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Internet privacy concern in a global age: The role of relational mobility

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Background

Internet privacy concern - concern over unauthorized third-party access to and dissemination of self-disclosures on the Internet (c.f. *informational privacy*, Burgoon et al., 1989, p. 134)

Societal differences do exist (Bellman, Johnson, Kobrin, & Lohse, 2004; Cao & Everard, 2008; Cho, Rivera-Sánchez, & Lim, 2009; Jones, 2010; Krasnova, Veltri, & Günther, 2012; Liu, Marchewka, & Ku, 2004; Lowry, Cao, & Everard, 2011; Park, 2008; Tsoi & Chen, 2011; Veltri, Krasnova, & Elgarah, 2011)

- Implications
  - Lost commerce revenue (Wu, Huang, Yen, & Popova, 2012)

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Why?

trust

- National differences in <u>privacy policies</u>
(Liu et al., 2004)

- **Better policies, *more consumer trust*,
less privacy concern**

Particularized trust

- National differences in <u>privacy law/regulation</u>
(Bellman et al., 2004)

- **Tougher laws, *more consumer trust*,
less privacy concern**

Assurance
(Yamagishi, 1998; 2011)

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The forgotten type of trust

Generalized trust – entirely overlooked

An "expectation of goodwill and benign
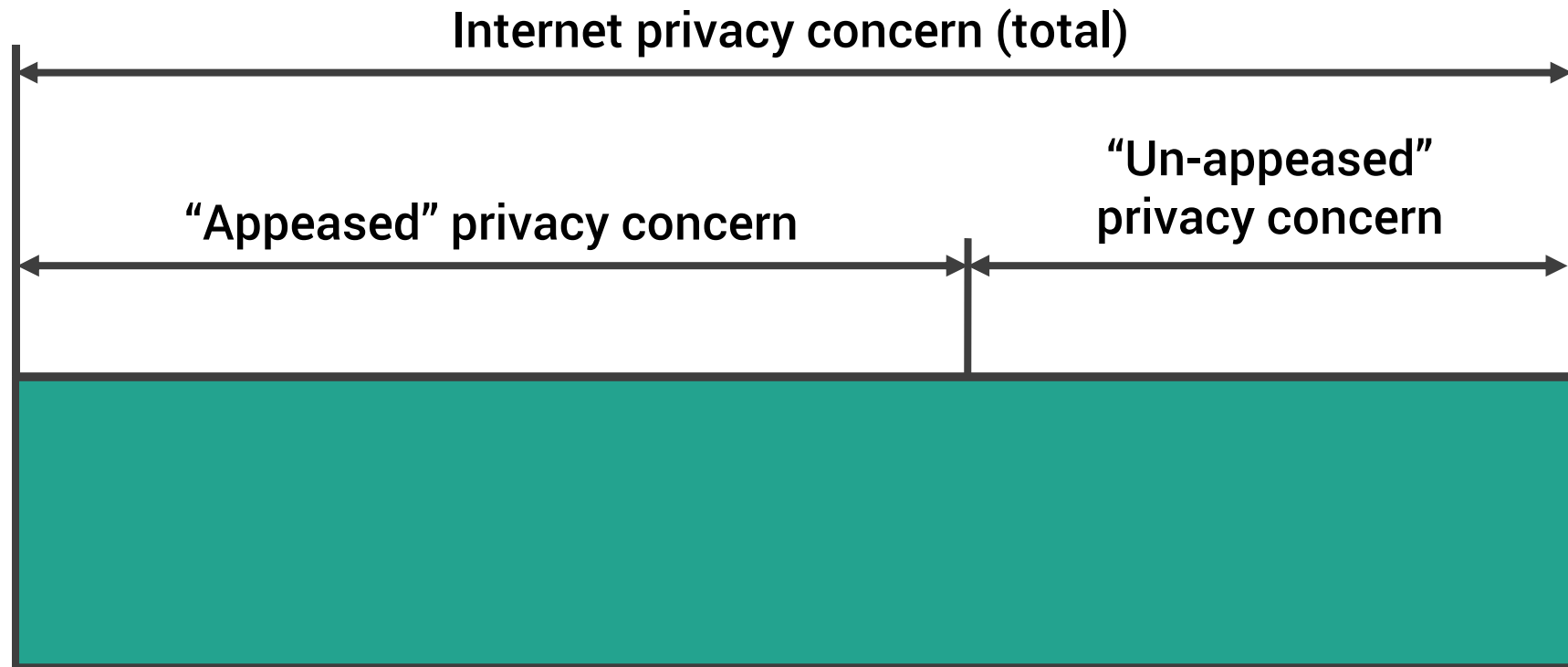intent" of others ***in general***

