



EdUHK x HKPS Psychology Research Poster Conference 2022

August 20, 2022, 09:30 – 13:00 @ Gathertown

Winner's Listings (Abstracts & Posters)

Updated as of 22 August 2022

Conference Winners

Undergraduate Category

Place	Name	Affiliation	Title	Field	Pg
Winner	Miss CHEUNG Yat Ning (U12)	The Education University of Hong Kong	<u>The role of learning approaches and intrinsic motivation in predicting Hong Kong young children's performance in learning English vocabulary as a second language.</u>	Educational	6-8
First Runner-up	Miss PIANPIANO Olivia Isabelle Pecho (U10)	The Education University of Hong Kong	<u>Psychosocial Influences on Academic Outcomes Among Ethnic Minority and Ethnic Majority Students in Hong Kong</u>	Educational	9-11
Second Runner-up	Mr. LAM Ching Yin Johnny (U03)	City University of Hong Kong	<u>Cooking for Others is Food for the Soul: Examining the Relationship between Prosocial Cooking and Psychological Well-being to the Self.</u>	Social	12-13

Post-graduate Category

Place	Name	Affiliation	Title	Field	Pg
Winner	Mr. YIP Sai Kit (G14)	The University of Hong Kong	<u>The unique and shared contributions of verbal and nonverbal relational reasoning to mathematical problem solving</u>	Developmental & Educational	15-16
Runner-up	Ms. FU Rong (G02)	City University of Hong Kong	<u>Do Couple-Based Interventions Show Larger Effects in Promoting HIV Preventive Behaviors than Individualized Interventions in Couples? A Systematic Review and Meta-analysis of 11 Randomized Controlled Trials</u>	Health	17-19
Runner-up	Ms. WU Xiaoyuan (G09)	The Education University of Hong Kong	<u>The Effect of Co-caregivers' Dyadic Factors on Coparenting Relationships in Families with Children Aged 3-4</u>	Educational	20-21
Merit	Miss SU Xia (G07)	The Education University of Hong Kong	<u>Reducing Stress and Enhancing Well-Being in 6-9 Grades in Dongguan: The Role of Self-Regulation</u>	Educational	22-23
Merit	Miss XIA Weiwei (G10)	The Education University of Hong Kong	<u>When and How to Share? The Role of Inspiration</u>	Social	24-25

Professional Cartegory

Place	Name	Affiliation	Title	Field	Pg
Winner	Dr. WANG Zhenlin (P06)	The Education University of Hong Kong	<u>Improving university students' generic skills and attitudes towards aging through a life-review interview</u>	Educational & Developmental	27-29
Runner-up	Mr. HUANG Qi Lu (P01)	The University of Hong Kong	<u>The Mediating Role of Self-Esteem in the Relationship between Hope and Subjective Well-Being During the COVID-19 Pandemic</u>	Positive Psychology & Educational	30-31
Runner-up	Ms. LAU Wing Man Rebecca (P03)	Hong Kong Police Force	<u>A Quest for the Essence of Trust in the Workplace of our Societies – A Meta-analysis of Integrity Testing for Predicting Workplace Deviance across Industries and Countries in the Past 50 Years</u>	Industrial-Organizational	32-33
Runner-up	Dr. LI Cheng (P05)	The University of Hong Kong	<u>I'm Depressed and Sleepy so I Don't Trust You - Depressed Individuals Show Less Trust After Sleep Deprivation</u>	Social-cognitive	34-35

Undergraduate Category

Winner's Abstracts and Posters

Winner (U12) – The role of learning approaches and intrinsic motivation in predicting Hong Kong young children’s performance in learning English vocabulary as a second language

Presenter: Miss CHEUNG Yat Ning, Dr. LAW Wilbert (supervisor)

Affiliation: The Education University of Hong Kong

Field: Educational psychology

Keywords: Intrinsic motivation, Learning approach, Early childhood education

Abstract:

Learning English is highly valued in Hong Kong. Kindergarten teachers apply various teaching and learning approaches to improve children’s English (L2) vocabulary such as using L1-L2 translation and story-based vocabulary learning. Meanwhile, the effectiveness of these teaching and learning approaches remained controversial. Moreover, previous studies tended to look into these teaching and learning approaches from a cognitive perspective and less emphasis was on the motivation perspective or its interaction with different types of motivation. To fill this gap, the current study aims at investigating children’s L2 vocabulary learning from a motivation perspective, in particular, the role of intrinsic motivation. An experiment was conducted to compare the "L1-L2 word association approach" and the "picture-word association approach" and their possible interaction effect with intrinsic motivation in predicting performance in English vocabulary tests. Thirty-four kindergarten third grade (K3) students in Hong Kong were recruited to participate in an English vocabulary learning activity using either the picture-word association approach or the L1-L2 word association approach. The learning outcome was then evaluated through the word recognition task and word semantic task. Participants' intrinsic motivation before and after the learning activity was also measured and compared. Results demonstrated that the use of the picture-word association approach positively predicts word semantic task accuracy. Meanwhile, intrinsic motivation significantly moderated the prediction of word semantic task accuracy in the two different English vocabulary learning approaches. When children learnt English vocabulary using the picture-word association approach, children with low intrinsic motivation showed better word semantic performance. However, using the same learning approach, children who had high intrinsic motivation did not improve their word semantic performance. In contrast, when young children learnt English vocabulary with the L1-L2 word association approach, higher intrinsic motivation positively predicts better word semantic performance, and vice versa. This study highlighted the role of using pictures in teaching young children English vocabulary as a second language and how this effect could be moderated by intrinsic motivation. It also sheds light on the L2 teaching approach and future research in the field of Early childhood education. Other than learning approaches, nurturing young children’s intrinsic motivation in learning is also an important factor to achieve better learning outcomes. This study also discussed learners’ sense of autonomy and intrinsic motivation are closely related. Therefore, schools are encouraged to create learning environments that respect learners’ autonomy, to enhance children’s intrinsic motivation. Apart from school implications, this study gives directions for local parents in supporting their young children to learn English vocabulary

at home. To maximize children's L2 learning outcomes, parents may not only focus on the learning approaches but also on the quality of the home environment emphasizing on children self exploration and self-initiation. To benefit our children, more studies are needed to understand the process of children's L2 learning and factors affecting L2 learning motivation.



The role of learning approaches and intrinsic motivation in predicting Hong Kong young children's performance in learning English vocabulary as a second language



BACKGROUND

English serves as the second language in Hong Kong and it is highly valued in local Kindergarten education curriculum.

All local Kindergarten deliver compulsory English education to young children from K1 due to the belief that Early exposure in English is important. Children acquiring English at an early age shown enormous effects on their long-term language development (Education Bureau, 2014).

Why we explore Learning approaches?

Definition: Learning approaches are how the learners think about their learning, including learning target, belief and method they use.

Learning strategies are the method that learners used during their learning and they are often categorized as deep learning strategies and surface learning strategies which would remain the focus in this study.

Kindergarten teachers apply various teaching and learning approaches to improve children's English (L2) vocabulary while the effectiveness remained controversial. Therefore, learning approach worth studying to explore effective strategies that contributed to effective learning (Breen, 2014).

Why we explore Intrinsic motivation (IM) ?

Definition: Intrinsic motivation referred to doing things that one found inherently interesting and enjoyable. Intrinsic motivation does not involve external reward or pressure as a driving force towards one's action (Deci & Ryan, 2000).

High IM contributed to long term predictor of high academic achievement, stronger willingness in learning, and improvements in learning achievements (Taylor et al., 2014 ; Murayama, et al., 2013). Learners with high learning motivation predicts success in second language learning, despite one's language abilities or less desirable learning environment (Cheng & Dornyei, 2007).

AIM

This study aims at investigating children's L2 vocabulary learning from a motivation perspective. An experiment was conducted to explore the role of intrinsic motivation and two learning approaches in predicting local young children's L2 vocabulary learning performance.

METHOD

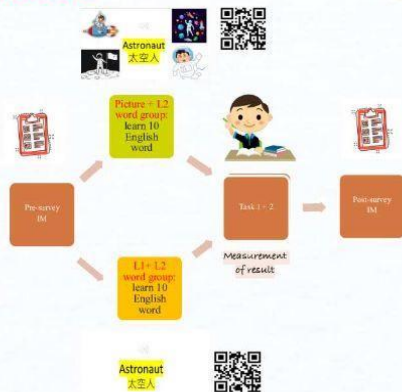
Participant

Thirty-four local kindergarten third grade (K3) students in Hong Kong (n=34) was recruited. An a priori power analysis was conducted using G*Power3 (Faul, Erdfelder, Lang, & Buchner, 2007). A medium effect size (d = .25), and an alpha of .05 was applied. The result of the power analysis showed that a total sample of participants with of n= 34 was required to achieve a power of .80.

MEASURE

Variables	Scales	No.	Sample items
Children's presurvey and post survey on IM	Intrinsic Motivation Inventory (IMI)	11	1. Interest and enjoyment 2. Perceived Competence 3. Effort/Importance 4. Pressure/Tension 5. Perceived choices 6. Value
Task 1: testing learning outcome	Word recognition task	10	Which is the word you have learnt in the activity? (1)Space (2)Another (3) Astronaut (4)Appreciate
Task2: testing learning outcome	Word semantic task	10	Which picture below shows the same meaning as the word?

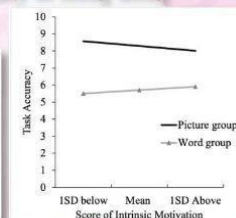
PROCEDURE



CHEUNG Yat Ning, supervised by Dr. LAW Wilbert
The Education University of Hong Kong

Variables	Picture-word group		L2-word group		P
	M	SD	M	SD	
Word recognition task RT	11.22	5.55	7.23	2.06	.009
Task1 accuracy	5.59	2.48	5.52	3.39	.954
Word semantic task RT	8.09	3.57	9.53	4.15	.285
Task2 accuracy	8.29	1.79	5.70	2.39	.001

Picture 1.



Picture 2.

RESEARCH QUESTIONS

1. Examine whether the picture-word association approach can enhance children's learning outcomes in word recognition and recalling word semantics comparing to the L1 and L2 word association approach?

2. Does higher intrinsic motivation associate with higher/better learning outcomes and how could this interact with the effect of picture-word association learning approach in predicting vocabulary learning outcomes?

RESULTS

Regression analysis (as shown in Picture 1)

Use of the picture-word association approach positively predicts word semantic task accuracy

Hierarchical regression analysis (as shown in picture 2)

Intrinsic motivation significantly moderated the prediction of word semantic task accuracy in the two different English vocabulary learning approaches

DISCUSSION

Significant role of pictures

Picture group had a significantly higher accuracy in word semantic tasks than the word group. This shows that the picture group could retrieve semantic knowledge better by using the picture-word association approach.

The result was also consistent with previous studies on picture learning. Pictures could serve as additional semantic links during the learning process, and this link could/would help the retrieval process (Stenberg et al. 1995). It was also consistent with the dual-coding theory (Paivio, 1991), in which adding non-verbal and verbal cues in word learning can enhance the ability to recall information.

Significant role of IM: Moderation effect

Current findings show how intrinsic motivation rated in the learning activity moderates the relations between learning groups and word semantic task accuracy. Picture-word association learning approach might be more beneficial when combined with lower intrinsic motivation.

Summary

1. Picture-word association approach important in predicting higher learning outcome.
2. Intrinsic motivation is equally important in L2 learning

High/ low Intrinsic motivation



IMPLICATION

Advice for teachers: schools are encouraged to create learning environments that respect learners' autonomy, to enhance children's intrinsic motivation.

Advice for parents: parents are encouraged to use more picture word association approach to support children and focus on the quality of the home environment emphasizing on children self-exploration and self-initiation.

