# **Tight-Loose Culture: A Compass for Social Norms**

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Abstract: Tight-loose culture gives a new interpretation to cross-cultural differences by focusing on external social norms and punishment intensity. Culture exists in social norms which are an important factor to further guide human behavior. This paper mainly discusses the definition and theory of tight-loose culture, as well as the cutting-edge research results of tight-loose culture and socialization, organizational culture, personality, subjective well-being, prejudice and COVID-19, in order to provide some references for future research.

Keywords: Tight-loose culture, Social norms, Cultural differences, Ecological threat

## 1. Introduction

Cultural differences between different countries have always been a topic of concern in anthropology, psychology and sociology. In the past, most studies have been devoted to using values to explain cultural differences, but only using values to explain cultural differences has been questioned from the empirical and theoretical basis. Focusing only on internal values while ignoring the constraints of external environment leaves at least half of "cultural phenomena" unexplained (Gelfand et al., 2006)[1]. Scholars in anthropology, sociology, and psychology first discussed the importance of loose - tight culture in the 1960s and 1970s, which is a new dimension in the field of cross-cultural fields. Loose-tight culture theory holds that the core difference between "loose" and "tight" culture lies in the strength of social norms and tolerance to deviant behaviors, which is the result of natural ecological or man-made threats and social institutions and practices (Gelfand et al., 2011) [2]. The notion that cultures vary according to norms and intensity of punishment stems from early anthropological research. This distinction was first quantified by Pelto (1968) in his study of more than 20 traditional societies[3]. For example, he observes that Hutterites, Hanno, and Lubara are tight cultures because of their strict social norms and the severe penalties for violating them[4]. In contrast, the Kung Bushman, Cubeo, and Skolt Lapps are pine cultures because they have less strict social norms and a greater tolerance for deviant behavior. Loose-tight culture can be measured not only at the national level, but also at the state or provincial level and at the individual level. For example, although the United States is measured as a country with pine culture at the national level, the cultural tightness of the 50 states in the United States is not completely the same, and the degree of tightness varies greatly among states (Gelfand & Harrington, 2014) [5]. Similarly, China is a country with tight culture when measured at the national level, but there are certain differences in the results when measured at the provincial level (Chua et al., 2019) [6]. The measurement of loose and tight culture can also be applied at the individual level. Initially, Gelfand et al. (2011) synthesized the score of loose and tight culture at the national level based on the answer results of 6823 individual subjects from 33 countries. Although they belong to the same country or group, different individuals may have certain differences in their subjective perception of cultural tightness[7].

## 2. Concepts and theories of loose - tight culture

## 2.1. The concept of loose-tight culture

Loose-tight culture refers to the strength of social norms and the severity of punishment for deviant behaviors (Gelfand et al., 2006), which reflects the degree and intensity of punishment for deviant behaviors . "Loose" and "tight" in loose-tight culture refer to changes in the strength of norms and punishments for deviant behavior among different human groups[8]. Normative strength refers to the unwritten rules and social pressures that individuals feel they must obey in a particular culture; Degree of punishment refers to the severity of punishment an individual receives when he or she violates a norm. In the loose-tight culture, "tight" refers to strong norms, strong punishment for deviant behaviors, and low tolerance[9]. "Loose" refers to weak norms, weak punishment for deviant behaviors, and high

tolerance (Gelfand et al., 2011) [10].