(Yamagishi & Yamagishi, 1994, p. 131)

A "psychological state to accept vulnerability
based solely on [a person's] expectation that
most people are reliable, honest, good and
kind, acting fairly, and not harming [others]
intentionally"

(Gheorghiu et al., 2009, p. 366)

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Why general trust?

Internet privacy concern (total)

"Appeased" privacy concern

"Un-appeased"
privacy concern
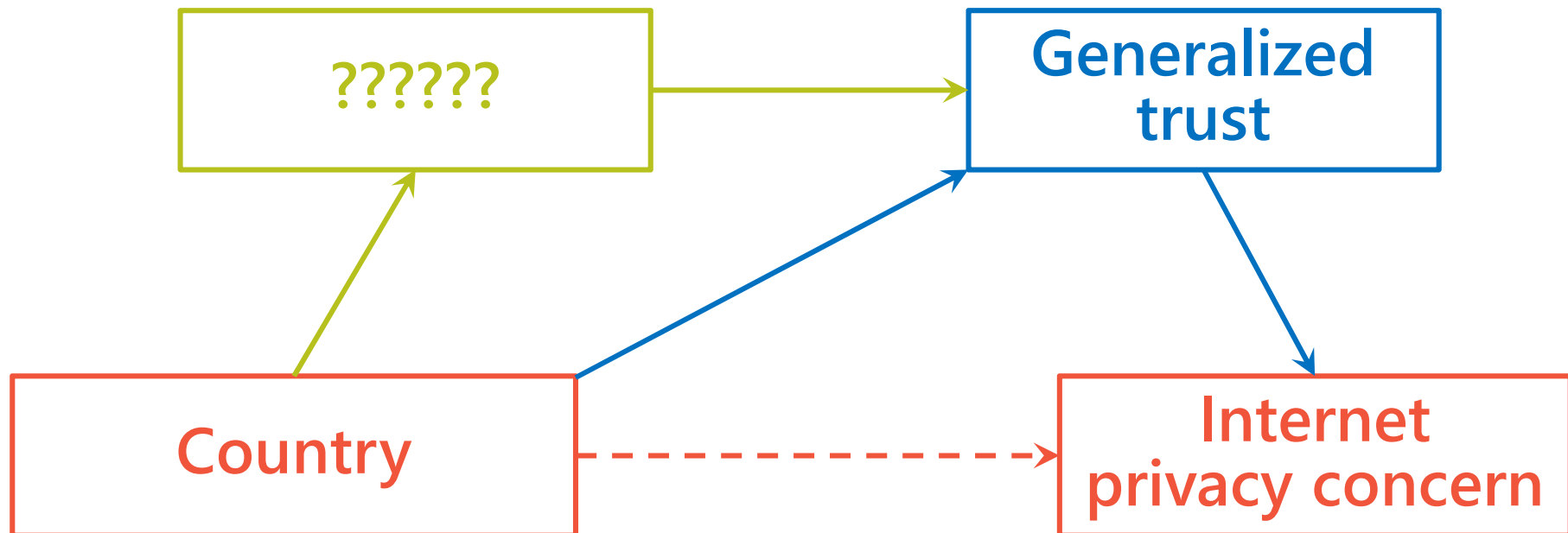
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Why general trust?