CONCLUSION

On the whole, this study compares two learning approaches in enhancing young children's intrinsic motivation and learning outcomes in English vocabulary learning (as a second language) in Hong Kong. The role of learning approaches and intrinsic motivation of young children was highlighted. The present study also brings new insights for local teachers and parents when teaching young children English vocabulary as a second language.

Key references

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Taylor, G., Jungert, T., Mageau, G. A., Schatke, K., Dedic, H., Rosenfeld, S., & Koestner, R. (2014). A self-determination theory approach to predicting school achievement over time: The unique role of intrinsic motivation. *Contemporary Educational Psychology, 39*(4), 342-358.

Zipke, M. Preschoolers explore interactive storybook apps: The effect on word recognition and story comprehension. *Educ Inf Technol 22*, 1695-1712 (2017).



The SDT theory highlighted autonomy as an element of IM as learners engaged in a task motivated by their inherent interest and would gain satisfaction from active engagement (Deci & Ryan, 2000).

Research gap

Previous studies tended to explore teaching and learning approaches from the cognitive perspective but less on the motivational perspective.

First runner-up (U10) – Psychosocial Influences on Academic Outcomes Among Ethnic Minority and Ethnic Majority Students in Hong Kong

Presenter: Miss PIANPIANO Olivia Isabelle Pecho, Dr. LAW Wilbert (Supervisor)

Affiliation: The Education University of Hong Kong

Field: Educational

Keywords: Minority students, Psychosocial influences, Academic outcomes

Abstract:

Introduction:

Prior research has shown that comparing to ethnic majority students, ethnic minority students have lower academic achievement and motivation, specifically within Western societies. These gaps in educational attainment have been linked to the way ethnic minorities perceive their ethnic group, how strongly they identify with their minority culture as well as other factors such as parental involvement. However, limited studies have examined the effects of these psychosocial influences on students' academic outcomes within the Hong Kong context.

Objective:

This research focused on the psychosocial factors, including, ethnic identity, academic self-concept, perceived parental expectations, ethnic/ideal self-discrepancies, actual/ideal self-discrepancies, that could account for differences in academic achievement and motivation among ethnic minority and ethnic majority students in Hong Kong.

Methods:

A cross-sectional correlational study was conducted with 154 students (86 ethnic minority students of Pakistani, Indian, Bangladeshi, Nepalese, Indonesian and Filipino descent and 68 local Chinese students) from the ages of 16 to 19 years old. Students' ethnic identity, academic self-concept, perceived parental expectations, ethnic/ideal self-discrepancies, actual/ideal self-discrepancies, ethnic group, academic achievement and academic motivation were measured.

Results:

A significant t-test indicated greater ethnic identity in the ethnic minority group. A moderated mediation model suggested that ethnic/ideal self-discrepancies predicted a negative correlation with academic motivation through the mediation of actual/ideal self-discrepancies; a stronger effect was shown in ethnic minority students. A significant mediation of academic self-concept was found between perceived parental expectations and academic outcomes. Moderated mediations revealed that ethnic identity produced a positive correlation with academic motivation in students between ethnic groups; a stronger effect was shown in ethnic majority students.

Conclusion and Implications:

Ethnic identity, ethnic/ideal self-discrepancies and perceived parental expectations are notable psychosocial factors to consider in the academic outcomes of all students and especially those of ethnic minority descent. Based on our results, the implementation of growth mindset interventions, frequent parent communication, heritage language classes, and teachers of same ethnic origin in educational institutions are recommended.

Psychosocial Influences on Academic Outcomes among Ethnic Minority and Ethnic Majority Students in Hong Kong

Olivia Isabelle Pecho Pianpiano, Dr. Wilbert Law
The Education University of Hong Kong

Introduction

In Hong Kong, greater number of South Asian students do not reach secondary / tertiary education (EOC, 2011). **High drop-out rates** among ethnic minority students.

Ethnic Identity (EI): Research in America highlights that African American students' sense of belonging with their ethnic group was associated with academic achievement (Spencer et al., 2001).

Perceived Parental Expectations (PPE): High educational aspirations among Mexican students also related to their perceived expectations from their parents.

Academic Self-Concept (ASC): Literature has identified relationships between EM students' academic self-concept and academic outcomes.

Ethnic/Ideal Self-Discrepancies (EISD) & Actual Ideal Self-Discrepancies (AISD): Discrepancies in ethnic self and ideal self in minority students are related to higher levels of academic disengagement through AISD (Debrosse et al., 2018).

Ethnic Groups (EG) moderating influence of identification with the local culture or minority cultures to determine any ingroup effects in the relationships between psychosocial influences and academic outcomes.

Key References

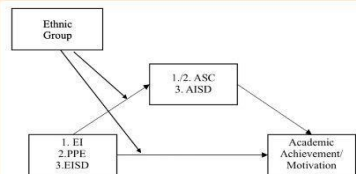
Debrosse, R., Rossignac-Milon, M., Taylor, D. M., & Destin, M. (2018). Can Identity Conflicts Impede the Success of Ethnic-Minority Students? Consequences of Discrepancies Between Ethnic and Ideal Selves. *Personality and Social Psychology Bulletin*, 44(17), 1725-1738.
 Equal Opportunities Commission. (2011). *Education for all: Report on the working group on education for ethnic minorities*. Hong Kong: Author. Retrieved from <https://www.eoc.org.hk/EOC/Upload/UserFiles/File/EducationReport.pdf>
 Spencer, M. B., Noll, E., Stoltzfus, J., & Harpalani, V. (2001). Identity and school adjustment: revisiting the "Acting White" assumption. *Educational Psychologist*, 36, 21-30.

Hypotheses

H1 to H3: Minority students will have greater levels of EI, PPE and EISD in comparison to ethnic majority students.

H4:

- EI to academic outcomes will be mediated by ASC and moderated by EG.
- PPE to academic outcomes will be mediated by ASC and moderated by EG.
- EISD to academic outcomes will be mediated by AISD and moderated by EG.



Methodology

Participants

154 local secondary school students, 86 minority students from a band 2 school, 68 majority students from a similar banding school (aged 16 to 19).

Measures

EI	PPE	ASC	EISD AISD
Positive attitudes towards ethnic group	Perceived parental views towards academic abilities	Students' construal of own academic confidence	Mismatch in characteristics students believe they / their ethnic group possess

Achievement	Motivation
Mathematical component of SAT examination	Intrinsic motivation and amotivation

Analyses

- Independent Samples T-Test (H1-H3)
- Moderated Mediation Analyses (H4)

Results

Table 2. Independent Samples T-Test for Ethnic Identity Among Ethnic Groups

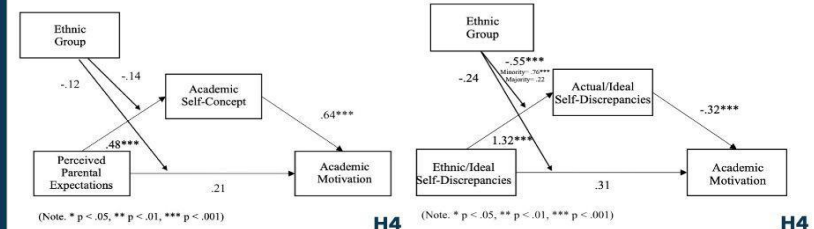
	F	Sig.	t	df	Sig.	Mean difference	SE difference	95% CI
Equal Variances Assumed	7.88	.006	.87	152	.387	.08	.09	(-.10; .26)
Equal Variances not Assumed	.90	150.72	.369	.08	.09			(-.10; .26)

Table 3. Independent Samples T-Test for Perceived Parental Expectations Among Ethnic Groups

	F	Sig.	t	df	Sig.	Mean difference	SE difference	95% CI
Equal Variances Assumed	7.88	.006	.87	152	.387	.08	.09	(-.10; .26)
Equal Variances not Assumed	.90	150.72	.369	.08	.09			(-.10; .26)

Table 4. Independent Samples T-Test for Ethnic/Ideal Self-Discrepancies Among Ethnic Groups

	F	Sig.	t	df	Sig.	Mean difference	SE difference	95% CI
Equal Variances Assumed	2.89	.092	-1.34	152	.183	-.12	.09	(-.30; .06)
Equal Variances not Assumed	1.38	151	.171	-.12	.09			(-.30; .06)



Discussion

H1 - H3 Significant differences in EI between ethnic minority and majority students; Higher EI among minority students.

H4

- Significant direct effect of EI on motivation (stronger effect shown in majority students) → **more examples of ethnic role models**
- Significant mediation of ASC between PPE and academic outcomes among all students → **expectations from parents to succeed noted in both groups**
- Significant indirect effects of EISD on motivation (stronger effect shown in minority students) → greater influence among students who may come into contact with **negative attributes of ethnic group**

Conclusion

- Higher EI levels in minority students, greater belonging with ethnic group.
- **Ethnic identity, ethnic/ideal self-discrepancies, and perceived parental expectations are notable psychosocial factors** relating to students' academic outcomes.

Implications:

Keep increasing ethnic self in minority students:

- Growth mindset Interventions → **increase incremental beliefs.**
- Frequent parent communication
- Promoting native language classes in ethnic minority education.
- Increase staff personnel of ethnic minority descent.

Second runner-up (U03) – Cooking for Others is Food for the Soul: Examining the Relationship between Prosocial Cooking and Psychological Well-being to the Self

Presenter: Mr. LAM Ching Yin Johnny, Miss WU Ruo Xi Hayley, Mr. CHOI Pui Hang Edmond, Mr. HUI Pui Hung Bryant

Affiliation: The Hong Kong Polytechnic University; City University of Hong Kong; The University of Hong Kong

Field: Social

Keywords: Prosocial behavior, Prosocial cooking, Well-being

Abstract:

Objective: The simple act of cooking at home has increased as a result of social distancing during the COVID-19 pandemic. Among the plethora of prosocial acts, cooking is generally accepted as prosocial behavior, and research has suggested that it encourages social engagement. These characteristics led to our belief that cooking for others, or what we propose as “prosocial cooking”, can provide possible benefits to individuals’ well-being. Therefore, this present research aimed to investigate the relationship and impact of prosocial cooking on individuals’ psychological well being.

Methods: Six self-developed items assessing the frequency of prosocial cooking, as well as existing measures on prosocial behavior and subjective well-being were tested among a community sample of 480 Hong Kong Chinese aged 18 to 64, stratified on gender and age. Correlational and hierarchical regression analyses were then conducted on the collected data. **Results:** We found that participants’ frequency of prosocial cooking correlated positively with their own subjective happiness, positive emotions, life satisfaction, and physical health. These positive correlations remained consistent in our hierarchical regression analysis, after controlling for the four following variables: age, gender, personality traits, and the Hong Kong Altruism Index.

Conclusions: The preliminary findings of our research provide initial suggestions that prosocial cooking may have positive effects on individuals’ psychological and physical well-being.

Cooking for Others is Food for the Soul: Examining the Relationship between Prosocial Cooking and Psychological Well-being to the Self

Johnny Ching Yin Lam^{1,2}; Hayley Ruoxi Wu¹; Edmond Pui Hang Choi³; Bryant Pui Hung Hui¹

¹Hong Kong Polytechnic University; ²City University of Hong Kong; ³University of Hong Kong, Contact: cylam369-c@my.cityu.edu.hk

Introduction

- Cooking for others has increased as a result of the ongoing COVID-19 pandemic.
- Research on cooking as a household activity mainly focused on its impact on familial bonding; no research effort has been put on examining the activity of cooking from the perspective of how cooking for others affects psychological well-being to the self.

Research Questions:

- RQ1:** To examine the relationship between prosocial cooking and psychological well-being during the COVID-19 pandemic;
RQ2: Examine the effect of prosocial cooking on psychological well-being after controlling for age, gender, personality traits and prosocial behavior.

