



Trust Development across Culture and Context

ICRI-HASS Conference

Lin Mei-Hua, *PhD*

Department of Psychology

School of Medical and Life Sciences
Sunway University



Jeffrey Cheah
Foundation
Nurturing the Seeds of Wisdom

Our Vision: To be a World Class University

Trust Development



If caregivers are sensitive and responsive to their infant's needs, the infants develop a secure attachment
— Bowlby & Ainsworth



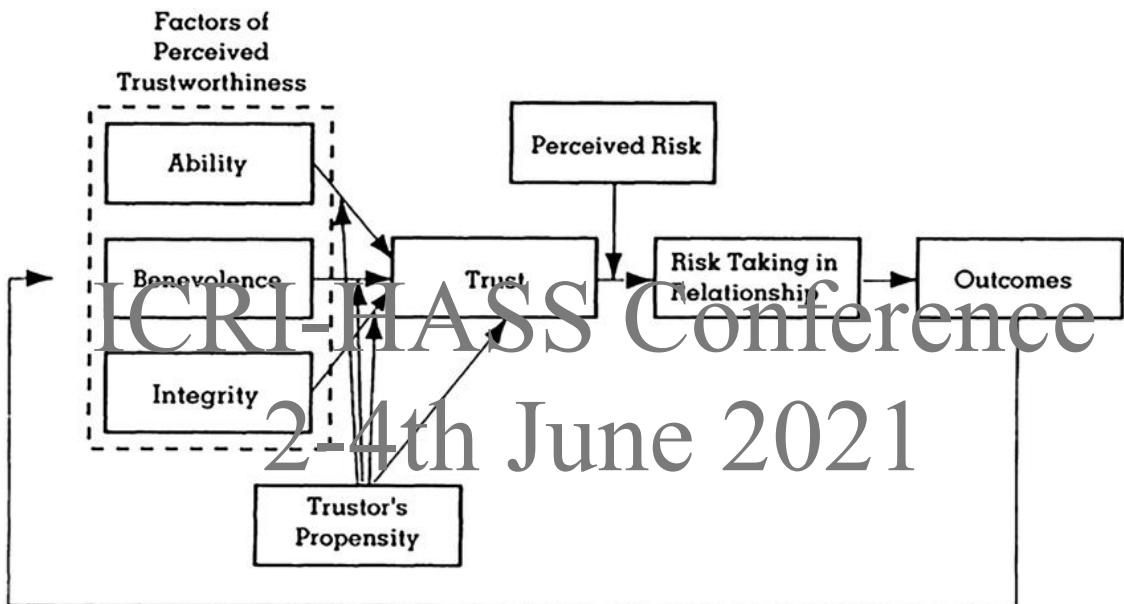
Trust is demonstrated most clearly in situations of risk and vulnerability.



Trust in infancy sets the stage for a lifelong expectation that the world will be a good and pleasant place in which to live.



A critical developmental confrontation during the first year of life is trust versus mistrust -Erikson



Model of trust developed by Mayer, Davis, & Schoorman (1995)

3

Overview: Research on Trust

- I. *Mapping the Terrain of Multinational Trust (3 Nations Study)*. Air Force Research Laboratory (AFRL).
- II. *Influence of Cultural Cognition, Social Aspect of Culture, and Personality on Trust*. Asian Office of Aerospace Research and Development (AOARD).
- III. *A Multilevel Comparisons on the Antecedents of Trust among Team Members and Work Outcomes*. Asian Office of Aerospace Research and Development (AOARD).

4



Culture and Context influencing Trust

Social and cultural cognition affects trust development and context plays a critical role

ICRI-HASS Conference

2-4th June 2021



Jeffrey Cheah
Foundation
Nurturing the Seeds of Wisdom

Our Vision: To be a World Class University

ICRI-HASS Conference

2-4th June 2021

Mapping the Terrain of Multinational Trust

AIR FORCE RESEARCH LABORATORY (AFRL) AWARDED GRANT (FA8650-04-D-6405)

HELEN ALTMAN KLEIN, WRIGHT STATE UNIVERSITY

MEI-HUA LIN, SUNWAY UNIVERSITY

NORMA M. MILLER, UNIVERSIDAD TECNOLOGICA DE PANAMA

Trust and Factors Influencing Trust

Trust & Trustworthiness (Mayer et al., 1995)

ICRI-HASS Conference
2-4th June 2021

Trust- the willingness of a party (trustor) to be vulnerable to the actions of another party

(B) the beliefs that trustees act at the best interest of the trustors



(A) the qualities that enable trustees to have domain-specific influences

(I) the beliefs that trustees uphold principles that trustors deem acceptable

7

Cultural Related Frameworks

Hofstede's Variables (Hofstede, 1980)

- ❖ Power Distance - extent to which members of a group expect an uneven distribution of power
- ❖ Individualism/Collectivism - degree to which societies are integrated into groups and their perceived obligations and dependence on groups.
- ❖ Tolerance for Uncertainty - extent to which one would tolerate uncertainty and ambiguity.

The Cultural Lens Model (Klein, 2004a, 2004b; Klein & McHugh, 2005)

- ❖ describes propensities that govern whether an interaction will result in a match or a mismatch.
- ❖ unexpected or incorrectly interpreted communications will reduce trust.

