



How Might Different Cultural Worldviews Affect Collaborative Inhibition



Kin Leong Chan, Kay Livesay, Tanya Tompkins, & Megan Kozak Williams
Linfield College

Introduction & Hypotheses

Introduction

- *Collaborative inhibition* is a phenomenon whereby a group of people who collaborate (*collaborative group*) recall less information than a group of people who individually (*nominal group*) recall information (Weldon & Belliger, 1997)
- Collaborative groups make fewer intrusions, or mistakes, than nominal groups (Basden et al., 1997)
- Prior studies were conducted mostly in Western countries, which are highly individualistic (Marcus & Le, 2013)
- The current research investigated whether cultural worldviews, individualism and collectivism, can influence collaborative inhibition and the number of intrusions made

Group Types	Collaborative	Nominal
Collectivistic	Collectivistic Collaborative Group (CCG)	Collectivistic Nominal Group (CNG)
Individualistic	Individualistic Collaborative Group (ICG)	Individualistic Nominal Group (ING)

Hypotheses

- 1) Words recalled by ING > ICG
- 2) Intrusions made in ING > ICG
- 3) Words recalled by CNG < CCG
- 4) Intrusions made in CNG < CCG

Method

Participants

- 90 Linfield College students currently enrolled in psychology, business, or communication courses were recruited
 - 26 participants were removed because either they did not complete the study or their response on the IC Measure were unable to categorize
- Females: 71 Males: 19
- The ethnicity of participants was: Caucasian (65.6%); African-American (2.2%); Hispanic/Latino (13.3%); Asian (17.8%); Native American (1.1%)
- Mean age was 19.61 (*SD* = 2.09)

Method

Procedures

1. Pre-screen

- Participants completed **Individualism-Collectivism (IC) Measure (Triandis et al., 1986)** online via Survey Monkey
 - 7-items Collectivistic scale (*C scale*; $\alpha = .23$; 1= *strongly disagree* to 6= *strongly agree*)
 - e.g., "I would help within my means, if a relative told that s(he) is in financial difficulty"
 - 10-items Individualistic scale (*I scale*; $\alpha = .73$; 1= *strongly disagree* to 6= *strongly agree*)
 - e.g., "The most important thing in my life is to make myself happy"
- Participants were categorized into Collective or Individualistic group, based on their highest z-scores (at least .10 apart)
- Within group, they were randomly assigned into collaborative dyads or nominal dyads

2. Experiment

- *Collaborative dyads* were allowed to interact during the experiment; whereas *Nominal dyads* were not allowed to interact
- During the experiment, dyads:
 1. Memorized a total of 90 words (15 words across 6 categories) within 3 minutes
 2. Played a word finding game for 3 minutes
 3. Recalled as many memorized words as possible. Recall was ended if dyads indicated they were finished
 4. Completed a manipulation check and were debriefed

3. Experimental Reanalysis

- Given the poor reliability of the *C scale*, groups were reconfigured using only the z-scores on *I scale* (z-scores on *I scale* < -.09 = Collectivism; z-scores on *I scale* > .09 = Individualism)

Group Types	Original	Modified	Post-Hoc
Collaborative	N = 19 (CCG = 9; ICG = 10)	N = 17 (CCG = 8; ICG = 9)	2 dyads were dropped as their categorizations were no longer met.
Nominal	N = 17 (CNG = 8; ING = 9)	N = 15 (CNG = 7; ING = 8)	<ul style="list-style-type: none"> • 2 individuals were dropped as their z-scores were unable to reflect their category. • 1 dyad was removed as their categorizations were no longer met

Results

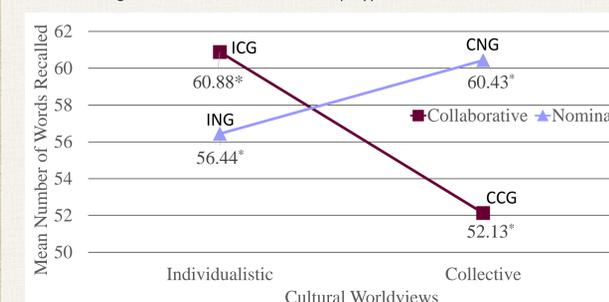
- There was a main effect of group types on intrusions and a significant interaction between group types and cultural worldviews on words recalled (see Table 1)

Table 1
Mean and Standard Deviation for Words Recalled and Intrusions

Cultural Worldviews	Group Types	Words Recalled		Intrusions	
		M	SD	M	SD
Individualistic	Collaborative	60.88	9.75	5.88	1.79
	Nominal	56.44	6.42	10.00	1.69
Collectivistic	Collaborative	52.13	8.31	4.88	1.79
	Nominal	60.43	8.50	10.00	1.91

- Contrary to the hypotheses, ICG recalled more words than ING; whereby CCG recalled fewer words than CNG (see Fig. 1)
- The main effect of words recalled was qualified by significant interaction as shown in Fig. 1

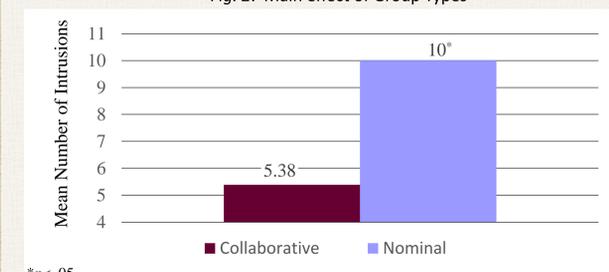
Fig. 1. Main Interaction of Group Types and Cultural Worldviews



* $p < .05$

- Consistent with previous findings, nominal dyads made more intrusions than collaborative dyads (see Fig. 2)
- No interaction was found on intrusions

Fig. 2. Main effect of Group Types



* $p < .05$

Discussion

- **Intrusions.** Collaborative dyads made fewer intrusions, or mistakes, than nominal dyads may be because
 - people in collaborative groups have the tendency to correct each other's mistake hence they make fewer intrusions than nominal group (Hyman et al., 2013)
- **Words Recalled.** Hypothesis 1 and 3 were made because collectivists tend to be cooperative in group tasks; whereas individualists tend to focus more on personal achievement (Koch & Koch, 2007).
 - Hence, it was expected that collectivists would engage positively in CCG and performed better than CNG
 - Individualists in ICG was expected to do poorer than ING as a result of negative engagement during the group recall
- However, results contradicted the hypotheses. This may be due to:

1. Collaborative inhibition may be influenced by different cultural motivations

- Collectivists in CCG may have been motivated to recall fewer words than the other participants, so that they do not offend people, thus "saving face" motivation
- Individualists may have been motivated to complete the task, hence they try to recall as many words as possible

2. Strategy used by collectivists and individualists in dealing with strangers may affect collaborative inhibition

- Collectivists tend to use passive approach when meeting with strangers; while Individualists tend to use active approach in interacting with strangers (Triandis, 2001)
- As a result of active engagement, ICG may develop a similar retrieval strategy, hence minimized the effect of collaborative inhibition and recalled more words than ING; in contrast to ICG, CCG fail to develop a similar retrieval strategy, therefore affected by collaborative inhibition and recalled fewer words than CNG

- **Future research** should examine on
 - if friends can influence the performances of ICG and CCG
 - the influences of congruency between cultural and individual contexts on collaborative inhibition