RQ1: relationship between prosocial cooking & psychological well-being

Correlation table:

Table 1
Means, standard deviations, reliability coefficients

Variable	M	SD	1	2	3	4	5	6	7	8
1. Prosocial Cooking Frequency	2.45	1.62		.41**	.22**	.23**	.19**	.37**	.10*	-.02
2. Positive Emotions	2.55	0.72	.89		.41**	.37**	.35**	.36**	-.16**	-.14**
3. Subjective Happiness	4.18	1.12	.79	.79		.65**	.39**	.22**	.08	-.17**
4. Life Satisfaction	4.09	1.34			.93		.28**	.24**	.10*	.15**
5. Personality Traits (Agreeableness)	3.29	0.64				.64		.34**	.10*	.00
6. HKAI	4.31	2.68					.80		.10*	-.10*
7. Gender (1 = male, 2 = female)	1.56	0.50								.02
8. Age	26.99	11.79								

HKAI, the Hong Kong Altruism Index.
* $p < .05$.
** $p < .01$.
The reliability coefficients are found along the diagonal line.

Results

Correlation:

Participants' prosocial cooking frequency shares positive correlations with positive emotions ($r = 0.41$) and prosocial behavior ($r = 0.37$). Positive correlations were found with subjective happiness ($r = 0.22$), life satisfaction ($r = 0.23$), as well as the personality trait of Agreeableness ($r = 0.19$). It is also worth noting that the positive correlation with Gender ($r = 0.10$) suggests that the tendency of participating in prosocial cooking leans more towards females.

Hierarchical Regression:

Cooking frequency significantly predicts positive emotions ($\beta = 0.32$, $p < 0.001$), subjective happiness ($\beta = 0.13$, $p < 0.01$), and life satisfaction ($\beta = 0.14$, $p < 0.01$) after controlling for age, gender, personality traits and the Hong Kong Altruism Index.

Method

Four hundred and eighty Hong Kong Chinese aged 18 to 64 were recruited for a cross-sectional survey study.

Measures:

- Prosocial cooking frequency:* six self-developed items
Prosocial behavior: Hong Kong Altruism Index (Cheng et al., 2017)
Subjective well-being: Subjective Happiness Scale (Lyubomirsky & Lepper, 1999),
 Positive and Negative Affect Schedule (Watson et al., 1988)
Personality traits: mini-IPIP (Donnellan et al., 2006)

Measures for prosocial cooking and cooking habits (Examples):

- Please recall the number of times that you have done the following in the past week:*
 Make breakfast (including making bread) for others
 Make lunch (including lunchbox) for others
 Make afternoon tea (e.g. scones, sandwiches, tea) for others

RQ2: effect of prosocial cooking on psychological well-being after controlling for factors

Hierarchical regression table:

Table 2

Variable	Positive Emotions			Subjective Happiness			Life Satisfaction		
	Block1, β	Block2, β	Block3, β	Block1, β	Block2, β	Block3, β	Block1, β	Block2, β	Block3, β
Intercept	2.10***	2.76***	1.75***	3.81***	3.16***	1.30***	3.62***	2.82***	1.38***
Prosocial Cooking Frequency	.41***	.43***	.32***	.22***	.22***	.13**	.23***	.23***	.14**
Age		-.13**	-.12**		-.18***	.18***		-.16***	-.17***
Gender (1 = male, 2 = female)		-.20***	-.24***		.06	.02		.08	.05
Personality Traits (Agreeableness)			.26***			.34***			.20***
HKAI			.17***			.07			.13**
R ²	.17	.22	.33	.05	.08	.20	.05	.08	.14
ΔR^2	.17	.05	.11	.05	.03	.12	.05	.03	.06
F	96.10***	46.37***	48.78***	24.18***	14.35***	25.52***	26.69***	14.60***	17.08***
F _{change}	96.10***	18.08***	40.77***	24.18***	9.03***	38.85***	26.89***	8.06***	19.13***

HKAI, the Hong Kong Altruism Index.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Discussion

- Whilst the positive relationship between prosocial cooking and well-being is observable, prosocial behavior does not necessarily predict greater well-being linearly.
- High levels of prosociality may impose detrimental effects on well-being (e.g. Luoh & Herzog, 2002), with time as a metric for intensity (Post, 2005).
- The satisfaction of autonomy, competence and relatedness, proposed by the self-determination theory (Deci & Ryan, 2000), can help predict well-being.
- Future work should focus on examining the optimal level of cooking intensity/prosocial cooking that is beneficial to the self's psychological well-being; and
- Examine possible mechanisms in further explaining the effect of prosocial cooking on psychological well-being.

Acknowledgements:

This study was supported by the General Research Fund 2020/2021 of Research Grants Council, for the project of "Doing Good Online: More Well-Being Benefit for Help-Givers and Less Harm for Others" (#17608420).
 Cooking for Others is Food for the Soul: Examining the Relationship between Prosocial Cooking and Psychological Well-being to the Self. Departmental General Research Funds, Hong Kong Polytechnic University, 2021–2022.

Postgraduate Category

Winner's Abstracts and Posters

Winner (G14) - The unique and shared contributions of verbal and nonverbal relational reasoning to mathematical problem solving

Presenter: Mr. YIP Eason Sai-Kit, Dr. WONG Tin Yau Terry (supervisor)

Affiliation: The University of Hong Kong

Field: Developmental & Educational

Keywords: Relational reasoning, Representation, Mathematical problem solving

Abstract:

Previous research suggested that the manifestation of relational reasoning differs across representational systems (verbal and nonverbal). However, the contribution of relational reasoning ability in the two distinct representations to mathematics learning has not been investigated. In the current study, a sample of 230 sixth graders completed the nonverbal Test of Relational Reasoning-Junior (TORR-jr), the newly developed verbal Test of Relational Reasoning-Junior (vTORR-jr), and a mathematical problem-solving measure. The vTORR-jr showed good internal consistency and validity. Regression analyses revealed that relational reasoning ability in both nonverbal and verbal representations uniquely predicted children's mathematical problem solving, after controlling for their prior nonverbal intelligence, working memory, receptive vocabulary, and reading comprehension. The findings highlight the significance of both verbal and nonverbal relational reasoning abilities in mathematics learning. Meanwhile, the development of vTORR-jr opens a window to understand children's relational reasoning in verbal representations.



香港大學

THE UNIVERSITY OF HONG KONG

The unique and shared contributions of verbal and nonverbal relational reasoning to mathematical problem solving

YIP Eason Sai-Kit & WONG Terry Tin-Yau
The University of Hong Kong



Highlight

- Developed the junior version of verbal test of relational reasoning (vTORR-jr) to examine children's reasoning skills of relations in the verbal representation
- Examined the contribution of verbal and nonverbal relational reasoning to mathematical problem solving
- The newly developed vTORR-jr showed good reliability and validity
- Both verbal and nonverbal relational reasoning uniquely predicted mathematical problem solving

Introduction

Higher-order thinking and reasoning are involved in children's STEM development. One example is **relational reasoning**, including four distinct forms, namely analogy, anomaly, antinomy, and antithesis.

Relational reasoning has been linked to learners' mathematical achievement (Alexander et al., 2016; Zhao et al., 2021). While previous findings supported the importance of relational reasoning with the use of figural items, the contribution of **verbal** relational reasoning skills to mathematics learning remained unexplored.

To examine this relation, a **verbal test of relational reasoning** is needed, especially for the school-aged population (cf., Alexander & DRLRL, 2015). The current study therefore attempted to construct a measure to assess children's verbal relational reasoning.

In fact, the **representation systems** were found to influence the manifestation of relational reasoning (Kottmeyer et al., 2020). **Nonverbal** relational reasoning is considered to facilitate children to acquire deep understanding of structural relations within number systems (DeWolf & Holyoak, 2014), for example arithmetic principles (Yip & Wong, 2021).

On the other hand, **verbal** relational reasoning may be involved in mathematical word problem solving. During the solving process, representation of the problems, which requires solvers to compare and differentiate among problem types (Yip et al., 2020), may demand different forms of verbal relational reasoning.

Methodology

Participants: Sixth graders in mainstream primary schools in Hong Kong ($n = 230$; Mean age = 12.32 years old) from a longitudinal project on reasoning skills and mathematics learning

Procedures: Online individual assessment was conducted via Zoom in summer 2021. Participants were assessed on 1) verbal relational reasoning, 2) nonverbal relational reasoning, and 3) mathematical problem solving. Other correlates were assessed at earlier time points.

Methodology (Cont'd)

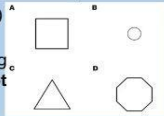
Measures:

- Verbal Test of Relational Reasoning-Junior (vTORR-jr; 32 items)
 - Modified from vTORR (Alexander & DRLRL, 2015)
 - 4 subscales, each assessing a form of relational reasoning and with 8 items
 - E.g., Instruction of analogical reasoning items: Select the sentence that describes the most **similar** situation

My sister cries after falling down to the ground.

- A. Ken can't help burst into tears after knowing he failed the exam.
- B. The rabbit still hops around happily after getting injured.
- C. Mandy suddenly runs back to the room after receiving the gift.
- D. The little cat behaves joyfully after seeing the toy.

Test of Relational Reasoning-Junior (TORR-jr; 32 items)

- Adapted from Alexander & DRLRL (2018)
 - Similar structure as vTORR-jr
 - E.g., Instruction of anomalous reasoning items: Select the shape that does **not belong**
- 
- Mathematical problem solving (72 items)
 - Mathematical Problem Solving subscale of WIAT-III (Wechsler, 2009)
 - Control variables
 - Nonverbal intelligence (Raven's progressive matrices)
 - Verbal and visuospatial working memory (Backward syllable recall & Backward Corsi block)
 - Receptive vocabulary (Translated version of PPVT-4)
 - Reading comprehension (Tong & McBride, 2016)

Result

1) Psychometric properties of vTORR-jr

Internal consistency:

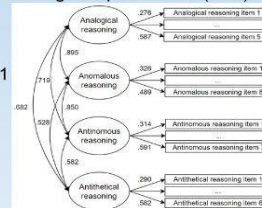
- Indicated by McDonald's omega (ω), while item selection criteria is based on Dunn et al. (2014)
- ω of 32-item (trimmed 26-item) measure = .788 (.803)

Convergent validity:

- Strong correlation with TORR-jr (.634)
- Moderate correlation with reading comprehension (.487)

Factor structure:

- CFA was conducted
- Good model fit
- $\chi^2(285) = 308.85, p = .161$
- CFI = .963
- RMSEA = .019
- SRMR = .055



Results (Cont'd)

2) Hierarchical linear regression

Adjusting for the effect of the control variables, both verbal and nonverbal relational reasoning uniquely predicted mathematical problem solving (explaining additional 2.0% and 2.9% of variance).