To ensure the validity of the loose-tight culture, we need to make clear that the loose-tight culture is different from other cultural dimensions. First, loose-tight culture is different from individualismcollectivism (IC) [11]. Triandis reintroduced loose-tight culture in 1989 and argues that it is an important but neglected cultural dimension that is distinct from individualism-collectivism. Carpenter (2000) supported this hypothesis in a study of 16 traditional social ethnographies. She found only a moderate correlation between individualism-collectivism and tight culture (r=.44). Collectivist individualism (IC) refers to the extent to which society emphasizes strong ties to the group over self-care or caring for others. It does not refer to how strict social norms are or how tolerant society is of deviant behavior. Some societies or groups are both collectivist and loose (e.g. Brazil, Hong Kong), while others are both individualistic and tight (e.g. Japan, Singapore) [12]. As noted above, the distinction between loose-tight culture and collectivist individualism is also empirically supported in traditional societies. Secondly, loose-tight culture is also different from uncertainty avoidance (UAI), that is, the degree to which a society perceives uncertainty and the threat of ambiguous scenarios (Hofstede, 1980) [13]. Although the society under tight culture has a higher probability of uncertainty avoidance, at the same time, the society under tight culture also has more clear norms, which can eliminate the pressure of individuals under tight culture when facing uncertain situations. For example, we think of Singapore as a tight culture, but Singapore ranks lowest in the uncertainty avoidance index. At the same time, loose-tight culture is different from power distance (PD), which is the degree to which power is equally distributed in society (Hofstede, 1980) [14]. Conceptually, strict social norms and punishments can be reinforced and maintained in cultures with high inequality (high power distance) and in cultures with high equality (low power distance), so the correlation between the two should be low. Finally, loose-tight culture is different from economic wealth. For example, the economies of Singapore and Germany under the tight culture are both well developed, but the economies of Pakistan and India under the loose culture are not. Similarly, the United States and Australia have relatively rich economies, while Ukraine and Brazil have relatively low GDP (Gelfand et al., 2011) [15].

## 2.2. Theories of loose - tight culture

Pelto (1968) speculated that the change of loose-tight culture could be traced back to the ecological characteristics of the society[16]. In particular, he argues that societies that are densely populated and highly dependent on agriculture are more tightly knit because in such situations people need high social norms to survive. Societies that are less densely populated and less dependent on agriculture are more tolerant because people don't need too many rules to survive[17]. Later, psychologists, anthropologists and sociologists confirmed these ideas. Their research shows that traditional farming societies tend to be more strict in their child-rearing practices, have higher expectations of social members and require more consistent behavior than traditional societies that rely on fishing or hunting (Barry et al., 1959) [18]. Since then, there has been a hiatus in the study of loose-tight culture, but in 1989 Triandis reintroduced the concept in his Psychological Review paper on culture and the self. Based on the study of loose-tight culture in traditional societies, Gelfand (2006) [19] and his colleagues developed a multi-level theory of loose-tight culture in modern societies, which is concerned with adaptation, especially the adaptation of societies to their ecological environment, and the adaptation of individuals to social norms. The multilevel theory of loose - tight culture in modern society means that the differences of loose - tight culture reflect different degrees of historical and ecological threats[20]. For example, societies with more natural disasters, higher prevalence of diseases, fewer natural resources, and greater threats of territorial encroachment should in theory develop stronger social norms and punishments in response to these threats. In contrast, societies with fewer natural and man-made threats have lower social norms and punishments because there is less need for concerted behaviour. Then the strength of this social norm is further promoted through socialization, including schools, the media, government, and various everyday situations, which determine the range of acceptable behavior[21]. In turn, at the individual level, individuals who have been in a tight culture for a long time have a higher sense of responsibility, that is, they believe they must obey norms to avoid facing punishment or other negative outcomes[22]. As an adaptation to this high sense of responsibility, the society under tight culture expects individuals to have more prudent and self-disciplined behaviors, stronger self-supervision ability, higher conscientiousness and lower openness, so as to adapt to daily situations and various threats under tight culture[23]. Later, scholars have used field, experimental, computational and neuroscience studies to provide support for this multi-level theory of loose-tight culture (Mu et al., 2015) [24].

