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**Integrated threat theory: Exploring prejudice toward the “Other” during the outbreak
of COVID-19 pandemic**

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Abstract

Since the first wave of the COVID-19 outbreak, thousands of cases related to discrimination, racism, and hate crimes toward Asian community have been reported all over the world.

Utilising integrated threat theory (ITT) as its theoretical backbone, this thesis considers the impacts of perceived threats on anti-Asian attitudes/behaviours spreading at the same time as the global health pandemic. Therefore, this thesis focuses on the following purposes. First, it is crucial to investigate the why Asian groups have been blamed for the spread of COVID-19 worldwide. Second, this study investigates how a contagious virus affects different levels of prejudice toward the “other”, particularly Asians, amid a global health crisis. Third, the author aims to assess the cross-cultural validity of the existing measures to discover whether they are equivalent and applicable in different cultural settings. Finally, this thesis aims to respond to the way that how theoretical concepts and theories have been shifted in thinking about prejudice during the pandemic. The findings support previous studies that showed the use of social media may enhance factors of intergroup threat which may lead to prejudicial attitudes and behaviours. Also, the results reveal that COVID-19 is a stigmatizing disease and perceived as a danger of contact. Therefore, the study findings suggest using ITT as a theoretical guideline to predict prejudice and how publics attribute blame to a specific target group. Besides, it is significant to look beyond theories to better our understanding of public stigma in such a pandemic like COVID-19 because there might be a relation between perceptions of threats and blame attribution.

Key words: integrated threat, prejudice, ethnocentrism, media richness, blame attribution, COVID-19

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Introduction

The author started her doctoral journey in early 2020, aiming at a theory-testing study with Integrated Threat Theory serving as a theoretical backbone. After two months, the arrival of COVID-19 plus the increase of prejudice around the world made her to explain this phenomenon. Accordingly, as a social scientist, the author decided to study this global phenomenon by using the initial theoretical background and applying a social scientific methodological approach.

Like any social scientific research, it is impossible for this study to avoid error, uncertainty, and ambiguity at some levels because measurement error in social scientific research reflects the variability of social objects related to the phenomenon studied (Bhattacharjee, 2012). As a result, the main purpose of this exploratory research is to discover explanations for prejudice – a social phenomenon – toward a particular group of people, Asian in this case, in such a global health crisis context based on a systematic and organised theoretical framework and a social scientific method. Specifically, the ultimate goal of this thesis is to contribute to the progress of theories used in this study through the author's own observations.

On December 30, 2019, Wuhan Municipal Health Commission, China officially reported to the World Health Organization (WHO) a cluster of pneumonia cases caused by a novel coronavirus in Wuhan, Hubei Province (WHO, 2020). Not long after that, Centers for Disease Control and Prevention (CDC) confirmed the first case of COVID-19 in the U.S on January 20, 2020 (CDC, n.d.). Then, the White House held a series of press conferences related to this matter. However, some government officials, including former President Donald Trump, repeatedly called the novel coronavirus “Chinese virus”, “Wuhan virus”, or

“Kung-flu” despite the fact that health officials had said ethnicity does not cause the novel coronavirus (Mangan, 2020). In addition, several media outlets in the U.S. also had misleading headlines like “Chinese virus pandemonium” or “China kids stay home” (Wen et al., 2020). No matter whether it was intentional or unintentional, these sayings had been broadcasted, tweeted/retweeted, and shared throughout social media platforms. Since then, dozens of racist incidents such as racial slurs, verbal harassments, and physical attacks toward Asian-Americans have been reported (Margolin, 2020). Coincidentally, the more the novel coronavirus spread, the more anti-Asian American sentiments were spreading via social media in the U.S. The first piece of her research, published in June 2020, was to better understand how a dominant culture group expressed their fear and prejudice toward Asian-Americans in such a global health crisis circumstance, which is a really good fit for her thesis as a whole as the study has explained threat perception is one of the main reasons causing prejudicial attitudes and behaviours among dominant group culture in the U.S.

As of the time doing her research, the U.S., Italy, and Spain were among the top countries which had the most deaths and confirmed cases while New Zealand sat among the countries having a low number of death toll and cases (Johns Hopkins Coronavirus Resource Center, updated daily). Even though Asian groups have experienced increased prejudice since the outbreak of COVID-19, the official reports related to these incidents have had a lower number than any other countries (Ziems et al., 2020; Tan, 2020). On the other hand, New Zealand has responded to the pandemic at only one centralised national level, which is different from the other three nations implementing both national and state/local levels. Because of the above reasons, the author decided to study to what extent prejudice against minority group, in this case Asian, differed in these four countries by also using Integrated

Threat Theory as a theoretical guideline in her second piece of research, published in February 2021. The second piece was the extension of the first piece by adding three countries and removing the social media construct to conduct a mere cross-cultural nature study regarding the backbone theory of her whole doctoral thesis. The results from different national samples were expected to discover both similarities and differences on how prejudice was manifested in these countries as of the time of study.

The author was based in New Zealand and witnessed a clinical, economic, and humanitarian crises at different levels (local, national, and global) caused by COVID-19 pandemic while doing her doctoral studies. Although the pandemic had brought an increased number of racist incidents toward Asian-descent individuals, there was little evidence on public perception of blame for the spread of the virus. Therefore, the author wanted to extend ITT and blame attribution theory to examine to what extent prejudice was related to blame attribution by employing a mixed-methods approach in the context of the COVID-19 outbreak in New Zealand in her third piece of study, published in August 2021. The third piece was the author's first attempt to discover the link between perceptions of threat and blame attribution to see how threats had been developed in ambiguous circumstances as in the COVID-19 pandemic.

In general, the combined of the three articles to the field were to investigate how ITT had shifted and could be applied as a framework to discover how a minority group was discriminated against and stigmatised during a global pandemic. In fact, the author attempted to study the same thing – prejudice – but employed different methods in each article. The main goal of this attempt was to explore the progress of ITT. On the other hand, the author's

main contribution to the field was to look into how ITT had changed/shifted based on the context of a global health crisis.

Background and motivation

Within six months of the World Health Organization (WHO) declaring COVID-19 outbreak a global pandemic, the number of confirmed cases and deaths related to this novel virus had reportedly surpassed 72 million and 1.6 million accordingly. (“Coronavirus: Global COVID-19 death toll passes one million”, 2020; Winsor & Shapiro, 2020). As of February 2022, more than 419 million people have tested positive for COVID-19 and the number of deaths has exceeded 5.9 million (Worldometer, updated daily). According to WHO (n.d.), the new coronavirus has spread to more than 230 countries, areas, and territories. The pandemic has had huge impacts not only on individuals but also economies and healthcare systems worldwide. Physically and mentally, billions of people have been put into social isolation and loneliness while on lockdown (Holt-Lunstad, 2020). A study by Kringos et. al (2020) has shown that the pandemic has created a public health crisis in terms of clinical and organisational challenges.

According to Johns Hopkins University, COVID-19, causing respiratory illness, is identified as a new coronavirus – SARS-CoV-2 (Sauer, 2020). As a dangerously novel and highly contagious disease, it made a lot of governments, at both national and subnational levels, struggle to manage appropriate approaches to prevent public health emergencies during the first wave of its spreading (Wang et al., 2020). As of early 2022, the world is still learning how to cope with changes during the pandemic and prepare for the “new normal” with COVID-19. In general, due to its uncertain nature, the pandemic has both short-term and long-term effects on people’s lives around the globe.

The novel virus has disrupted the global economy because of border closures, trade restrictions, and complete or partial national lockdown. During lockdown, most businesses (except essential ones), educational institutions, sport events, etc. were closed for a long time. Tourism and transportation industries seemed to suffer the most (Chakraborty & Maity, 2020). Millions of businesses are facing existential threats, billions of people in the labour workforce may lose their jobs (Chriscaden, 2020). In terms of economic damage, while there is no exact figure for how much the pandemic has cost the global economy, economists have estimated most major economies might have lost at least 3.4% (about 84.54 trillion U.S. dollars) a total of of their GDP (gross domestic product) over the year 2020 (Szmigiera, 2021).

People all around the world have been living in fear and instability because of this highly contagious virus. More seriously, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has reported the pandemic provoked racist incidents including racial slurs in public, verbal discrimination posts on social media and business boycotting acts against minority groups in the world (UNESCO, 2020). Humanitarian emergencies or crisis related to COVID-19 exist in various forms in many places around the world. It has led to the fact that the COVID-19 pandemic has caused a critical impact on not only the healthcare system, economies but also the societies (Chriscaden, 2020).

Among minority groups, individuals of Asian-descent have become one of the primary targets of prejudice and discrimination amid the pandemic and are largely blamed for causing COVID-19 (UNESCO, 2020). Despite all the COVID-19 related facts and figures reported by scientists and specialists, the rise of prejudice and xenophobia against individuals of Asian-descent has not stopped since the outbreak of the virus (Jackson, 2020). Aside from

individuals of Asian-descent, foreigners, migrant workers, and other minority groups have also been targeted for spreading the disease (McGuire, 2020; Wen et al., 2020). The victims' profile of COVID-19 related discrimination and prejudice is different from nation to nation; however, there is one common pattern of the target individuals, they are the "other" (UNESCO, 2020). According to Guterres (2020), the COVID-19 pandemic has not only sent public health services into emergency and economies into turmoil but also raised the alarm about social and human crises. Therefore, this thesis examines prejudice against the "other" during the COVID-19 pandemic.

The author completed data collection for this study in the United States, Italy, Spain, and New Zealand in April 2020. This study was conducted for following purposes. First and foremost, this study focused on why minority groups had been blamed for the spread of COVID-19 in different cultural contexts. Betancourt et al. (1992) have emphasized the importance of culture in human behaviour; therefore, the goal is to identify the universal and cultural factors reflecting beliefs, values, and norms of the dominant groups toward the minority groups during the pandemic. Also, this research investigated how the virus, a contagion, affects the level of prejudice toward the "other" throughout the time of the COVID-19 pandemic. Next, the study responded to theoretical concepts and theories appropriately applied in different cultural contexts and settings. Fourth, this thesis assessed the cross-cultural validity of the measures used to find out whether the original measures are meaningful, applicable, and equivalent in other cultural settings (Matsumoto, 2003).

The results of this study offered several contributions related to theoretical concepts to the area of ITT and prejudice. Also, the study proposed suggestions for governments and health care industries to develop appropriate campaigns against prejudice based on the

findings of this research. Practically, this thesis conducted a mixed methods application in order to bring in an understanding of the phenomenon of prejudice amid the COVID-19 pandemic (Johnson, 2019).