8

Research Aim

1. To compare national groups on their judgments of trust.
2. To assess the degree to which variables such as cultural background affect the way people judge the trustworthiness of others.

9

Method

- ❖ Qualitative Study
- ❖ N=120 (40 Malaysia; 40 Panama; 40 USA)

TABLE 1: Participant Demographics

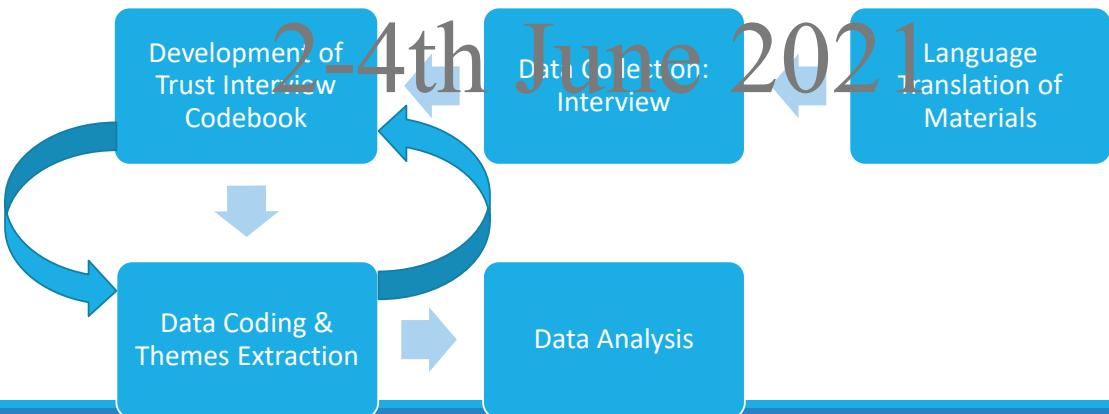
Respondent Characteristic	Nation		
	Malaysia	Panama	United States
University	Sunway University, Malaysia	Universidad Tecnológica de Panama, Panama	Wright State University, United States
Language of instruction	English	Spanish	English
Male:female ratio	7:33	15:25	13:27
Age (year) mean	22.2	22.0	19.2
Compensation	RM 30.00	\$15.00	\$15.00 gift card or course credit

Klein, Lin, Miller, Militello, Lyons, & Finkeldey, 2019

10



ICRI-HASS Conference



11

8 contexts for the Trust Challenges

- ❖ School/teamwork
- ❖ School/teacher
- ❖ Work
- ❖ Social
- ❖ Danger
- ❖ Stranger
- ❖ Home/family decisions
- ❖ Personal decisions

ICRI-HASS Conference

2-4th June 2021

12

TABLE 2: Example Coding Variables for Scoring Interviews

Measure	Positive (+) Example	Negative (-) Example
Benevolence	Caring, patient, takes my side	Threatening, critical
Integrity	Conscientious, honest, equitable	Dishonest, irresponsible
Ability	Smart, skillful, experienced, intelligent	Confused, ill-equipped, unskilled
Interdependent: team	Shares work, cooperative, listens to others	Unresponsive, ignores others
Interdependent: family high	Values and follows family's advice	
Interdependent: friend high	Values and follows friends' advice	
Power distance: high	Sees social responsibility and power as positive and linked	
Power distance: Low	Sees equality in power and responsibility as desirable and linked	
Affect	Accepting, engaging, ready to smile	Cold, distant, impersonal, aloof
Nonverbal communication	Reports the physical gestures and facial expression in others	
Dialectical reasoning	Acknowledges opposites as equally true	
Similarity: demographics	Reports similarity of age, gender, size, race/ethnicity, year in school	
Similarity: beliefs/goals	Reports similarity of political, religious values, career, beliefs/goals	
Similarity: demeanor	Reports similarity of assertiveness, intellectualness, shyness, hardworking, etc.	
Status: reputation	Known for positive social role, profession	Known for negative social role, profession
Status: physical	Clean-cut, professional look	Poorly groomed, threatening look

23 factors were included in connection with trust

Trustworthiness - ABI

Cultural Factors

Affect

Identification

Status

Non Verbal

13

Cultural Dimension	Nation							χ^2	
	Malaysia		Panama		United States				
	Observed	Expected	Observed	Expected	Observed	Expected	Total		
Benevolence+	241	282	197	178	261	239	699	10.18**	
Benevolence-	155	175	97	110	181	148	433	11.12**	
Integrity+	148	150	88	94	136	127	372	1.09	
Integrity-	168	190	149	119	153	161	470	10.22**	
Ability+	165	182	132	114	153	154	450	4.28	
Ability-	83	72	43	45	52	61	178	3.11	
Interdependent team+	65	64	38	40	56	54	159	0.20	
Interdependent team-	52	51	31	33	59	49	142	3.48	
Interdependent family high	82	46	22	43	66	56	170	1.05	
Interdependent friend high	74	47	19	30	24	40	117	25.42**	
High power distance	59	35	15	22	12	21	86	29.41**	
Low power distance	54	40	22	25	24	31	109	1.09*	
Affect+	112	134	114	84	106	114	332	14.57**	
Affect-	95	92	75	58	59	78	229	9.70**	
Nonverbal communication	92	78	52	49	49	66	193	7.10*	
Dialectical reasoning	91	55	42	35	4	47	137	63.69**	
Similarity	49	39	9	25	39	33	97	13.42**	
Demographic									
Similarity Belief/ Goal	27	31	16	20	35	27	78	3.98	
Similarity demeanor	14	27	10	17	42	23	66	25.47**	
Status reputation+	54	37	12	23	25	31	91	14.65**	
Status reputation-	58	52	27	33	43	44	128	1.72	
Status physical+	40	52	25	33	63	44	128	12.83**	
Status physical-	52	69	42	43	77	58	171	10.13**	
Σ responses	2,030	2,030	1,277	1,277	1,719	1,719	5,026		

