## **Culture as Group Dynamics**

-Collective survival strategy, bases of intragroup cooperation and social hierarchy-

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## Digest

This thesis examined how group dynamics differ across cultures by focusing on the following three domains related to functionality on group survival: collective survival strategy (exploration vs. exploitation; e.g., March, 1991), bases of intragroup cooperation (trust vs. social assurance; e.g., Yamagishi & Yamagishi, 1994) and social hierarchy (prestige vs. dominance; e.g., Henrich & Gil-White, 2001).

In chapter 1, we reviewed the transition of cultural psychological research. For the last three decades, cultural psychology has revealed that cultural differences exist across wide domains of psychological systems. At the dawn of the field, researchers examined and explained those differences by focusing on collectively shared meaning systems (i.e., culture) such as cultural self-construal (Markus & Kitayama, 1991). Subsequently, the socio-ecological approach (for review, see Oishi, 2014; Oishi & Graham, 2010) provided another explanation for those differences from a functionalist perspective, whereby different sets of psychological systems are associated with individuals' specific socio-ecological settings in a functionally advantageous way. Even though the field has convergently described humans as animals that have survived in turbulent environments by constructing culture collectively, another important question still remains: how do group dynamics differ across cultures and its associated socio-ecological environments? To solve this problem, we introduced our general

hypothesis about the types of group dynamics which mediate the relationships between relational mobility (e.g., Yuki et al., 2007) as a societal-level socio-ecological environment and regulatory focus (e.g., Higgins, 1998) as an individual-level mindset by considering the above-mentioned three domains of group dynamics (table 1).

Level	Domain	Western contexts (Independent self)	East Asian contexts (Interdependent self)
Individual psych	Regulatory focus	Promotion	Prevention
Group dynamics	Collective survival strategy	Exploration	Exploitation
	Basis of intragroup cooperation	Trust	Social Assurance
	Social hierarchy	Prestige-based	Dominance-based
Socio-ecological Environment	Relatinal mobility	High	Low

 Table 1 General hypothesis of this thesis

In chapter 2, we examined relations between relational mobility and intragroup trust as a basis of cooperation by directly testing theoretical arguments raised in the cultural looseness-tightness literature. Specifically, people in a high mobility society are relatively free from strict norms (i.e., loose culture), but people in a low mobility society are bounded by strict norms (i.e., tight culture; e.g., Gelfand, Nishii, & Raver, 2006; Thomson et al., 2018). Therefore, people in those two different cultures are assumed to be motivated by promotion and prevention-focused orientations respectively, which suggests that group dynamics are also different such that intragroup trust plays a more important role as a basis of the intragroup cooperation in higher relational mobility society (e.g., Yamagishi & Yamagishi, 1994). We tested this argument by collecting multilevel data in business contexts. The results showed that, as hypothesized, 1) relational mobility predicted intragroup trust positively at the collective level and 2) this collective-level relationship was mediated by promotion-focused workplace

culture, which was also consistent with the general hypothesis about the bases of intragroup cooperation.

In chapter 3 and 4, we reported a series of studies regarding social hierarchy. Social hierarchy exists universally because it is one of the fundamental dimensions regulating intragroup dynamics (Fiske, 1992), but how it exists differs across cultures. Therefore, it is important to understand how group dynamics differ across cultures and socio–ecological environments.

In chapter 3, we examined the warmth–competence contrast of cultural leadership differences (e.g., Rule et al., 2010) in terms of nonverbal behavior. Behavioral data of real leaders and members from Japanese university clubs revealed a novel nonverbal signaling of social rank: restrained speech style. Another group of Japanese participants also provided evidence that the restrained speech style is more preferable for a leader as opposed to an expressive speech style in Japanese contexts. Together with an enormous amount of research on nonverbal rank transmission in Western countries (for review, see Hall, Coats, & LeBeau, 2005), these results revealed that the warmth–competence contrast between East Asian and Western leadership styles are also reflected on how people convey their social rank using nonverbal behavior.