Higher generalized trust leads to less privacy concern

Countries differ in levels of generalized trust
(Yamagishi, 2011; Gheorghiu et al., 2009)


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Socio-ecological variable: Relational mobility

The degree to which there are opportunities to form new or sever current relationships in a society or social context (Falk et al., 2009; Schug et al., 2009, 2010; Sznycer et.al., 2012; Wang & Leung, 2010; Yuki et al., 2007)

- **<u>High</u>** relational mobility society (e.g., US)
  - Open market for relationships
  - Generalized trust is <u>*adaptive*</u> (Yamagishi, 2011)

- **<u>Low</u>** relational mobility society (e.g. Japan)
  - Closed market for relationships
  - Generalized trust <u>*less important*</u> (Yamagishi, 2011)

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Hypothesized model
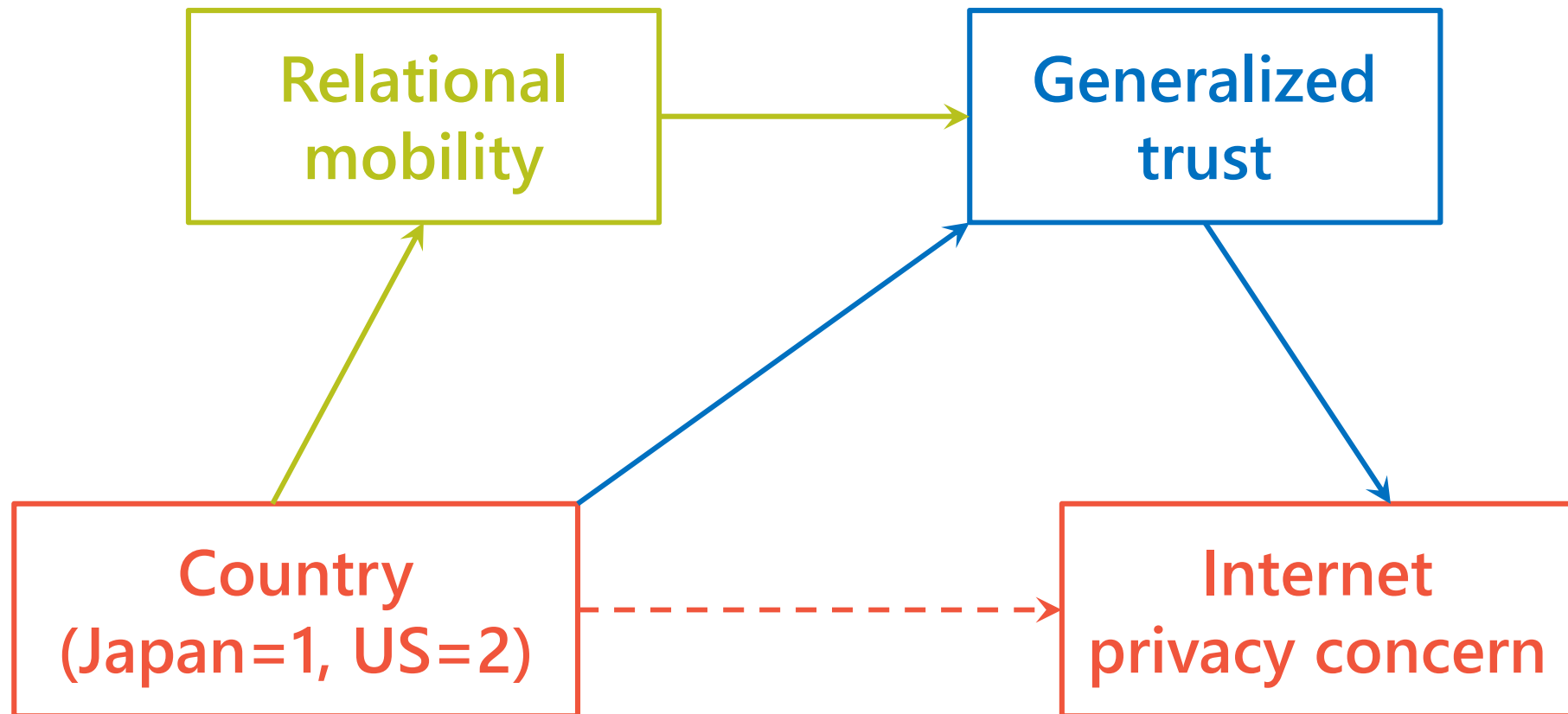
Method

Participants (SNS users)

Japan   90 people (M_{age} = 33.98, SD_{age} = 8.96; 54 female)

USA   256 people (M_{age} = 31.17, SD_{age} = 10.44; 152 female)

Dependent measure

Internet privacy concern (4-item; see Krasnova & Veltri, 2010; αs > .85)

Please imagine *you've just posted some information* (such as a photo of yourself, a wall post, your birth date, your real name etc.) on an SNS you use often. In regards to that information, how concerned would you be about the possibility of the following happening?

