Motivating Others:
Research and Interventions on Motivation and Well-Being Using Self-determination Theory

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SDT Basic Research Areas

Intrinsic Motivation

Extrinsic Motivation and Internalization

Individual Differences in Motivation

Well Being and Basic Psychological Needs

Culture and Gender: Universal versus Culturally Specific Needs

Energy and Vitality

Mindfulness: Impact on Motivation and Wellness

Close Relationships: Quality and Satisfaction

Aspirations and Life Goals: Eudaimonic Living

The Impact of Natural Environments on Wellness

Evolution of Prosocial Behavior

Neuropsychology of Autonomous Self-regulation

SDT Applied Research

Psychotherapy

Educational Practice and School Reform

Organizational Behavior and Management

Health Care: Motivation and Adherence

Exercise and Physical Activity Motivation

Sport Motivation and Performance

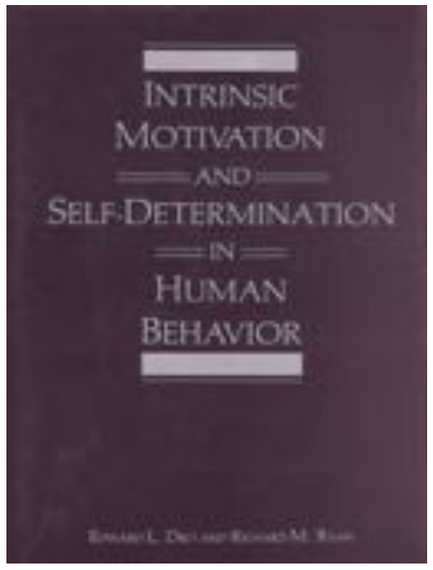
Religious Internalization and Motivation

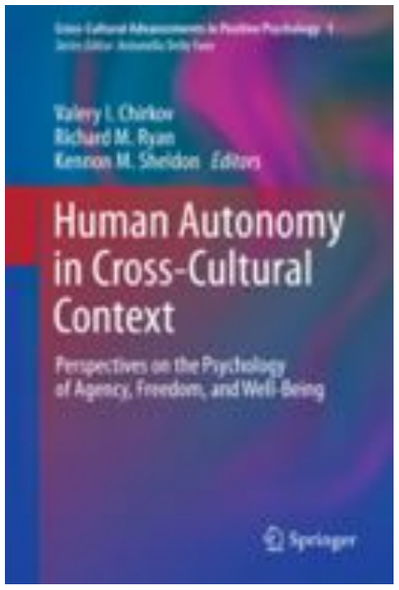
Environmental Sustainability and Consumer Behaviors

Virtual Environments and Video Games

Violence and Bullying: Causes and Prevention

Benevolence and Prosocial Behavior


Intrinsic Motivation and Self-Determination in Human Behavior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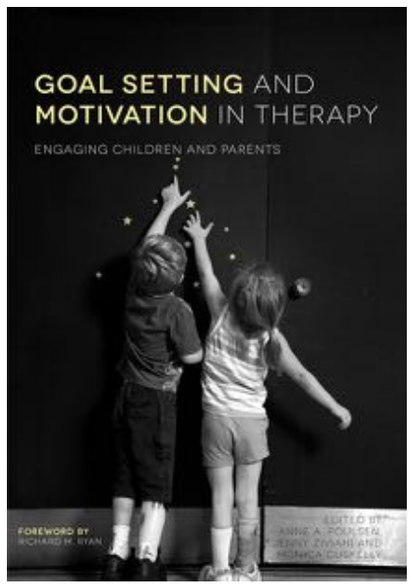
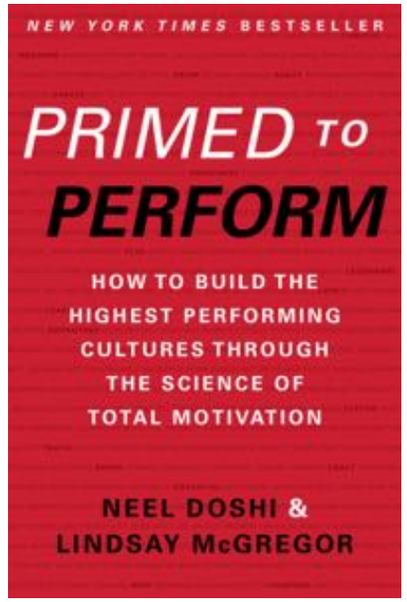
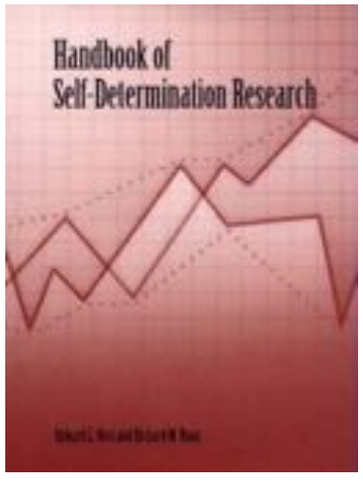
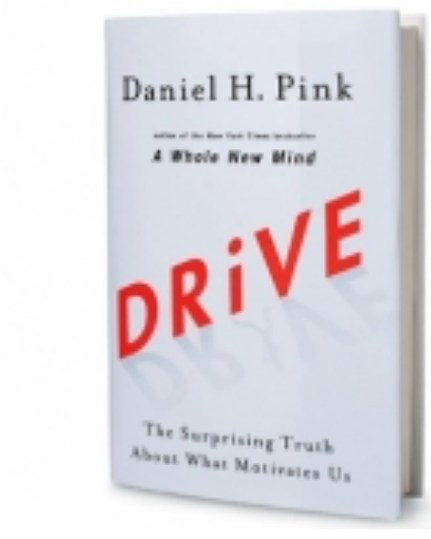
Human Autonomy in Cross-Cultural Context
Perspectives on the Psychology of Agency, Freedom, and Well-Being
Springer

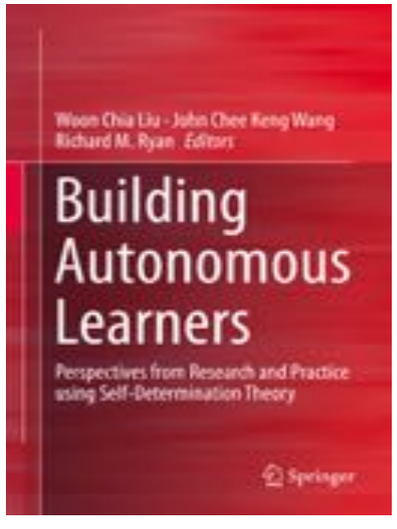

GOAL SETTING AND MOTIVATION IN THERAPY
ENGAGING CHILDREN AND PARENTS

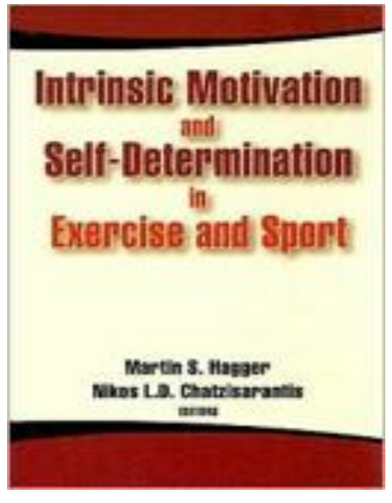

GLUED TO GAMES

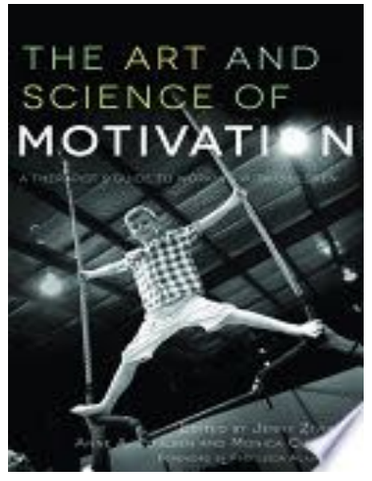

NEW YORK TIMES BESTSELLER
PRIMED TO PERFORM
HOW TO BUILD THE HIGHEST PERFORMING CULTURES THROUGH THE SCIENCE OF TOTAL MOTIVATION
NEEL DOSHI & LINDSAY McGREGOR

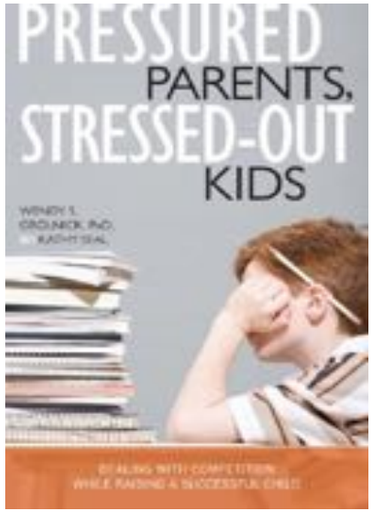

Handbook of Self-Determination Research

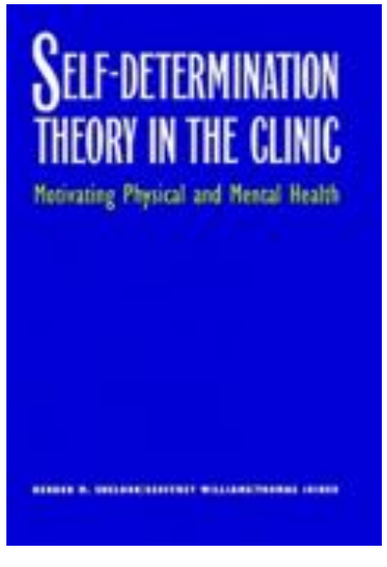

Daniel H. Pink
A Whole New Mind
DRIVE
The Surprising Truth About What Motivates Us

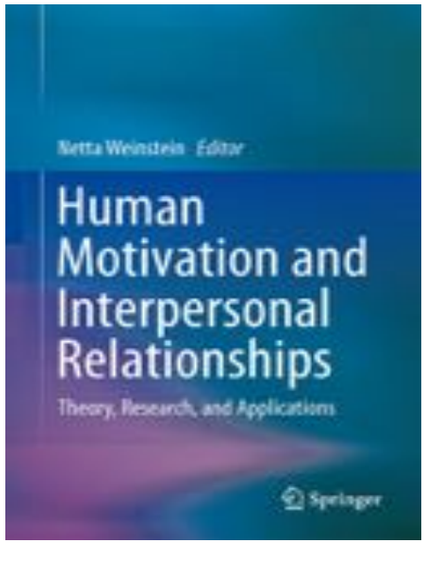

Woon Chia Liu · John Chee Keng Wang
Richard M. Ryan Editors
Building Autonomous Learners
Perspectives from Research and Practice using Self-Determination Theory
Springer

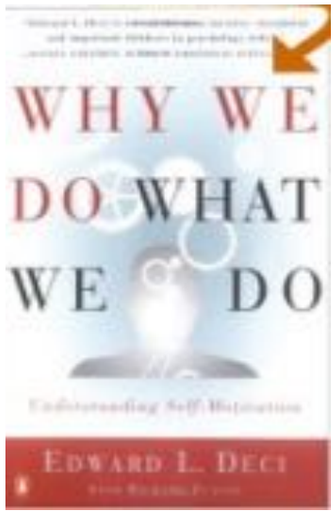

Intrinsic Motivation and Self-Determination in Exercise and Sport
Martin S. Hagger
Nikos L.D. Chatzisarantis

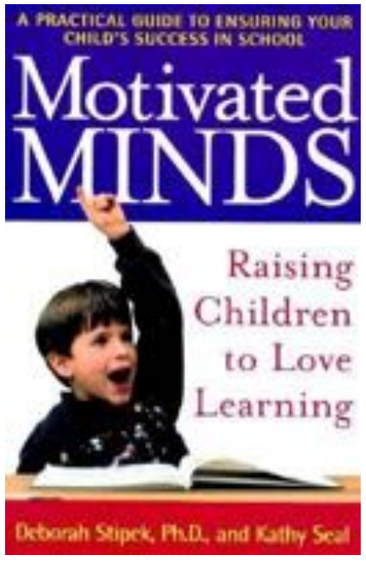

THE ART AND SCIENCE OF MOTIVATION


PRESSURED PARENTS, STRESSED-OUT KIDS


SELF-DETERMINATION THEORY IN THE CLINIC
Motivating Physical and Mental Health


Netta Weinstein Editor
Human Motivation and Interpersonal Relationships
Theory, Research, and Applications
Springer