Key Findings

1. ABI were found in all three cultures, supporting the generality of Mayer's trust framework.

❖ Benevolence: important for Panamanians and the US participants.

❖ The dimensions varied across 8 different challenges.

2. Factors beyond the three Mayer's trustworthiness factors.

❖ Interdependence, Power Distance, and Dialectical Reasoning were more important for the Malaysians. Findings were consistent with research on Western vs. East Asian cultural patterns.

❖ Affect and Nonverbal communication were higher with Panamanians.

14

Key Findings

3. The importance of factors vary across contexts;

- ❖ Ability was often cited in work situations but came up infrequently in the context of trusting a stranger.
- ❖ For both the School/Teamwork and the School/ Teacher, the top factor was Interdependence/Team.
- ❖ For the Work and the Social situations, Affect was more frequently cited than Ability.
- ❖ Physical Status was the second most frequently cited factor in the Danger situation and the most frequently cited in the Stranger situation.

Trust judgments are tightly connected to situational constraints, and that the concept of “trust” is not a culture universal that can be understood in the same way regardless of national group.

15

Lesson Learned

Identifying cultural dimensions

- based on past research but be flexible to new emerging themes
- the same dimension may have positive or negative effect

Developing interview scenarios

- explore various contexts as both context and national groups together influence trustworthiness assessments.

Implications for Practitioners

Macroognition

- consider culture and context in team coordination and trust judgments.

Cultivating Trust

Trust in Automation

16



Trust and Distrust Relationship

Trust and distrust relationship vary across personal, team, and organization contexts

ICRI-HASS Conference



Jeffrey Cheah
Foundation

Nurturing the Seeds of Wisdom

2-4th June 2021

Our Vision: To be a World Class University

A Multilevel Comparisons on the Antecedents of Trust Among Team Members and Work Outcomes

AOARD AWARDED GRANT (FA2386-15-1-4085)

MEI-HUA LIN (PI), SUNWAY UNIVERSITY

MICHELLE CHIN CHIN LEE, SUNWAY UNIVERSITY

ICRI-HASS Conference

2-4th June 2021

Background:
Trust is complex and impacts teamwork outcomes while the complexity and the impact of mistrust is less investigated.

Objective(s):
Provide a comprehensive view on the factors (team and individual level) influencing trust and trustworthiness and the mechanisms in which the trust process affects work outcomes

Impact:
Important contribution to the field of team research for the use of multinational team collaboration



19

Objectives

I: Explores the concept of distrust in relation to trust.

- ❖ Whether the role of distrust is similar to that of trust in affecting work outcomes. (Qualitative Study)

II: Explores the mechanisms (mediations) between trust & work outcomes. (Quantitative Study)

III: Explore the antecedents of trust on 2 levels: (i) Upper level (ii) Individual level. (Quantitative Study)

20

Research Designs

Qualitative Study

Interview focusing on understanding the processes of trust and distrust, mistrust at personal, teams, and organization levels

Quantitative Study

recruited participants from various sectors and industries in Malaysia and they were asked to complete a comprehensive survey

Participants

❖ Inclusion criteria: (i) at least 18 years old (ii) worked in an organization; (iii) had experience working in a team.

❖ N=20 participants (8 males, 12 females).
 $M_{age}=29.05$ years old ($SD=7.55$)

❖ Each interview lasted about 60-90 minutes

❖ Inclusion criterion: (i) at least 18-year-old (ii) currently living and working in Malaysia (iii) worked with current team for at least three months.

❖ N=343 employees (N=66 teams) with team size ranging from 3 to 14 (Average team size = 5.20).

21

Results: Qualitative Study

- ❖ Nvivo software
- ❖ Themes:
 - ❖ 1) Relationship of trust and distrust
 - ❖ 2) Antecedents to trust and distrust (at personal, team, and organizational level)
 - ❖ 3) Outcomes of trust and distrust (at personal, team, and organizational level)
 - ❖ 4) Strategies of trust repair

22

Results: Relationship between Trust-Distrust

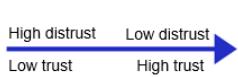
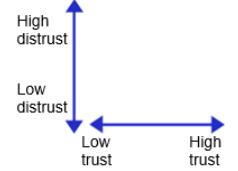
	Model	Description
Antithetical Model		Trust and distrust are on the complete opposite ends of one another on a continuum.
Dialectical Model		Similar to the antithetical, there exist a neutral state where one tries to make sense of a violation of trust through reasoning.
Context-Dependent Model		This multi-dimensional view of trust and distrust, illustrates that trust and distrust can coexist at the same time.