Integrated threat, ethnocentrism, and attribution amid the COVID-19 pandemic

Discrimination, prejudice, xenophobia, and fear against the “other” have dramatically increased in many places around the world since the outbreak of COVID-19 (COVID-19-related discrimination and stigma: A global phenomenon, 2020). Inspired by intergroup contact and prejudice research, negative attitudes and prejudicial incidents toward the other group members (a minority group) from the dominant cultural group indicate the fears of contacting the virus (Allport, 1954; Croucher et al., 2020; Stephan & Stephan, 1996). One of the main factors explaining these fears is the perception of threat. Since the first introduction of integrated threat theory (ITT) by Stephan and Stephan (1996), it has been applied as a framework for understanding and predicting prejudice toward a specific group of people in a society. According to ITT, there are four types of threat: realistic threats, symbolic threats, stereotypes, and intergroup anxiety, which can cause prejudice (Stephan & Stephan, 1996).

Many people currently have blamed Asian communities for spreading COVID-19 (McGuire, 2020; Wen et al., 2020). Along with Asians, media and politicians in many other countries also have blamed migrant workers and foreigners (minority groups) for spreading the disease (Croucher et al., 2020). The victims of COVID-19-related hatred and discrimination share one common pattern, which is that they do not belong to a dominant cultural group and are considered as the “other” in these societies. Guided by attribution theory, the concerns of how people are being blamed for a specific event in a particular time and place can be explained (Weiner, 2000).

Social media use during the outbreak of COVID-19

Social media have become part of our everyday life as they have enhanced our online communication and collaboration. Today, social media not only broadcasts real time content but also provides an interactive peer-to-peer communication ground (Rajendran & Thesinghraj, 2014). Some of the most common social media platforms such as Facebook, Twitter, Youtube, etc. have been used not only during everyday communication but also during crises (Reuter et al., 2018). Crises, consisting of unpredictable and sudden events, can generate negative outcomes for all stakeholders (Coombs, 2021).

To cope with uncertainty, people tend to disseminate information in many creative ways by using communication technology (Palen & Anderson, 2016). One study has indicated that the use of online social media during some specific events, like disasters or crises, has been considered an important, emergent, and necessary form of public participation and secondary channel of communication (Palen, 2008). Besides a great number of merits, social media also draw some demerits which negatively impact people and produce negative consequences (Siddiqui & Singh, 2016). The author wanted to focus on the relation between prejudice and the use of social media only instead of other forms of media because messages on these platforms have been found to gain exposure through sharing and/or retweeting (Vos et al., 2018).

Since the outbreak of COVID-19, millions of people have been sent into physical isolation in many parts of the globe; therefore, people rely on social media as a virtual place for connecting with others and keeping themselves up to date with the world. Social media platforms such as Facebook, Twitter, Youtube, and others help people facilitate human interactions. Therefore, social media consumption has rapidly increased (Holmes, 2020).

Furthermore, from the outbreak of the pandemic, many authorities have organized official COVID-19-related posts on social media channels to convey strategic responses to the public (Li et al., 2020). As of April 2020, nearly four months after the first outbreak, governments in 167 nations had provided information about COVID-19 on their national portals and social media platforms to engage people (UN, 2020). In general, social media has had a significant role in human communication and had a significant impact on the public's perceptions during a crisis (Schultz et al., 2011).

The development of different social media platforms has opened a new way for people to present themselves and express their thoughts, reactions, and opinions about ongoing events (Chavez-Dueñas & Adames, 2018; Mayer et al., 2020). Social media has also become a means to either virtually discriminate or fight against discrimination through different platforms as it influences perceptions and responses of individuals (Croucher et al. 2020; Paterson et al., 2019). Social media platforms have created a new playground for racism. For example, minority group members are increasingly being prejudiced and discriminated against because of their appearance and/or accent (Yang & Counts, 2018). Recent studies have argued that social media has a crucial impact on hate crimes both directly and indirectly (Paterson et al., 2019; Relia et al., 2019). On the other hand, social media is also a useful tool for people to oppose unfair race-related treatment and support anti-discrimination activities (Chavez-Dueñas & Adames, 2018).

The Internet evolution has brought convenience and variety to the public when it comes to the needs of obtaining and sharing information (Gaskins & Jerit, 2012). A study has shown that there is an increase of emotion-baring texts/messages published on social media by using emoticons and Internet slang (Choi et al., 2017). Besides, Choi et al. (2017) have

argued that the overreaction of the public during an infectious disease outbreak may be drawn from the interactions between mass media usage and public emotions.

While COVID-19 has been spreading, social media platforms have accidentally become virtual battlegrounds as people show massive engagement and interest in COVID-19 topics (Cinelli et al., 2020). Media outlets have contributed to prejudice, discrimination, and xenophobia (Aten, 2020). Moreover, studies have shown that misinformation and misleading messages such as “Chinese virus pandemonium” or “Go eat bat, Chang!” on social media outlets and platforms have raised more concerns about hateful language and hostility online (Schild et al., 2020; Vidgen et al., 2020; Wen et al., 2020). In contrast, social media platforms help disseminate messages opposing discrimination and prejudice such as the #IAmNotAVirus campaign, which has been put atop user feeds on Facebook and Twitter (Croucher et al., 2020; McGuire, 2020). Altogether, depending on how the messages and information disseminated throughout social media platforms, public’s perceptions about the pandemic may particularly differ.

Prejudice, discrimination, xenophobia, and fears against minority groups, especially Asian-descent communities have increased the whole world over during the COVID-19 pandemic (UNESCO, 2020). Along with individuals of Asian-descent, foreigners, migrant workers, and other minority groups have been blamed for spreading the virus (McGuire, 2020; Wen et al., 2020). Such negative attitudes, discriminatory behaviours, and hatred incidents demonstrate fears of contacting the highly contagious virus (Croucher et al., 2020). Threat perception is one of the main factors causing these fears. However, there is a research gap in finding how some minority groups are blamed for a specific event because of the fears of the superior groups. Especially the blame for the spread of the virus has rapidly gone viral

and social media platforms have accidentally been virtual battlegrounds of COVID-19-related topics in a multicultural context.

Aims of the study

In line with Stephan and Stephan's integrated threat theory (1993, 1996, 2000), to predict, explain, and understand prejudice, there are four main types of threats: realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes. The main aim of this thesis was to investigate to what extent threats can predict prejudice among dominant culture groups against the other minority groups, especially Asian-descent individuals in this case, in the context of COVID-19 pandemic around the world. Besides, this thesis sought to understand the perception of threats and how they manifest and lead to prejudicial attitudes and discriminatory behaviours amid a global health crisis. As of early 2022, the pandemic is still going on and so is prejudice. With the current global pandemic and the on-going social and human crises at hand, it is necessary to understand prejudicial attitudes and discriminatory acts against not only Asia-descent individuals, representing a minority group who is the most stigmatized one amid COVID-19 pandemic, but also other target subculture groups. On the other hand, this thesis also aimed to investigate the relationship between perception of threats and blame attribution as well as media use to better our understanding of prejudice. Therefore, in order to find out the critical points of this study, the initial research questions were proposed:

RQ1: To what extent does integrated threat theory model exhibit evidence of validity and reliability in multinational contexts during the COVID-19 pandemic? (Article 2)

RQ2: To what extent does social media use predict prejudice toward the “other” during the COVID-19 pandemic? (Article 1)

RQ3: To what extent does the attribution model affect prejudice toward the “other” during the COVID-19 pandemic? (Article 3)

RQ4: How integrated threat theory can be utilized as a theoretical framework to apprehend prejudice in such a global health crisis like COVID-19 pandemic? (Book chapter)

The above research questions have been explored in three empirical studies introduced in this thesis. In general, this thesis is made up of three journal articles, which have been published, and one book chapter in press. The theoretical framework of these three articles was based on integrated threat theory, ethnocentrism, media richness theory, and attribution theory. Regarding the book chapter, it is an in-depth and in-breadth overview of how integrated threat theory has evolved, especially in the last several decades, and how to apply it as a theoretical guideline to understand prejudice in our contemporary society in different contexts.

Literature review

In relevance to the investigation of the above research questions, the following literature review aims to bring an overview of how prejudice has been performed during the outbreak of a contagious disease – COVID-19. The selected theories include integrated threat theory, ethnocentrism, blame attribution, and media richness theory. Also, it is important to understand intergroup communication to explore mutual influences between groups, sub-groups, and individuals. Therefore, the selected theories are presented hereafter clarifies conceptual framework to understand prejudice in the context of COVID-19 pandemic.

Intergroup communication

Back in 1960s, the studies of intergroup communication focused on the speakers' language on impressions amongst bilingual listeners (Lambert et al., 1960). Since then, there has been an evolvement exploring the complexity and nuance in interethnic and intercultural communication (Gallois et al., 2018). However, instead of discovering the process of communication, studies only emphasized stereotypes, attitudes, and discriminatory behaviours back then (Gallois et al., 2018). Now, intergroup communication research has become more and more interdisciplinary, and researchers have shown interest in discovering the impact of social group memberships and inter-relations on communication and vice versa (Gallois et al., 2018). Therefore, there is a burgeoning literature combining the antecedents and consequences of communication with explorations of a more detailed process of communication (Giles & Maass, 2016).

In the last two decades, the rapid increase of globalization has led to the acceleration of intergroup and intercultural encounters; therefore, there is an increase in intergroup contact between people coming from different cultures, languages, and power differentials (Giles & Harwood, 2018). Intergroup communication, which evolved from intergroup relations, prejudice, and discrimination, has been academically recognized and identified recently (Giles & Harwood, 2018). According to Harwood et al. (2005), interlocutors may define themselves as either an ingroup or outgroup member while having an interaction; and this is how intergroup communication takes place. The studies of intergroup communication better the understanding of interconnections and mutual influences between individuals and groups (Gallois et al., 2018). As a result, this thesis emphasizes and supports previous studies on the importance of intergroup communication because of three key reasons:

1. There is a need to understand intergroup communication in the context of the global pandemic.
2. There is a need to explore intergroup prejudice and discrimination during the COVID-19 outbreak.
3. There is a need to examine how a global health crisis affects intergroup communication.

Integrated threat theory

An overview of prejudice

Prejudice is an on-going social problem the whole world over; and there is a long history of finding the explanatory factors of prejudice. In accordance with Allport (1954), no human being is born with prejudice; instead, prejudice is learned through a process. A group of negative attitudes and/or beliefs associated with negative emotions and/or hostility is the result of prejudice and discrimination from the ingroup (dominant cultural group) toward the outgroup (minority group) (Allport, 1954). Studies have asserted that there is a variety of explanatory factors of prejudice including personality, social group membership, conformity to values/beliefs, and cultural differences between ingroup and outgroup (McConahay & Hough, 1976; Sears, 1988; Pettigrew & Meertens, 1995). Research has shown when individuals from different cultural backgrounds interact with each other, conflicts and differences arise in many aspects from political points of view to social norms, cultural values, etc. (Croucher, 2017).