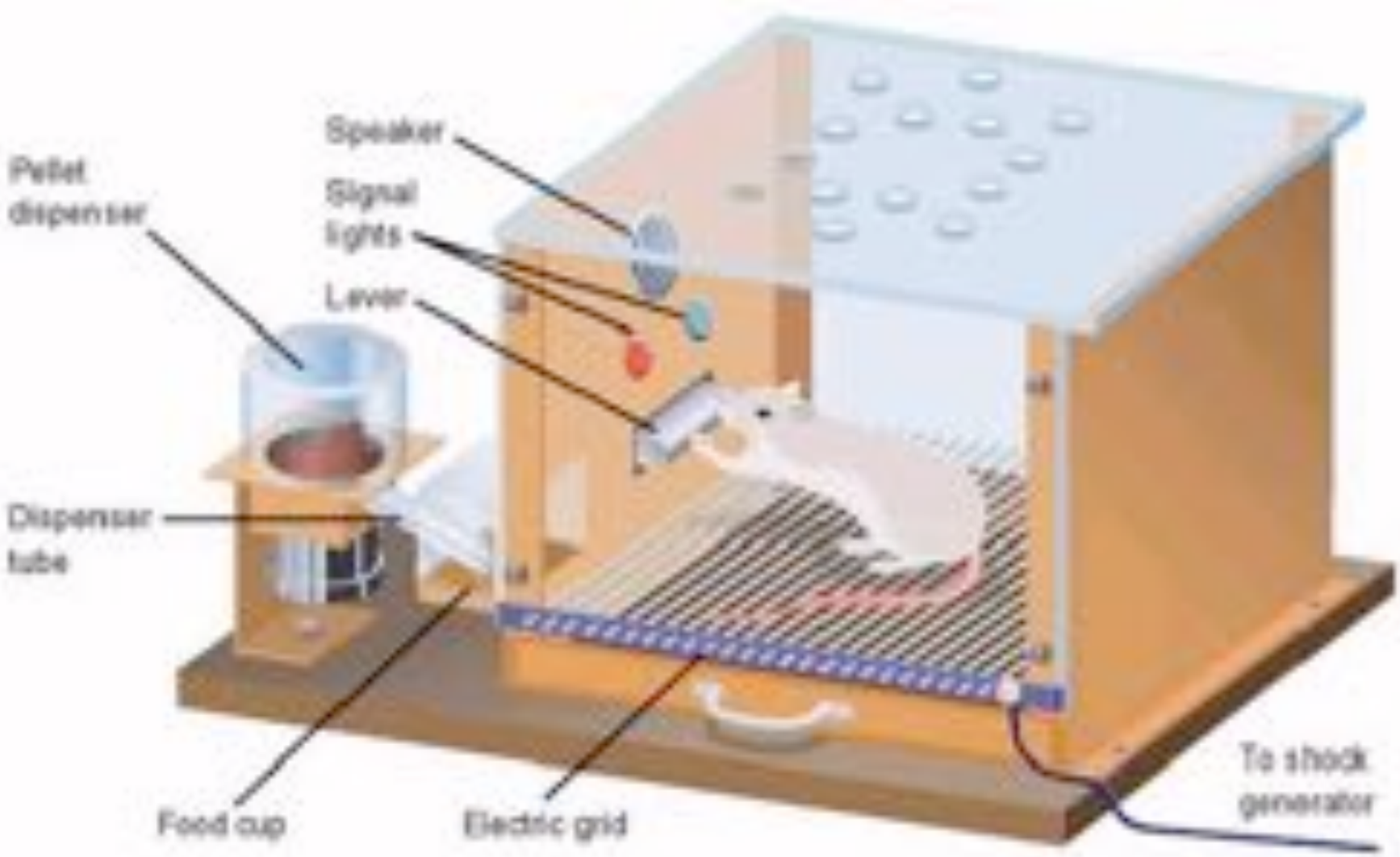

WHY WE DO WHAT WE DO
EDWARD L. DECI


A PRACTICAL GUIDE TO ENSURING YOUR CHILD'S SUCCESS IN SCHOOL
Motivated MINDS
Raising Children to Love Learning
Deborah Stipek, Ph.D., and Kathy Seal

MOTIVATION

To be moved to action

The Classical Model



People Have Choices

The study of motivation today is no longer about how to control people from the outside

it is about why people choose what they do, and what facilitates their volitional engagement

The Importance of Volitional Behavior

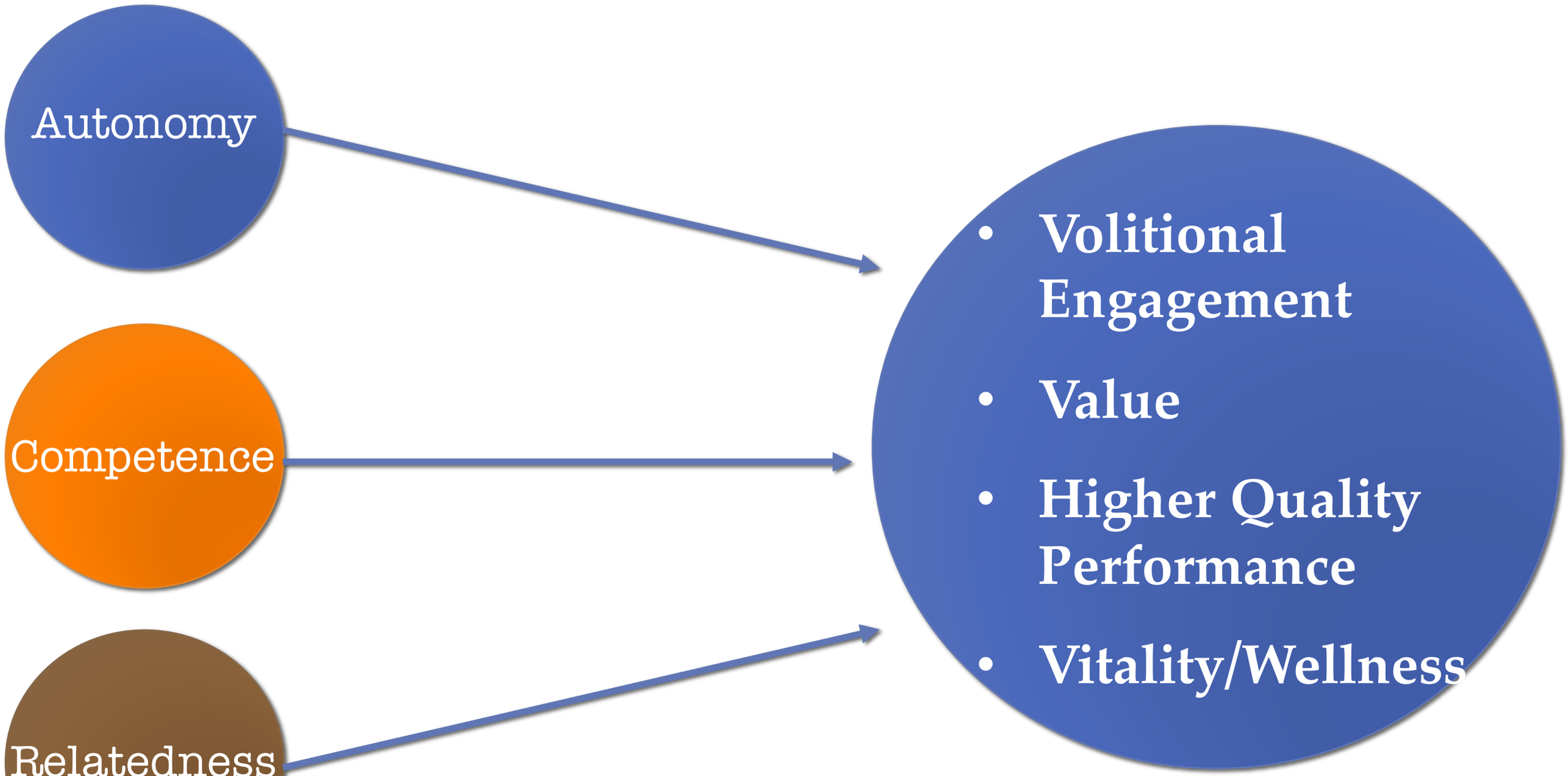
Intrinsic motivation (interest)

Internalized motivation (value)

Multiple ways to support (and to undermine) both interest and value

What do people need to be motivated and vital?

Basic psychological need satisfactions leading to higher quality motivation and wellness



Need:

Something essential to a living entity's growth, integrity and well being

- when deprived, evidence of degradation or harm; when satisfied, evidence of thriving

Basic Psychological Needs:

Satisfaction is essential for psychological growth, integrity and wellness

- natural rather than acquired
- universal rather than culturally specific
- not necessarily consciously valued

SDT's Three Basic Psychological Needs

Autonomy ➡ Behavior is in accord with abiding values and interests; actions are self-endorsed; congruence between implicit and explicit motives

Competence ➡ Sense of effectance & competence in one's context

Relatedness ➡ Feeling cared for, connected to, sense of belonging with Others; able to contribute

What autonomy is not

- It is not independence
- It is not about individualism versus collectivism
- It does not require an absence of external inputs or demands, (but rather an endorsement of them or their legitimacy)

What is intrinsic motivation?

- IM is doing something because of the inherent satisfactions the activity yields
- Children's play is a prototype of IM
- Most learning is by nature intrinsically motivated;
- IM continues across the lifespan as an important impetus to learning and revitalization

Factors Associated with the Facilitation of Intrinsic Motivation

Autonomy (supports for volition)

Competence (structure; positive feedback)

Intrinsic Motivation

Relatedness (inclusion, empathy, care)

Conditions that Facilitate Intrinsic Motivation

Autonomy-Relevant

- Absence of Pressure
- Goal Choice
- Strategy Choice
- Task Involvement
- Acknowledge person's perspective
- Allow inputs

Competence-Relevant

- Optimal Challenge
- Positive Feedback
- Informational Rewards

Relatedness-Relevant

- Encouragement
- Warmth

Conditions that Undermine Intrinsic Motivation

Autonomy-Relevant

- Pressure toward Outcomes
- Punishment contingencies
- Goal or Strategy Imposition
- Deadlines
- Controlling rewards
- Ego-involvement
- Surveillance