Table 1. Models presented in Lewicki et al. (1998)

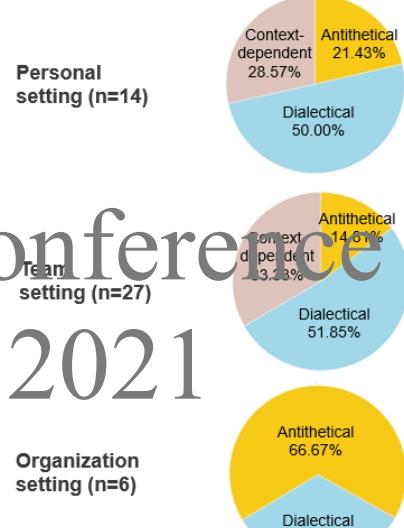


Figure 1. Percentage count of models frequency across settings

Result: Antecedents

Table 2. Percentage based on frequency of antecedents appearing in the transcripts.

Personal (%)		Team (%)		Organizational (%)	
Trust	Mistrust	Trust	Mistrust	Trust	Mistrust
Interaction (14.7)	Integrity (21.5) Benevolence (17.2)	Benevolence (29.1) Ability (25.1)	Benevolence (32.7) Ability (18.4)	Ability (32.1) Benevolence (29.8)	Benevolence (26.7) Integrity (23.3)
Benevolence (13.7)	Predictability (13.5)	Interaction (11.6) Integrity (1.6)	Interaction (15.8)	Integrity (16.7)	Ability (17.4)
Integrity (12.6)	Affect (11.6)	Situational (11.9)	Situational (6.8)	Affect (6)	Achievement Orientation (9.3)
Affect (11.6)	Ability (11.1)	Interaction (9.2)	Predictability (5.3)	Predictability (7.6)	Predictability (7.0)
Ability (11.1)	Situational (9.5)	Reciprocity (7.0)	Interaction (4.1)	Situational (3.6)	Affect (4.7)
Situational (9.5)	Identification (8.6)	Reciprocity (5.2)	Reciprocity (4.4)	Reciprocity (4.4)	Reciprocity (4.7)
Identification (5.8)	Affect (7.4)	Affect (4.0)	Achievement Orientation (4.5)	Achievement Orientation (3.6)	Situational (3.5)
Status (5.8)	Trust	Identification (3.4)	Identification (2.6)	Identification (2.3)	Vicarious (2.3)
Trust	Propensity (4.3)	Predictability (3.1)	Predictability (2.6)	Predictability (2.3)	
Propensity (4.7)	Identification (2.5)				
Predictability (4.2)					
Reciprocity (3.2)					

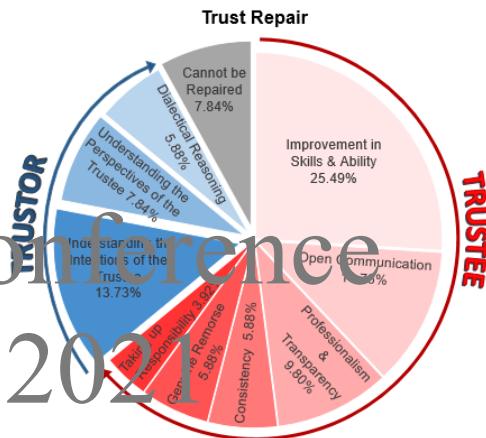
Different antecedents from trust and distrusts across different settings.

- ❖ Benevolence is important in both trust and distrust situations
- ❖ Importance of trustworthiness depends on settings:
 - ❖ Personal: Ability not as important
 - ❖ Team: integrity is less important.
 - ❖ Work settings: ability and benevolent are important

Results: Outcomes & Trust Repair

Setting	Outcomes	
	Trust	Distrust
Personal	<ul style="list-style-type: none"> ▲ Openness (34.09%) ▲ Positive affect (20.45%) ▲ Capability belief (11.36%) ▲ Psychological safety (9.09%) ▲ Integrity belief (9.09%) ▲ Cohesiveness (6.82%) ▲ Reliance (4.55%) ▲ Reciprocity (14.29%) ▲ Openness (12.86%) ▲ Capability belief (12.86%) ▲ Task performance (12.86%) ▲ Positive affect (10.00%) ▲ Cohesiveness (10.00%) ▲ Psychological safety (5.71%) ▲ OCB (5.71%) ▼ Monitoring (5.71%) 	<ul style="list-style-type: none"> ▲ Skepticism (27.59%) ▲ Inhibition (20.69%) ▲ Negative affect (15.52%) ▲ Monitoring (10.34%) ▼ Cohesiveness (15.52%) Capability belief (6.90%) ▲ Skepticism (19.05%) ▲ Negative affect (14.29%) ▲ Inhibition (13.49%) ▲ Monitoring (10.32%) ▼ Cohesiveness (15.00%) ▼ Task performance (8.73%)
Organization		

- ❖ Trustors displayed *defensive and cautious* behaviors (e.g., skepticism, monitoring, and inhibition) with violation of trust.



- ❖ The willingness of the trustee to self-improve on his/her work competency, open communication, and be professional are subjective indicators of the trustee's *serious efforts* to address the violation of trust.
- ❖ Trustor: try to understand intention and perspectives of trustee.