The information will be used in a way I did not foresee
The information will become available to someone without my knowledge *etc*

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Method

Mediating variables

Generalized trust (6-item, 1-7 likert; Yamagishi & Yamagishi, 1994; αs > .87)

E.g.
- Most people are honest
- Most people are basically good and kind

Relational mobility (12-item, 1-6 likert; Yuki et al., 2007; αs = .84)
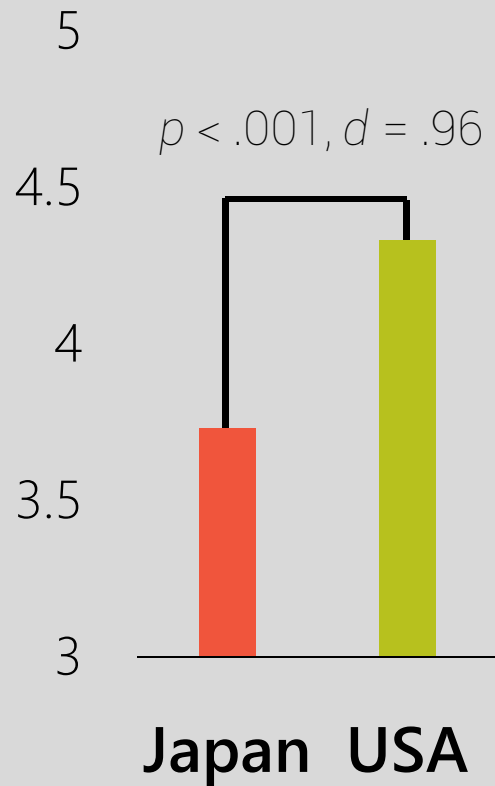
E.g.,
- It is easy for people around you to meet new people
- It is often the case that people around you cannot freely choose who they associate with (reversed)
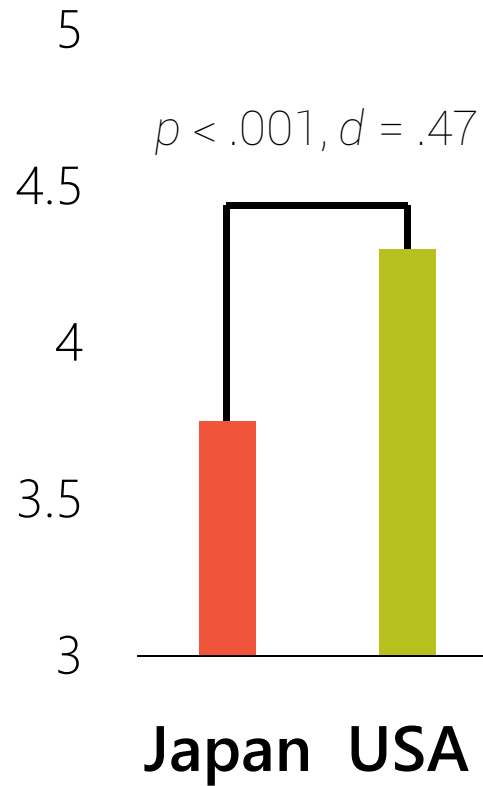
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Results

Relational mobility
(1-6 scale)

5

$p < .001, d = .96$

4.5

4

3.5

3

Japan USA

General trust
(1-7 scale)

5

$p < .001, d = .47$

4.5

4

3.5

3

Japan USA

Privacy concern
(1-5 scale)