Competence-Relevant

- Non-Optimal Challenges
- Negative Feedback
- No Feedback

Relatedness-Relevant

- "Cold" Interactions
- Lack of Positive Involvement

Effects of Choice on Vegetable Children's Intake

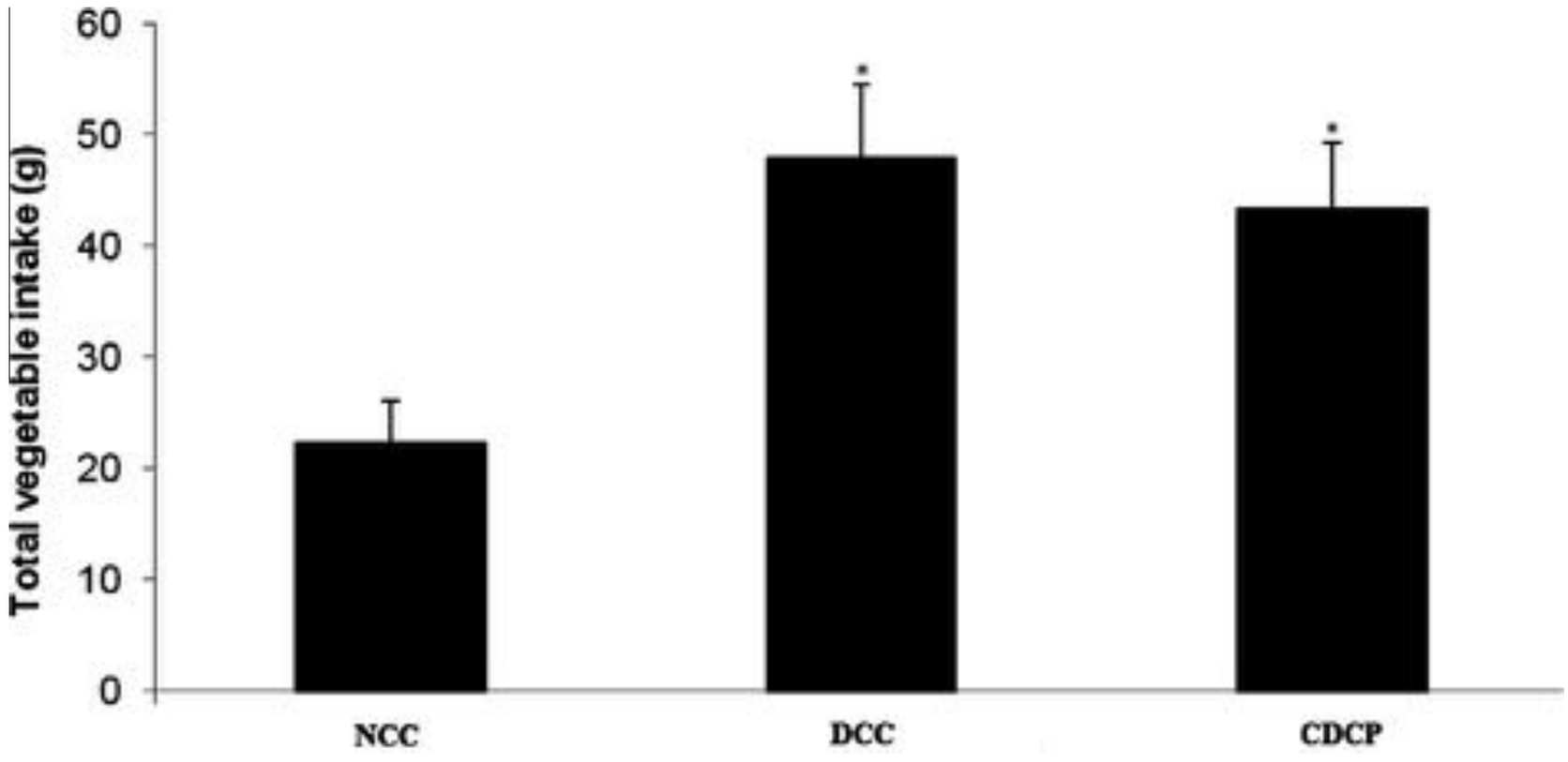
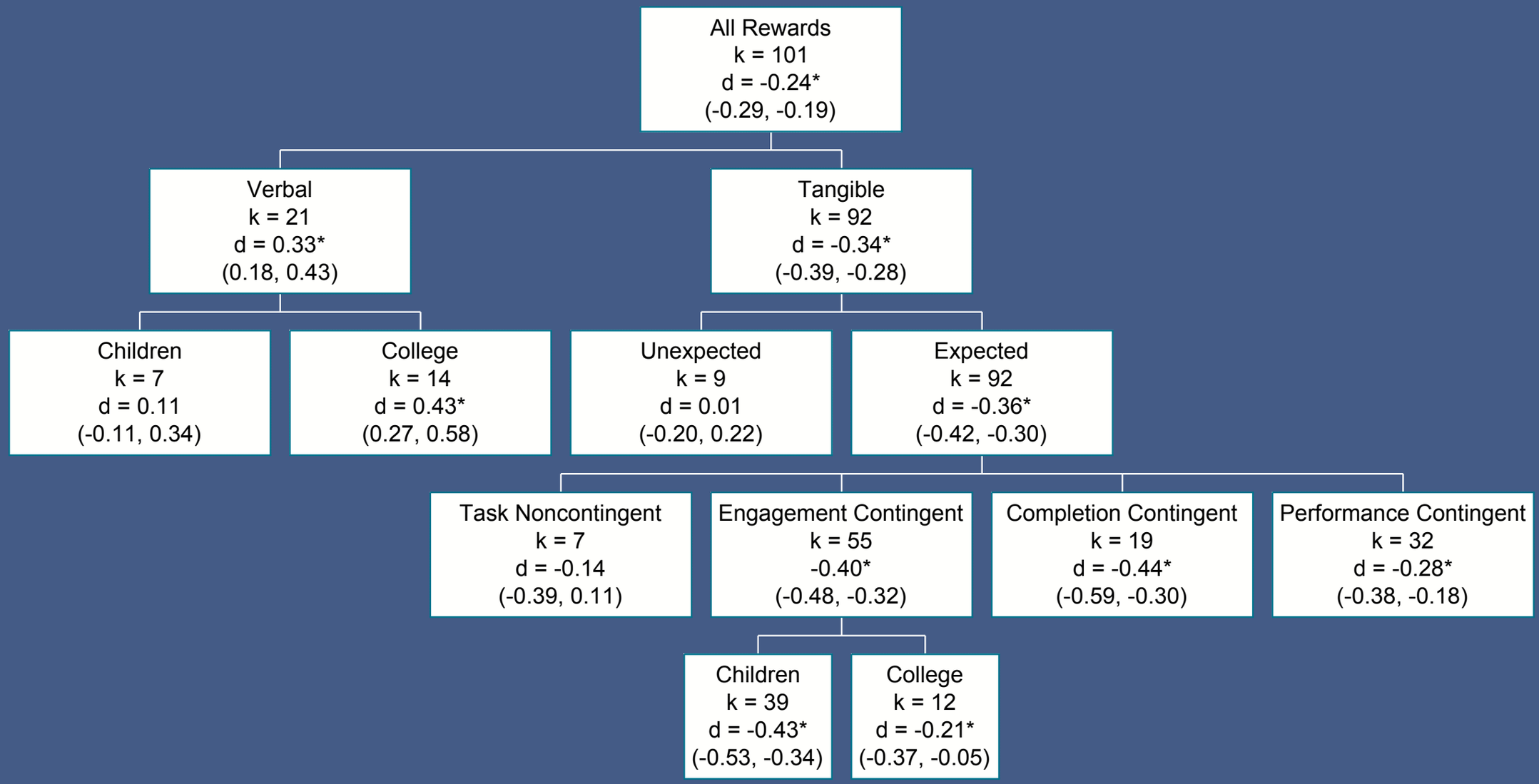


Fig. 1. Means and standard error means of total vegetable consumption, including one or two vegetables, depending on the condition ($p<0.05$).

Dominguez et al. (2013) Providing choice increases children's vegetable intake
Food Quality and Preference 30, 108–113

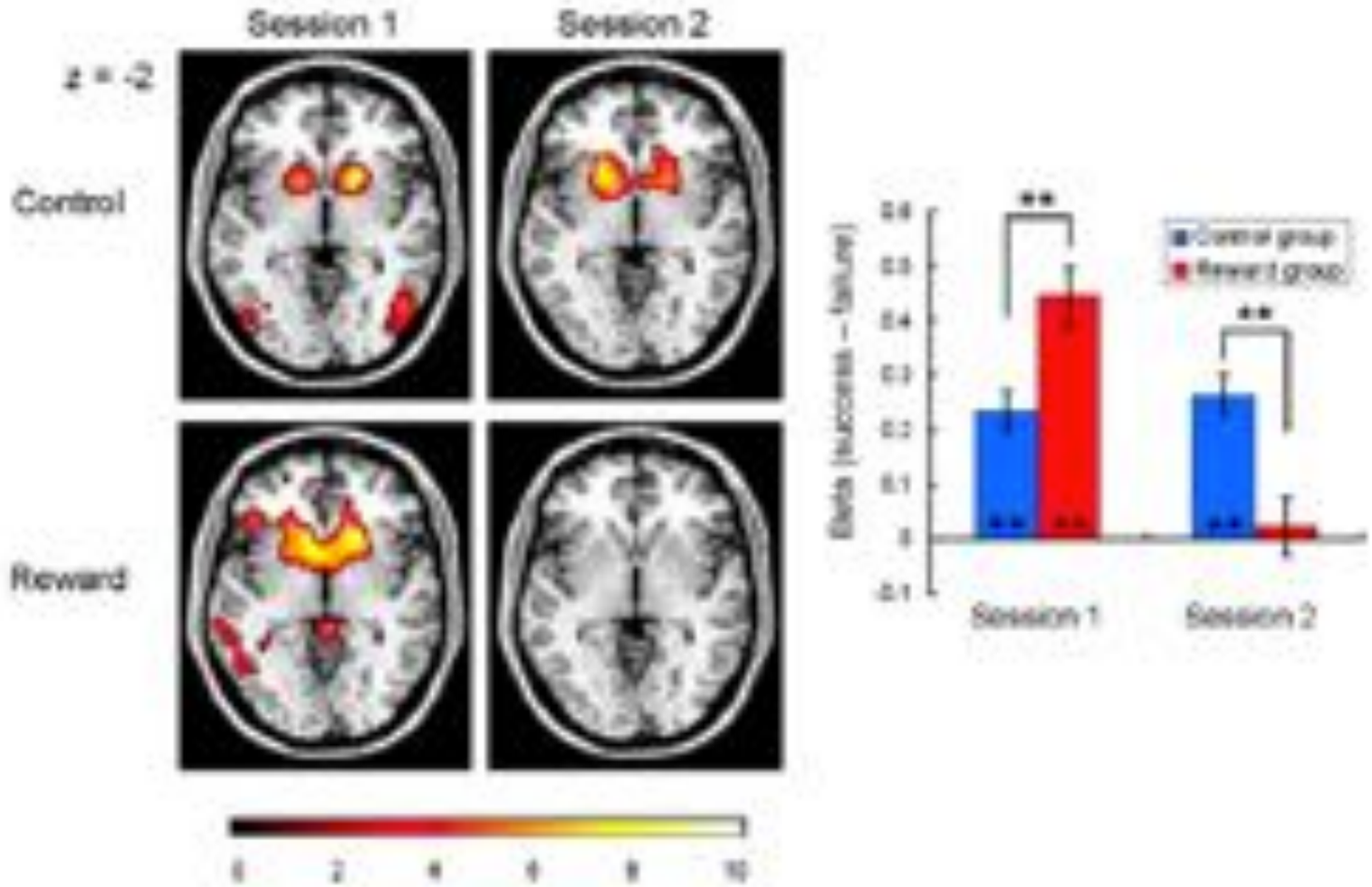
The Effects of Rewards on Free-Choice Behavior: Controlling Rewards Undermine; Informational Do Not



Deci, E. L., Koestner, R., & Ryan, R.M. (1999). *Psychological Bulletin, 125, 627-668.*

Self-Determination Theory

The Undermining Effect: Deactivation of Bilateral Striatum as a Function of Prior Rewards



Murayama et al.

Right LPFC Changes During Reward and Post-Reward Sessions

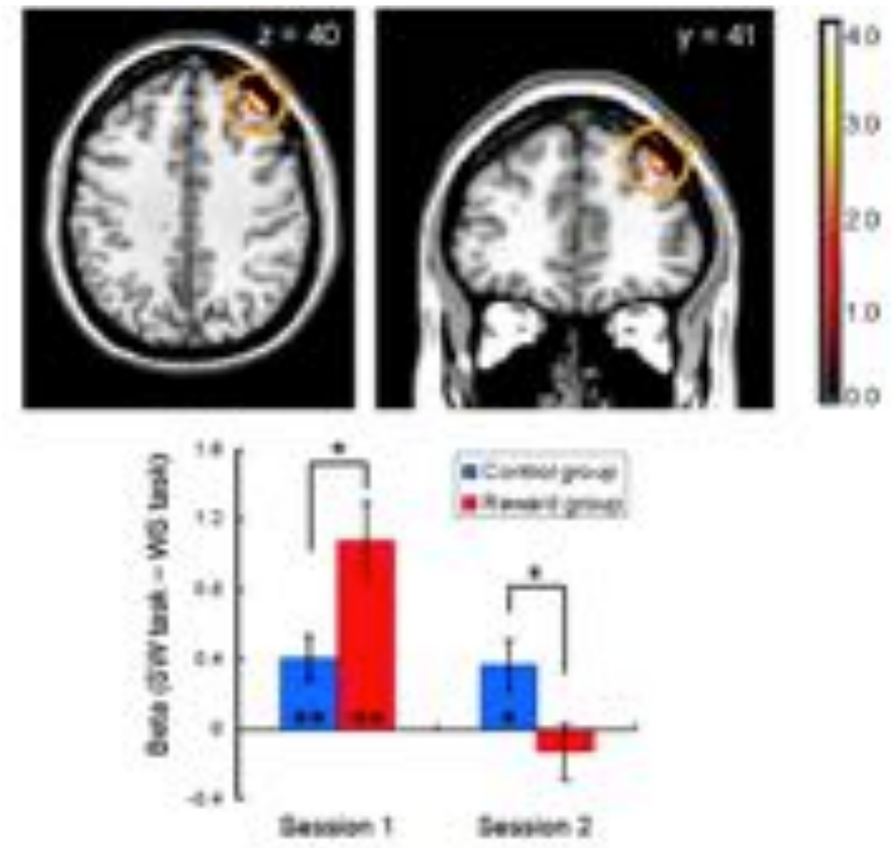


Fig. 4. Right LPFC activation (peak at 39, 41, 40 detected in the session-by-group interaction during the task cue period ($P < 0.05$, small-volume-corrected; image is shown at $P < 0.001$, uncorrected for display). Neural responses are displayed in transaxial and coronal formats. The bar plot represents mean contrast values and SEs for each session/group. During the first session, the LPFC in the reward group showed significantly larger activation than that in the control group (two-sample $t_{34} = 2.62$, $P < 0.05$). However, the activation became significantly smaller in the reward group than in the control group during the second session (two-sample $t_{34} = 2.27$, $P < 0.05$).