25



Trust and Distrust in Teams

ICRI-HASS Conference

2-4th June 2021



Jeffrey Cheah
Foundation
Nurturing the Seeds of Wisdom

Our Vision: To be a World Class University

Objectives

I: Explores the concept of distrust in relation to trust.

❖ Whether the role of distrust is similar to that of trust in affecting work outcome. (Qualitative Study)

ICRI-HASS Conference

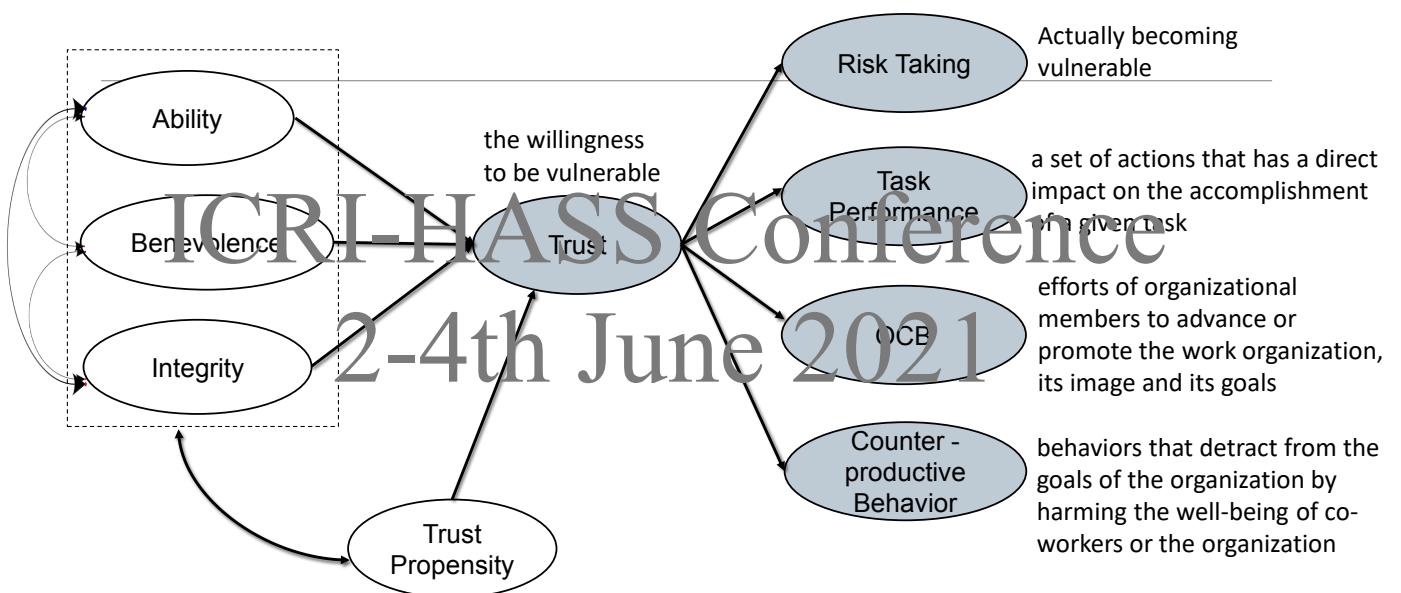
II: Explores the mechanisms (mediations) between trust & work outcomes. (Quantitative Study)

2-4th June 2021

III: Explore the antecedents of trust on 2 levels: (I) Upper level (ii) Individual level. (Quantitative Study)

27

Colquitt and colleagues (2007)



28

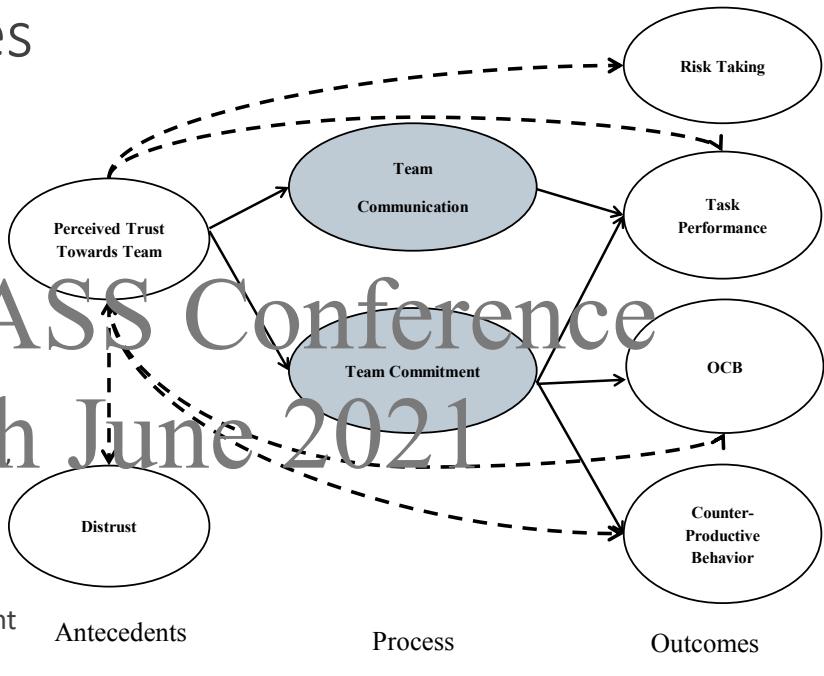
Mediating Variables

Team Communication

- sharing and exchanges of information among team members
- Better at solving problems (job performance) (Cheung et al., 2013).