Social scientists and governments have attempted to do research on prejudice and intergroup attitudes for several decades. A few theories have been offered to understand prejudice and intergroup conflict. Among these theories, there are three theories proposing

the relationship between prejudice and threats: group position model (Blumer, 1958), realistic group conflict theory (Sherif, 1966), and symbolic racism theory (Kinder & Sears, 1981).

Later, in an effort to discover prejudice and the negative attitudes of the host culture group against other minority groups, Stephan and Stephan (1993, 1996) came up with the integrated threat theory (ITT) of prejudice.

The development of integrated threat theory

According to Allport (1954), prejudice is defined as “thinking ill of others without sufficient warrant” (p. 6). Besides acts of unequal treatment, prejudice also includes acts such as excluding outgroup individuals from neighbourhood, school, or workplace and boycotting their businesses, which are all the outcome of discrimination (Allport, 1954). Recent studies on prejudice, stigmatisation, and intergroup contact (Croucher, 2013, 2017; Roberto et al., 2020; Stephan & Stephan, 1993, 1996) have shown prejudicial attitudes and/or behaviours, unequal treatment, and discrimination are the result of fears and stigma the ingroup has toward the outgroup. Ward et al. (2016) have emphasized that threat perception is one of the explanatory elements of negative emotions and hostility of the dominant group against the minority group in multi-ethnic and multicultural group settings.

Given direction to Allport’s study on prejudice, Stephan and Stephan (1993, 1996, 2000) established and developed integrated threat theory. Since its first introduction, ITT has become a theoretical framework to apprehend, explain, and predict prejudicial attitudes and discriminatory incidents of the ingroup toward the outgroup (Croucher, 2013). According to ITT, there is an existence of belief that “other” cultures might pose some threats to one’s own culture (Stephan et al., 2000). Studies have shown these negative feelings may lead to intergroup prejudice (Esses et al., 1993; Stephan & Stephan, 2000).

Stephan et al. (2009) have also argued that a threat is experienced when group members perceive individuals of other groups tend to cause harm to them. Integrated threat theory is among the most influential theoretical frameworks describing how ingroup members perceive outgroup individuals as a threat (Tartakovsky & Walsh, 2016). According to Stephan and Stephan (2000), in a multicultural society such as the U.S., minority groups have always been under siege; and discrimination, prejudice, and stereotypes have been part of the fabric of these minority groups' lives. As a result, there has been a growing interest in approaching threats or fear as antecedents of prejudice and discrimination (Stephan & Stephan, 2000). The basic model of threat consists of realistic threat, symbolic threat, intergroup anxiety, and negative stereotypes (Stephan et al., 2000).

Realistic threat. The original concept of realistic threat comes from realistic group conflict theory developed by Sherif (1966), and LeVine and Campbell (1972). Primarily, the concept describes the concerns related to competition for scarce resources including wealth, territory, and natural resources (Bobo, 1988). Stephan and Stephan (2000) have differentiated their concept of realistic threats from the original one in two ways. First, the idea of threat is expanded to any threats to the group and its members' welfare. In other words, realistic threats are perceived threats opposed to the dominant group's existence such as threats to the welfare, physical and material well-being, economic and political power of the ingroup (Stephan & Stephan, 1996). Second, perceived realistic threat is significantly emphasized. Even though most realistic group conflict theories have stated there are both objective and subjective conflicts between groups (Bobo, 1988); Stephan and Stephan (1996) have emphasized the central role of perceived threat because the perception of threat only can lead to prejudice no matter the threat is real or not. Furthermore, Stephan and Stephan (2000)

argued that the existence of the threat is irrelevant, the perception of the threats is enough to cause prejudice toward the outgroup. Also, the more realistic threat the ingroup members perceive, the more prejudicial reactions they have toward the outgroup members (LeVine & Campbell, 1972; Ramsay & Pang, 2017).

Stephan and Stephan (1996) have also indicated that realistic threat is associated with perceived anxiety and anger. A research has suggested during COVID-19 pandemic, individuals find a target (mostly Asian populations) according to their existing stigma and prejudice; then, verbally and physically attack these minority groups both online and offline (Kim et al., 2021). In addition, a recent study has argued that the perception of realistic threats could be linked with how the media narrates the stories or frames the image of minority groups in a specific cultural context (Nshom et al., 2022).

Symbolic threats. Primarily, symbolic threats are perceived threats, including differences in value systems, to the ingroup's worldview (Stephan & Stephan, 2000). Some well-known theories of prejudice take different approaches to symbolic threats. The theories of symbolic racism and modern racism suggest the hostility a dominant cultural group towards minority groups is a response to their belief that subordinate cultures' values threaten their own group's traditional values (Kinder & Sears, 1981; McConahay, 1986; Sears, 1988). The social dominance theory proposed by Sidanius et al. argues that prejudice against subordinate cultural groups is a function a dominant cultural group's attempts to maintain social control (Sidanius et al., 1992). Ambivalence-amplification theory suggests that stigmatized groups are believed to violate the dominant group's values (Katz et al., 1988). In general, all the above theories of prejudice argue the feeling of ingroup's values threatened by the outgroup is a form of prejudice (Kinder & Sears, 1981; McConahay, 1986; Sears, 1988).

On the other hand, ITT posits that the feeling of being threatened is a cause of prejudice (Stephan & Stephan, 2000). Similarly, an approach to symbolic attitudes argues the more ingroup members feel their values and customs are obstructed by the outgroups, the more negative attitudes towards other groups they have (Esses et al, 1993). According to the ITT approach, it is significant to measure the feelings generated by challenges which are believed to pose a threat to the value system of the ingroup (Stephan and Stephan, 2000).

Symbolic threats are perceived threats to the dominant group's way of life, for instance, "morals, values, standards, beliefs, and attitudes" (Stephan & Stephan, 1996, p. 418). The main idea of symbolic threats is that the ingroup may hold negative attitudes toward the outgroup as the outgroup has different values from them (Stephan & Stephan, 1996). In other words, Spencer-Rodgers and McGovern (2002) have said cultural differences have an adverse effect on behaviours and attitudes of the ingroup toward the outgroup. For instance, a study has found that the interaction between symbolic threat and media reliance has an impact on cultural practice (White et al., 2012). As a result, perceived symbolic threats can cause prejudice because of differences in cultural perceptions (Spencer-Rodgers & McGovern, 2002).

Intergroup anxiety. Studies have shown intergroup anxiety has negative effects on intergroup relations (Gaertner & Dovidio, 1986; Gudykunst, 1995). For example, aversive racism theory indicates that unacknowledged negative affect, involving "discomfort, uneasiness, disgust, and sometimes fear", is one of the important factors of racism (Gaertner & Dovidio, 1986, p. 63). Anxiety/uncertainty management theory suggests that anxiety while having intergroup interactions is often led by negative expectations (Gudykunst, 1995). These theories, however, do not explicitly relate to prejudice.

On the contrary, ITT proposes to directly relate anxiety levels to prejudice (Stephan & Stephan, 2000). Moreover, intergroup anxiety helps better understanding of why intergroup interactions are more complicated and difficult than interactions between ingroup members only (Stephan, 2014). Intergroup anxiety arises when people feel threatened during intergroup interactions because they fear getting embarrassed or exploited (Stephan & Stephan, 1985, 2000). Also, intergroup anxiety occurs and negative feelings come to light when the outgroup has more (whether real or perceived) advantages than the ingroup (Islam & Hewston, 1993). In addition, intergroup anxiety tends to be particularly high if there is a history of antagonism, or little prior personal contact between groups (Stephan & Stephan, 1985, 1996). Consequently, intergroup anxiety results in negative expressions and behaviours of the ingroup against the outgroup (Stephan & Stephan, 1996).

Negative stereotypes. According to Hamilton et al. (1990), stereotypes are used as a basis for expectations related to stereotyped groups' behaviours. Therefore, if the expectations are negative, it may create fear of negative consequences, which leads to conflictual or unpleasant interactions between groups (Stephan & Stephan, 2000).

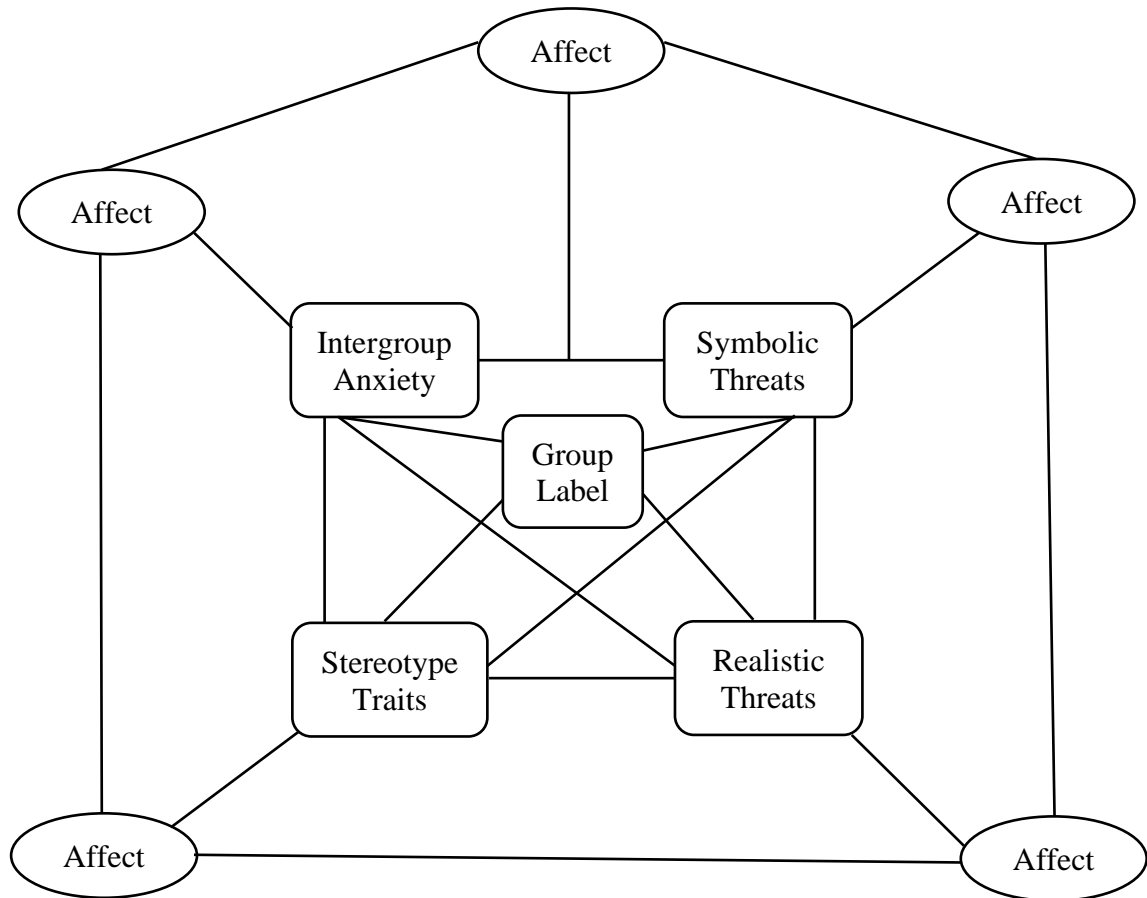
On the other hand, negative stereotypes represent a whole set of assumptions - implying threats of the ingroup about the outgroup because the ingroup members might be afraid of negative effects caused by the "others" while having an interaction (Croucher, 2017; Stephan & Stephan, 2000). Stereotypes also function as expectations related to behavioural and social attitudes of the stereotyped group's members (Hamilton et al., 1990). On the other hand, negative stereotypes may predict prejudice because ingroup members are more likely to have negative expectations in interaction with the outgroup individuals when negative traits have been already labelled to the outgroup (Stephan & Stephan, 1996). For example, if the