Negative Impact of Extrinsic Reward Focus on Sustained Weight Change

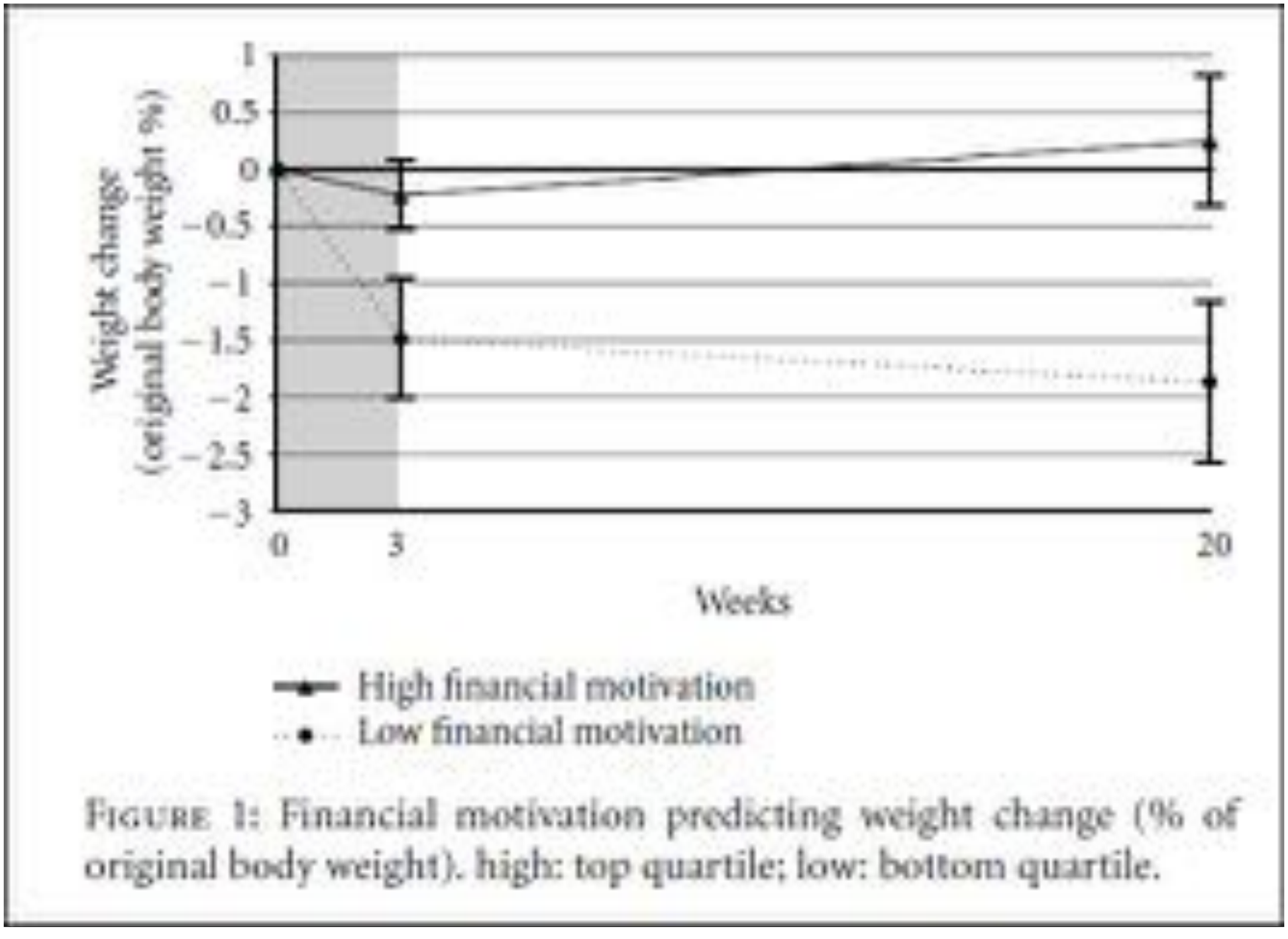


FIGURE 1: Financial motivation predicting weight change (% of original body weight). high: top quartile; low: bottom quartile.

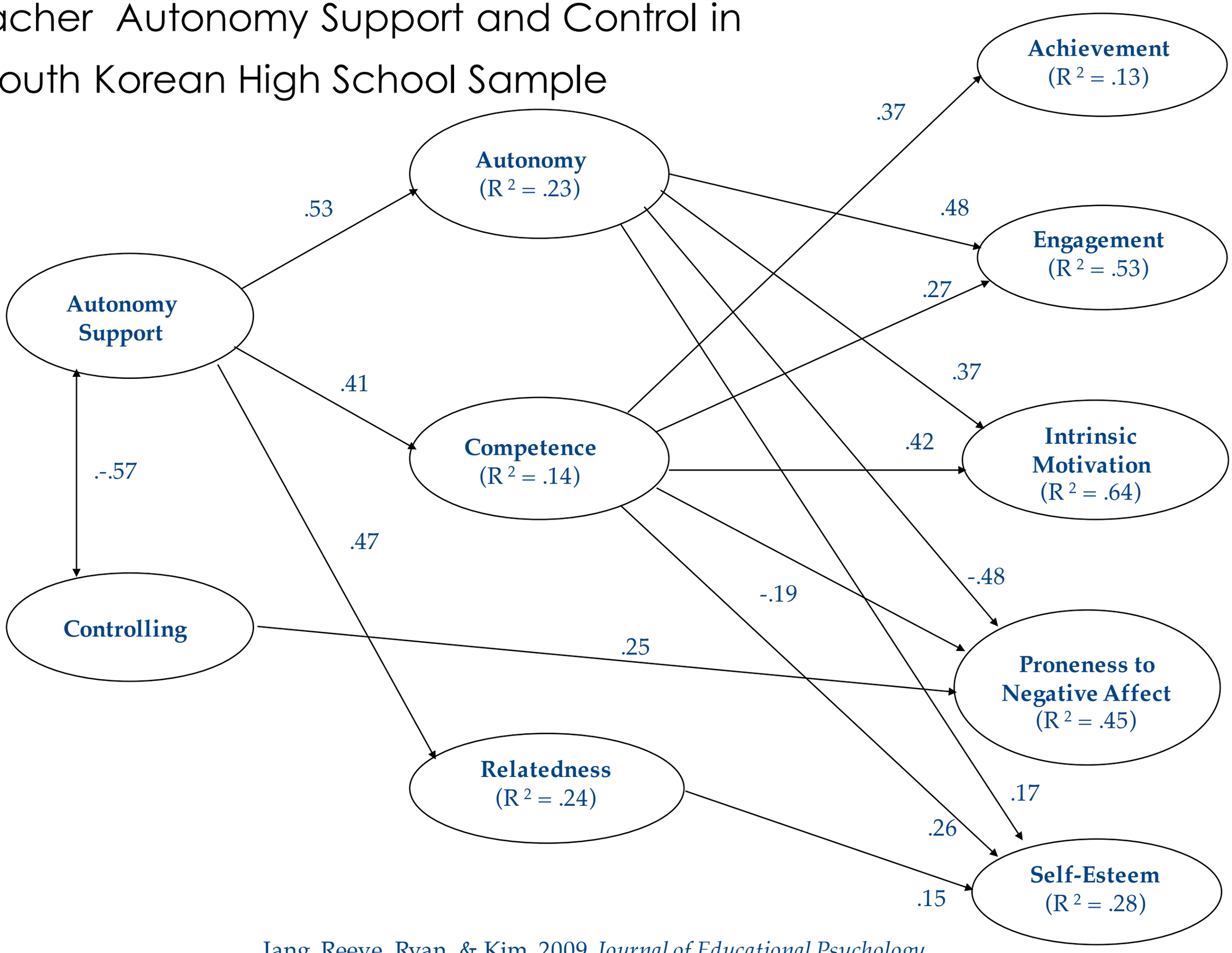
Moller A, et al. *Journal of Obesity.* 2012;2012:740519. DOI:10.1155/2012/

Relations of Teachers' Orientations (autonomy-supportive vs. controlling) to Students' Intrinsic Motivation and Perceived Competence

	Teachers' Autonomy Support
Intrinsic Motivation	
Preference for Challenge	.41***
Curiosity	.56***
Mastery attempts	.37***
Perceived Competence	
Cognitive competence	.29***
Global competence (self-worth)	.36***

Deci, E. L. et al.. (1981). *Journal of Educational Psychology, 73,* 642-650.

Teacher Autonomy Support and Control in a South Korean High School Sample



Jang, Reeve, Ryan, & Kim, 2009, *Journal of Educational Psychology*

SEM Relating Autonomy Support/Control to Satisfaction versus Thwarting and Outcomes in Young Athletes

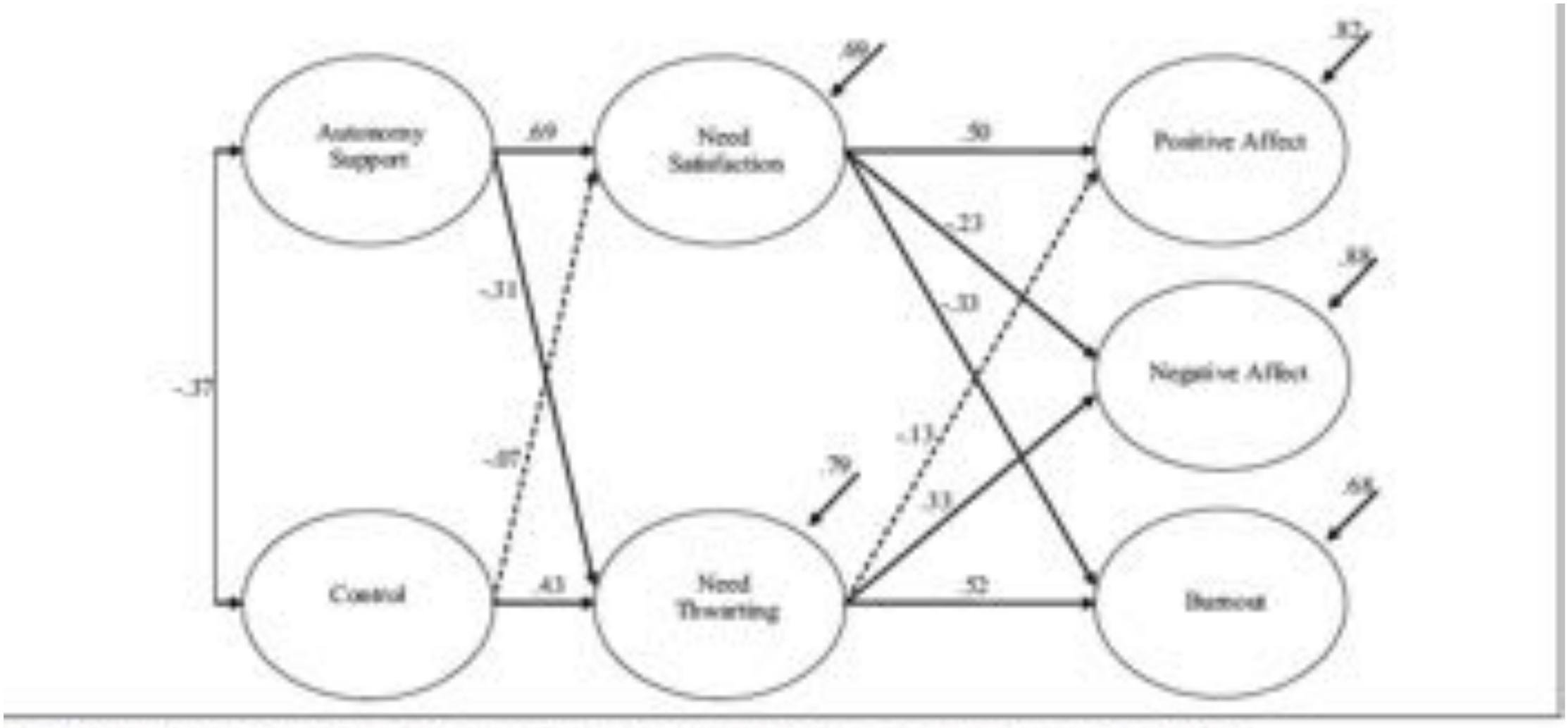


Figure 2. Latent variable modeling predicting positive affect, negative affect, and burnout symptoms (Study 2)
Dotted lines represent nonsignificant parameters. Item indicators are not presented for presentation simplicity purposes. Correlations between disturbance terms were need satisfaction-need thwarting = –.20, positive affect-burnout = –.30, negative affect-burnout = .46.