## 3. Research status of loose - tight culture

## 3.1. Loose-tight culture and socialization

Simmel, a German sociologist, put forward the concept of socialization as early as 1895. He first used the concept of socialization to express the process of group formation in his article "Problems in Sociology". In a loose-tight culture, individuals are socialized under the influence of social institutions that influence the range of socially acceptable behaviors of individuals (Scarr, 1993) [25]. Jonas (2014) proposed that the social system under tight culture promotes narrow socialization, because such society has high binding force, strict supervision and sanction system. In contrast, the social system of the pine culture promotes extensive socialization because it is less binding and has less restrictive regulatory and sanction regimes. In short, individuals under tight culture are restricted to a greater extent in society. In addition, Chua et al. (2019) [26] found that provinces with tight culture in China also have stricter restrictions on daily behaviors through their study of tight culture in 33 provinces, which is consistent with previous research results.

In society, the role of family members and teachers is to guide the socialization of children. In tight societies, parents tend to stress on following rules, supervise their children's behavior, and be more strict with their children's interpersonal relationships (Halloway, 1999; Ho, 1981), in such a society, "good kids" are those who follow the rules. In pine societies, however, parents tend to encourage their children to explore more and are more tolerant of their children's behavior[27]. For example, American mothers are much more tolerant than mothers in China (Chiu, 2007), South Korea (Susan, 2016) and Japan (Zahn-Waxler et al., 1996). In the same way, schools and educational institutions reinforce the socialization of children. For example, in the classroom in Japan, teachers require students to obey strictly, monitor students' behavior all the time, and inform parents of students' detailed movements (Nakai et al., 2010) [28]. As a result, education in tight societies places more emphasis on regulating and monitoring behavior than in loose societies.

It is not only family members and teachers, but also the media and the criminal justice system that reinforce people's socialization. Media in pine societies (e.g., USA, New Zealand) promote extensive socialization through openness and diversity of content, and their media are less regulated and less politically pressured. In contrast, media in tight societies (such as Singapore and Saudi Arabia) promote narrow socialization by placing stricter restrictions and regulations on their content (Sussman, 2002). Socialization is also enhanced by the nature of the criminal justice system. In a tight society, the range of punishments is much wider[29]. In Singapore, for example, failing to flush the toilet or spitting out gum can also result in fines or imprisonment. Meanwhile, tighter societies impose harsher penalties for crimes, such as amputation and caning in Iran and Saudi Arabia; Singapore imposes the death penalty for drug offences. In short, individuals are socialized in various social institutions, but the difference is that these institutions promote broad and narrow socialization in loose and tight societies, respectively.

## 3.2. Loose-tight culture and organizational culture

From the perspective of the new dimension of culture, the loose - tight culture in society has a top-down and bottom-up impact on the organization. First of all, loose - tight culture has a top-down impact on the organization. An organization is an open system that perpetuates and reinforces norms in society. Studies have shown that top-down and cross-level social effects exist; therefore, organizations usually also reflect the loose-tight culture in society (Gelfand et al., 2006). Organizations in tight societies tend to be highly binding and more restrictive about the scope of acceptable behaviour, which promotes order and predictability. Organizations in pine societies tend to be more culturally liberal and have a wider range of acceptable behaviors, which promotes openness and novelty. Some indirect evidence supports this view. Dastmalchian (2000) et al[30]. found that Korean organizations were more rigid and controlled than Canadian organizations. Moreover, compared with loose society, organizations in tight society tend to select and recruit employees who conform to the organizational culture. At the same time, socialization and employee training are more common in tight societies, because intensive training and socialization are essential to convey organizational standards and enhance accountability[31]. Finally, the performance rules of organizations in a tight society are more perfect, and those who violate the organizational norms will be punished more severely.

At the same time, the bottom-up process also affects the tightness of the organization, which needs to be discussed in relation to the psychological characteristics and organizational characteristics. To some extent, individuals in tight societies have a higher sense of responsibility and emphasize norms such as

order, predictability and control. In contrast, pine societies have low levels of individual responsibility and emphasize flexibility, risk-taking, and novelty. In other words, through socialization, the psychological characteristics and behaviors of employees are amplified and manifested in the organization as a collective phenomenon (Gelfand et al., 2006) [32].