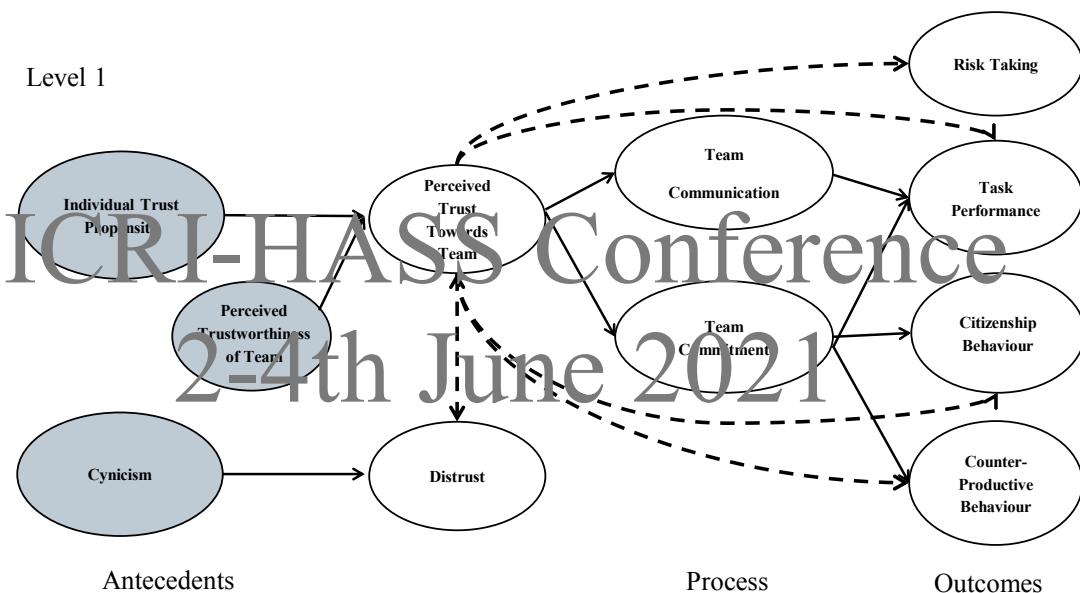
Organizational Commitment

- Degree of attachment employees have
- Enhances job performance (Lee et al., 2010).
- Affects OCB – committed employees are more likely to engage in OCB (Sjahruddin & colleagues, 2013).
- Reduces CWB - employees' attachment toward the organization & its members (Thau & colleagues, 2007)



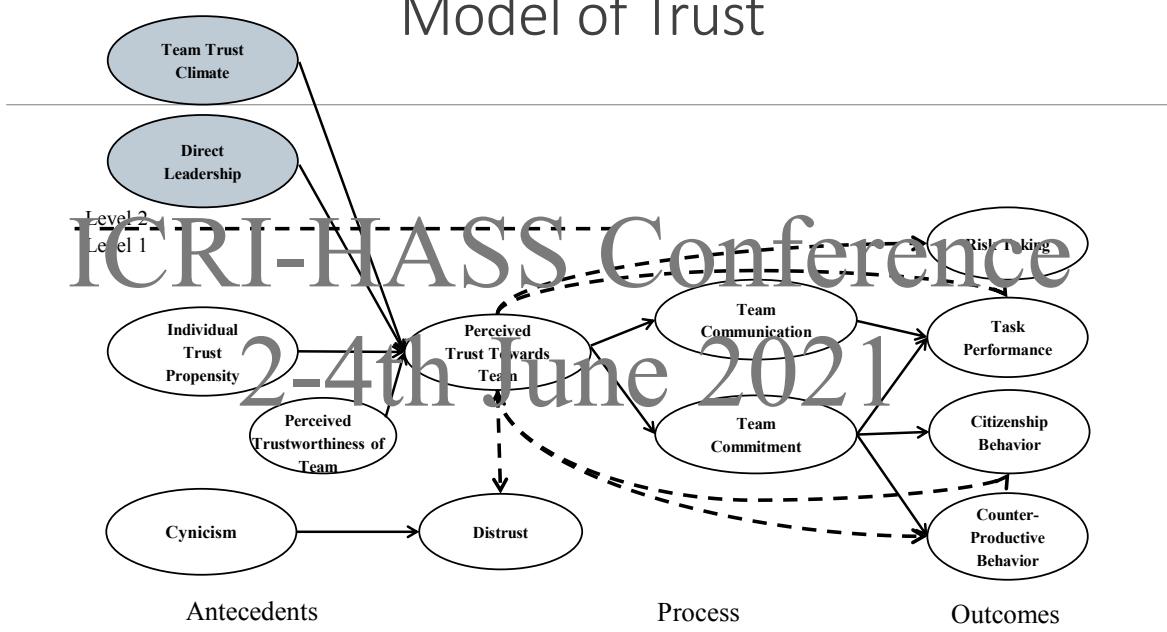
29

Antecedents of Trust



30

Research Model: Comprehensive Model of Trust



31

Research Designs

Qualitative Research
Interview focusing on understanding
the processes of trust and
distrust in trust at personal, teams,
and organization levels

Quantitative Research
recruited participants from various
sectors and industries in Malaysia and
they were asked to complete a
comprehensive survey

Participants

❖ Inclusion criteria: (i) at least 18 years old (ii)
worked in an organization; (iii) had experience
working in a team.