ingroup members assume the stereotyped group is unintelligent or aggressive, they will expect a negative interaction with its members (Stephan et al., 2000). As a result, studies have found that negative stereotypes are related to prejudice. If the outgroup's members fail to meet the ingroup's social and behavioural expectations, negative feelings may arise from the ingroup against the outgroup (Esses et al., 1990; Hamilton et al., 1990; Islam & Hewstone, 1993).

As a whole, Stephan and Stephan (1996) have argued all realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes include cognitions connected to social groups and affective responses (predominantly negative) (Figure 1) (Stephan & Stephan, 1996, p. 420). As a result, each of these types of threats can cause prejudice if its cognitions are associated with negative affect (Stephan & Stephan, 1996).

Figure 1

A radical network model of intergroup cognitions and affect (Stephan & Stephan, 1996, p. 420)



Even though a lot of studies have supported ITT, it has also been criticized for having only four types of threats to predict prejudice and ignoring other causes of prejudice and negative attitudes (Croucher, 2017). Stephan et al. (1999) admitted that ITT does not predict every facet of prejudice and negative attitudes because realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes are not the only predictors. Besides, researchers have pointed out the inexplicit conceptualization and suggested removing intergroup anxiety

and negative stereotypes from the ITT model (Riek et al., 2006; Croucher, 2016).

Consequently, the integrated threat theory model was revised (Stephan et al., 2015).

The revised theoretical version of ITT is called intergroup threat theory. Stephan et al. (2015) have withdrawn intergroup anxiety and negative stereotypes from the original ITT model's four types of threats (realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes). Instead, intergroup anxiety become a subgroup of realistic threats; and negative stereotypes are now considered as a subtype of both realistic threats and symbolic threats (Stephan et al., 2015). In the revised theoretical version of ITT, intergroup anxiety concerns the apprehensions while having an interaction with outgroup members (Croucher, 2017). Negative stereotypes serve as a subset of realistic threat when they are related to potential harms, such as dishonest or aggressive behaviours, to the ingroup; on the other hand, they are a subset of symbolic threat when they potentially bring in harms undermining the values, norms, and cultures of the ingroup (Croucher, 2017).

Also, intergroup threat theory has made a distinction between individual threats and group threats (Stephan & Renfro, 2002; Stephan et al., 2009). Individual threats are threats to individuals in a specific ingroup; and group threats are threats to an ingroup on the whole (Stephan et al., 2015). As a result, Stephan et al. (2015) have proposed four types of threats in intergroup threat theory: realistic group threats, realistic individual threats, symbolic group threats, and symbolic individual threats.

According to intergroup threat theory, realistic threats and symbolic threats are crucially important as they have behavioural, cognitive, and emotional effects on intergroup relations (Stephan et al., 2015). In terms of behavioural effects, intergroup threats may lead to discrimination, prejudice, violence, harassment, etc. In terms of cognitive effects, the

intergroup threats have an influence on individuals' perceptions of an outgroup; therefore, they may trigger negative stereotypes, ethnocentrism, and hatred toward the outgroup. In terms of emotional effects, intergroup threats may activate a variety of negative emotions like "anger, anxiety, rage, disgust, dread, vulnerability, frustration, panic, helplessness, alarm, contempt, and righteous indignation" (Stephan et al., 2015, p. 267).

Contextual application of integrated threat theory

Integrated threat theory has been broadly studied and tested in different contexts. Namely, researchers have applied ITT in numerous studies including research on interethnic relations, migration, cross-national relations, prejudice toward people with health issues or LGBTQ community, etc. (Croucher, 2017).

To illustrate, the roles of realistic and symbolic threats, and intergroup anxiety are described as proximal predictors of prejudice in the cross-national relations between Hindus (majority) and Muslims (minority) in India (Tausch et al., 2009). In addition, negative stereotypes have been found to predict prejudice toward immigrant workers in organizational settings in the Netherlands (Curşeu et al., 2007). On the other hand, in the context of communication and media, recent studies have found that threatening messages on immigration media coverage (e.g., more job competition, life erosion of majority group's way of life, etc.) result in surging negative attitudes and feelings of anger against minority groups (Atwell-Seate & Mastro, 2016; Atwell-Seate et al., 2018). ITT has also been applied in the medical context, with a few studies. Research has demonstrated prejudice toward people with health issues like cancer, HIV/AIDS, or disabilities, etc. (Berrenberg, 1989; Berrenberg et al., 2002; Bustillos & Silván-Ferrero, 2013).

Although the ITT model has been extensively applied and developed in numerous areas, such as communication, psychology, sociology, and political science, the author of this study would like to further explore the development and application of the theory based on a set of the following purposes. First, the author would like to consider moving beyond quantitative method; instead, the author aimed to apply both quantitative and qualitative methods to test ITT and to fill in the gap of how these threats were blamed amid a global health crisis. Second, the author aimed to investigate the relations between threats and ethnocentrism, threats and blame attribution, and threats and media use in a multicultural context in order to test the validity of theoretical constructs. As a whole, this thesis aimed to explore different levels of prejudice, xenophobia, and racism against the “other” (in this case Asian – minority group) amid the COVID-19 pandemic and ITT serves as the theoretical backbone of the study.

Integrated threat and ethnocentrism

One of the core concepts for understanding intergroup relations, attitudes, and behaviours of one group toward another group is ethnocentrism (Neuliep & McCroskey, 1997). However, the concept of ethnocentrism was not officially recognized in literature until 1906 (Sumner, 1906) even though there was an argument before this that tribes had more sympathetic tendencies towards their own groups than other ones (Darwin, 1874). Since then, it has been widely used by social scientists and other scholars (Bizumic, 2018).

Nonetheless, there is no general agreement on what exactly ethnocentrism is. Mostly, ethnocentrism is considered an attitudinal construct centered on the belief that one’s ethnic group is much more superior than others (Bizumic, 2018). As an attitude, it has both emotional and behavioral aspects in different degrees, which are rooted in the human mind in

every ethnic group (Bizumic, 2018). Studies have documented the negative effects of ethnocentrism; for example, ethnocentrism creates group bias resulting in prejudice and xenophobia (Dreu et al., 2011). Also, ethnocentric behaviours include cooperative attitudes within one's own group but not with the outgroup members (Neuliep, 2017).

Researchers have studied ethnocentrism from different perspectives from biological to psychological variables (Keith, 2019). For instance, in terms of biological perspectives, perceived vulnerability to a disease may lead to negative attitudes towards outgroup individuals (Faulkner et al., 2004; Navarrette & Fessler, 2006; Navarrette et al., 2007). On the other hand, intolerance for ambiguity is one of the psychological variables related to ethnocentric behaviours against the outgroups members (Block & Block, 1951; O'Connor, 1952; Cargile, 2013). Another study has suggested ethnocentrism contributes significant insights to outgroup hostility; and group-specific explanations may better our understanding of negative affects on different ethnic groups (Kinder & Kam, 2010). Besides, although ethnocentrism and ethnic prejudice are two separate constructs, they are related to each other (Bizumic & Duckitt, 2012; Brewer, 1999). On the other hand, the higher ethnocentrism scores, the higher levels of ethnic prejudice can be predicted (Huxley et al., 2015).

In terms of communication discipline, ethnocentrism refers to discriminatory behaviours between ingroup favouritism and outgroup hostility as ethnocentric individuals perceive their own group as the centrality and tend to have negative attitudes and behaviours toward other groups (Hammond & Axelrod, 2006; Neuliep & McCroskey, 1997).

Ethnocentric behaviours depend on group boundaries consisting of different characteristics, e.g., language, religion, accent, or physical features (Hirschfeld, 1996; Sumner, 2002). Also, Lamont and Molnár (2002) have discovered group boundaries-related discrimination is quick,

and even preconscious in some cases. Therefore, the ingroup members may have negative feelings and they may not be hesitant to display their hostility and fear against outgroup members openly (Lewis, 1985).

Moreover, Bizumic (2018) has suggested that the concepts of ethnocentrism and prejudice are close to each other; and they often coexist in an individual. Other studies have also indicated that ethnocentrism is the root or heart of prejudice (Altemeyer, 1996; Sniderman & Piazza, 1993). Besides, as a natural condition, ethnocentric people openly show their feelings of hostility and fear against the other group members (Lewis, 1985; Lynn, 1976; Rushton, 1989). Therefore, there is a tendency to form negative attitudes and behaviours towards the outgroups (Segall, 1979). Especially, when the ingroup is in under an attack, either actual one or threaten, ethnocentrism may serve as a valuable function (Neuliep & McCroskey, 1997) to establish perceptions of cross-cultural differences, leading to intercultural conflicts and negative stereotypes (Triandis, 1994).

In some cases, ingroup members also blame outgroup members for their problems; more seriously, they also use outgroup members as bad examples for training their children (Neuliep & McCroskey, 1997). Even though ethnocentrism and prejudice have been found to be related constructs, they are both positively correlated and different from one another (Agroskin & Jonas, 2010; Altemeyer, 2003; Hassan, 1978; Goldstein & Kim, 2006).