## 3.3. Loose-tight culture and personality

Extraversion, agreeableness, conscientiousness, neuroticism and openness are known as the "Big Five" factors of personality, which has become the best paradigm of personality trait theory at present. Gelfand(2011) proposed that compared with loose culture, the society under tight culture should cultivate and strengthen the expression of certain psychological traits, which in turn can strengthen the strength of social norms in the scene. Therefore, Gelfand et al. tested the relationship between loose and tight culture and personality through the Big Five personality model, assuming that tight culture is positively correlated with conscientiousness, because conscientiousness is related to the following characteristics: impulse control, self-restraint, prudence, self-discipline, delayed gratification, desire for order, and compliance with rules; It is assumed that pine culture is positively associated with openness because this dimension is associated with the following characteristics: non-traditional values, experience, curiosity, cultural tolerance and novelty. The other three dimensions of the Big Five personality model, extraversion, agreeableness, and neuroticism, were also explored, but no preassumptions were made. The results showed that societies in tight cultures did exhibit greater conscientiality, as assessed by the combined scores of two items on the DDB Needham Lifestyle Survey: "I'm not risk-averse" and "I'm the type of person who will try everything once"; Tight culture was also negatively associated with openness, as assessed in the same database, with the following item: "I am interested in the culture of other countries". Of note, this latter finding may also suggest that tight culture is negatively associated with cosmopolitanism, which is defined as a more inclusive moral, economic, and political relationship between states and peoples, that is, an openness to different cultures. The study also found that agreeableness was positively correlated with tight culture, but not significantly. The neurotic dimension is not related to the loose-tight culture.

## 3.4. Loose-tight culture and subjective well-being

To some extent, tight culture is an adaptation to ecological and man-made threats. In this culture, high social norms and strict punishment for deviant behaviors can maintain and coordinate social cohesion. Therefore, Gelfand et al. (2014) studied the relationship between tight culture and subjective well-being. On the one hand, the constraints associated with tight culture have a linear (and negative) effect on happiness. On the other hand, both extremes may produce greater unhappiness. The extreme tight culture may make people feel strongly unhappy due to excessive constraints and behavioral restrictions, while the extreme loose culture may have high unhappiness due to excessive freedom, instability and social chaos. Using state averages from a large nationwide dataset collected using social media, Gelfand et al. found a negative linear relationship between tight culture and well-being that persisted despite controlling for poverty rates. Moreover, there is no curvilinear relationship between loose and tight culture and happiness. Although some studies do not recognize the influence of loose and tight culture on happiness, more studies show that people's happiness is significantly influenced by loose and tight culture (Khumalo et al., 2019) [33]. Chua et al. (2019) showed different results in their research on the tight culture in 33 provinces of China. The researchers conducted a regression analysis on the life satisfaction reported by the General Social Survey of China (2013) and found that tight culture was significantly positively correlated with life satisfaction. This is different from previous findings, but it is consistent with the cultural background of China. Compared with Western countries, Chinese people have a relatively high degree of dependence on others in their self-construction, and tend to seek a sense of belonging and comfort in a normative social group (Gelfand, 2019). Therefore, it is not the loose culture or tight culture alone that makes people happy. As Plaut (2012) revealed in his research, different loose cultures have different external stimuli that can cause happiness, and loose culture or tight culture can only bring more happiness if it matches with other cultural characteristics.

#### 3.5. Loose-tight culture and Bias

In recent years, nationalist parties and policies have emerged in many Western countries. In 2016, after being elected president of the United States, Trump drafted laws that would deport anyone who entered the country illegally and build a border wall. In Europe in the same year, support for populist parties and distrust of ethnic minorities and immigrants reached a 30-year high, leading to the election