In chapter 4, we reported two studies following the dominance–prestige paradigm of social hierarchy (e.g., Henrich & Gil-White, 2001), on which most of current research on social hierarchy is based on. According to the dominance–prestige model, a "prestigious leader" is a person who attains higher position within a group by being respected and admired by his/her followers. In contrast, a "dominant leader" is a person who attains higher position within a group by nitimidating and threatening his/her followers. From the social exchange perspective, this distinction corresponds to whether a leader and his/her followers are in a fair or unfair social–exchange relationship (service-for-prestige theory; Price & Van Vugt, 2014). Specifically, in terms of prestige hierarchy, both the leader

and the followers engage in fair social exchanges, where the leader provides the followers with public goods by incurring cost (i.e., organizing collective locomotion) and the followers provide their leader with prestige (and associated benefits such as prior access to foods and mating opportunity). In contrast, this leader–member exchange becomes unfair in dominance hierarchy such that the leader can exploit their followers unidirectionally without providing public goods by using coercive tactics.

In general, dominance leadership/hierarchy has been regarded as "undesirable" and prestige leadership/hierarchy has been regarded as "desirable". However, when the diversity of socioecological environments are taken into consideration, desirability would depend on the context. Therefore, the two studies reported here aimed to improve the dominance–prestige paradigm by applying a socio-ecological approach in cultural psychology.

In section 1, we examined the functional value of "undesirable" dominant leadership. Despite the current view of dominant leadership as an undesirable leadership, cross-cultural studies revealed that dominance hierarchy and leadership are prevalent in East Asian countries (e.g., Cheng et al., 2014; Hofstede, 1985). Furthermore, the prevalence of dominant leadership in East Asian countries seems counterintuitive because those countries are low mobility societies where people have less opportunities to leave their membership group and hence should be more vulnerable to exploitation by dominant leaders (Price & Van Vugt, 2014; Thomson et al., 2018). One possible answer for this puzzle is that intragroup punishment is especially important in East Asian contexts, whose socio-ecological contexts are characterized with high ingroup vigilance and low relational mobility. Therefore, we hypothesized that dominant leadership enhances social assurance within a group by serving as a strong punisher in East Asian contexts but not in Western contexts. We tested this hypothesis by collecting online data from Japan, UK and US. The results showed that dominant leadership enhanced social assurance in Japan, but not in the UK and US as we hypothesized. However, the mediation analysis

revealed an unexpected pattern: dominant leadership had a positive effect on social assurance via punishing behavior by superiors regardless of the country. The result of mediation analysis also showed that the negative total effect of dominant leadership on social assurance in the UK and US was due to the negative direct effect of dominant leadership rather than negative evaluation for the punishing behaviors.

In section 2, we examined the types of contexts "desirable" prestige hierarchy/leadership emerges. Even though recent research on prestigious leadership conceptualize "prestige" in a broader way such that it is conferred in the exchange of any kind of costly services by leaders (e.g., organizing collective action; Price & Van Vugt, 2014), the concept originally came from the social learning perspective, where the most skillful and/or knowledgeable person within a group is assigned high status by followers in exchange for transmitting them (Henrich & Gil-White, 2001). Therefore, we hypothesized that prestigious leadership is more likely to emerge in exploration-oriented groups, where selective social learning is particularly meaningful. Two online surveys revealed that leaders in more exploratory-oriented workplaces were more prestigious and this relationship was mediated by the two indices of selective social learning from the leader: (i) rarity of superior's information and (ii) relative frequency of social learning from superior.

Chapter 5 was dedicated for general discussion. Firstly, we summarized the findings in this thesis in relation to the general hypothesis. Then, we discussed theoretical contributions, limitations and future directions regarding the general hypothesis. Lastly, as a future direction of cultural psychology, we pointed out the importance of further investigation on cultural differences in group dynamics and discussed how to work on this topic from both methodological (i.e., combining multilevel study and simulation study) and theoretical perspectives (i.e., integrating neighboring fields such as evolutionary psychology and management research).