Step	Predictor	ΔR^2	β	Sig.
1	Control variables	.496	N/A	N/A
2a	Verbal relational reasoning	.049	.306	<.001
3a	Nonverbal relational reasoning	.029	.235	<.001
2b	Nonverbal relational reasoning	.057	.308	<.001
3b	Verbal relational reasoning	.020	.211	.001

Discussion

- Constructed a verbal measure of relational reasoning for children to extend the line of research
- vTORR-jr has sound psychometric properties
- Echoed with Kottmeyer et al. (2020)'s findings about the role of representational system in relational reasoning
- Novel results about the unique contribution of both verbal and nonverbal relational reasoning to mathematical problem solving
- Future directions include
 - Test the vTORR-jr on population with a wider age range
 - Longitudinal design to confirm the direction of influence
 - Examine the underlying mechanisms behind
 - 1) verbal relational reasoning and mathematical problem solving, e.g., word problem reasoning (Yip et al., 2020)
 - 2) nonverbal relational reasoning and mathematical problem solving, e.g., arithmetic principle understanding

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Runner-up (G02) - Do Couple-Based Interventions Show Larger Effects in Promoting HIV Preventive Behaviors than Individualized Interventions in Couples? A Systematic Review and Meta-analysis of 11 Randomized Controlled Trial

Presenter: Ms. FU Rong, Ms. HOU Jianhua, Ms. GU Yuzhou, Ms. YU Nancy Xiaonan

Affiliation: City University of Hong Kong

Field: Health psychology

Keywords: Couple-based intervention, HIV, Randomized controlled trials (RCTs)

Abstract:

Background

- Sexual transmission of HIV between two sexually intimate partners remains the primary cause of the HIV epidemic in many parts of the world.
- The past two decades have witnessed growing advancement in couple-based HIV prevention programs, while the development of HIV-prevention randomized controlled trials (RCTs) in key populations (i.e., injecting drug users, sex workers, gay men and other men who have sex with men [MSM], and transgender populations) and their sexual partners has become an overarching public health issue.
- To date, five systematic reviews and meta-analyses of HIV couple-based intervention and prevention studies have been published, which primarily provide qualitative and quantitative assessments of key intervention elements and study outcomes. However, there are two significant issues of heterogeneity limiting these studies: issues in the methodological design of empirical intervention studies and quality assessments of the meta-studies.

Aims

- (a) Estimate the relative magnitude of couple-based interventions over individual-level interventions' effects on HIV preventive behaviors of sexual-risk reduction through direct comparison of RCTs;
- (b) Identify potential moderators, particularly intervention- and relationship-specific factors of the intervention effect;
- (c) Assess the methodological and reporting quality of the intervention.

Methods

- Protocol registration: CRD42020222819, <https://www.crd.york.ac.uk/PROSPERO/>
- We searched five electronic databases with keywords combined participant, intervention-related terms, and disease-related terms.
- The outcomes of interest are HIV-preventive behaviors, including condom use, HIV testing, STI reduction, and ART adherence.
- A random-effects model was conducted using the odds ratio (OR) to estimate the

comparative effect of the couple-based intervention on HIV preventive behavior.

- We used a modified Physiotherapy Evidence Database (PEDro) scale to evaluate the study quality and a modified template for intervention description and replication (TIDieR) checklist to label whether the researchers have reported their intervention properly.

Results

- Eleven RCTs were included, comprising 3,933 couples in the intervention group and 7,125 individuals in the individual control group, predominantly in heterosexual couples from the USA and Africa.
- Couple-based interventions had a more significant effect in promoting condom use and HIV testing. Education levels of high school or above, residence in low- and middle-income countries, and intervention design incorporating HIV counseling and testing were associated with higher odds of condom use.
- The quality assessment analysis identified methodological and theoretical heterogeneity factors.

Recommendations

- We suggest that the allocation of quality assessment measures be executed by off-site third parties or by using sequentially numbered, sealed, opaque envelopes to establish better methodological and reporting quality.
- We recommend that interventions adapt a more socioculturally sensitive approach by considering both partners' cumulative education levels in coordination with other demographic characteristics of the local target populations, such as income level and sexual orientation.
- We also suggest that interventions may benefit from more thoroughly considering relationship dynamics in a broader theoretical context. One way to do this is to identify appropriate outcome measures based on the couple's interdependence within dyadic coping perspectives. Another method is to explore theories that integrate relationship dynamics and HIV prevention.
- Couple-based HIV prevention RCTs among key populations warrant further investigation.

Literature Review

- Bailout person: presumed innocent
- Bailment → Punishment: evoked Hopelessness (Bartlow & Finch, 2016; 41, 31, 2021) & Anxiety (Smith & Swamy, 2020) → increase re-offend rate (Shahid et al., 2020)

Bailout Support Program

- Bail support service: positive outcomes → Reduced re-offended (Wong et al., 2016)
- Increased bailout persons' well-being (Purpurt, 2015)

Objective of the present study:

- Discover Bail support & helping strategies
- Discover risk factors of bail
- Discover role of helping profession in HK

Methodology

Sampling Method: Open required at social media thought Qualtrics link (Sep - Dec 2021).

Participants: 27 males & 5 females from bailout group, 77 males and 59 females from Mainstream group participated

Materials: General anxiety disorder-7, Beck's hopelessness scale & Social Support Behavior Scale paired with Open question

Data Analysis: Independent Sample t Test & Linear Regression: quantitative data; Thematic Analysis: open-ended question

Research Hypothesis & Implication (Rejected)

H1. bailment → higher Anxiety

H2. bailment → higher Hopelessness

H3. bailment → higher Needs of Social Support

H4. bailment: lesser Social Support received

H5. Needs of Social support Vs Anxiety (Bail Gp)

H6. Social support receive Vs Anxiety (Bail Gp)

H7. Needs of Social support Vs Hopelessness (Bail Gp)

H8. Social support receive Vs Hopelessness (Bail Gp)

The Subjective Experience of bail process: The needs of bail support

Result	Independent sample t-Test	t	Cohen's d	n	M	Sd
Needs of Financial Support	4.26 ***	0.79	Bail Mainst ream	31 115	3.29 2.61	.71 .99
Needs of Advice/ Guidance	3.60 ***	0.63	Bail Mainst ream	31 116	3.78 3.34	.52 .84
Receive of Emotional Support	- 4.02 ***	0.81	Bail Mainst ream	31 108	2.71 3.40	.87 .83
Receive of Socializing Support	- 3.34 ***	0.71	Bailout Mainst ream	31 109	2.88 3.47	.80 .87
Receive of Practical Assistance	- 2.43 *	0.52	Bail Mainst ream	31 108	2.39 2.81	.76 .85

Linear Regression: Bailout Group	Anxiety		Hopelessness	
	B	Beta	B	Beta
Needs of Emotional Support	-.61	-0.69	.55*	1.25
Needs of Socializing Support	.63	0.71	-.54**	-1.24
Needs of Practical Assistance	-.82**	-0.88	.26	0.47
Needs of Financial Assistance	.60*	0.85	-.09	-0.25
Needs of Advice Guidance	.18	0.18	-.44*	-0.86

R² = .48, p > .05 for Anova

R² = .594, p = .035 for Anova

Author's name: Miss FUNG Ying Ka, Karina
Affiliation: Hong Kong Shue Yan University

Discussion

Anxiety and hopelessness vs Group

Anxiety and Hopelessness X affected by bailout

- social-cultural situation (Covid 19 & social movement) → emotional distress

Needs of social support (in-lined open question & lit review)

- Bailout group: **higher needs of Financial Support & Advice/ Guidance**
- Financial difficulty: Bail recognizance, fee for legal counsel (Kobay & Gupf, 2020)
- **Lower needs of Emotional & Socializing Support & Practical Support**
- Social difficulty: culture of remain silence → isolation

Social Support receive (in-lined lit review)

- Bailout group: **receive less social support in Emotional Support, Socializing Support, Practical Support and Advice/ Guidance**
- Social difficulty: culture of remain silence → isolation
- Open-question: Bailout persons: Poor help seeking behavior & presumption about professional support & negative coping strategies (eg isolation)

Needs of social support & Anxiety in Bailout group

- **More needs of Financial Support: more anxiety**
- financial difficulty + uncertainty → increase anxiety
- **Practical Assistanes: negatively associating the anxiety**
- represent family disconnection → decrease anxiety

Needs of social support & hopelessness in bailout group

- **More Needs of emotional support: more hopelessness**
- More needs → Suppress emotional distress + social isolation → help seeking behavior ↓ → receive social support ↓ → hopelessness ↑

Social support Receive & Anxiety & hopelessness in bailout group (in-lined open question & lit review)

- self-isolated, + poor help seeking behavior → less social support receive

Application & Conclusion

As a helping profession:

- **Psycho-education:** facilitate bailout persons' & societies' awareness of needs of social support
- **Elimination presumption** of professional support → increase bailout persons' social support receives
- **Facilitate positive coping** (community, seek help)
- **Multi-discipline support** (career guidance, emotional & counselling, profession support...) → reduce Criminogenic needs

Runner-up (G09) - The Effect of Co-caregivers' Dyadic Factors on Coparenting Relationships in Families with Children Aged 3-4

Presenter: Ms. WU Xiaoyuan

Affiliation: The Education University of Hong Kong

Field: Developmental / Family Psychology

Keywords: Coparenting relationship, Co-caregiver, Children aged 3-4

Abstract:

Objectives: The associations between the co-caregivers' dyadic factors, namely the generation, gender, and education level of the preschoolers' two primary caregivers, and their co-parenting relationships, were examined respectively in this study.

Methods: A total of 238 parents ($M = 34.03$ years old, $SD = 6.77$ years old) and 12 grandparents ($M = 60.42$ years old, $SD = 9.62$ years old) with preschoolers aged 3-4 from three first-level public kindergartens in Shanghai, China participated in this study. The informants should be one of the two primary caregivers. Caregivers reported information about the generation, gender, and education level of themselves and their co-caregiver. They also completed the revised Chinese version of the Coparenting Relationship Scale (CRS). One-way ANOVA and LSD-tests were conducted to examine the predicting effects of the three dyadic factors on the co-parenting relationships.

Results: Findings indicated that there were significant differences in different dimensions of co-parenting relationships regarding the generation, gender, and education level of the two primary caregivers. Specifically, regarding to the generation, the co-parenting support in the parent-parent dyads were significantly higher than the immediate and in-law parent-grandparent dyads ($F = 5.254$, $p < 0.01$); the co-parenting agreement in the parents-parents dyads were significantly higher than the immediate and in-law parent-grandparent dyads, as well as the immediate grandparent-grandparent dyads ($F = 8.242$, $p < 0.001$). Regarding to the gender, the co-parenting support and co-parenting agreement in the male-female dyads were significantly higher than the female-female dyads ($F = -2.715$, $p < 0.01$; $F = -2.118$, $p < 0.05$). Regarding to the education level, the co-parenting support and endorsed partner parenting in the high-high education level dyads were significantly higher than the high-middle and high-low education level dyads ($F = 2.519$, $p < 0.05$; $F = 3.924$, $p < 0.01$).

Conclusions: The present study revealed the predicting effects of the generation, gender, and education level of preschoolers' two primary caregivers on their co-parenting relationships. The finding informs the need for parents to bring up their young children in person. Moreover, external support from early childhood institutions as well as the government, especially for parents with lower education levels, is needed to enhance the quality of co-parenting relationships.



The Effects of Co-Caregivers' Dyadic Factors on Coparenting Relationships in Families with Children Aged 3-4

WU Xiaoyuan, PhD student, Department of Early Childhood Education, The Education University of Hong Kong; Email: s1139420@s.edu.hk



Introduction and Objective

Coparenting refers to the way parents coordinate their shared responsibility in the child-rearing process (McHale et al., 2002). According to Family System Theory, coparenting is an important family subsystem closely associated with child outcomes (Minuchin, 1985). In Chinese families with young children, **inter-generational parenting** is fairly common, leading to different combinations of the preschoolers' two primary caregivers (Li et al., 2016). However, few studies have looked into how their dyadic characteristics affected the coparenting relationships. The present study thus examined the associations between the co-caregivers' generation, gender, and education level, and their coparenting relationships, respectively.

Methods

● **Procedure:** One month after preschool entry, one of the K1 child's two primary caregivers reported the demographic information and the relationship with his/her co-caregiver.