4.5

$p < .05, d = .27$

4

3.5

3

2.5

Japan USA

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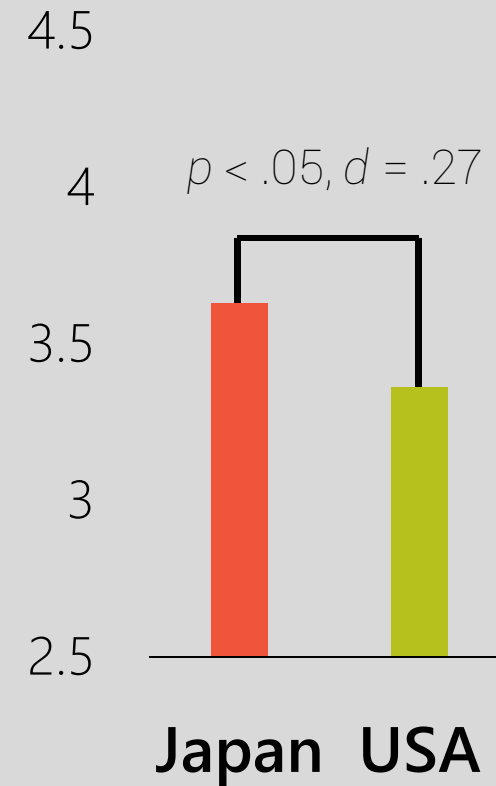
Results - Generalized trust and relational mobility

Relational mobility $\xrightarrow{b = .163**}$ Generalized trust

$a = .381***$

$a^2 = .201***$
$a^2{}' = .139*$

$d = -.140*$

Country (Japan=1, US=2)

$c = -.114*$
$c' = -.036$ n.s.

Internet privacy concern
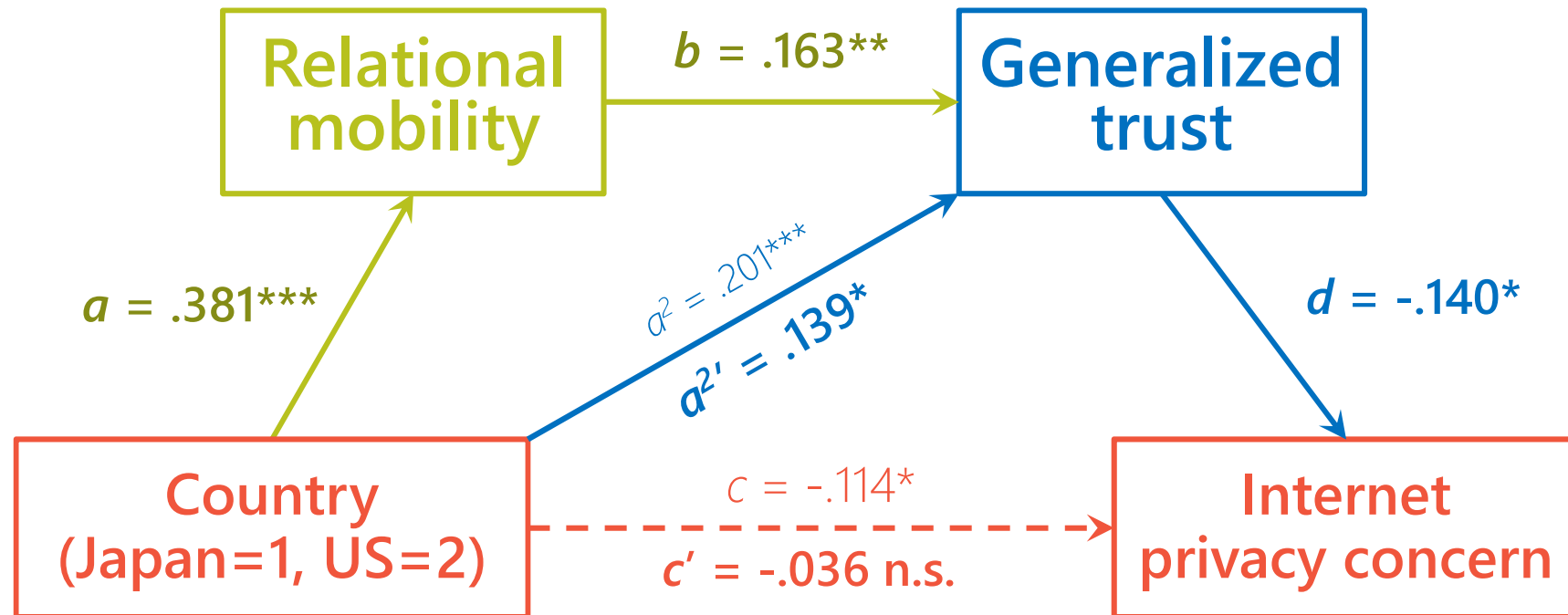
a^2d = **-.032** (95% CI = -.066, -.009), Indirect to total effect ratio = .28
abd = **-.009** (95% CI = -.023, -.001), Indirect to total effect ratio = .07

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Discussion

Theoretical implications

Social ecology drives beliefs which drive mindsets.