Research has shown ethnocentrism functions to assist the ingroup's survival by promoting its "solidarity, loyalty, cooperation, conformity, and effectiveness" (Neuliep, 2017; Sharma et al., 1994). In the study of intergroup relations, ethnocentrism is a crucial concept to understand the extreme attachment to the ingroup which leads to the outgroup hate (Sumner, 2002). Also, Sumner (2002) has argued that the link between the ingroup extreme

attachment and outgroup hate is universal. In general, few empirical studies involving ethnocentrism and prejudice have been published. The author of this research was interested to discover the relationship between ethnocentrism and threats in the context of the COVID-19 pandemic.

Integrated threat and attribution theory

Human nature is curious, and people always seek to understand and explain behaviours by constantly asking and answering a set of “why” questions (Spitzberg & Manusov, 2015). Attribution theory comes into place to respond to such questioning (Heider, 1958; McDermott, 2009).

Attribution theory was officially introduced in the book “Psychology of Interpersonal Relations” by Fritz Heider in 1958. Heider (1958) argued a person’s philosophical view of the beginning of life is considered as a conception of time or moment when a specific structure is formed or created. Attribution theory concentrates on the universal concerns of why, when, and how people generally blame other individuals or a specific event (Weiner, 2000). In other ways, attribution theory is used to understand the meaning of each behaviour (DelGreco et al., 2020). The attributional sense-making process helps researchers explain and understand the reasons attributed to communicative behaviours of individuals (DelGreco et al., 2020).

Heider (1958) has suggested two types of attributional processes, dispositional and situational, which are made to explain a given phenomenon, event, and behaviour. According to Heider (1958), a dispositional attribution attributes the cause of behaviours to internal factors in individual, the situational attributes the cause of behaviours to a specific event outside the control of individuals.

According to attribution theory, the phenomenon of stigma is a socio-cognitive process, based on one's thinking and knowledge, arising from the need to find a cause for an effect or to make sense of an event (Corrigan, 2000). As a result, to understand a stigma against patients with certain disease an understanding of the cognitive and affective factors of individuals' minds, which lead to their stigmatizing points of view, is required (Vishwanath, 2014).

Since its first introduction, different aspects have been developed and added to the attribution process (DelGreco et al., 2020). A recent study by McDermott (2009), based on the previous work of Weiner (1985; 1986) and Weiner et al. (1971), focuses on three causal dimensions; locus, stability, and controllability. These three dimensions emphasize attributions to explain the achievements and failures of individuals (McDermott, 2009). On the other hand, according to Weiner (1985, p. 548), these three types of causality affect a group of varied emotions, for instance, "*pride, shame, guilty, anger, gratitude, pity, and hopelessness.*"

First, locus of causality is one of the most significant clues to stigma attitudes as people attempt to look for who is responsible for a specific behaviour or disease (Hunt et al., 1982). Locus of causality distinguishes the causes of behaviour originating within the individual (internal) and from those coming from a specific context (external) (Bauerle et al., 2002). Locus is used to explore the behaviour attributed to internal or external factors; and this is close to the original work of Heider (1958) to determine responsibility or blame by discovering dispositional – internal and situational – attributions (DelGreco et al., 2020). Second, the controllability dimension differentiates controllable versus uncontrollable causes (Weiner, 1974). Controllability refers to characterizing causes depending on the degree an

individual can control them (Bauerle et al., 2002). Specifically, controllability addresses individuals' ability to control the outcome of a specific event or behaviour (DelGreco et al., 2020). Third, the stability dimension records whether the causes keep changing over time or not (Weiner, 1974). On the other hand, stability also differentiates long-term causes from short-term causes (Bauerle et al., 2002). Stability reflects consistency of behaviour, to see whether it is lasting or changing over time (DelGreco et al., 2020). In general, according to Weiner (1985), the role of attributional process is to decide who is responsible for such behaviour or event, and then proceed to issuing blames.

Applying the three attributional dimension model to the medical context, studies have found its influence on people with a specific disease. Recent research has pointed out diseases with a behavioural basis such as HIV/AIDS or drug abuse are more likely to be stigmatised than those with a biological basis like cancer or heart disease (Weiner et al., 1988). Corrigan (2000) argued patients with incurable and biological diseases are less likely to become a stigmatised target than others because people have sympathetic feelings toward them. Moreover, patients with diseases perceived as rare and uncertain are more likely to be stigmatised (Weiner et al., 1988).

At the time of writing of this document, COVID-19 has been identified as a novel coronavirus, and Asians (minority groups) have become one of the main targets for blaming the spread of the virus in many places around the world (UNESCO, 2020). However, little is known as to how the three attributional dimension model influences prejudice and public stigma toward minority groups amid the pandemic. As a result, based on the framework of attribution model, the author of this thesis would like to explore why and how the "other" has been blamed for the spread of the virus in a multinational context of the COVID-19 outbreak.

Integrated threat and media richness theory

Media richness theory (MRT) is an extension of information processing theory and developed by Daft and Lengel in 1986. Daft and Lengel (1986) have argued media fitness and the characteristics of a communication task influence communication efficiency between interlocutors. They defined media richness as the individual's ability to assist with shared understanding in certain time intervals.

Daft and Lengel (1984, 1986) claim that it is crucial to pay attention to uncertainty and equivocality reduction in information processing. According to MRT, uncertainty refers to the lack of information and equivocality is the lack of understanding (Daft et al., 1987). Lack of information can be reduced by the amount of information; to reduce a lack of understanding, the quantity of information is not enough. Its quality must be considered (Daft et al., 1987). In a mediated situation, uncertainty reduction is not very difficult because communication technology can help provide a large amount of information; however, because of the lack of nonverbal cues, equivocality reduction would become a problem (Ishii et al., 2019). Accordingly, media richness depends on four criteria: feedback, multiple cues, language variety, and personal focus to determine the richness of a medium (communication channel) (Daft & Lengel, 1984, 1986; Daft et al., 1987).

First, the capability of giving instant feedback is to facilitate shared understanding and meaning between interlocutors through questions and corrections during communication transactions. Second, multiple cues consist of physical presence, body gestures, voice inflection, numbers, words, and graphic symbols. Third, language variety posits a wide range of meaning to convey concepts and ideas. Fourth, personal focus deals with transferring personal feelings and emotions through communication transactions.

Later, two more factors were added to media measures: social information and individual experiences (Ishii et al., 2019). Social information refers to media use behaviour which is determined not only by the objective characteristics of media but also other social factors (Fulk et al., 1987). Individual experiences include four types: experience with a specific channel, experience with a specific topic, experience with a specific communicator, and experience with a specific context (Timmerman & Madhavapeddi, 2008). Moreover, recent studies have shown social media can help expand MRT as it facilitates transfer of varied types of messages (Lee & Borah, 2020; Lodhia & Stone, 2017). For instance, there is a positive relationship between perceived media richness and self-presentation of young adults on Instagram by posting photos and videos; on Facebook and Twitter, this relationship relies on writing texts (Lee & Borah, 2020).

The constant evolution of technology facilitates the speed as well as convenience of virtual communication (Ishii et al., 2019). However, revealing identity on some online social media spaces can become harmful to minority groups, such as people of colour in the U.S., because it makes them more vulnerable to negative experiences related to racial discrimination (Kahn et al., 2013). Recent research has shown that racial discrimination has become common in online contexts because discrimination in these settings can occur without any punishment (Tynes et al., 2004). A recent study has found that the more online racial harassment individuals of minority group experience, the more offline racial discrimination they tend to receive later (Weinstein et al., 2021).

Furthermore, according to Bissell and Parrott (2013), media content includes various forms, and social group stereotyping (both positive and negative) is among them. The existence of negative stereotypes against a group of people on social media often leads to

prejudice and discrimination (Davidson & Farquhar, 2020; Levy et al., 2013). On social media, the level of prejudice is linked with type of media content as well as chosen platforms of media exposure (Davidson & Farquhar, 2020). As prejudice, negative sentiments, and hatred have manifested themselves toward minority groups on social media amid the COVID-19 pandemic (McGuire, 2020), the author would like to discover how social media use can predict prejudice in the context of the COVID-19 outbreak.

Even though MRT has been widely used to evaluate the richness (ability to reproduce the information) of a specific communication medium, several empirical studies have raised more challenges to its original conception of richness, due to inconsistent results. First, Markus (1994) criticised its essential determinism, as MRT is only applied to examine perceived media appropriateness rather than the actual choices of communication medium. According to Markus (1994), social perspectives can have a stronger influence on media use than information richness per se because only social perspectives can reflect people's understanding of social processes (i.e., socialisation, social control, sponsorship, etc.) resulting in shaping media use.

Second, Ngwenyama and Lee (1997) have emphasised the human factor and argued that cultural background and individual characteristics also influence the choice of media because people process data into information individually and differently. As an example, a recent study has shown cultural background plays an important role in communication medium preference in terms of receiving messages from managers/superiors in business settings (Gerritsen, 2009).

Third, MRT was first established way before the widespread use of internet, including new media platforms such as Facebook, Twitter, Youtube, etc. Therefore, which new media

people prefer to use is in question because MRT only focuses on the richness of media themselves rather than individual choice (Dennis et al., 1999). In addition, Levy et al. (2016) have argued the degree of richness is a subjective interpretation and the perception of new media is critical.

As the outbreak of COVID-19 has led to negative sentiments and hatred against minority groups via social media, this thesis only focused on the type of social media content and chosen platforms in a context of uncertain situation. Even though there are ongoing debates related to the application of MRT, the author still borrowed the framework of MRT to apply for this empirical study because: (1) MRT can be applied to predict media-related interpersonal interaction (Sheer, 2020), (2) the media richness construct is employed to describe the capacity of carrying information and symbol of a media outlet per se (Sheer, 2020), and (3) public engagement behaviour on social media has been found to be associated with the richness of social media platforms (Cao et al., 2021).

Research questions

As of late February 2022, there are more than 419 million confirmed cases (nearly six times since early October 2020) and 1.5 million deaths from COVID-19 (Johns Hopkins Coronavirus Resource Center, updated daily). Along with the feelings of fears and anxiety during this uncertain time, people defined as the “other”, including individuals of Asian-descent, migrant workers, foreigners, and other minority groups., face more challenges related to racism and xenophobia and are blamed for spreading the virus (Chen et al., 2020; McGuire, 2020; Wen et al., 2020). Negative attitudes and discriminatory behaviours related to COVID-19 display the fear of contacting the virus (Croucher et al., 2020). The perception of threat has been used as one of the explanatory factors to explore the negative attitudes and

hostility of the dominant group toward the minority group (Ward et al., 2016). In the past two decades, four types of threats: realistic threat, symbolic threat, intergroup anxiety, and negative stereotypes of ITT model have been used to discover prejudice in different cultural contexts (Croucher, 2017). However, little research on ITT has been adequately tested in a multinational context. As a result, guided by integrated threat theory, the author aimed to investigate different levels of prejudice to test theoretical concepts through assessing the cross-cultural validity of measures amid the COVID-19 pandemic. Thus, the following research question was proposed:

RQ1: To what extent does the integrated threat theory model exhibit evidence of validity and reliability in multinational contexts during the COVID-19 pandemic?