Secretory Immunoglobulin A (S-IgA) as Predicted by Need Thwarting Prior to Training or Practice Sessions

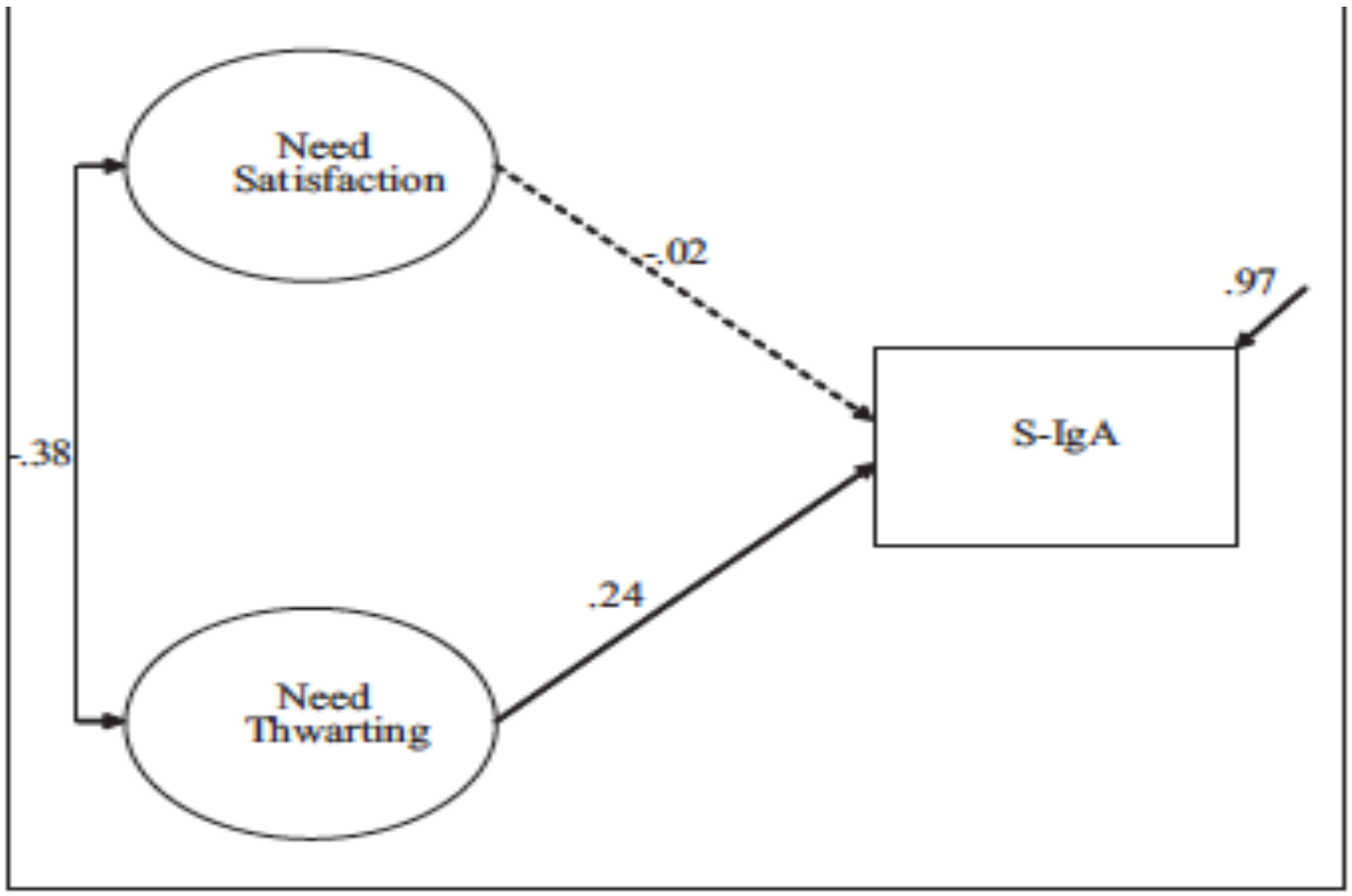


Figure 3. Latent variable modeling predicting levels of S-IgA (Study 2)
Dotted lines represent nonsignificant parameters. Secretory immunoglobulin A (S-IgA) was an observed variable. Item indicators for the two need factors are not presented for presentation simplicity purposes.

Bartholomew, Ntoumanis, Ryan, & Thogersen-Ntoumanis (2011), JSEP

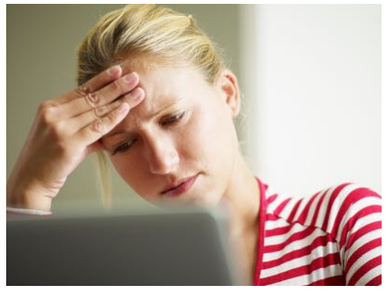
Two Categories of Motivation…..

Intrinsic Motivation:

Done or the inherent satisfactions in acting

Extrinsic Motivation:

Done to attain consequences separable from behavior



Intrinsic & Extrinsic Motivation

REGULATORY STYLES:

Amotivation

Extrinsic motivation

External regulation

Introjection

Identification

Integration

Intrinsic motivation

ASSOCIATED PROCESSES:

Perceived non-contingency Low perceived competence Non-relevance Non-intentionality	**Salience of extrinsic rewards or punishments Compliance/ Reactance**	**Ego Involvement Focus on approval from self and others**	**Conscious valuing of activity Self-endorsement of goals**	**Hierarchical synthesis of goals Congruence**	**Interest & Enjoyment Inherent satisfaction**

PERCEIVED LOCUS OF CAUSALITY:

Impersonal	**External**	**Somewhat External**	**Somewhat Internal**	**Internal**	**Internal**

From: Ryan & Deci (2000)

Correlations between Self-Regulation Styles and Academic Goals, Values, & Learning Strategies

Subscales	External	Introjected	Identified	Intrinsic
Goal Orientation				
Learning Orientation	.15**	.37***	.58***	.62***
Performance Orientation	.28***	.50***	.33***	.16**
Work-Avoidance Orientation	.19***	-.02	-.37***	-.42***
Value of learning and school	-.02	.24***	.49***	.58***
Learning Strategies				
Deep Process	-.04	.27***	.54***	.56***
Surface Process	.38***	.40***	.16**	.13*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; Yamauchi & Tanaka (1998)

Correlations of motivational constructs and Total Moderate-Intensity Exercise per ACSM/AHA guidelines	
External Regulation	-.18
Introjected Regulation	.22
Identified Regulation	.45***
Intrinsic Motivation	.34*
Controlled Motivation	**.05**
Autonomous Motivation	**.42****

Self-Determination Theory

Predicting Practice Frequency and Quality: Music Schools in Australia and New Zealand

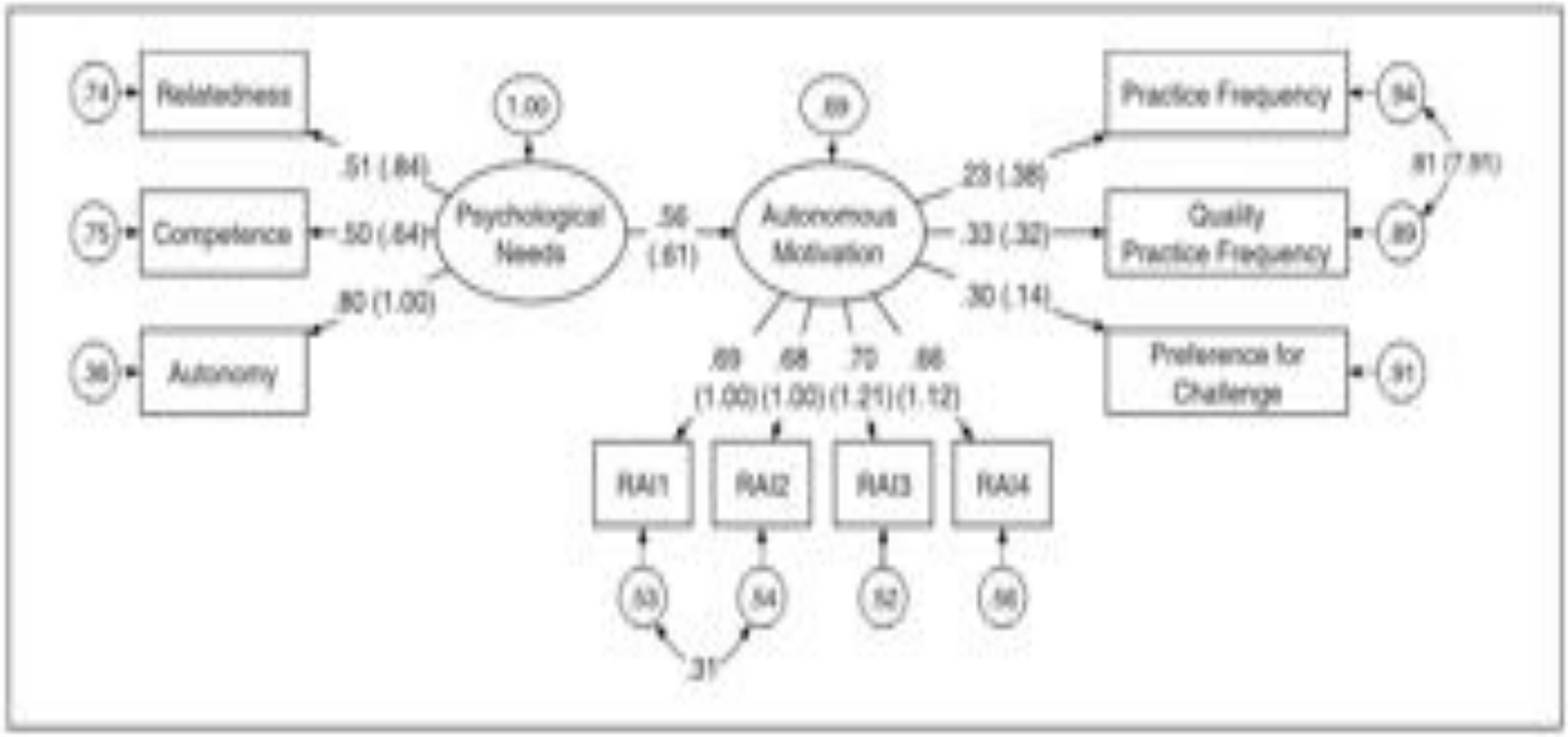


Figure 1. Structural equation model of psychological needs satisfaction and autonomous motivation predicting practice. $N = 392$. Unstandardized coefficients are in parentheses. All factor loadings and paths are significant at $p < .001$. RAI = Relative Autonomy Index.

From Evans and Bonneville-Roussy (2015)

Greater Relative Autonomy Enhances Value, Motivation and Wellness Outcomes

Autonomous Motivation

- **Sustained Engagement**
- **Deeper Learning**
- **Vitality/Energy**
- **Implicit/Explicit Congruence**
- **Better Well-being**

These functional effects are apparent:

Across the Life Span
Across SES
Across Cultures

Extrinsic Motivation

Intrinsic Motivation

INTERNALIZATION

External

Introjected

Identified

Integrated

-Control with rewards & punishments
-Compliance

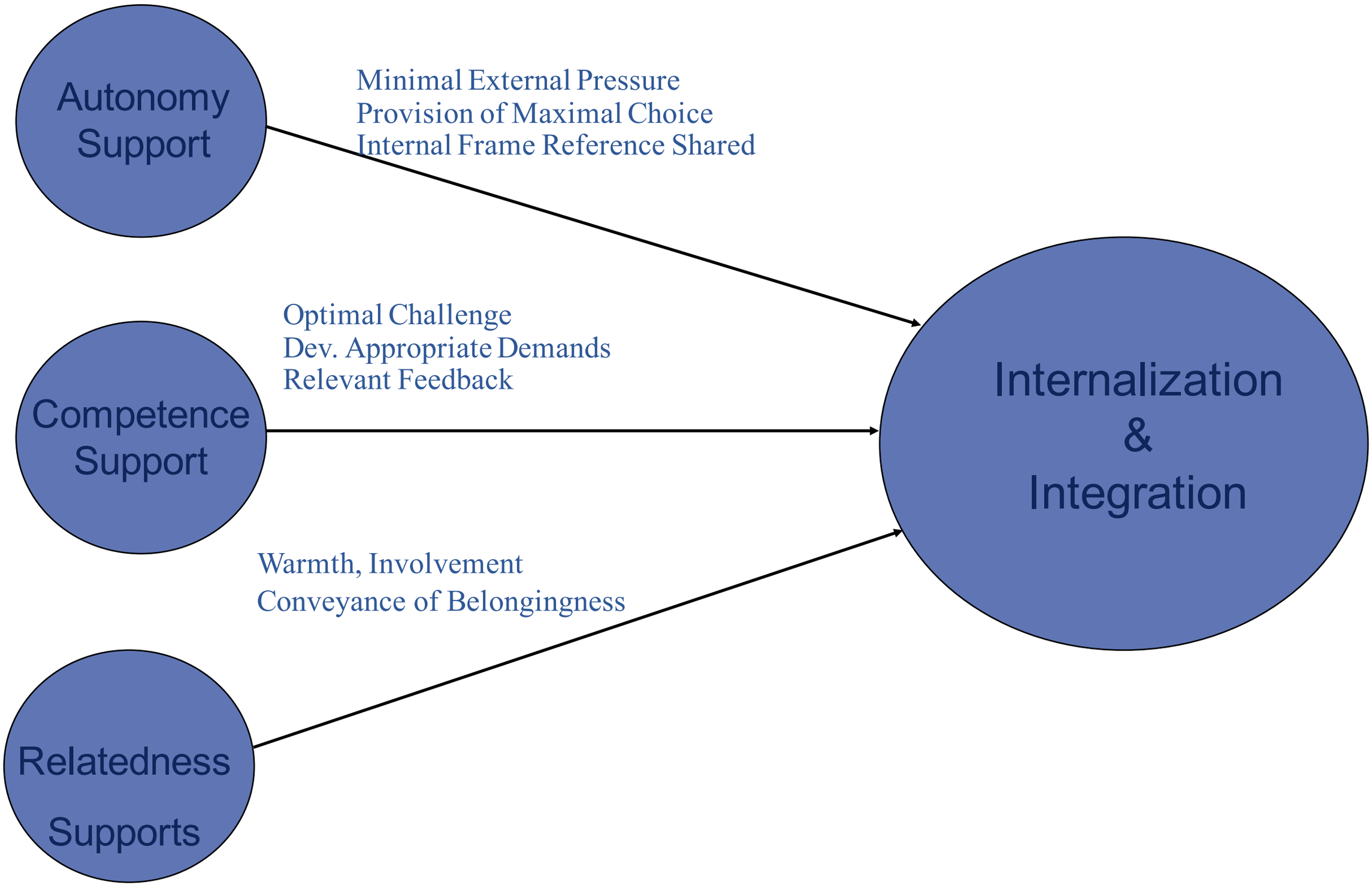
-Guilt/Shame
-Self-pressure
-Ego-involvement

-Self truly endorses & values goal

-Goals are integrated

- Inherent Satisfaction
- Autotelic

Factors Facilitating Greater Relative Autonomy of Behavioral Regulations and Values



Correlations Between Parent and Teacher Autonomy Support and Academic Self-Regulation in U. S. and Russian Schools

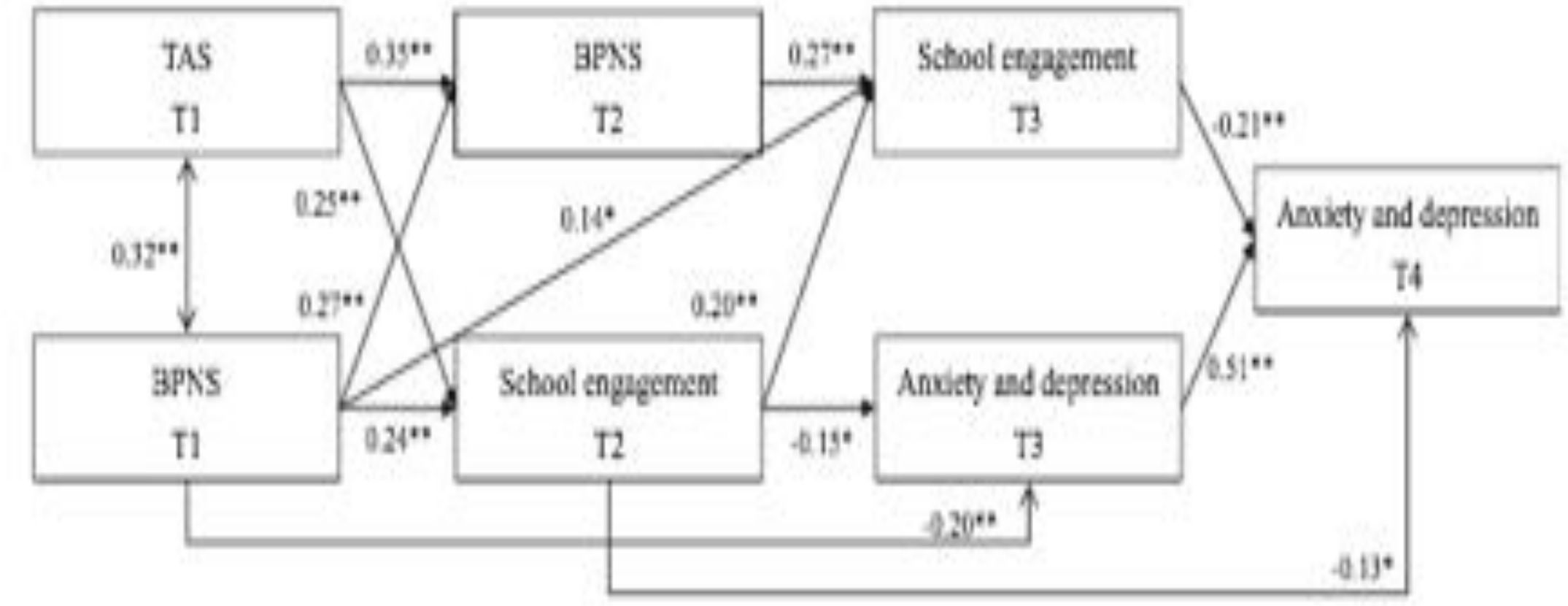
	U.S.		Russian	
	Parent A-S	Teacher A-S	Parent A-S	Teacher A-S
External Regulation	-.21*	-.25*	-.26*	-.28*
Introjected Regulation	.06	.03	.15	.08
Identified Regulation	.38**	.36**	.47**	.43**
Intrinsic Motivation	.14	.60**	.16	.48**

(Chirkov & Ryan, 2001)

Correlations Between Parent and Teacher Autonomy Support and Well-Being in U. S. and Russian High School Students

	U.S.		Russian	
	Parent A-S	Teacher A-S	Parent A-S	Teacher A-S
Self-Actualization	.35**	.33**	.39**	.20*
Self-Esteem	.40**	.18	.54**	.21*
Depressive Symptoms	-.09	-.14	-.48**	.08
Life-Satisfaction	.49**	.34**	.50**	.36**

Teacher Autonomy Support: Enhancing Basic Need Satisfaction, Engagement and Wellness in Chinese 7-8th grades



TAS = Teacher Autonomy Support; BPNS = Basic Psychological Need satisfaction

From: Yu, Li, Wang & Zhang, 2016, J. of Adolescence

Cross-Cultural Perspectives: 23 Country Study

Inspiring Teachers: The Same Everywhere

Students wrote narratives about their **most recent, most motivating**, and **most de-motivating** teachers

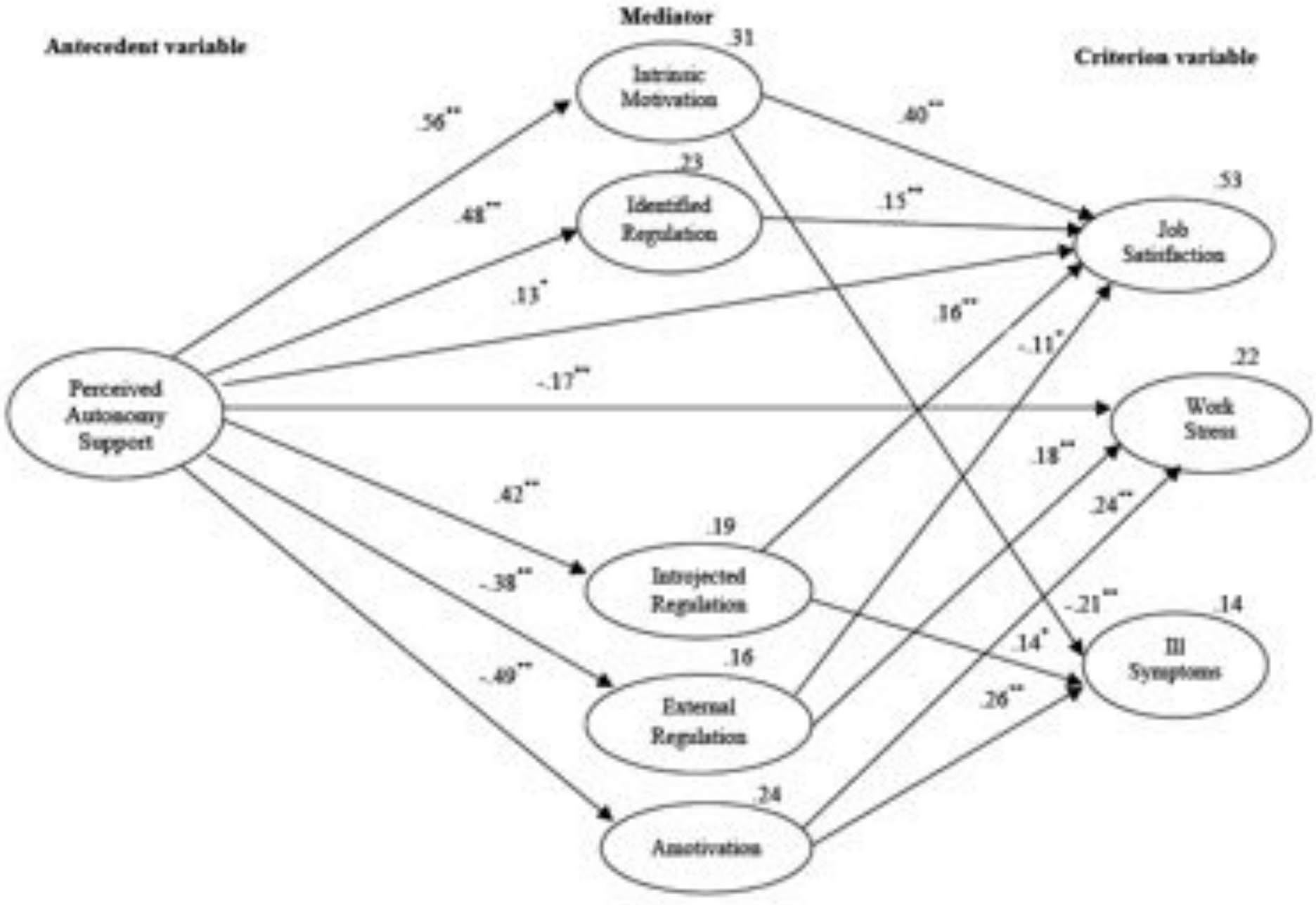
In EVERY sample, **autonomy-support** and **relatedness** emerged as the most frequent and salient characteristics, along with enthusiasm and energy

In NO sample did rewards, grade focus, rigor or control emerge as positive factors.

Niemiec, et al., 2013

Teachers need support too!

Autonomy Support and the Mediating Role of Work Motivation for Well-Being in a Chinese Teachers



From Nie, Chua, Yeung & Ryan (2015)

Basic Need-Satisfaction and Work Performance and Adjustment of Wall Street Bankers

N=495; Baard, P. P., Deci, E. L. & Ryan, R. M. (2004).