● Measures

- **Demographics:** Generation, gender, and education level of both primary caregivers.
- The revised Chinese version of the **Coparenting Relationship Scale (CRS; Feinberg, 2012)** ($\alpha = .917$ for total scale; $\alpha = .788$ to $.880$ for subscales)

χ^2/df	GFI	CFI	NFI	TLI	IFI	RMSEA
2.123	.851	.896	.822	.884	.898	.064

● **Data analysis:** One-way ANOVA and LSD-tests in SPSS 23.0

● Participants

Dyadic factors I: Generation	① Parents (33.6%)	Dyadic factors II: Education Level*	① High-High (34.4%)
	② Immediate Parent-Grandparent (38.4%)		② High-Middle (42.4%)
③ In-law Parent-Grandparent (25.6%)	③ High-Low (13.6%)	Dyadic factors III: Gender	③ Middle-Middle (7.6%)
④ Immediate Grandparent (2.4%)	④ Middle-Low (2.0%)		
		① Male-Female (48%)	② Female-Female (52%)

In total, **238 parents** (M = 34.03 years, SD = 6.77 years) and **12 grandparents** (M = 60.42 years, SD = 9.62 years) with preschoolers aged 3-4 from three first-level public kindergartens in Shanghai, China

* For education level, low = secondary school or below, middle = post-secondary education, and high = bachelor's or above.

Results

Dimensions Dyadic factors	Coparenting Support	Coparenting Agreement	Endorse Partner Parenting
Generation	Ps > Immediate and In-law P-G (F = 5.254, p < 0.01)	Ps > Immediate and In-law P-G, and Immediate G-G (F = 8.242, p < 0.001)	NS
Gender	M-F > F-F (F = -2.715, p < 0.01)	M-F > F-F (F = -2.118, p < 0.05)	NS
Education Level	H-H > H-M and H-L (F = 2.519, p < 0.05)	NS	H-H > H-M and H-L (F = 3.924, p < 0.01)

* Ps = Parents, P-G = Parent-Grandparent, G-G = Grandparent-Grandparent; M-F = Male-Female, F-F = Female-Female; H-H = High-High, H-M = High-Middle, H-L = High-Low. For Coparenting Conflict, no significant differences were found in groups with different dyadic characteristics in terms of generation, gender, and education level.

- Parents showed relatively higher levels in support and agreement;
- Male-female dyads were more likely to be consistent and support each other;
- Two higher-educated co-caregivers are strong guarantee for higher quality coparenting relationship.

Conclusion

There were significant differences in three of the four dimensions of coparenting relationship regarding the **generation, gender, and education level of the two primary caregivers.**

Implications

- ✓ **Father and mother**, as a combination with a higher level of coparenting relationship, are suggested to bring up their young child **in person.**
- ✓ **External support** from early childhood institutions as well as the government, especially for **caregivers with lower education levels**, is needed to enhance the quality of coparenting relationships.

Merit (G07) - REDUCING STRESS AND ENHANCING WELL-BEING IN 6-9 GRADES IN DONGGUAN: THE ROLE OF SELF-REGULATION

Presenter: Ms. SU Xia

Affiliation: The Education University of Hong Kong

Field: Educational

Keywords: Self-regulation, Perceived stress, Well-being

Abstract:

Objectives: Adolescents are experiencing stress from a variety of sources. Helping students regulate their stress and improve their sense of well-being has been a goal of mental health education in China in recent years. Improving self-regulation seems to be an effective way to regulate well-being. The purpose of this study was to confirm, among adolescents in the Dongguan area, 1) whether perceived stress is related to well-being, 2) whether self-regulation is related to well-being, and 3) whether self-regulation can act as a moderator to help reduce stress and thus increase well-being.

Methods: Subjects were 604 primary and secondary school students in 6-9 Grades in Dongguan (44% female) who filled out a three-part questionnaire: the personal well-being Scale (Kern et al, 2016), The Adolescent Self-Regulatory Inventory (Moilanen, 2006), The Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983).

Results: Results showed that 1) self-regulation was positively related to adolescents' well-being ($r=0.538$), 2) perceived stress was negatively related to well-being ($r=-0.081$), and 3) self-regulation could not act as a moderator to regulate the relationship between stress and well-being.

Conclusion: Well-being can come from different sources, and our education should aim to improve students' inner regulation in addition to creating a good social atmosphere and good relationships for adolescent students. For the Dongguan area, promoting self-regulation in early adolescent students may be an important way to promote their well-being.

Reducing stress and enhancing well-being in 6-9 grades in Dongguan: The role of Self-Regulation

SU Xia & Dr CHUNG Yiu Bin, The Education University of Hong Kong

Background & Aim

Adolescents are experiencing stress from a variety of sources, and the average stress index reported by Chinese students is higher than the internationally reported values. Helping students regulate their stress and improve their well-being has been a goal of mental health education in China in recent years. In this study, we explore the relationship between stress index, self-regulation, and well-being among adolescents in Dongguan area. The results suggest that promoting self-regulation among early adolescent students may be an important way to promote their well-being.

Materials and methods

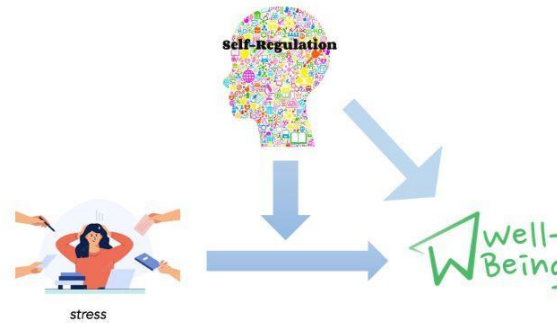
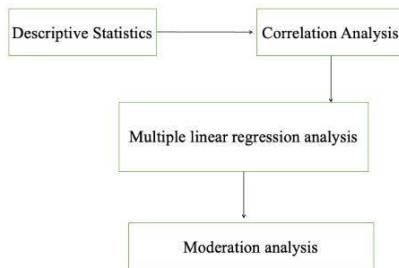
Study Design

- Questionnaire survey
- Subjects: 604 students from Grade 6 to 9 in Dongguan

Measures

- Personal well-being Scale
- Perceived Stress Scale
- Self-Regulatory Inventory

Data/Analysis



Results

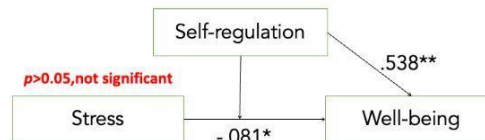
Correlation Coefficients for Well-being, self-regulation and perceived stress

	Well-being	Self-regulation	Perceived Stress
Well-being	1		
Self-regulation	.538**	1	
Perceived Stress	-.081*	.166**	1

Moderation analysis on the prediction of wellbeing by stress*self-regulation

Model	coeff	se	t	p
Constant	50.0156	15.6371	3.1985	.0015
Stress	-0.5430	0.3959	-1.3717	.1707
Self-regulation	0.5239	0.1212	4.3228	.0000
Int_1	0.0014	0.0030	0.4701	0.6385

Summary of results



Discussion

Comparison with Previous Studies

Comparison of means between the present study and previous studies

	The present study			Previous studies		
	N	M	SD	N	M	SD MD
Well-being	604	3.70*	0.68*	Zeng & Kern (2019) 17,854	3.90 0.73	-0.20
Stress	604	25.45*	7.96*	Xu et al. (2019) 431	25.0 7.53	+0.42

Comparison of correlation coefficient

	The present study		Previous studies	
	Correlation coefficient	Correlation coefficient	Correlation coefficient	Correlation coefficient
Stress--Well-being	-0.081*	Klussman et al (2021)	-0.57**	
Self-regulation--Well-being	+0.538**	Yang, Asbury & Griffiths (2018)	+0.23**	

Conclusions

why self-regulation failed to as a moderator:

- The strength of the relationship between perceived stress and well-being is low. --Differences in the effect of individual perceptions of stress on well-being.
- The relationship between self-regulation ability and well-being showed a strong correlation.

Implications

- Improving students' self-regulation is an important way to help them improve their well-being.
- Focus on excessive stress among youth in developed areas.

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Merit (G10) - When and How to Share? The Role of Inspiration

Presenter: Miss XIA Weiwei, Dr. LI Man Wai Liman (supervisor)

Affiliation: The Education University of Hong Kong

Field: Social Psychology

Keywords: Inspiration, Social Learning, Creativity

Abstract:

Sharing what we know with others has an important role in facilitating people's social learning and communication across settings. To advance the understanding of when and how people share, the present study examined the role of inspiration, an emotion that contains strong motivational elements, on people's sharing tendencies in three studies. In Study 1, participants (N = 58) were presented with different inspirational messages and positive messages and were asked to indicate their perceived inspiring level and motivation to share for each presented message. The results showed a positive association between the inspiring level of a given message and its likelihood of being shared. In Study 2, to carefully controlling for the effect of positivity, we systematically manipulated the level of positivity of the presented messages. Participants (N = 69) were presented with positive messages and non-positive messages and indicated their perceived inspiration and sharing tendencies. We replicated the findings obtained in Study 1, which showed that being inspired predicted greater motivation to share the messages with others. In Study 3, to further provided evidence that inspiration shaped how people share, we examined whether inspirational information would be shared in a more diverse way. Participants (N = 41) were presented with different messages and asked to create a post for sharing the presented messages on social media platforms. The results showed that participants shared inspiring messages in a more innovative way than when they shared less inspiring messages. The present research demonstrates the important role of inspiration in affecting when and how people share with others. Being inspired motivates people to share the relevant message in a more diverse way, which highlights the importance of inspiration in promoting the transmission of information as well as innovation during the transmission.



When and How to Share? The Role of Inspiration

Weiwei Xia & Liman Man Wai Li
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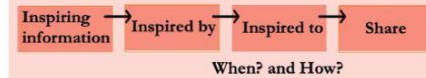
Objective:

Sharing what we know with others has an important role in facilitating people's social learning and communication across settings. To advance the understanding of when and how people share, the present study examined the role of inspiration, an emotion that contains strong motivational elements, on people's sharing tendencies in three studies.

Introduction

● Inspiration and Sharing

- Definition of Inspiration: "a breathing in or infusion of some idea, purpose, etc., into the mind; the suggestion, awakening, or creation of some feeling or impulse, especially of an exalted kind." (Simpson & Weiner, 1989, p.1036)
- Process of Inspiration: "inspired by": an arousal process; "inspired to": a motivation process.
- A positive relationship between inspiration and sharing was found (Trash et al., 2003).



● Inspiration and When to Share

- Research gap: less know the effect of inspiration on the transmission of expression (Chadborn & Reysen, 2016).
- Motivation is explained when people share: Social exchange theory: people tend to share their expertise under the evaluation of the potential rewards (Emerson, 1976).
- Inspiration is a motivation factor:
 - Social comparison theory: "I want to become like him." (Taylor & Lobel, 1989)
- Inspiring articles/messages were retransmitted on social media platforms (Ji et al., 2019).

● Inspiration and How to Share

- Research gap: less know how inspiration affects the way of sharing information.
- Inspirational trait positively predicted self-rated creativity (Thrash & Elliot, 2003).
- Higher levels of inspiration during the writing process wrote higher-level creative products (Thrash et al., 2010).
- Inspiration mediates the relationship between creative ideas to completed products (Thrash et al., 2010). It plays an important role in the design and problem-solving process, which requires high demand for creativity.

Hypothesis

- **H1:** People would be more likely to share inspiring messages (vs. less inspiring messages) with the level of positivity controlled.
- **H2:** People would share inspirational information in a more diverse way than when they share less inspirational information.

Study 1: When to share?

● Method

- Participants: 58 undergraduate students (44 females $M_{age} = 22.14, SD = 3.31$)
- Materials and procedure:
 - Selected 100 inspiration/positive messages in Google.
 - Sample messages: "You don't have to be great to start, but you have to start to be great."
- Measurement: rated each message: 1) How inspiring is this statement? 2) How positive is this statement? 3) How likely will you share it to others? (from 1 to 5)

● Results

- H1 was supported.
- Effect of inspiration on sharing: $b = 0.63, p < .002$
- Effect of positivity on sharing: $b = 0.40, p < .001$
- No significant interaction.