Moreover, scholars have explained that discriminatory attitudes and behaviours in any intergroup relations are related to ethnocentrism (Neuliep & McCroskey, 1997). The negative effects of ethnocentrism include group bias, prejudice, and discrimination (Dreu et al., 2011). Although ethnocentrism has been discovered to be related to prejudice, they are positively correlated as well as different from one another (Agroskin & Jonas, 2010; Altemeyer, 2003; Goldstein & Kim, 2006; Hassan, 1978). Nevertheless, not many studies on threats and ethnocentrism have been done to examine the impacts of multicultural contexts on a specific event, i.e., global health crisis. Furthermore, the aim of this study was to examine how multicultural contexts differently affect the ingroup extreme attachment toward outgroup hate. Therefore, to explore the relation between ethnocentrism and threats during the outbreak of COVID-19; the following research question was put forth:

RQ2: To what extent will multinational contexts influence the relationship between ethnocentrism and perception of threats during the COVID-19

pandemic?

Studies have shown that following the outbreak of COVID-19, minority groups all over the world were blamed for spreading the disease (Croucher et al., 2020; Wen et al., 2020). To find out how, when, and why dominant groups blame minority groups for the COVID-19 pandemic, attribution theory was applied in this study. Consequently, the following research question was posed:

RQ3: To what extent does the attribution model affect prejudice toward the “other” during the COVID-19 pandemic?

Finally, misinformation and misleading messages during the outbreak of COVID-19 have caused concern as more hater language and hostility have appeared on social media platforms (Schild et al., 2020; Vidgen et al., 2020; Wen et al., 2020). David and Farquhar (2020) have argued the level of prejudice is linked with the type of social media content and chosen online platforms. As the outbreak of COVID-19 has led to the fact that prejudice, negative sentiments, and hatred against the minority groups have been increasingly exposed on many social media platforms in the world (McGuire, 2020), a further question asking how the use of social media can predict prejudice in the context of a contagious disease pandemic was proposed:

RQ4: To what extent does social media use predict prejudice toward the “other” during the COVID-19 pandemic?

The four research questions presented in this part grounded the main purposes of this thesis. Then, drawing from the overall purposes, each article/book chapter was structured to explore one research question. On the other hand, as the nature of this thesis is by publication, the research questions in the journal articles were modified as required by the

reviewers. As a result, the research questions in the author's publications are slightly different from the initial ones.

Methodological approach

The concept of a multi-method approach was first introduced and suggested in the field of psychology by Campbell and Fiske in 1959. However, the development of mixed-methods research was a controversial topic until the 1990s (Reichardt & Rallis, 1994). Despite the continuing argument, the mixed methods approach has evolved gradually as more and more researchers have shown interest in using different philosophies and methods to study research problems (Creswell et al., 2003).

One of the main aims of a mixed methods research is to produce complete knowledge by adding more insight to understanding of theory and practice (Migiro & Magangi, 2011). Nevertheless, there are ongoing challenges regarding creating bridges between diverse and/or conflicting conceptualizations that researchers may face while applying mixed methods approach to their studies (Tashakkori, 2009). On the other hand, a mixed methods study requires multiple approaches to be carried out concurrently, which can be challenging for an individual researcher (Migiro & Magangi, 2011). However, it is necessary to consider multiple approaches when conducting more complex studies as there are several dimensions of a matter needs to be analysed (Almeida, 2018). Therefore, this thesis came into place with the consultation of researchers coming from different disciplines and paradigms due to the complex nature of the study context.

The findings of this study have emphasized the importance of using mixed methods approaches in the field of social sciences. Moreover, the accomplishment of this thesis has provided a better understanding of prejudice, discrimination, and stigmatization thanks to a

shared scholarship among a group of scholars with diverse disciplines and methodological approaches across geographic locations. Even though there are still both remaining controversies and difficulties related to mixed methods research, there is major progress in applying this kind of research method because scholars are able to explore new conceptualisations and operationalisations in their fields of study.

Framework and methods

First, the social scientific paradigm is defined as “an organised method of research combining empirical observations of behaviour with inductive and deductive logic to confirm and test theories that are then used to describe and/or predict human activity” (Croucher & Cronn-Mills, 2019, p. 20). As a social scientist, the author employed the scientific method to conduct this research.

Second, the COVID-19 pandemic has posed challenges related to negative attitudes, prejudicial behaviours, and hatred toward the “other” in many places around the world. To understand this phenomenon, ITT has been used as a guideline to explain threat perception. As a result, ITT served as the backbone theory of this study in order to explore potential predictors of prejudice against the “other”, particularly Asians, and find the causal relationships between threats and blame attribution, and threats and ethnocentrism. The purpose of this research was to test the ITT model and understand how it changed in different nations during the COVID-19 pandemic.

To answer the complicated questions of why and how in each enquiry, a mixed methods study is used to gain a complete understanding of the phenomenon of prejudice amid the pandemic (Johnson, 2019). This thesis used two research approaches to collect and analyse data (i.e., quantitative and qualitative data) since a mixed methods application is a

practical necessity across the field of communication, such as health, policy, etc. (Fielding, 2010). As a result, to answer four initial research questions, the author applied quantitative method to statistically analyse data in four national samples, and qualitative method to thematically examine two open-ended questions in New Zealand sample.

To answer the research questions, the author collected data via online survey in four locations: the United States, Italy, Spain, and New Zealand. After receiving ethical approval from Massey University's Human Ethics Committee (the ethics approval number is 4000022442), data was collected in the locations listed above with the assistance of Qualtrics, a research firm. Previous studies have shown that online panels like Qualtrics deliver data results similar to the general adult population (Roulin, 2015; Troia & Graham, 2017). Qualtrics gave each respondent a small amount of compensation.

The survey consisted of a series of demographic questions, a measure of social media use, four measures assessing integrated threat, a measure of ethnocentrism, a measure of fear of COVID-19, and two open-ended thematic questions related to the COVID-19 pandemic. Surveys were written in English, then translated into Italian and Spanish. Native bilingual speakers translated the English version of the survey into their languages, then translated the surveys back into English. Finally, all the translations were compared for accuracy and connotational and denotational problems by the author and other translators. The author included quality checks such as analyses of means, standard deviations, and inappropriate answers for open-ended questions to eliminate all inadequate responses from the data samples before running any statistical analyses.

Measures

Measures of integrated threat

Integrated threat was measured using three subscales: measure of realistic threat (Stephan et al., 1999), measure of symbolic threat (Stephan et al., 1999), and measure of intergroup contact (González et al., 2008).

Measure of realistic threat. There were three statements assessing the effect of the target group on economies in each country. The statements were: “Because of the presence of [target group], [people] have more difficulties finding a job,” “Because of the presence of [target group], [people] have more difficulties finding a house,” and “Because of the presence of [target group], unemployment in [country] is increasing.” Responses ranged from (1) *strongly disagree* to (5) *strongly agree*. A higher score was equivalent to more threats. The alpha reliabilities ranged from 0.80 to 0.90 in previous studies (Croucher et al., 2020; González et al., 2008).

Measure of symbolic threat. There were three statements measuring the effect of the target group on values, beliefs, and norms in each country. The statements were: “[Country] identity is threatened because there are too many [target group] today,” “[Country] norms and values are threatened because of the presence of [target group] today,” and “[Target group] are a threat to [country] culture.” Responses ranged from (1) *strongly disagree* to (5) *strongly agree*. A higher score indicated a stronger feeling of threat. The scale has indicated high alpha reliability ranging from 0.85 to 0.90 in previous research (Croucher, 2013; Croucher et al., 2020; González et al., 2008).

Measure of intergroup contact. There were four items employed from González et al. (2008) to assess intergroup contact. They were: “How many [target group] friends do you

have?” This item ranged from (1) *none* to (4) *only [target group]*. The other three items were “Do you have contact with [target group] at school/work?” “Do you have contact with [target group] in your neighbourhood?” and “Do you have contact with [target group] somewhere else such as during activities?” These items ranged from (1) *never* to (4) *often*. A higher score indicated more intergroup contact. The alpha reliabilities have ranged from 0.70 to 0.90 in previous research (Croucher, 2013; Croucher et al., 2013; González et al., 2008).

Measure of intergroup anxiety

The 10-item semantic differential intergroup anxiety scale was employed to measure the level of affective/emotional response of respondents while having an interaction with outgroup members in an ambiguous context (Stephan & Stephan, 1985). The 10 affective/emotional adjectives included: awkward, self-conscious, happy, accepted, confident, irritated, impatient, defensive, suspicious, and careful. The items ranged from (1) *not at all* to (10) *extremely*. The scale has shown high alpha reliabilities ranging from 0.86 to 0.91 (Hopkins & Shook, 2017; Stephan & Stephan, 1985).

Measure of ethnocentrism

A shortened version of a generalized ethnocentrism scale (GENE) was borrowed to measure ethnocentrism (Neuliep & McCroskey, 1997). There were 14 items in this version, and they range from (1) *strongly agree* to (5) *strongly disagree*. Sample items included “My culture should be the role model for other cultures,” and “Other cultures should try to be more like my culture.” The alpha reliabilities have ranged from 0.82 to 0.92 from previous studies (Neuliep, 2002; Neuliep & McCroskey, 1997; Neuliep et al., 2005).

Measure of social media use

A group of eight Likert-scale questions was used to measure social media use. There are two factors in this instrument: believe the media and share its opinion (Spencer & Croucher, 2008). Eight items asked people about their perception of the social media they most use daily: to what degree they believe this social medium, think it is fair and accurate, think it can present the facts, the public's general opinions, and their opinions regarding the COVID-19. Also, there were two questions asking which social medium they use on a daily basis and which one they use the most. The items ranged from (1) to a very little extent to (7) to a very great extent. Alpha reliabilities have ranged from 0.70 to 0.80 in previous studies (Spencer & Croucher, 2008; Spencer et al., 2012).

Measure of fear of COVID-19

To assess the degree to which people perceive COVID-19 as a threat, 14 items from Bouton et al. (1987) were borrowed. Initially, these items were developed to assess the fear of HIV/AIDS; therefore, the 14 items were adjusted to concentrate on COVID-19. Sample items are: "The seriousness of COVID-19 is greatly overblown by the media," "I am worried about catching COVID-19 in a public toilet," and "Even if a friend has COVID-19, I wouldn't mind touching him/her." The alpha reliabilities have ranged from 0.80 to 0.89 in previous research (Bouton et al., 1987).