❖ N=20 participants (8 males, 12 females).
Age = 29.05 years old (SD = 7.55)

❖ Each interview lasted about 60-90 minutes

❖ Inclusion criterion: (i) at least 18-year-old (ii)
currently living and working in Malaysia (iii)
worked with current team for at least three
months.

❖ N=343 employees (N=66 teams) with team
size ranging from 3 to 14 (Average team size =
5.20).

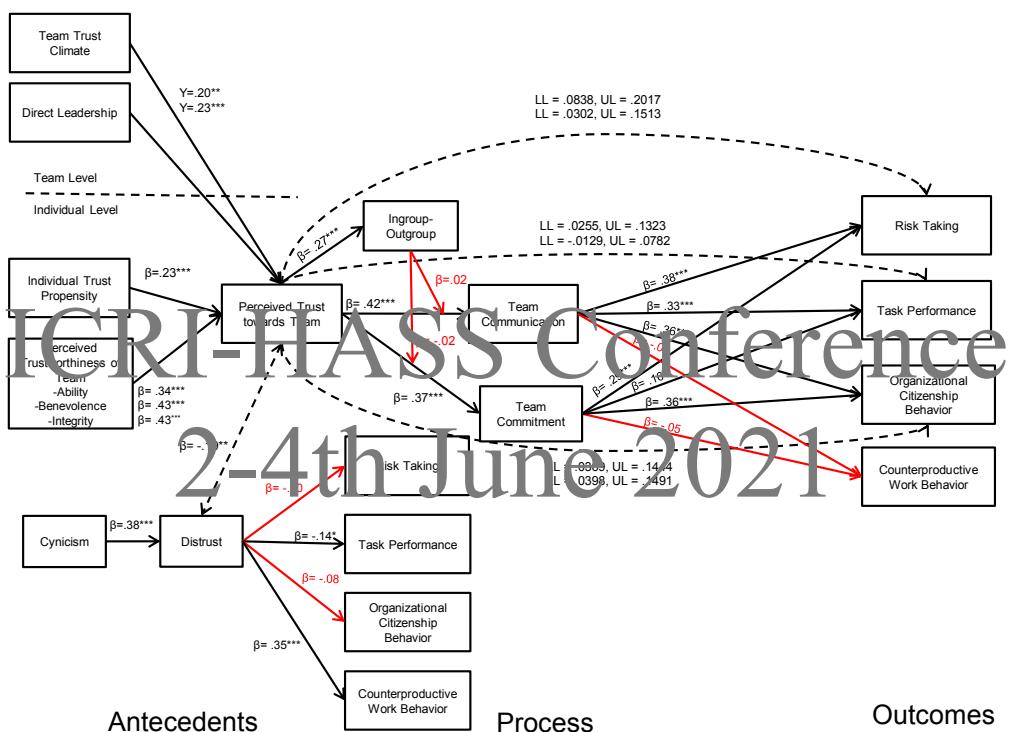
32

Results: Quantitative Study

Measures

Variable	Measure
1. Team Trust Climate	Copenhagen Psychosocial Questionnaire (COPSOQ II) (Pejtersen, Kristensen, Borg, & Bjorner, 2010)
2. Team Leadership	Leadership LMX-7 (Graen & Uhl-Bien, 1995)
3. Individual Trust Propensity	General Trust Scale (Yamagishi & Yamagishi, 1994)
4. Cynicism	Social Cynicism Scale (Leung & Bond, 2004)
5. Perceived Trustworthiness Towards Team	Trustworthiness Scale (Mayer & Davis, 1999)
6. Trust	Trust Instrument Mayer and Gavin's (2005)
7. Mistrust	Organizational Cynicism Questionnaire (Brandes, Dharwadkar, & Dean (1999)
8. Team Communication	Team Communication (Schultz, Israel, & Lantz, 2003)
9. Organizational Commitment	TCM Employee Commitment Survey (Meyer, Allen, & Smith, 1993)
10. Risk Taking Behavior	Employee Perceived Risk-Taking Climate (Llopis, García-Granero, Fernández-Mesa, & Alegre-Vidal, 2013)
11. Task Performance	Task Performance (Hochwarter, Witt, Treadway, & Ferris, 2006)
12. OCB	Organizational Citizenship Behavior Scale (Lee & Allen, 2002)
13. CWB	Interpersonal & Organizational Deviance Scale (Bennet & Robinson, 2000)
14. Ingroup-Outgroup	The Overlap of Self, Ingroup, & Outgroup (Schubert & Otten, 2002)
15. Team Cultural Composition	Highly mixed cultural team vs lower mixed cultural team

33



34

ICRI-HASS Conference
2-4th June 2021

Key Findings

- **Organizational context** matters in influencing the trust in team. Higher level context of Trust Climate and Leadership positively influence trust in team.
- At **individual level**, individual trust propensity and trustworthiness influence perceived trust in teams
- Team communication and team commitment mediates perceived trust in teams and work outcomes with the exception of C/W/B.
- Distrust is negatively related to task performance and positively related to counterwork behavior.
 - Pathways to positive vs. negative work behavior could be explained through trust and distrust.
- Extension of Colquitt et al. (2007) to include team processes as mediators.