● Limitation

- Most messages are positive; measures may not fully capture the experiences of inspiration. Study 2 is needed to address these issues.

Study 2

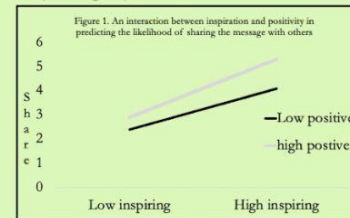
● Method

- Participants: 69 undergraduate students (55 females $M_{age} = 22.77, SD = 5.04$)
- Materials and procedure:
 - Selected 20 motivational/positive messages, and 20 anti-motivational/negative messages
 - Sample messages:
 - Motivational message: "Wake up with determination. Go to bed with satisfaction."
 - Anti-motivational message: "It's ridiculous to say that life hurt you. Life even doesn't know who you are."
- Measurement: rated each message: 1) I experience inspiration; 2) This message I read inspires me; 3) I am inspired to do something; 4) I feel inspired; 5) How positive is it? 6) How negative is it? 7) How likely will you share this message to others? (from 1 to 7)

Study 2

● Results

- H1 was supported.
- Interaction between inspiration and positivity was significant in predicting sharing: $b = 0.66, p < .001$
- This pattern was stronger for more positive messages, $b = 0.77, p < .001$, than for less positive messages, $b = 0.56, p < .001$ (see the Figure 1)



Study 3: How to share?

● Method

- Participants: 54 undergraduate students (28 females $M_{age} = 21.24, SD = 2.91$)
- Materials and procedure:
 - Selected 8 messages from Study 1
 - 4 messages with a high inspiring rating
 - 4 messages with a low inspiring rating
 - All messages maintained a similar level of positive rating (no significant differences in positivity).
 - Sample messages:
 - High inspiring message: "Your attitude determines your direction."
 - Low inspiring message: "Keep your face always toward sunshine, and shadows will fall behind you."
- Measurement:
 - A sharing task:

Statement: Keep your face always toward the sunshine, and shadows will fall behind you.

Now you want to share it on your social media platforms.

Please tell us how you will share each presented message via typing in the provided space.
- Coding of the reproduced messages by two coders:
 - "How similar the reproduced message was to the original message?" (The lower scores indicate that the message was shared in a more diverse way; from 1 to 7)
 - How inspiring is the reproduced message? How positive is the reproduced message? (from 1 to 7)

Study 3: How to share?

● Results

- H2 was supported.
- High inspiring messages were reproduced in a less similar, i.e., more diverse way, $b = -0.77, p < .001$, than low inspiring messages.
- Examples of reproduced messages:
 - Presented original message: Your attitude determines your direction.
 - Reproduced message in less similarity: "A+T+T+I+U+D+E=100"
 - Reproduced message in high similarity: "Your attitude determines your direction!"

Discussion

● Conclusion

- Studies 1 and 2 supported H1: being inspired positively related to the tendency of sharing to others.
- Study 3 supported H2: being inspired tend to share information in a more diverse way.
- Implication
 - Extend previous studies:
 - Explained the effect of inspiration in the information-sharing process.
 - Provided insight into promoting information sharing by enhancing the level of inspiration.
 - Demonstrated the important role of inspiration on creativity.

● Limitations further direction

- Findings based on self-reported responses.
- The unbalanced gender ratio in three studies.
- Studies were conducted in a single culture.
- An experimental study to replicate the findings is needed in the future.
- Future studies should recruit community samples with more diverse sampling characteristics.
- Cultural factors should be considered in the future.

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Professional Category

Winner's Abstracts and Posters

Winner (P06) - Improving university students' generic skills and attitudes towards aging through a life-review interview

Presenter: Dr. WANG Zhenlin, Dr. LI Tianyuan, Dr. TONG Xiuhong, Miss ZOU Meiquan

Affiliation: The Education University of Hong Kong; The Chinese University of Hong Kong, Shenzhen

Field: Educational and developmental

Keywords: Life-review interview; Generic Intended Learning Outcomes (GILO); Attitudes towards ageing

Abstract:

Students in lifespan development courses are limited by their age and personal experience to engage in experiential learning. Conducting life-review interviews with senior citizens could provide university students with a rich and valuable vicarious development experience. The current study developed a standalone multimedia e-learning package that guides students to conduct life-review interviews and creatively summarize the interviewee's life story, and investigated the effectiveness of the life review interview task and the e learning package in improving university students' generic skills and attitudes toward ageing.

In a cluster randomized controlled design, students registered in psychology and education-related courses from two universities were assigned to either an experiment group or a control group. Students from both groups participated in an online survey both at the beginning and at the end of the course. Students from the experiment group had access to the e-learning package during the course to help them conduct a life-review interview with an elder adult and summarize the interviewee's life story creatively. Out of 122 students involved, 95 participated in the pretest and 70 participated in the posttest, with 43 participated in both, including 22 in the experiment group and 21 in the control group. In addition, 5 students from the experiment group were invited to a focus group interview after they had submitted their course work. Generic skills were assessed using items from a validated instrument. Attitude towards ageing was measured using the Polizzi Aging Semantic Differential.

Consistent to previous research, the generic skills of problem solving, critical thinking, and creative thinking clustered together to form a construct of higher-order thinking skills, with intercorrelations ranging from .581 to .736. Similarly, ethical decision-making and global perspective were highly correlated, $r = .633$, and formed another construct labeled students' attitudes. Repeated measure ANOVAs showed that the experiment group gained more in higher-order thinking skills (experiment group: pre-test mean = 28.00, SD = 1.49, post-test mean = 28.57, SD = 1.38; control group: pre-test mean = 31.11, SD = 1.56, post-test mean = 28.53, SD = 1.45; $F = 5.67$, $p = .02$), students' attitude (experiment group: pre-test mean = 25.1, SD = 0.82, post-test mean = 25.24, SD = 0.79; control group: pre-test mean = 26.5, SD = 0.86, post-test mean = 23.9, SD = 0.83; $F = 7.78$, $p = .01$) and attitude toward ageing (experiment group: pre-test mean = 4.44, SD = 0.17, post-test mean = 5.1, SD = 0.17; control group: pre-test mean = 4.71, SD = 0.20, post-test mean = 4.6, SD = 0.20; $F = 12.27$, $p = .001$) than the control

group. Focus group interview revealed that students gained renewed appreciation of their interviewees' rich life experience and wisdom.

Although replications with a larger sample is warranted, the current study revealed the experiential learning utility of life review interview in life span development courses. Our e-learning package is available for free download for anyone interested in using it in psychology and education-related courses, or interested in life review interview itself.



Improving university students' generic skills and attitudes towards aging through a life-review interview

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*The Education University of Hong Kong; #The Chinese University of Hong Kong, Shenzhen



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The Chinese University of Hong Kong, Shenzhen

Introduction

Students in lifespan development courses are limited by their age and personal experience to engage in experiential learning since substantial development experience stretches over the lifespan. Conducting life-review interviews with senior citizens could provide university students with a rich and valuable vicarious human development experience. The current study developed a standalone multimedia e-learning package that guides students to conduct life-review interviews and creatively summarize the interviewee's life story, and investigated the effectiveness of the life review interview e-learning package in improving university students' generic skills and attitudes toward ageing.

Background

Life-review interview is a process of **reviewing, organizing, and evaluating** the overall picture of one's life to achieve **integrity** by seeing one's own life as a **unique** story. It adopts **structured or semi-structured interview** to guide a person to **recall, reflect on, and synthesize** one's life journey.

Conducting life-review interviews could help university students draw from the rich life stories of senior citizens and contextualize their understanding of life-span development theories and concepts.

During the life-review process, students also have the opportunity to practice a variety of **generic skills such as problem-solving, communication, social interaction, and ethical decision-making**.

The e-learning package and website purposefully designed for this project can be used as an assessment task or supplementary learning material in different psychology and education-related courses.

- It includes
 - An **audiovisual** introduction of the life-review interview guidelines
 - Examples and activities** of a life-review interview
 - Guideline** for course instructors on how to integrate the life-review interview into education and psychology related courses.

Design, participants and measures

Design: In a cluster randomized controlled design, students registered in psychology and education-related courses were assigned to either an experiment group or a business-as-usual control group. Participants finished a survey before and after the course, and 5 students from the experimental group participated in a focus group interview.

Participants: One hundred and twenty-two (age range: 18 – 41 years; 70.5% females) students from the Chinese University of Hong Kong, Shenzhen and the Education University of Hong Kong participated in the current research. Among them, 43 students completed both the pretest and the posttest, including 22 from the experimental group and 21 from the control group. The participants were undergraduate and post-graduate level students enrolled in developmental psychology and parenting courses in semester 1 or 2 of 2021-2022.

Measure:

- Students' Generic Intended Learning Outcomes (GILOs) were measured using an instrument developed by the Centre of Learning and Teaching Technology (LTC) of The Education University of Hong Kong (EdUHK) (Xie et al., 2014). The α ranged from .67 to .90 in the current study.
- Students' attitude towards older people was measured using the Attitude towards Ageing (ATA) scale (Polizzi, 2003). The α was .90 in the current study.

Results

	Time	Experimental group			Control Group			Group Time			
		N	Mean	Mean Gain	SD	N	Mean	Mean Gain	SD	F	p
Higher-order thinking skills	pre-test	28	1.49		31.11	1.56					
	post-test	21	28.57	0.57	1.38	19	28.53	-2.58	1.45	5.67	0.02
Students' Attitude	pre-test	25.1	0.82		26.5	0.86					
	post-test	21	25.24	0.14	0.79	19	23.9	-2.53	0.83	7.78	0.01
Attitude toward Aging	pre-test	4.44	0.17		4.71	0.20					
	post-test	21	5.1	0.66	0.17	16	4.6	-0.11	0.20	12.27	0.001

In the focus group interview, students commented that the life-review interview gave them a chance to understand the older adults better, form a closer relationship, and foster further interaction beyond the interview. Moreover, they also believed their higher-order thinking and social interaction skills improved during the interview. Students considered the ELP as a helpful and efficient tool to gain more knowledge about the life-review interview.

Discussion and conclusion

Students in the experimental group benefited from e-Learning package and the newly incorporated assessment task of a life-review interview. They performed better in generic skill measures and attitude towards aging than the control group, and gave very positive feedback on the effectiveness of the e-learning package and the learning experience in the focus group interview. The lecturers' feedbacks also indicated that they performed well in assessment tasks.

The older adults who agreed to the life review interview with students had a chance to review their life story and connect with the young students, most of who were their children or grandchildren. Our RA's follow up interview with these older interviewees revealed that they believed the life review interview experience was therapeutic.

The e-learning package helped to situate student learning in a real-life context and to assess student learning in an ecologically sound manner.

It is noteworthy that the control group performed worse at the end of the semester on higher-order thinking skills and students' attitude than the beginning of the semester, resonating with Loyalka et al.'s (2021) finding on Chinese university students' skill level decline over the college years. Future research is warranted.

Free downloadable resources

E-Learning package:
<https://360.articulate.com/review/content/93562757-2b0e-4110-b668-6fb8309b58d6/review>

Website: <https://lifereview0.wikisite.com/my-site>

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Runner-up (P01) - The Mediating Role of Self-Esteem in the Relationship Between Hope and Subjective Well-Being During the COVID-19 Pandemic

Presenter: Mr. HUANG Qi Lu Louis, Dr. CHAN Cheong Yu Stephen

Affiliation: The University of Hong Kong; Caritas Institute of Higher Education

Field: Positive Psychology; Educational Psychology

Keywords: Hope, Self-esteem, Subjective well-being

Abstract:

The COVID-19 pandemic has negatively influenced individuals' physical and mental health, especially for students who have been experiencing and adapting to a different mode of learning. Although research has identified the adverse effects of COVID-19 on subjective well-being, it has yet to provide insights into how it might be protected. Previous studies have shown that self-esteem and hope could play an important role in maintaining one's mental health under unfavourable situations. However, the understanding of the mechanism among these factors is limited. Based on the notion of Fredrickson's broaden-and-build theory, hopeful people tend to evaluate themselves positively, which further elicits more positive thinking and satisfaction. Therefore, we hypothesised that hope would be associated with subjective well-being through enhancing self-esteem.