Measure of blame attribution

There were two open-ended questions in the survey without any restrictions of criteria or space. The participants provided their own answers ranging to one word to unlimited sentences. The questions are: "Why did COVID-19 spread so rapidly in [country]?" and

“Who is to blame for COVID-19?” The author aimed to use thematic analysis to find the common answers across the dataset.

Participants and procedure

After receiving approval from Massey University’s Human Ethics Committee, the data was collected anonymously, and no identifying information was saved. The author of this study initially reached out to 300-350 participants per country. Participants were provided informed consent prior to starting the survey. With the assistance of Qualtrics, a research firm, the author collected data in the U.S., New Zealand, Italy, and Spain. Qualtrics provided a small amount of incentive to each participant. The respondents’ ages ranged from 18 to 80 and above years old (only adults were allowed to take the survey).

The data collection was conducted in April 2020. It took participants approximately 20 to 25 minutes to complete the survey. Ethnic group was also included in the demographic questions to make sure that non-native born respondents were removed from my data for further analysis. Therefore, the data sample retained only native-born participants ($n = 1172$) including Italians ($n = 311$), Spaniards ($n = 289$), New Zealanders ($n = 298$), and Americans ($n = 274$) as a point of comparison. There was no identifying information of respondents collected as the online survey was anonymously distributed through Qualtrics’ platforms.

Process of analysis

Statistical analysis

Confirmatory factor analysis (CFA). Before running any statistical analysis, CFA was performed using AMOS statistical software to investigate the factorial structure of study constructs. One of the main purposes of CFA is to ensure the validity and reliability of all measures used in the study (Moore, 2012). As this study used existing measures from

previous studies, it was necessary to examine whether the measures were appropriate for the new population sample (Harrington, 2009).

Multiple regression analysis. To answer the research questions, multiple regression modelling was applied. The criterion variables included symbolic threats, realistic threats, intergroup contact, negative stereotypes, and intergroup anxiety. The predictor variables consisted of ethnocentrism, social media belief, social media share opinion, fear of COVID-19, and nation. Furthermore, a dummy variable for nation was created, and the U.S. served as the reference group because the U.S. had the greatest number of deaths and confirmed cases in the world as of the time of writing this thesis (Johns Hopkins Coronavirus Resource Center, updated daily).

Hierarchical regression analysis. Before testing interaction effects, cross-product terms were created; and symbolic threats, realistic threats, intergroup contact, negative stereotypes, intergroup anxiety, ethnocentrism, and fear of COVID-19 were mean centred. Then, hierarchical regression analysis was applied to test for interaction effects (Pedhazur, 1997).

Thematic analysis

Thematic analysis may help interpret a variety of study aspects (Boyatzis, 1998). Therefore, the two open-ended questions in the survey were analysed based on the guidelines of thematic analysis (Braun & Clarke, 2006). Braun and Clarke (2006) have argued the main idea of thematic analysis is to identify, analyse, and report themes (similar patterns) across the whole dataset. Moreover, according to thematic analysis guidelines, responses with similar meanings of different respondents should be categorized into several patterns (Braun & Clarke, 2006). Specifically, the author aimed to employ an inductive or “bottom up”

method to explore the dataset. Since the two open-ended questions were created specifically, the themes had been identified and strongly connected to the dataset (Patton, 1990). As a result, all the codes, categories, and common patterns of the study were driven by the data collection. Continuous reviewing and revising of the patterns were repeated until the final phase of thematic analysis and report.

Summaries of articles

The three articles aimed to study how a global pandemic led to prejudice, discrimination, and stigmatisation against a minority group by applying Integrated Threat Theory as a theoretical guideline. Even though the three articles studied the same social phenomenon – prejudice toward Asian-descent individuals – the author employed different approaches to explore the application of ITT in this particular context.

The first article explored this phenomenon in the U.S., as not long after WHO officially declared the first case of novel coronavirus, there was an increase in hate crimes and physical attacks on Asian-Americans. Moreover, several government officials and media outlets had misleading messages to the public such as “Kung-flu” and “Chinese virus pandemonium”. After this, more and more anti-Asian sentiments spread throughout social media outlets in the U.S. Therefore, this article was a prompt response by a social scientist to discover how social media use is associated with prejudice against Asian Americans, especially Chinese Americans, during the first wave of the COVID-19 outbreak.

Following the results of the first article, the author strived for a better understanding of how prejudice was differently expressed in various national contexts. For that reason, the second article was an extension of the first one by simply adding three more national samples to conduct a cross-cultural study in the U.S., Italy, Spain, and New Zealand. At the time of

the research, the U.S., Italy, and Spain were among the nations having the most confirmed cases and highest death toll, while New Zealand was among the countries with low deaths and positive cases. Unlike the first article, the author removed the social media construct to deliver a mere cross-cultural nature study regarding ITT only to discover how prejudice was similarly and differently manifested in these countries.

The third article was produced in New Zealand because the author was based here while witnessing the whole process of a global crisis affecting clinical, economic, and humanitarian levels. Also, as of the time of doing research, there was little evidence on how the public blamed the spread of the virus. No matter, the number of racist incidents toward Asian-descent individuals was rapidly increased. Therefore, the author extended ITT and blame attribution theory to examine to what extent prejudice was related to blame attribution in New Zealand during the outbreak of COVID-19.

Generally, the three articles as a whole aimed to draw a big picture of how the theoretical constructs had shifted regarding a global health crisis. The author attempted to study how public stigma was framed toward a minority group during a pandemic by approaching three different ways in three published articles. Eventually, the key contribution of these pieces was to look into the progress of ITT and how it had changed/shifted based on a cross-cultural context.

Article 1

Title: Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the United States

To cite this article: Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the

United States. *Frontiers*, 5(39). <https://doi.org/10.3389/fcomm.2020.00039>

Published online: 12 June 2020 (See Appendix A for full publication)

During the first wave of the COVID-19 pandemic, some media outlets distributed misleading messages, such as “Chinese virus pandemonium” or “China kids should stay home” and contributed to hate crimes against Asian-descent individuals in the United States. (Aten, 2020; Wen et al., 2020). In addition, social media platforms had been used as a playground for racism; for instance, posts with hashtag #KungFlu or #WuhanVirus had negative impacts on Asian community (McGuire, 2020). However, people and social media firms also used their platforms to support anti-racism activism against Asians. For example, Facebook promoted posts with hashtag #IAmNotAVirus on the top of user feeds (McGuire, 2020). In response to the increased racist incidents including racial slurs, verbal harassment, and physical attacks toward Asian-Americans, this article was the very first attempt to discover anti-Asian sentiment during the first six months of COVID-19 outbreak in the United States. This article was to discover how social media use is associated with prejudice against Asian Americans (Chinese Americans in particular) amidst the first wave of the COVID-19 pandemic. Thus, a research question was proposed as below:

RQ: During the Covid-19 pandemic in the United States, to what extent does social media use predict prejudice toward Chinese Americans?

Data were collected in the U.S. with the assistance of Qualtrics, an online research firm, in April 2020. After running analyses of means and standard deviations for quality checks, we had a sample of 288 participants. Then, participants not born in the U.S. were removed from the dataset. Finally, all statistical analyses were run based on a dataset of 274 responses. Confirmatory factor analysis (CFA) was to ensure the validity and reliability of the

constructs used in this study. Fit indices for social media belief and social media share opinion indicated acceptable fit: $\chi^2(17) = 37.71$, $p < 0.001$, CFI = 0.99, SRMR = 0.02, RMSEA = 0.07, PClose = 0.17. Fit indices for realistic threat, symbolic threat, and intergroup anxiety indicated excellent fit: $\chi^2(112) = 231.57$, $p < 0.001$, CFI = 0.97, SRMR = 0.06, RMSEA = 0.06, PClose = 0.05.

To answer the research question, three multiple regressions were performed. There were three key conclusions drawn from the data results. First, sex performed a vital role in predicting intergroup anxiety and realistic threats among Caucasian Americans against Chinese Americans. Second, the more a social media user believed in their most daily used platforms, the more this user believed Chinese Americans posit symbolic and realistic threats. Third, individuals not using social media were less likely than those using Facebook on a daily basis to consider Chinese Americans a symbolic threat.

Article 2

Title: A comparative analysis of Covid-19-related prejudice: the United States, Spain, Italy and New Zealand

To cite this article: Croucher, S. M., Nguyen, T., Pearson, E., Murray, N., Feekery, A., Spencer, A., Gomez, O., Girardelli, D., & Kelly, S. (2021). A comparative analysis of COVID-19-related prejudice: The United States, Spain, Italy, and New Zealand. *Communication Research Reports*, 38(2), 79-89.

<https://doi.org/10.1080/08824096.2021.1885371>

Published online: 16 February 2021 (See Appendix B for full publication)

In the beginning of the COVID-19 outbreak, the public was informed that the novel coronavirus originated in China by a lot of media coverage (both social and traditional).

Since then, Asian groups have become the main target of prejudice around the world (Ziems et al., 2020). As of December 2020, United States, Spain, and Italy were among places with the most positive cases and death toll; on the other hand, New Zealand sat at 25 deaths and 2151 cases, which was a low number at that time (Johns Hopkins Coronavirus Resource Center, updated daily). The governments of the U.S., Spain, and Italy implemented different strategies, depending on different federal, state, or local levels of authority, to respond to the pandemic. In contrast, the strategic responses of New Zealand were centralized at the national level. Following the findings of the previous study (article 1), racism and hate crimes toward Asian-descent individuals have increased amid the COVID-19 pandemic, particularly Chinese Americans in the U.S. (Croucher et al., 2020). This article explored how prejudice differed in the U.S., Spain, and Italy. Hence, this article came up with the following research question:

RQ: To what extent does prejudice toward Asians during the COVID-19 pandemic differ in the United States, Italy, Spain, and New Zealand?

An online questionnaire was disseminated in the U.S., Spain, Italy, and New Zealand with the assistance of Qualtrics in April 2020. Confirmatory factor analysis (CFA) was performed in each country to ensure the validity as well as reliability of measures used in this study. In all four country samples, CFA showed an excellent fit among the measures, specifically as below:

The U.S.: $\chi^2(112) = 231.57, p < 0.001, CFI = 0.97, SRMR = 0.06, RMSEA = .06$

Spain: $\chi^2(111) = 197.28, p < .001, CFI = .96, SRMR = .05, RMSEA = .06$

Italy: $\chi^2(98) = 233.48, p < .001, CFI = .95, SRMR = .07, RMSEA = .06$

New Zealand: $\chi^2(110) = 210.48$, $p < .001$, CFI = .98, SRMR = .05, RMSEA = .05

A sequence of one-way analysis of variances (ANOVA) was run to answer the research question. The results showed significant differences on realistic threat, symbolic threat, intergroup contact, and intergroup anxiety in four countries. In general, New Zealand sample scored as the least prejudiced compared to the other three countries. However, the New Zealand sample was only statistically significant in realistic threat. The authors argued that lower scores on most indices of New Zealand sample might be due to the fact that New Zealand had more cohesive and consistent strategies to contain the spread of the pandemic as all the responses were centralised at national level.