Practical implications

Understanding *offline* social ecologies helps us understand *online* behavior

Limitations

What about e-commerce?

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Conclusion

Societal differences in *offline* relational mobility drive individuals to develop either high or low levels of trust in the generalized other.

These differences in generalized trust drive differences in privacy concern *online*.

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Thank you for listening!

References

Bellman, S., Johnson, E. J., Kobrin, S. J., & Lohse, G. L. (2004). International Differences in Information Privacy Concerns: A Global Survey of Consumers. *The Information Society*, *20*(5), 313–324.

Binder, J. F., Howes, A., & Smart, D. (2012). Harmony and Tension on Social Network Sites. *Information, Communication & Society*, *15*(9), 1279–1297.

Burgoon, J. K., Parrott, R., Poire, B. A. L., Kelley, D. L., Walther, J. B., & Perry, D. (1989). Maintaining and Restoring Privacy through Communication in Different Types of Relationships. *Journal of Social and Personal Relationships*, *6*(2), 131–158.

Cao, J., & Everard, A. (2008). User Attitude Towards Instant Messaging: The Effect of Espoused National Cultural Values on Awareness and Privacy. *Journal of Global Information Technology Management*, *11*(2), 30–57.

Cho, H., Rivera-Sánchez, M., & Lim, S. S. (2009). A multinational study on online privacy: global concerns and local responses. *New Media & Society*, *11*(3), 395–

Falk, C. F., Heine, S. J., Yuki, M., & Takemura, K. (2009). Why do Westerners self-enhance more than East Asians? *European Journal of Personality*, *23*(3), 183–203. doi:10.1002/per.715

Gheorghiu, M. A., Vignoles, V. L., & Smith, P. B. (2009). Beyond the United States and Japan: Testing Yamagishi's Emancipation Theory of Trust across 31 Nations. *Social Psychology Quarterly*, *72*(4), 365–383.

Hofstede, G. H. (1980). *Culture's consequences: international differences in work-related values*. Beverly Hills, Calif.: Sage Publications.

Hofstede, G. H. (2001). *Culture's consequences : comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, Calif.: Sage Publications.

Jones, B. M. (2010). Libraries, technology, and the culture of privacy: a global perspective. *Library Technology Reports*, *46*(8), 8+.

Krasnova, H., Veltri, N. F., & Günther, O. (2012). Self-disclosure and Privacy Calculus on Social Networking Sites: The Role of Culture. *Business & Information Systems Engineering*, *4*(3), 127–135.

Liu, C., Marchewka, J. T., & Ku, C. (2004). American and Taiwanese perceptions concerning privacy, trust, and behavioral intentions in electronic commerce. *Journal of Global Information Management*, *12*(1), 18–40.

Lowry, P., Cao, J., & Everard, A. (2011). Privacy Concerns Versus Desire for Interpersonal Awareness in Driving the Use of Self-Disclosure Technologies: The Case of Instant Messaging in Two Cultures. *J. Manage. Inf. Syst.*, *27*(4), 163–200.

Nisbett, R. E., & Cohen, D. (1996). *Culture of honor : the psychology of violence in the South*. Boulder, Colo.: Westview Press.

Oishi, S., & Graham, J. (2010). Social ecology: Lost and found in psychological science. *Perspectives on Psychological Science*, *5*(4), 356–377.

Park, Y. J. (2008). Privacy regime, culture and user practices in the cyber-marketplace. *Info*, *10*(2), 57–74.

Schrems, M. (2012). Europe vs. Facebook. Presented at the Cyberspace 2012, Brno, Czech Republic.

Schug, J., Yuki, M., Horikawa, H., & Takemura, K. (2009). Similarity attraction and actually selecting similar others: How cross-societal differences in relational mobility affect interpersonal similarity in Japan and the USA. *Asian Journal of Social Psychology*, *12*(2), 95–103.

Schug, J., Yuki, M., & Maddux, W. (2010). Relational mobility explains between- and within-culture differences in self-disclosure to close friends. *Psychological Science : A Journal of the American Psychological Society   APS*, *21*(10), 1471–8.