of nationalist leaders in Poland and the Czech Republic, and possibly the UK's exit from the EU (Martin et al., 2018). This escalation of nationalism has puzzled scholars and politicians alike, and has drawn attention from scholars to the cultural and social aspects of prejudice and nationalism. In social psychology, prejudice is often understood as a wrong attitude. If one is prejudiced against a certain social group, there is a tendency to judge its members in a particular (and often negative) way, while paying little or no attention to the specific circumstances and performance of that member. Therefore, social psychologists generally believe that prejudice can be defined as an unfair attitude towards a certain social group and its members, which is a prior or preconceived judgment. Prejudiced attitudes vary widely around the world, and cultures become more prejudiced when people strengthen social norms in response to destabilizing ecological threats. It has been found that countries with tight cultures, as well as US states, tend to have the greatest prejudice against colour, religion, nationality and sexual orientation, and that tight cultures can also explain why bias is strongest in regions with a history of ecological threats (Jackson, 2019). The theory of loose-tight culture suggests that both individuals and groups tend to be tight when faced with threats, because strict norms and clear punishments can better maintain social order (Gelfand et al., 2016). If tight culture is associated with bias, then ecological threats provide an ecological basis for understanding differences in bias through their effects on tight culture. In fact, there is evidence that threats such as shortages and epidemics are indeed associated with prejudice (Gina & John, 2018). Studies have found that areas with high levels of ecological threats, such as disease, war, and material shortages, tend to have tight cultures, and people living in tight cultures have higher levels of prejudice against ethnic, religious, and sexual minorities (Jackson, 2019). Because tight culture is negatively correlated with innovative thinking that may break social order (Chua et al., 2014). Therefore, if an individual belongs to a minority ethnic group, follows a minority religion or has a minority sexual orientation, then people may regard him as a person who disrupts the social order, thus increasing the prejudice against him (Jackson, 2019). However, this does not mean that tight culture is the only cultural factor related to prejudice. Factors such as religion and material shortage can predict prejudice and discrimination in different cultures (Cohen et al., 2006; Watts et al., 2016; McNamara et al., 2016).

## 3.6. Tension culture and COVID-19

COVID-19 is a global health crisis. Some studies regard ecological threats, such as pathogen outbreaks, wars, resource scarcity, and natural disasters, as factors that threaten social survival (Jackson, 2019). Thus, COVID-19 can be clearly viewed as a global ecological threat. When ecological threats become severe, societies are more likely to enforce social norms and punishments for deviance, such as in a tight-culture country like Singapore, with clear social norms and strict punishments; On the contrary, some countries in the pine culture, such as the United States and Brazil, have less clear and strict social norms and are more tolerant of deviant behaviors (Gelfand, 2011). Therefore, compared with loose cultures, people in tight cultures are more likely to have clear and strict rules and follow them, and they are more likely to regulate their behavior and increase self-control in order to avoid punishment. The global COVID-19 pandemic has brought many uncertainties, and past studies have shown that when faced with unknown threats, people want clear and strict social norms, with the aim of restoring the original security and social order (Jonas et al., 2014). So, there are many rules under the COVID-19 outbreak, such as wearing masks, banning crowds, etc., and the people who are most supportive of these rules are likely to have greater self-control and more regulated behavior. Thus, taken together with previous studies, concern about the ecological threat of COVID-19 increases people's desire for and support for tight culture, which in turn improves their self-control (Silvana et al., 2021). Since ecological threats require such social coordination, strict adherence to social norms is a key mechanism by which people can achieve their goals. Gelfand et al. (2021) fitted a series of data in the Lancet and found that the number of COVID-19 cases in pine-culture countries was 4.99 times higher than that in tight-culture countries, and the death toll was 8.71 times higher than that in tight-culture countries. Suggesting tight culture can better control of the new cases and deaths, but this does not mean that all countries close culture well suppress the new crown and the spread of the virus, not all loose culture of state control the spread of the new champions league effect is bad, but in such a collective under threat, pine culture can be a disadvantage. In preparing for future outbreaks, countries can learn from tight-culture countries, such as China, which has kept both COVID-19 infection and death rates low without completely shutting down its economy by exercising self-control through physical distancing, wearing masks and avoiding crowds. However, in the place where the outbreak, some culture of the country, because of the long faced ecological threat is less, they may be to have an optimistic attitude, new crown outbreak they may boycott the increasing number of constraints, the desire for more freedom, think new crown is temporary, and severity is not high, but facts have proved that it is not realistic. During the global COVID-19 pandemic, countries varied widely in their ability to control COVID-19 cases and deaths, and understanding the

sources of this variation is critical not only to the development of theories but also to provide interventions in response to future threats.