35

Research Applications

- ❖ Leadership Development
- ❖ Trust Development in Organization
- ❖ Multinational Collaboration
 - ❖ Cross-Cultural Training – Trust Development
 - ❖ Multinational Teamwork
- ❖ Human-Machine Trust
 - ❖ Human-Robot Teaming/Interaction
 - ❖ The Use of Drone Technology in Disaster Management

36

References

Cheung, S. O., Yiu, T. W., & Lam, M. C. (2013). Interweaving trust and communication with project performance. *Journal of Construction Engineering and Management*, 139(8), 941–950. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0000681](https://doi.org/10.1061/(ASCE)CO.1943-7862.0000681)

Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4), 909–927. <https://doi.org/10.1037/0021-9010.92.4.909>

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.

Klein, H. A. (2004a). Cognition in natural settings: The cultural lens model. In M. Kaplan (Ed.), *Cultural ergonomics* (pp. 249–280). Oxford, UK: Elsevier.

Klein, H. A. (2004b). Cultural differences in cognition: Barriers in multinational collaborations. In H. Montgomery, R. Lipshitz, & B. Brehmer (Eds.), *How do professionals make decisions?* (pp. 243–253). Mahwah, NJ: Erlbaum.

Klein, H. A., & McHugh, A. P. (2005). National differences in teamwork. In W. B. Rouse & K. R. Boff (Eds.), *Organizational simulation* (pp. 229–252). Hoboken, NJ: Wiley-Interscience.

Klein, H. A., Lin, M.-H., Miller, N. L., Militello, L. G., Lyons, J. B., & Finkeldey, J. G. (2019). Trust across culture and context. *Journal of Cognitive Engineering and Decision Making*, 13(1), 10–29. <https://doi.org/10.1177/1555343418810936>

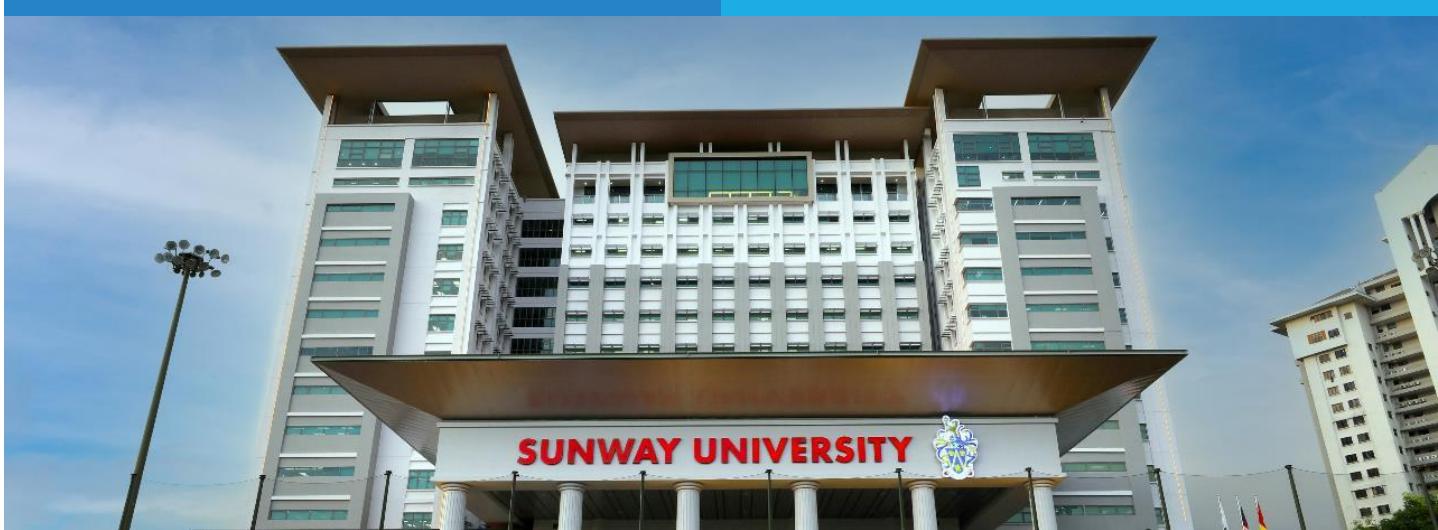
Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. *The Academy of Management Review*, 23(3), 438–458. <https://doi.org/10.5465/amr.1998.926620>

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.2307/258792>

Sjahruddin, H., Sudiro, A., Tanjung Alang, J. I., & South Sulawesi, M. (2013). Organizational justice, organizational commitment and trust in manager as predictor of organizational citizenship behavior. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 133–141. Retrieved from <https://ijournal-archives31.webs.com/133-141.pdf>

Thau, S., Crossley, C., Bennett, R. J., & Sczesny, S. (2007). The relationship between trust, attachment, and antisocial work behaviors. *Human Relations*, 60(8), 1155–1179. <https://doi.org/10.1177/001872670707081658>

37



Q & A
THANK YOU

Please contact mhlin@sunway.edu.my for further information.



Jeffrey Cheah
Foundation
Building the World of Tomorrow

Our Vision: To be a World Class University