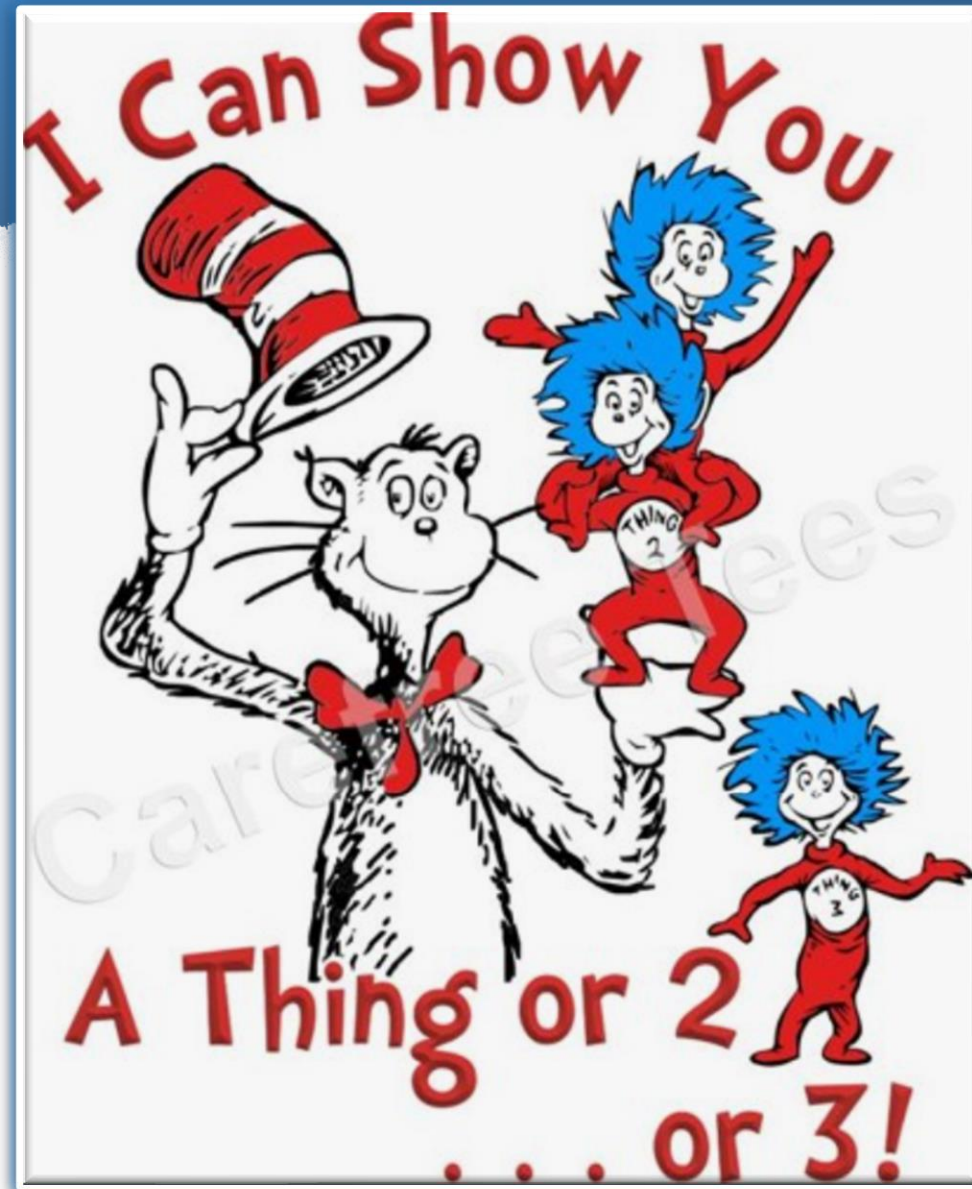
Am I **capable** of doing this activity?

"What do I **need to do** to succeed at this activity?"

"**How am I doing** on this activity?"

"What do I need to **do different**?"

Motivation: Three "Things"