## 4. Conclusion

In this paper, the loose - close cultural literature made an introductory review, first of all, this paper introduces the concept of loose - close culture, distinguish with other cultural dimensions and loose - close cultural theory, secondly, based on the existing research, focus on loose - close cultural and social, organizational culture, personality, subjective well-being, the prejudices, and the outbreak of the new champions league. In the past, the cross-cultural field has been devoted to the study of the impact of values on culture. Although it is still dominated by values, culture is a complex phenomenon, which needs multi-level and multidisciplinary perspectives to fully explore its deep-seated problems. Therefore, simply focusing on cultural values is not enough to dissect its complexity. The emergence of loose-tight culture has tilted the balance toward a more complete perspective of cultural differences (Gelfand et al., 2006). In such a globalized era, understanding loose - tight culture is not only important to promote cross-cultural research, but also has certain practical significance for the whole psychology and social sciences.

#### References

- [1] Barry, H., Child, I. L., & Bacon, M. K. Relation of child training to subsistence economy. (2010). American Anthropologist, 61(1), 51-63.
- [2] Carpenter, S. Effects of cultural tightness and collectivism on self-concept and causal attributions. (2000). Cross-Cultural Research, 34(1), 38-56.
- [3] Chiu, L.H. Child-Rearing Attitudes of Chinese, Chinese-American, and Anglo-American Mothers. (2007). International Journal of Psychology, 22(4), pp. 409-419.
- [4] Chua, R., Huang, K. G., & Jin, M. Mapping cultural tightness and its links to innovation, urbanization, and happiness across 31 provinces in China. (2019).
- [5] Chua, R., Roth, Y., Lemoine, J. F., Chua, R., & Lemoine, J. F. How culture impacts creativity: cultural tightness, cultural distance, and global creative work. (2014). Administrative Science Quarterly. Proceedings of the National Academy of Sciences, 116(14), 6720-6725.
- [6] Cohen, T. R., Montoya, R. M., & CA Insko. Group morality and intergroup relations: cross-cultural and experimental evidence. (2006). Pers Soc Psychol Bull, 32(11), 1559-1572.
- [7] Dastmalchian, A., Lee, S., & Ng, I. The interplay between organizational and national cultures: a comparison of organizational practices in Canada and south Korea using the competing values framework. (2000).
- [8] Gelfand, M. J., Leslie, L. M., Lun, J., Raver, J. L., & Nishii, L.Differences between tight and loose cultures: a 33-nation study. Science. (2011).
- [9] Gelfand, M. J., Nishii, L. H., & Raver, J. L. On the nature and importance of cultural tightness-looseness. (2006). Journal of Applied Psychology, 91(6), 1225-1244.
- [10] Gelfand, M. J., Jackson, J. C., Pan, X., Nau, D., & Wang, M. The relationship between cultural tightness-looseness and covid-19 cases and deaths: a global analysis. (2021). The Lancet Planetary Health.
- [11] Gelfand, M. J., Universal and culture-specific patterns of tightness-looseness across the 31 Chinese provinces. (2019). Proceedings of the National Academy of Sciences.
- [12] Gelfand, M. J., Patrick, Roos, & Dana, et al. Societal threat as a moderator of cultural group selection. (2016). Behavioral & Brain Sciences.
- [13] Gina, R., & John F. Dovidio. Hate Speech Is in the Eye of the Beholder: The Influence of Racial Attitudes and Freedom of Speech Beliefs on Perceptions of Racially Motivated Threats of Violence. (2018). Social Psychological and Personality Science, 9(2), pp. 176-185.
- [14] Hofstede, G., Culture's consequences. (2008). Shanghai Foreign Languag.
- [15] Holloway, S. D. Divergent cultural models of child rearing and pedagogy in Japanese preschools. (2010). New Dir Child Adolesc Dev, 1999(83), 61-75.
- [16] Ho, D. Traditional patterns of socialization in Chinese society. (1981). acta psychologica taiwanica. [17] Harrington, J. R., & Gelfand, M. J. Tightness—looseness across the 50 united states. (2014). Proceedings of the National Academy of Sciences of the United States of America, 111(22), 7990-5.
- [18] Jackson, J. C., Egmond, M. V., Choi, V. K., Ember, C. R., & Gelfand, M. J. Ecological and cultural factors underlying the global distribution of prejudice. (2019). PLoS ONE, 14(9), e0221953.
- [19] Jonas, E., Mcgregor, I., Klackl, J., Agroskin, D., Fritsche, I., & Holbrook, C., et al. Chapter four-threat and defense: from anxiety to approach. (2014). Advances in Experimental Social Psychology, 49,