This study examines the relationship between hope, self-esteem and subjective well-being (life satisfaction, and positive affect). Specifically, the potential mediating role of self-esteem in association with hope and subjective well-being in Chinese university students is investigated. Three hundred and fifteen university students participated in the study. Two hundred and eleven were female (67%), and the average age was 22.08 (SD = 2.74). Target measures were collected in a self-administered questionnaire using the Rosenberg Self-Esteem Scale, Dispositional Hope Scale, Positive Subscale of the Positive and Negative Affect Schedule, and Satisfaction with Life Scale.

Pearson correlation analysis revealed that hope, self-esteem, and subjective well-being variables were significantly positively associated. Bootstrap analyses with a 10,000 sampling rate and 95% confidence interval were conducted to examine the mediating role of self-esteem in the association between hope and subjective well-being. Results indicated that self-esteem partially mediated the effects of hope on life satisfaction, and positive affect. These findings supported our hypothesis and extended the understanding of how individuals' hopeful thinking contributes to their subjective well-being, by boosting positive attitudes toward themselves, especially during a time of great suffering. Practitioners and educators are suggested to strengthen students' hope and self-esteem. These may help sustain university students' mental health, and prepare them for coping with the challenges during hard times and in the post-pandemic world.

The Mediating Role of Self-Esteem in the Relationship Between Hope and Subjective Well-Being During the COVID-19 Pandemic

Mr. HUANG Qi Lu, Louis
The University of Hong Kong

Dr. CHAN Cheong Yu, Stephen
Caritas Institute of Higher Education

INTRODUCTION

- The COVID-19 pandemic has negatively influenced individuals' physical and mental health around the world
 - especially for students who have been experiencing and adapting to a different mode of learning.
- Although research has identified the adverse effects of COVID-19 on subjective well-being, it has yet to provide insights into how it might be protected.
- Previous studies have shown that
 - hope is positively associated with subjective well-being (e.g., Pleeging et al., 2021)
 - better subjective well-being is found among individuals with high self-esteem (e.g., Du et al., 2017)
- Self-esteem and hope might play an important role in maintaining one's mental health under unfavourable situations (e.g., Li et al., 2020; Snyder, 2002)
 - However, the understanding of the mechanism among these factors in university students is limited.
- Based on Fredrickson's (2001) broaden-and-build theory
 - hopeful people tend to evaluate themselves positively, which further elicits more +ve feelings & satisfactions
 - Self-esteem may act as a mediator between hope and subjective well-being.

OBJECTIVES

- Examines the relationship between hope, self-esteem and subjective well-being (life satisfaction, and positive affect).
- Investigates the potential mediating role of self-esteem in association with hope and subjective well-being in Chinese university students.

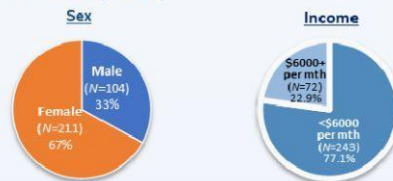
HYPOTHESES

- Positive associations are expected among hope, self-esteem and subjective well-being (life satisfaction, and positive affect).
- Hope would be associated with subjective well-being through enhancing self-esteem.

MATERIALS & METHODS

Participants' characteristics

- Target Population: Chinese university students in HK
- Participants: 315 undergraduate students
- Age (mean ± SD): 22.08 ± 2.74 years old
- Expenditure (1 Very Insuff. - 5 Very Suff.): mean = 3.16 (SD = .99)



Research Design

- Quantitative research method (Non-experimental, cross-sectional)

Procedures

- Data collection: Self-reported online survey (both Chi & Eng available)
- Recruitment: Convenience sampling
- Duration: February 2021 - July 2021
- Questionnaires:
 - Socio-Demographic Information (For controlling potential confounders)
 - 4 validated measures (Likert-type scales)

Table 1. Reliability of Four Self-Reported Measures

Variables	Measure	No. of items	Mean	SD	Reliability in the present study (α)
Hope	Dispositional Hope Scale (DHS)	12	5.01	1.28	.90
Self-esteem	Rosenberg Self-Esteem Scale (RSES)	10	2.48	.48	.86
Positive Affect	Positive and Negative Affect Schedule (PANAS) – Positive Subscale	10	2.74	.67	.88
Life Satisfaction	Satisfaction with Life Scale (SWLS)	5	3.87	1.20	.86

RESULTS

Pearson correlation analysis

- Hope, self-esteem, and subjective well-being variables were significantly positively associated.

Table 2. Correlation table among all measures with SWLS

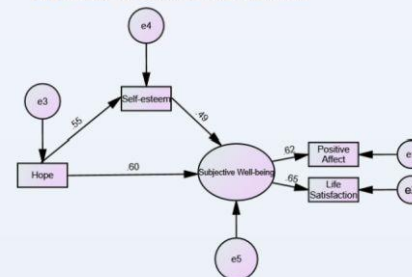
	Sex	Income	Expenditure	Hope	Self-Esteem	PA	SWLS
Age	-.08	.40***	-.15**	.10	.09	.03	.02
Sex		-.18**	.15**	-.05	-.01	-.13*	.03
Income			.02	.12*	.09	.06	.00
Expenditure				.17**	.20***	.13*	.31***
Hope					.55***	.52***	.58***
Self-esteem						.52***	.52***
PA							.40***

* $p < .05$, ** $p < .01$, *** $p < .001$

PA = Positive Affect, SWLS = Life Satisfaction

Mediation analyses

- Examine the mediating role of self-esteem in the association between hope and subjective well-being.
 - Hayes' (2013) PROCESS macro for SPSS (Ver. 4.0)
 - Bootstrap analyses w/ 10,000 sampling rate & 95% CI
 - Expenditure is controlled as a covariate



- Results indicated that self-esteem partially mediated the effects of hope on life satisfaction, and positive affect ($b = .27$, $p < .001$, 95% CI = [.19, .38]).

DISCUSSION & IMPLICATIONS

Hope, Self-esteem & Subjective Well-being

- Findings supported our hypothesis and extended the understanding of how individuals' hopeful thinking contributes to their subjective well-being.

Application of Broaden-and-Build Theory

- When facing adversity, hopeful individuals may continue viewing themselves positively and worthy.
- This positive attitude toward themselves may broaden their scope of attention and motivate them to explore the resources and positive things in life.
- As a result, they are more easily to feel happier and satisfied.

Hope & Self-esteem should be promoted and fostered

- Practitioners and educators are suggested to implement various techniques or interventions to strengthen students' hope and self-esteem.
- These may help sustain university students' mental health and prepare them for coping with the challenges during hard times and in the post-pandemic world.

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Runner-up (P03) - A Quest for the Essence of Trust in the Workplace of our Societies – A Meta analysis of Integrity Testing for Predicting Workplace Deviance across Industries and Countries in the Past 50 Years

Presenter: Ms. LAU Wing-Man Rebecca

Affiliation: Psychological Services Group of the Hong Kong Police Force

Field: Industrial-Organizational

Keywords: Integrity testing, Meta analysis, Cross-cultural

Abstract:

Trust is a cornerstone of our societal well-being. While in the workplace, integrity is an essence of trust. “Integrity” is originated from the Latin adjective “integer”, which implies “wholeness” (Monga, 2016) and is defined as “the quality of moral consistency, honesty, and truthfulness with oneself and others” in the APA dictionary of Psychology (American Psychological Association, 2020). The present research aims to inquire about this essence of trust at work by reviewing findings of integrity testing across industries and countries in the past 50 years. The current meta-analysis included a total of 150 independent samples with a pooled sample size of 67016. Integrity tests were coded into the types of overt tests, covert tests, biodata, organizational measures, value/moral reasoning/situational judgement tests, integrity-related cognitive ability tests, and novel measures. The criterion measures of workplace deviance included counterproductive work behaviours (CWB), unethical pro organizational behaviours (UPB), and other workplace deviant behaviours (WDB). Results indicated that all the integrity tests analysed were significant in predicting workplace deviance, with an overall mean validity estimate corrected for indirect range restriction and measurement error as .43 (95% CI [.32; .52]; $p < .001$). Among the tests, the value-related tests and cognitive ability tests indicated relatively large validity estimates of .60 (95% CI [.41; .75]; $p < .001$) and .65 (95% CI [.53; .74]; $p < .001$) respectively. The relationship between integrity tests and workplace deviance was found to be significantly moderated by the type of integrity test, industry, country, and criterion source. The effect size of integrity tests was largest in predicting deviance in the military and law enforcement sector, and relatively large in the work samples of Canada, Germany, Israel, Romania, and the United States. However, the moderating effects of the nature of deviance, validation sample, validation strategy, publication status, medium of test, and gender, were non-significant. New insights and comparisons with previous meta-analytic findings were discussed. In sum, the present findings provided unique empirical and practical contributions. Empirically, it compared the corrected validity estimates of a wide range of integrity tests that predict various workplace deviant behaviours while upholding the methodological rigor of previous meta-analyses. Practically, it investigated important moderators for better generalization and application of the ethical uses of integrity testing in real work settings. In fact, this is the first meta-analytic review on integrity testing that includes Chinese studies and unethical pro-organizational behaviours. The study is a one of its kind that aims to provide a more comprehensive and updated review on integrity test findings across industries and countries in the past 50 years.

A Quest for the Essence of Trust in the Workplace of our Societies – A Meta-analysis of Integrity Testing for Predicting Workplace Deviance across Industries and Countries in the Past 50 Years

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Keywords: Psychological assessment, pre-employment selection, cross-cultural, counterproductive work behaviours, unethical pro-organizational behaviours, workplace ethics

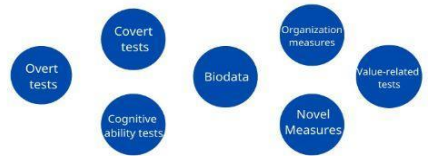
Background

Trust is a cornerstone of our societal well-being. While in the workplace, integrity is an essence of trust. "Integrity" is originated from the Latin adjective "integer", which implies "wholeness" (Monga, 2016) and is defined as "the quality of moral consistency, honesty, and truthfulness with oneself and others" in the APA dictionary of Psychology (American Psychological Association, 2020). The present research aims to inquire about this essence of trust at work by reviewing findings of integrity testing on predicting workplace deviance. This meta-analysis is a one of its kind that provides a more comprehensive and updated review on integrity test findings across industries and countries in the past 50 years.



Method

- The current meta-analysis included a total of 150 independent samples with a pooled sample size of 67016.
- Integrity tests were coded into the types of:



- The criterion measures of workplace deviance included:



Results

Results indicated that all the integrity tests analysed were significant in predicting workplace deviance, with an overall mean validity estimate corrected for indirect range restriction and measurement error as .43 (95% CI [.32; .52]; $p < .001$). Among the tests, the value-related tests and cognitive ability tests indicated relatively large validity estimates of .60 (95% CI [.41; .75]; $p < .001$) and .65 (95% CI [.53; .74]; $p < .001$) respectively. The relationship between integrity tests and workplace deviance was found to be significantly moderated by the type of integrity test, industry, country, and criterion source. The effect size of integrity tests was largest in predicting deviance in the military and law enforcement sector, and relatively large in the work samples of Canada, Germany, Israel, Romania, and the United States. However, the moderating effects of the nature of deviance, validation sample, validation status, publication status, medium of test, and gender, were non-significant.