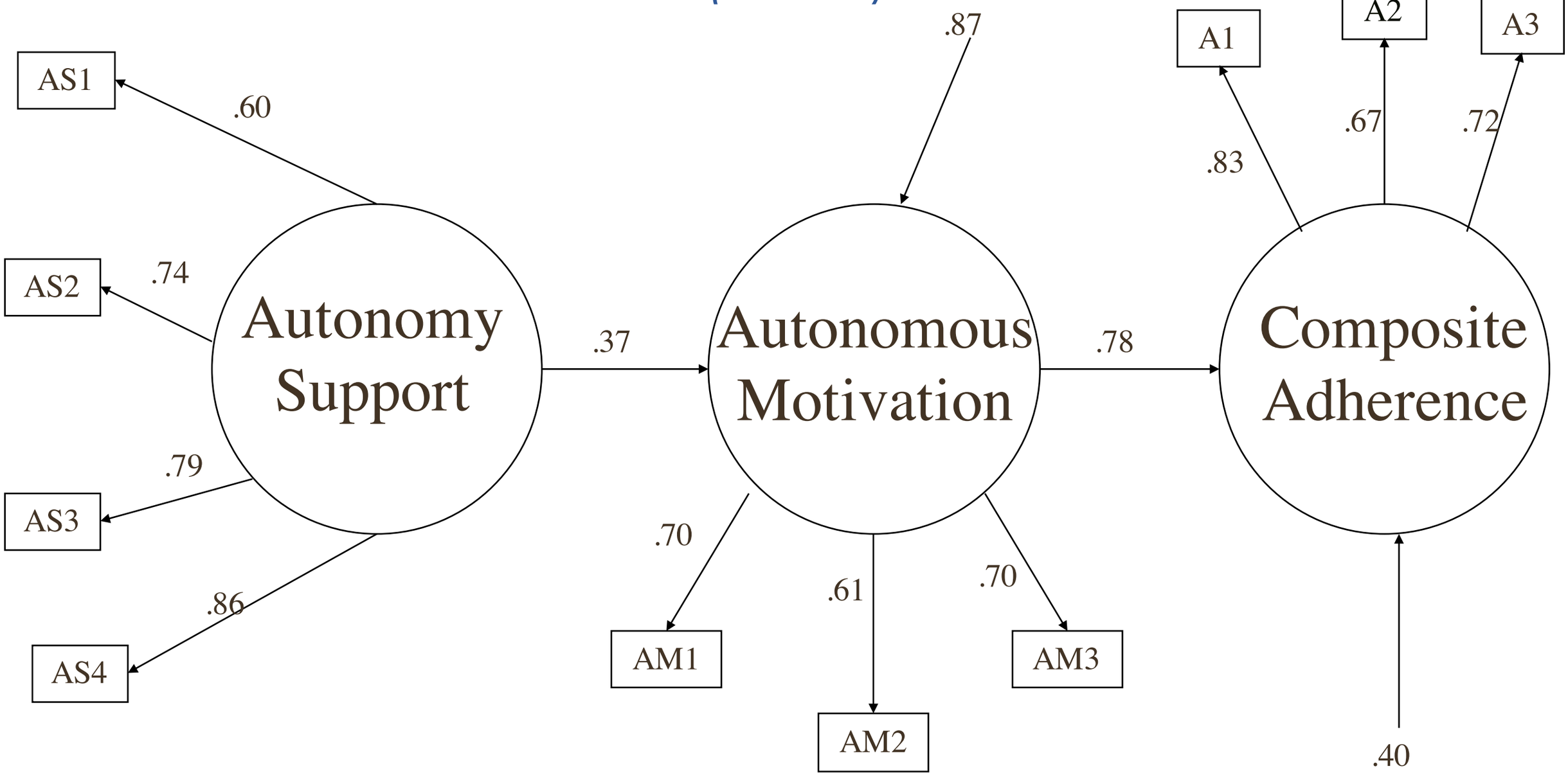
Motivation for Medication Adherence

	2 Day Pill Count	14 Day Count	Self-Rpt.	Composite Adherence
Autonomy Support (HCCQ)	.24**	.17*	.03	.18*
Autonomous Regulation	.41***	.52***	.57***	.59***

+ $p < .10$, * $p < .05$, *** $p < .001$

Autonomy and Medication Adherence

(N=126)



From Williams, Rodin, Ryan, Grolnick, and Deci, Health Psychology, 1998

Meta-analyzed Relations Between Practitioner Autonomy-Support and Control and Patient's Regulatory Styles In Available Health Behavior Studies

	Autonomy Support	Control
Intrinsic Motivation	.42	-.11
Identified Motivation	.36	.16
Introjection	.09	.29
External Regulation	.02	.31
Amotivation	-.27	.27
Autonomous Motivation Sum	**.39**	**.03**
Controlled Motivation Sum	**.04**	**.34**

(k=67)

Ng, Ntoumanis, Thøgersen-Ntoumani, Deci, Ryan, Duda, & Williams. Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science.* 2012

Self-Determination Model for Health Interventions

Autonomy Supportive vs. Controlling Health Care Climate

Autonomy

Competence

Relatedness

Mental Health
Depression
Somatization
Anxiety
Quality of life

Physical Health
*Not Smoking
*Physical Activity
*Weight Loss
*Diabetes
*Med. Adherence
*Healthy Diet
*Dental Health

Autonomy Support Represents a Significant Treatment Factor Across Psychotherapy Methods, Including IPT, CBT and Pharmacological Management

- More autonomous motivation was significantly associated with improvement in depressive symptoms

- Across modalities the odds ratio associated with therapist autonomy support was **1.95.** (Those 1 SD above mean for A-S show 2x the benefit; 4x those 1 SD below mean)

- Autonomy support was more predictive of positive outcomes than therapeutic alliance

From: Zuroff, D.C. Koestner, R., Moskowitz, D. S., McBride, C., Bagby, M., & Marshall, M. (2007)

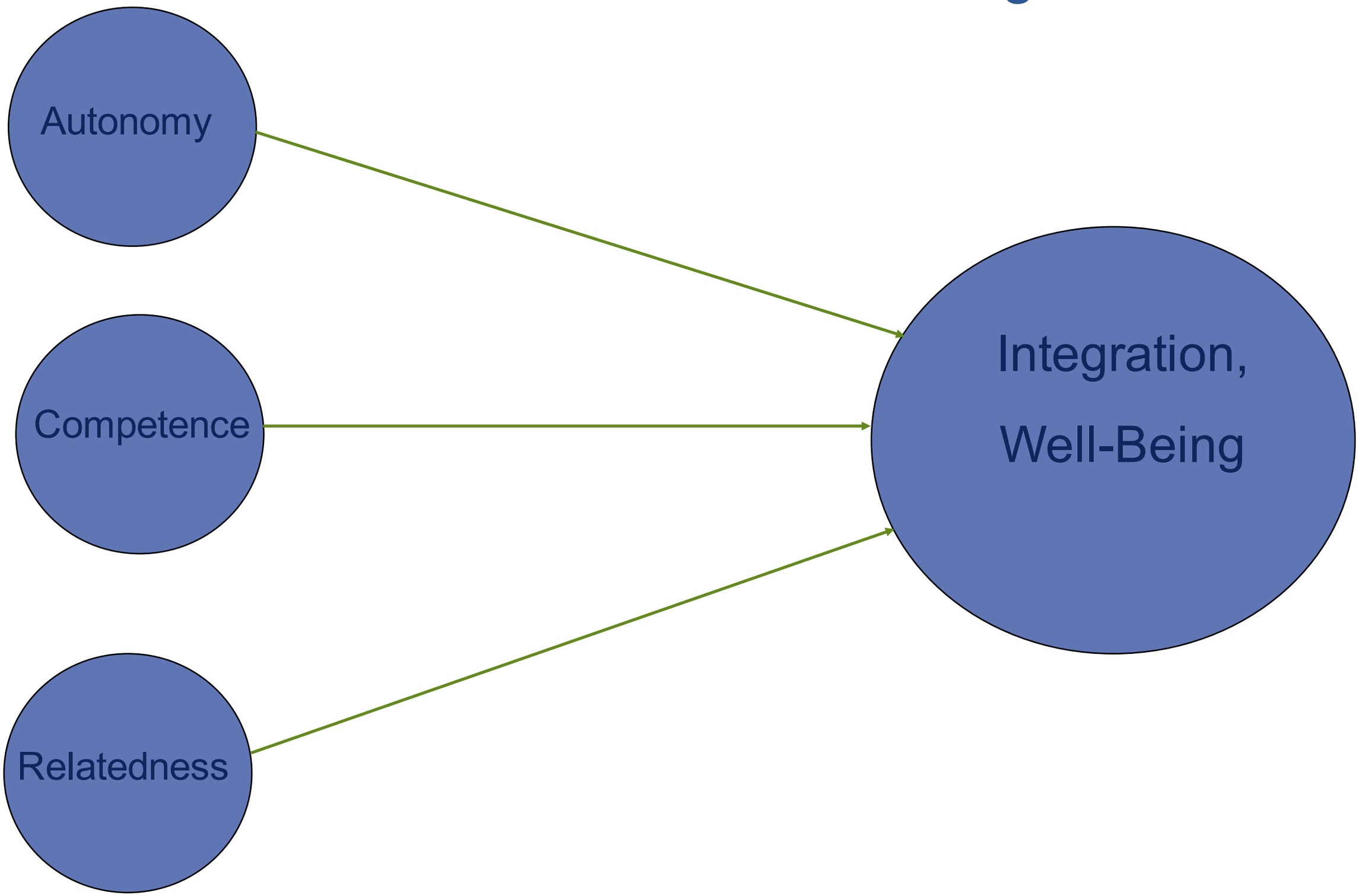
Relations of autonomy-support to therapeutic alliance and treatment motivation in patients being treated for depression

Autonomy support is more than merely connecting and cooperating

	Therapeutic Alliance	Perceived Autonomy Support
Autonomy-Support	**.44*** **	**----**
Autonomous Motivation for Treatment	**.28***	**.40*** **

Zuroff, D.C. Koestner, R., Moskowitz, D. S., McBride, C., Bagby, M., & Marshall, M. (2007)

Basic Psychological Needs Underlying Motivation and Well Being

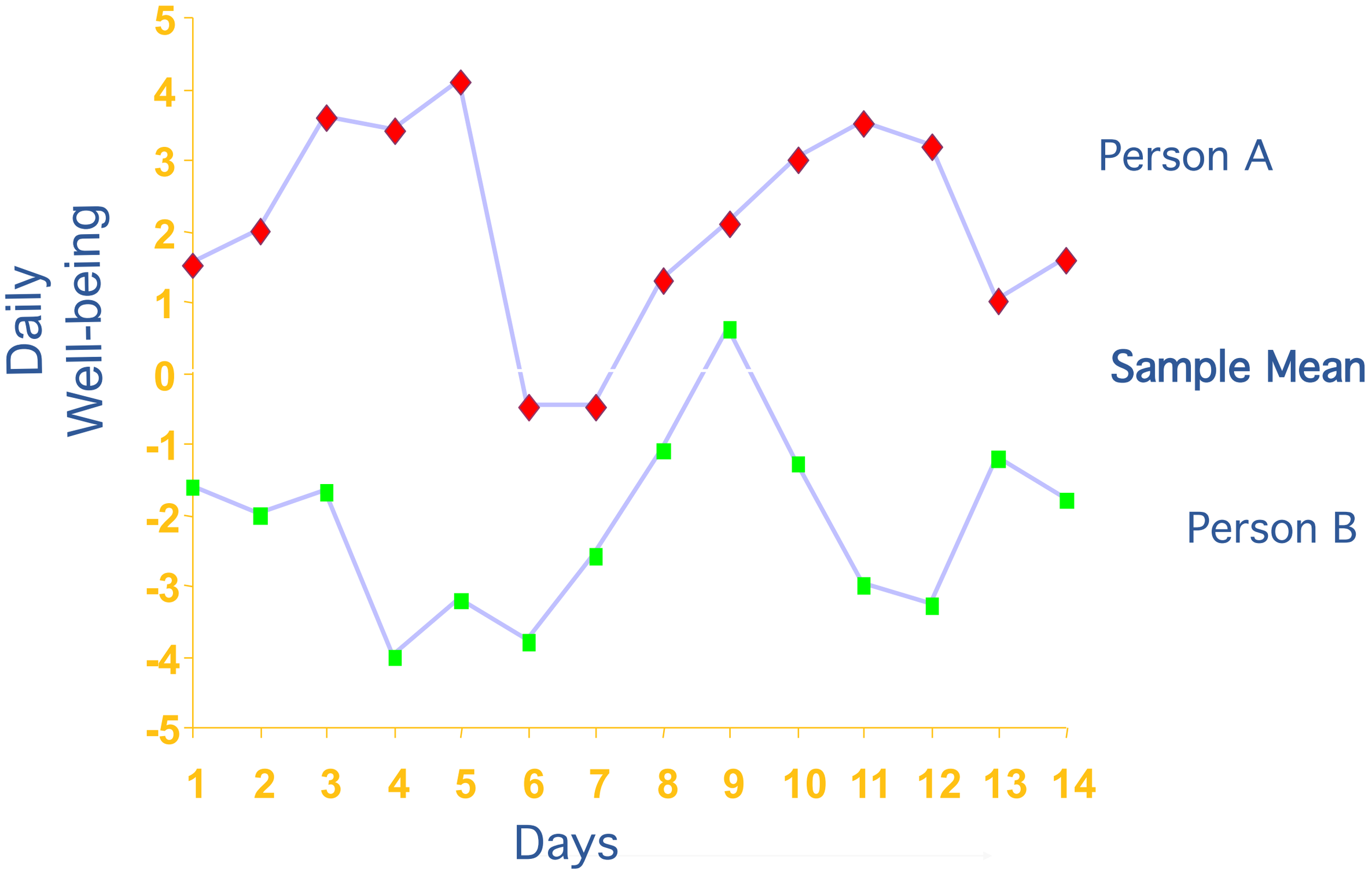


Within-Country Correlations of Basic Need Satisfaction with Subjective Well-being