- 219-286.
- [20] Jensen, A. J. Broad and narrow socialization: the family in the context of a cultural theory. (1995). Journal of Marriage and the Family.
- [21] Khumalo, I. P., Wilson-Fadiji, A., & Brouwers, S. A. Well-being orientations and time perspective across cultural tightness—looseness latent classes in Africa. (2019). Journal of Happiness Studies (1).
- [22] Mu, Y., Kitayama, S., Han, S., & Gelfand, M. J.How culture gets embrained: cultural differences in event-related potentials of social norm violations. (2015). Proc Natl Acad Sci U S A, 112(50), 15348-15353
- [23] Mula, S., Santo, D. D., Gelfand, M. J., Ca Bras, C., & Pierro, A. The mediational role of desire for cultural tightness on concern with covid-19 and perceived self-control. (2021). Frontiers in Psychology, 12.
- [24] Martin Obschonka et al. Fear, Populism, and the Geopolitical Landscape: The "Sleeper Effect" of Neurotic Personality Traits on Regional Voting Behavior in the 2016 Brexit and Trump Elections. (2018). Social Psychological and Personality Science, 9(3), pp. 285-298.
- [25] Mcnamara, R. A., Norenzayan, A., & Henrich, J. Supernatural punishment, in-group biases, and material insecurity: experiments and ethnography from Yasawa, Fiji. (2016). Religion Brain & Behavior, 6(1), 34-55.
- [26] Nakai, Y., Hirakawa, T., Milgrom, P., Coolidge, T., & Shimono, T. The children's fear survey schedule-dental subscale in Japan. (2010). Community Dentistry & Oral Epidemiology, 33(3), 196-204. [27] Plaut, V. C., Markus, H. R., Treadway, J. R., & Fu, A. S. The cultural construction of self and wellbeing: A tale of two cities. (2012).
- [28] Pelto, P. J.The differences between "tight" and "loose" societies. (1968). Trans-action, 5(5), 37-40. [29] Scarr, S. Biological and cultural diversity: the legacy of Darwin for development. (1993). Child Development, 64(5), 1333-1353.
- [30] Susan, C., Hupp, Shui, Fong, & Lam, et al. differences in exploration of toys by one-year-old children: a Korean and American comparison. (2016). Behavior Science Research, 26(1-4).
- [31] Sussman, L. R. The press: marksman and target in the war on terrorism. (2002). Annual Survey of Press Freedom.
- [32] Watts, J. et al. Ritual human sacrifice promoted and sustained the evolution of stratified societies. (2016). Nature, 532(7598), pp. 228-31.
- [33] Zahn-Waxler, C., Friedman, R. J., Cole, P. M., Mizuta, I., & Hiruma, N. Japanese and united states preschool children's responses to conflict and distress. (2010). Child Development, 67(5), 2462-2477.