Table 1: The Meta-analytic Validity Estimates for Integrity Tests and the Criterion of Workplace Deviance

	r_{raw}	r_c	p	95% CI	p -value	k	N
Overall Effect*	.2903**	.3253**	.4271**	[.3236, .5205]	<.001	150	67016

Note. r_{raw} = uncorrected estimated correlation coefficient; r_c = estimated correlation coefficient corrected for measurement error only; p = estimated correlation coefficient corrected for indirect range restriction and measurement error; 95% CI = 95% confidence interval of correlation coefficient corrected for indirect range restriction and measurement error; k = number of validity coefficients; N = sample size.

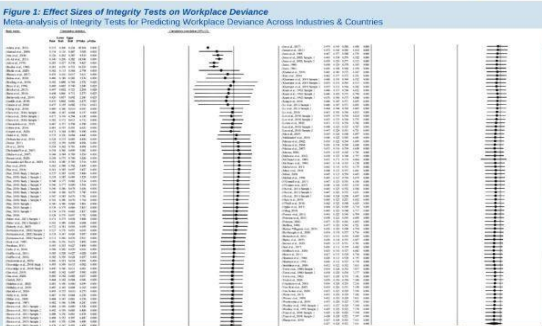


Table 2: Subgroup Analysis of the Moderating Effect on the Relationship between Integrity Tests and Workplace Deviance

Integrity test type	Subgroup	r_c	95% CI	p	95% CI	Overall			
Integrity test type	Integrity-related ability tests	0.5761	[.4571, .6951]	<.001					
	Value-related measures	0.6017	[.4117, .7917]	<.001					
	Organizational measures	0.1189	[.0189, .2189]	<.001					
	Cognitive tests	0.2138	[.1138, .3138]	<.001					
	Biodata	0.1314	[.0314, .2314]	<.001					
	Novel measures	0.1944	[.0944, .2944]	<.001					
	Mixed measures	0.1242	[.0242, .2242]	<.001					
	Organization measures	0.1189	[.0189, .2189]	<.001					
	Cognitive tests	0.2138	[.1138, .3138]	<.001					
	Biodata	0.1314	[.0314, .2314]	<.001					
Industry	Military & law enforcement	0.7046	[.5046, .9046]	<.001					
	Customer service retail & sales	0.4021	[.3021, .5021]	<.001					
	Manufacturing	0.2094	[.1094, .3094]	<.001					
	Business, banking & financial	0.1472	[.0472, .2472]	<.001					
	Medical, pharmaceutical & healthcare	0.2563	[.1563, .3563]	<.001					
	Education	0.1985	[.0985, .2985]	<.001					
	Engineering	0.4709	[.3709, .5709]	<.001					
	Information	0.1272	[.0272, .2272]	<.001					
	Other/transport	0.1830	[.0830, .2830]	<.001					
	Others	0.1508	[.0508, .2508]	<.001					
Source of deviance	WDB	0.2088	[.1088, .3088]	<.001					
	CWB	0.2362	[.1362, .3362]	<.001					
	UPB	0.1217	[.0217, .2217]	<.001					
	Others	0.1830	[.0830, .2830]	<.001					
	Country	Brazil	0.3866	[.2866, .4866]	<.001				
		Germany	0.2828	[.1828, .3828]	<.001				
		Canada	0.2254	[.1254, .3254]	<.001				
		United States of America	0.2728	[.1728, .3728]	<.001				
		Romania	0.1996	[.0996, .2996]	<.001				
		Turkey	0.1298	[.0298, .2298]	<.001				
China		0.1901	[.0901, .2901]	<.001					
Other		0.1863	[.0863, .2863]	<.001					
Japan		0.1883	[.0883, .2883]	<.001					
South Korea		0.1813	[.0813, .2813]	<.001					
Validation sample	Applicants	0.1883	[.0883, .2883]	<.001					
	Employees	0.1813	[.0813, .2813]	<.001					
	Validation strategy	Case-control	0.1827	[.0827, .2827]	<.001				
		Prevalence	0.1869	[.0869, .2869]	<.001				
		Publication date	Published	0.1872	[.0872, .2872]	<.001			
			Unpublished	0.1224	[.0224, .2224]	<.001			
			Medium of test	Case-control	0.1827	[.0827, .2827]	<.001		
				Non-computer tests	0.1813	[.0813, .2813]	<.001		
				Mixed	0.1813	[.0813, .2813]	<.001		
				Gender	Majority male	0.1728	[.0728, .2728]	<.001	
Mixed					0.1847	[.0847, .2847]	<.001		
Majority female					0.1302	[.0302, .2302]	<.001		
Unreported	0.1727				[.0727, .2727]	<.001			

Note. p = validity estimate corrected for indirect range restriction and measurement error; 95% CI = lower and upper bounds of the 95% confidence interval for p ; k = number of validity coefficients; N = sample size; WDB = workplace deviance behaviours; CWB = counterproductive work behaviours; UPB = unethical pro-organizational behaviours. * $p < .05$, ** $p < .001$.
[1] "Others" covered sampling countries of Australia, Barbados, Belgium, Colombia, Croatia, India, Italy, Korea, Mexico, Pakistan, Peru, Poland, Spain, South Africa, Thailand, The Netherlands, Ukraine, and the United Arab Emirates with 2 or less than 2 studies included in this review.

Conclusion

The present meta-analysis serves as an updated and balanced overview of the use of integrity tests on predicting workplace deviance across industries and countries. Although the magnitude of validities varied across industries and countries with different criterion sources, the overall findings reinforced the criterion-related validity of integrity tests. In addition, results from the moderator analyses responded to the call for specific focuses on investigating the utility of integrity tests in the domains of psychological assessment and workplace ethics.

Implications

The current results of analysing specific moderators presented a favourable view on the generalisability of integrity tests across genders and media of assessment for predicting various kinds of deviant work behaviours. This is most insightful for an increasingly inclusive workplace in this digital age. This review is unique in its cross-cultural perspective and broader coverage on the types of integrity tests and workplace deviance.



Limitations & Future Directions

This meta-analysis is only a tiny piece of puzzle in the much bigger picture of integrity testing. There remain unresolved issues that could make it unethical to judge an individual by integrity testing at any one point. Nevertheless, it is in hope that the present attempt would encourage more research efforts, as well as scrutiny in practice, of integrity testing in both the East and West.

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Runner-up (P05) - I'm Depressed and Sleepy so I Don't Trust You - Depressed Individuals Show Less Trust After Sleep Deprivation

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Affiliation: The University of Hong Kong; The Education University of Hong Kong

Field: Social Cognitive Psychology

Keywords: Sleep deprivation; Depressive symptoms; Social decision-making

Abstract:

Introduction: The effect of insufficient sleep on cognitive and emotional functioning has been widely studied. However, the effects of sleep deprivation (SD) on social functioning and the intervening factors were less explored. The current study examined the role of depressive mood in the effects of SD on social decision making.

Method: Forty-three healthy young adults were randomly assigned to the SD or the sleep control (SC) group. Participants went through a week of habitual sleep and then the SD group stayed awake in the laboratory, while the SC group had a night of normal sleep at their own residence. In the morning of the next day, participants completed computerized measures of sleepiness, vigilance, and social decision making. A higher monetary offer distributed by the participants on the Trust Game indicated more trust. They also completed an Ultimatum Game in which a higher acceptance rate indicated more rational decision making.

Results: A stepwise regression analysis showed a significant effect of depressive symptoms in moderating the effect of SD on trust (Trust Game). Simple slope analysis showed that depressed individuals showed fewer trusting behaviors after SD compared to controls. On the other hand, no interaction between group and depression was found to predict the acceptance rate in the Ultimatum Game.

Conclusion: This study provides the first evidence that depressive symptoms moderate the effect of 24-h SD on trust, suggesting that response to SD is variable among individuals with different mood states. Findings from this study once again highlighted the critical role of sleep in depression. Organizationally, our findings may inform recruitment or deployment strategies of occupations involving periodic sleep loss and risk-related decisions, such as medical and law enforcement personnel. Future research may explore sleep-related interventions targeting the psychosocial dysfunctions of depressed individuals.

I'm depressed and sleepy so I don't trust you - depressed individuals show less trust after sleep deprivation

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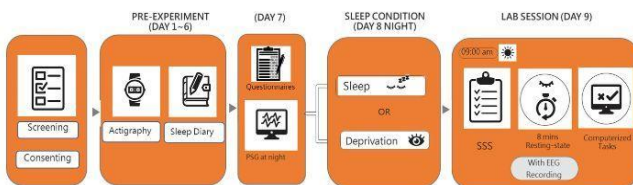
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Background and Aim

- The effect of insufficient sleep on cognitive and emotional functioning has been widely studied. However, the effects of sleep deprivation (SD) on social functioning and the intervening factors were less explored. The current study examined the role of depressive mood in the effects of SD on social decision making.
- Our hypotheses are:
 - Following a night of SD, people would show less trust compared to those who had a normal night of sleep.
 - The effect of a night of SD on trust depends on participants' level of depressive symptoms. Individuals who are more depressed would show less trust than those who are not depressed after a night of SD.

Method

Procedure



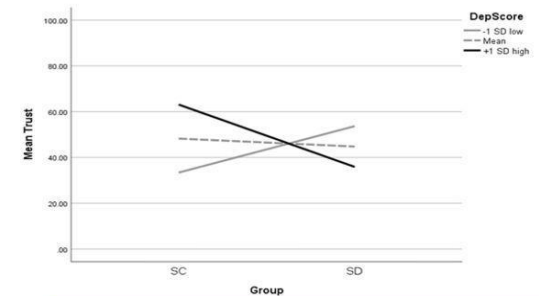
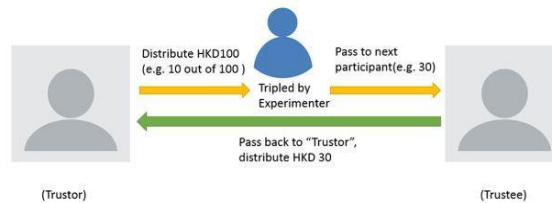
Method cont'd

Measures

Depression Anxiety Stress Scales (DASS): The 21-item DASS was used to assess negative depressive and anxious emotions and stress over the past week (Lovibond & Lovibond, 1995). The scale includes three subscales of 7 items each. The items were scored on a 4-point Likert scale ranging from 0 (never) to 3 (always).

Trust Game:

A higher monetary offer distributed by the participants on the Trust Game indicated more trust.



Discussion

- As hypothesized, depressed individuals showed less trust after SD than those who were not depressed, supporting the role of depressive mood in modulating SD effects on social decision-making. Interestingly, the current study echoes previous studies that depressed participants showed more trust than non-depressed participants after a night of normal sleep.
- Moreover, our limited significant findings may suggest that the social brain may be relatively resilient to the effects of one night of SD, at least in a well-controlled laboratory setting.
- The investigation into the individual differences in susceptibility to the SD effects would carry direct implications on identification of high-risk individuals for poor social decision-making under SD (e.g. doctors, firefighters).
- Sleep-related interventions targeting the psychosocial dysfunctions of depressed individuals warrant further exploration.

Results

- There was no significant difference between the SD group ($M = 42.14$, $SD = 21.13$) and the SC group ($M = 43.25$, $SD = 22.08$) in trust offers ($t(41) = 0.456$, $p = .816$).
- The stepwise regression analysis showed a significant interaction effect between group and depression score in predicting trust ($F(5, 36) = 2.598$, $p = .042$). Simple slope analysis showed that participants with a higher level of depressive symptoms (1SD above mean) showed less trust after a night of SD compared to the SC group.