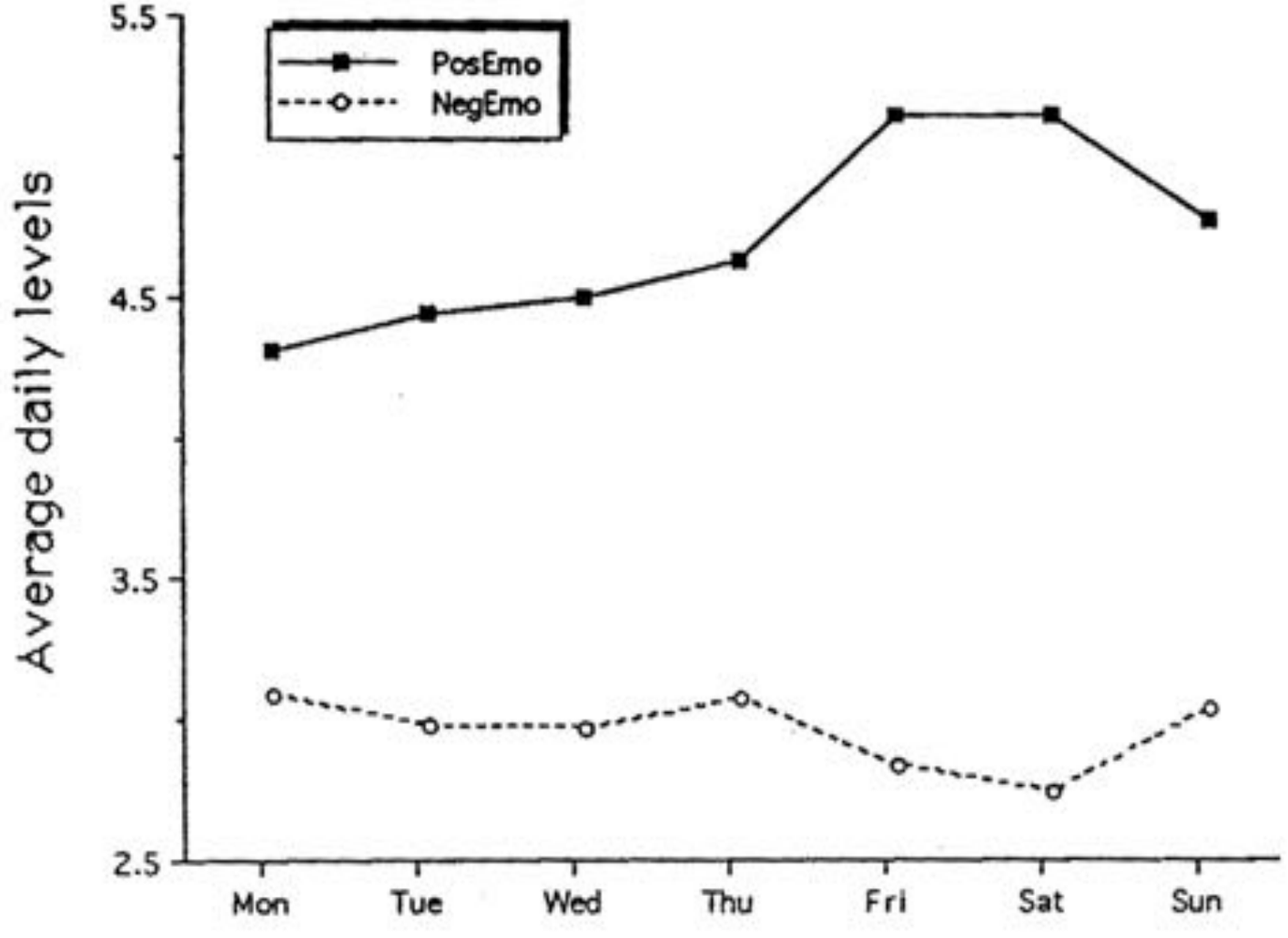
Country (n)	US (n = 195)	Russia (n = 159)	Korea (n = 111)	Turkey (n = 94)
Basic Need Satisfaction	.72**	.60**	.62**	.71**

Chirkov V, et al. *Journal of Personality and Social Psychology*. 2003;84(1):97-110.

Within-person Effects: Daily Fluctuations



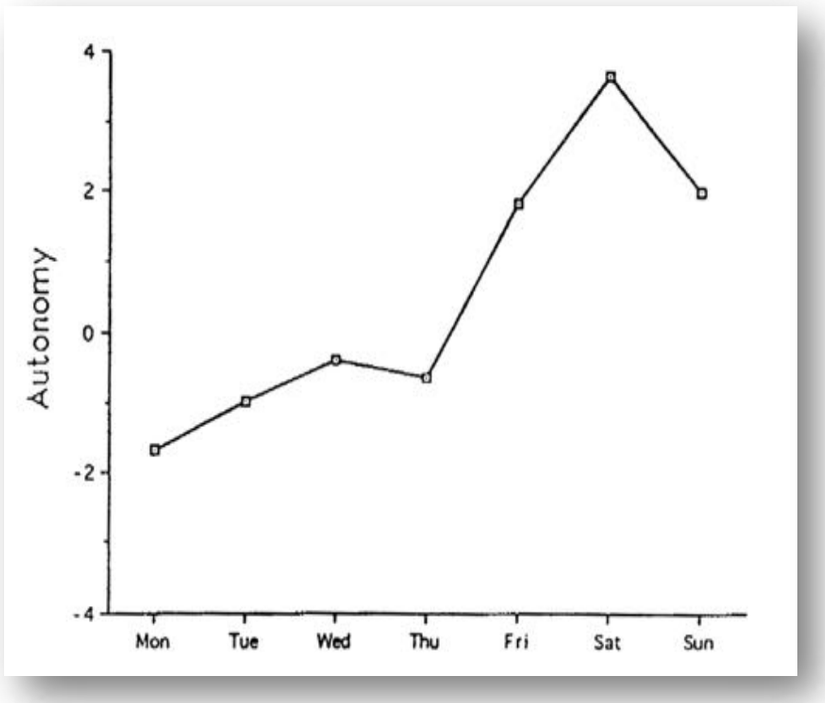
Positive and Negative Affect on the Days of the Week



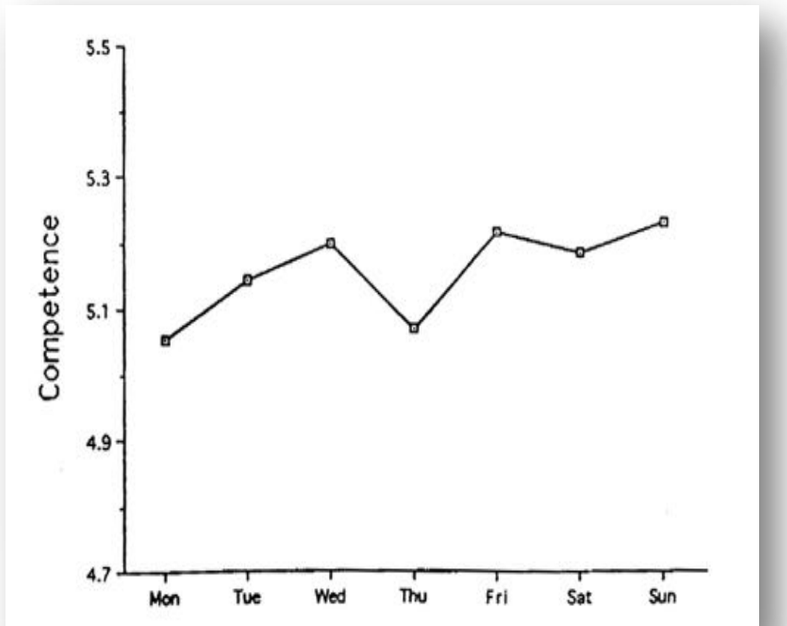
Reis HT, et al. *Personality and Social Psychology Bulletin*. 2000;26(4):419-35.

Need Satisfaction on Days of the Week

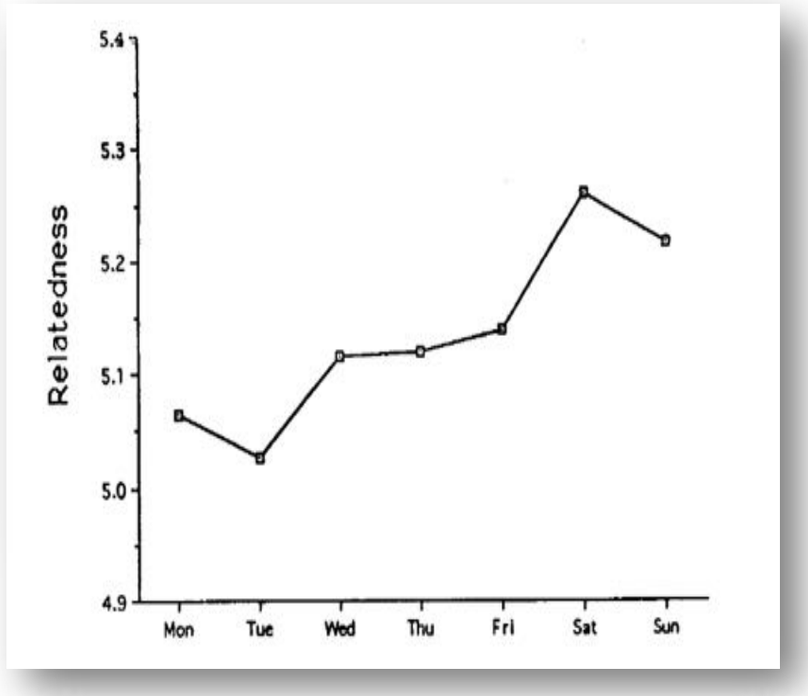
Autonomy



Competence



Relatedness



Reis HT, et al. *Personality and Social Psychology Bulletin*. 2000;26(4):419-35.

Adult Working Sample

Predicting Experience Level Well-Being from Experience-Level Need Satisfaction

	Positive Affect		Negative Affect		Vitality		Phys. Symptoms	
Need Satisfaction	*B*	*t*	*B*	*t*	*B*	*t*	*B*	*t*
Autonomy	.95	22.29**	-.03	-10.66**	.04	8.74**	-.01	-5.24**
Relatedness	.20	11.69**	-.06	-8.38**	.08	7.21**	-.02	-2.74*
Competence	.21	7.65**	-.18	-10.37**	.06	3.14*	-.02	-1.26

Note. Group-mean centering was used for all predictors. *B*s are unstandardized.
* $p < .01$. ** $p < .001$.

Ryan RM, Bernstein JH, Brown KW. *Journal of Social and Clinical Psychology.* 2010;29(1):95-122. doi:10.1521/jscp.2010.29.1.95

Satisfaction of Psychological Needs on Weekdays vs. Weekends

	Autonomy		Relatedness		Competence	
	B	*t*	*B*	*t*	*B*	*t*
Weekend Contrast [a]	1.08	4.86***	.38	7.37***	.02	.33

Note. Weekend represents Friday evening through Sunday afternoon. *B*s are unstandardized.

* $p < .05$. *** $p < .001$.

Ryan RM, Bernstein JH, Brown KW. *Journal of Social and Clinical Psychology.* 2010;29(1):95-122. doi:10.1521/jscp.2010.29.1.95

Summary

People have some very basic psychological needs

Supporting their basic psychological needs promotes intrinsic motivation and internalization, which in turn yield more persistence, more effective performance and greater wellness

This afternoon's workshop: A focus on the techniques of facilitating motivation; on relationships, and on life goals and purposes that satisfy needs

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Autonomy-Supportive Interactions

- Understand the other's perspective (IFOR)
- Encourage self-reflection, or "interest-taking"
- Offer meaningful choices
- Provide a rationale for requested behavior

- Minimize use of controlling language/rewards

Competence-Supportive Environments

- Design activities so that mastery is the dominant experience
- Structure provides a scaffolding for development
- Feedback is “informational” rather than controlling
- Praise focuses on effort and accomplishments; not individual ability or comparisons with others

Relatedness-Supportive Environments

- Convey respect for the individual
- Individual feels valued and significant
- Care and concern when facing challenges
- Warmth and Inclusion
- Opportunities to Contribute/Give
- “My practitioner (teacher, manager) likes me”