Sznycer, D., Takemura, K., Delton, A. W., Sato, K., Robertson, T., Cosmides, L., & Tooby, J. (2012). Cross-cultural differences and similarities in proneness to shame: An adaptationist and ecological approach. *Evolutionary Psychology*. Retrieved from http://www.epjournal.net/articles/cross-cultural-differences-and-similarities-in-proneness-to-shame-an-adaptationist-and-ecological-approach/

Tsoi, H. K., & Chen, L. (2011). From Privacy Concern to Uses of Social Network Sites: A Cultural Comparison via User Survey. In *Privacy, security, risk and trust (passat), 2011 ieee third international conference on and 2011 ieee third international conference on social computing (socialcom)* (pp. 457 –464).

Veltri, N., Krasnova, H., & Elgarah, W. (2011). Online disclosure and privacy concerns: A study of Moroccan and American Facebook users. *AMCIS 2011 Proceedings - All Submissions*. Retrieved from http://aisel.aisnet.org/amcis2011_submissions/300

Wang, C. S., & Leung, A. K.-Y. (2010). The cultural dynamics of rewarding honesty and punishing deception. *Personality & Social Psychology Bulletin*, *36*(11), 1529–1542.

Wu, K.-W., Huang, S. Y., Yen, D. C., & Popova, I. (2012). The effect of online privacy policy on consumer privacy concern and trust. *Computers in Human Behavior*, *28*(3), 889–897.

Yamagishi, T. (2011). *Trust: The evolutionary game of mind and society*. Tokyo; New York: Springer.

Yamagishi, T., & Yamagishi, M. (1994). Trust and Commitment in the United States and Japan. *Motivation and Emotion.*, *18*(2), 129.

Yuki, M., Schug, J., Horikawa, H., Takemura, K., Sato, K., Yokota, K., & Kamaya, K. (2007). *Development of a scale to measure perceptions of relational mobility in society*. CERSS Working Paper 75, Center for Experimental Research in Social Sciences, Hokkaido University. Retrieved from http://lynx.let.hokudai.ac.jp/cerss/english/workingpaper/index.cgi?year=2007

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Hypotheses

H1   Japanese SNS users are more concerned about privacy online than United States SNS users

H2   The cultural difference in online privacy concern between Japan and the United Sates is mediated by general trust

H3   The cultural difference in generalized trust is mediated by relational mobility

H4   Overall, the cultural difference in online privacy concern between Japan and the United States is mediated by an indirect effect via both relational mobility and general trust

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National differences in privacy concern

Cultural differences do exist (Bellman, Johnson, Kobrin, & Lohse, 2004; Cao & Everard, 2008; Cho, Rivera-Sánchez, & Lim, 2009; Jones, 2010; Krasnova, Veltri, & Günther, 2012; Liu, Marchewka, & Ku, 2004; Lowry, Cao, & Everard, 2011; Park, 2008; Tsoi & Chen, 2011; Veltri, Krasnova, & Elgarah, 2011)

Why?

- Differences in cultural dimensions (Hofstede, 1980; 2001) drive Internet privacy concern

  - **Germany < USA** (Krasnova & Veltri, 2010)
    Individualists demand privacy as a personal right!

  - **China > USA** (Lowry et al., 2011)
    Individualists care more about self-promotion than privacy!

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	Relational Mobility	
	High	Low
	"*Open* Market" **for relationships**	**"*Closed* Market"** **for relationships**
	HIGH gen. trust (Yamagishi, 2011)	**LOW gen. trust** (Yamagishi, 2011)

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Table 1. *Relational Mobility, Privacy Concern, and Trust by Country*

Measure	Japan (N = 90)			United States (N = 256)				Between-country comparison		
	α	M	SD	α	M	SD	Identity Coefficient	df	t	d
Relational mobility	.84	3.73	.61	.84	4.33	.66	.92 (CHOOSE), .97 (MEET)	344	-7.64***	-.96
Privacy concern	.87	3.63	.92	.85	3.36	1.05	1	344	2.13*	.27
General trust	.87	3.75	1.14	.90	4.30	1.19	.99	344	-3.81***	-.47

Note: *p < .05, **p < .01, ***p < .001

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