Article 3

Title: Who's to blame for the spread of COVID-19 in New Zealand? Applying attribution theory to understand public stigma

To cite this article: Nguyen, T., Croucher, S. M., Diers-Lawson, A., & Maydell, E. (2021). Who's to blame for the spread of COVID-19 in New Zealand? Applying attribution theory to understand public stigma. *Communication Research and Practice*.
<https://doi.org/10.1080/22041451.2021.1958635>

Published online: 01 August 2021 (See Appendix C for full publication)

Continuing the research line of the above two studies, this article investigated the public perceptions of blame attribution in terms of the spread of the COVID-19. According to crisis communication suggestions, individuals' emotional reactions and attitudes toward other groups related to the crisis are influenced by public perceptions, particularly over uncertain events (McDonald & Cokley, 2013; Mou & Lin, 2014). The constructs of integrated threat

theory (ITT) provide guidelines to researchers to know how prejudice is functioning, and attribution theory helps explain why, when, and how people have such communicative behaviours during a specific circumstance like COVID-19 pandemic (Croucher, 2013; Weiner, 2000). Thus, this article examined blame attribution and prejudice against Asian individuals in New Zealand amid the first wave of the COVID-19 pandemic by proposing these following research questions:

RQ1: To what extent do New Zealanders attribute blame regarding COVID-19?

RQ2: To what extent can blame attribution be attributed to prejudice?

RQ3: To what extent is fear of COVID-19 related to prejudice?

A mixed methods approach was applied to examine the three research questions. An online questionnaire with a series of quantitative survey and two open-ended questions was disseminated by Qualtrics in July 2020. Initially, there were 330 participants in the study. However, 23 responses were removed after quality checks, leaving a total of 307 participants for statistical analysis.

To answer research question one, thematic analysis was applied to discover two open-ended questions. Chi-square tests were performed to answer research question two. A Pearson's correlation was run to explore research question three. For the question "who's to blame for the spread of the virus", there were only a few responses indicating "Asians" and the rest identified the "who" more specifically such as China, Chinese, or Wuhan. The results also indicated that the spread of COVID-19 was mostly because of late responses to border closures and international travel (64%). Only symbolic threat was significantly different in Chi-square tests ($\chi^2(30) = 48.01; p < .05$). Both realistic threat and symbolic threat were

significantly correlated with fear of contact with COVID-19 and belief that COVID-19 was a public health risk:

Realistic threat and fear of contact with COVID-19: $r = .10, p < .05$

Realistic threat and belief that COVID-19 was a public health risk: $r = .12, p < .05$

Symbolic threat and fear of contact with COVID-19: $r = .13, p < .05$

Symbolic threat and belief that COVID-19 was a public health risk: $r = .13, p < .05$

In general, the findings supported previous studies on how the constructs of ITT can be used to predict prejudice toward individuals with serious illness. Even though blame attribution was ambiguous in such an uncertain crisis like COVID-19 pandemic and there should be more research on this topic, this study helped improve our understanding of the connection between blame attribution and ITT in ambiguous circumstances.

Book chapter

Title: Integrated threat theory

To cite this book chapter: Nguyen, T. (2024 in press). Integrated threat theory. In Croucher, S. M., & Nshom, E. (Eds.). *Handbook of Communication and Prejudice Research*. Edward Elgar Publishing.

Researchers from different disciplines have had a huge interest in prejudice and have used numerous constructs to understand it in the past several decades. While there are extensive approaches and literature on this area, integrated threat theory (ITT) remains one of the key theoretical frameworks for understanding the functions of prejudice and its impact on human behaviours and society.

The book chapter begins with an overview of prejudice and how it has been studied until now. Then the chapter goes on to present recent movements related to prejudice to explore the dramatic shifts in international thinking about prejudice. In particular, there is a discussion on the link between prejudice and communication following a brief introduction of these movements in response to prejudice. Also, numerous hatred crimes, racial slurs, and physical attacks toward minority groups have been reported worldwide during COVID-19 pandemic. This has raised the question of how to apply ITT constructs to discover prejudice in a multicultural context. Consequently, the book chapter not only provides an in-depth and in-breath discussion on prejudice, but also brings in suggestions to governments, policy makers, and other related stakeholders to determine the seriousness of the situation and implement better strategic responses.

Discussion and evaluation

Summary of findings

Prejudice and media use

This first empirical study of this thesis attempted to explore anti-Asian sentiment spreading during the first phase of the COVID-19 outbreak. Specifically, the study applied integrated threat theory to discover the links between social media use and prejudice against Asian-descent individuals, particularly Chinese, in the U.S. Three main results were drawn from the data.

First, sex had a significant impact on predicting realistic threats and intergroup anxiety among native-born Caucasian Americans toward Chinese Americans. Since the outbreak of the pandemic, women had more cognitive fears and men had more affective fears of Chinese Americans. Women were more likely to believe that the presence of Chinese

Americans brings in more negative influences on their physical and material well-being, political and economic power, and social welfare. Such threats, even if they are real or not, make women feel more threatened than men. On the other hand, men experienced more intergroup anxiety than women when having intergroup interactions. In other words, men tended to feel more conscious, anxious, irritated, defensive, awkward, and defensive while having communication with Chinese Americans.

Second, the study indicated that higher levels of using social media predicted increased levels of realistic and symbolic threats. It means that the more a social media user believed their most used social media platform presented the facts and concerns about the public and was fair and accurate, the more likely they believed Chinese Americans brought more realistic and symbolic threats to the U.S.

Third, the results showed that political affiliation also had an impact on perceiving threats among Caucasian Americans toward Asian Americans, at least during the outbreak of COVID-19. Statistically, those respondents identifying themselves as Democrats reported higher levels of symbolic threats posed by Chinese Americans than those identifying themselves as Republicans.

The findings of this study supported previous studies that the use of social media may enhance factors of intergroup threat which might lead to prejudicial attitudes and behaviours. This research on intergroup threat has attempted to discover the potential mechanisms that explain the relationship between prejudice and social media use. There is evidence for personal belief as a mechanism linking perceived threats and prejudice against minority groups. A potential mechanism contributes to this would be how minority group's images are portrayed/framed and how perceived discrimination is appraised online. Other potential

mechanism responsible for this may be affected by how politicians appraise prejudice and its effects as the level of prejudice is different regarding political affiliations. Yet this study has not found significant evidence for this relationship, political affiliations remain potential mechanism for further investigation. Nonetheless, these results shed new light on further research exploring the impact of social media use on prejudice. In particular, further studies might look at how minority groups are portrayed/framed on social media. Researchers may also want to investigate how social media messages are associated with prejudice. Such studies have practical application as they can assist governments and health care industries with successful campaigns to combat prejudice and racism during a global health crisis like the COVID-19.

This study showed a correlation between social media use and prejudice, but not causality. Regarding the role of time, because the initial purpose of this study was not to estimate the causal effect of social media on the outcome of prejudice towards Asian-descent individuals until the end of the pandemic, the participants in the data collection were not followed over time. On the other hand, in the scope of a doctoral thesis, it can be difficult to collect longitudinal data as it is subject to follow-up loss and costly (Wunsch et al., 2010). Instead, a cross-sectional data collection was conducted at a particular point of time, which is within the first phase of the COVID-19 outbreak. Cross-sectional data can be used to assess both general causes and effects at the same time (Katz, 2001). Although this study could not show that social media might cause prejudice, due to the scope of its study, it has shed light on causal relationships between prejudice and social media use which could be explored further.

Prejudice and blame attribution

The second empirical study introduced in this thesis focused on public perceptions related to who is to blame for the spread of the novel virus. Specifically, by employing a mixed-method approach, the study examined prejudice and blame attribution in New Zealand during the first wave of the COVID-19 outbreak. This thesis also aimed to discover how blame attribution has developed and is related to threats amidst a global health crisis.

There were three key findings in this study. First, realistic and symbolic threats were positively related to fear of COVID-19. Second, the more people considered COVID-19 a public health risk, the higher the level of symbolic and realistic threats they scored. Third, blame attribution was associated with realistic threat in ambiguous events such as the COVID-19 pandemic.

The findings also supported previous studies on how perceptions of threats could predict prejudice and how publics attributed blame to a target group. The findings indicated that COVID-19 was a stigmatizing disease. In most cases, people with an illness, which is highly contagious, are more likely to be stigmatized and perceived as a danger through contact. Even though the results demonstrated a connection between ITT and blame attribution, material blame attribution stayed ambiguous during the COVID-19 pandemic because New Zealanders were not sure who should be blamed for the spread of the disease.

In general, on the assumption that COVID-19 was a highly contagious disease leading to a great danger to public health, the fear of contact with COVID-19 was positively associated with both realistic and symbolic threats in New Zealand. The data results recommended using ITT as a theoretical guideline to predict prejudicial attitudes and behaviours in a health crisis event. Moreover, it is vital to look beyond attribution-based

theories to better our understanding of public stigma as perceptions of threats may be related to blame attribution amid a global pandemic.

By the time of writing this thesis, there was no scale for fear of COVID-19, so the author borrowed and adapted the scale for fear of HIV/AIDS. More research is needed on this because the nature of COVID-19 is more complex and might be different to fear of HIV/AIDS. Another potential direction for future study is exploring the relationship between ITT and blame attribution in other contexts.

Prejudice and cross-cultural research

Following the first wave of the COVID-19 outbreak, each country implemented different responses to the pandemic. Online participant panels in the U.S., Spain, Italy, and New Zealand were used to explore to what extent prejudice against Asian ethnic groups in these four affected countries differed during the first wave of the pandemic. By the time of conducting this study, the U.S, Spain, and Italy were among the top 10 countries with the highest number of positive cases; and New Zealand had one of the lowest positive case numbers in the world. Four national samples of this thesis show both differences and similarities in how prejudice manifests in these nations.

Consistently, the New Zealand data sample scored the least in all prejudice indices examined in the study even though the results showed statistical significance in realistic threat only. Instead of asking participants' feelings like other measures in this study, realistic threat items asked about their knowledge of facts. Because of its design, this study could not demonstrate cause and effect; however, its findings suggested messages of national response to COVID-19 should be a collective public health effort which is strongly informational rather than politically framed on any social media platforms. The author also argued that the

consistent, centralised, and less politically divisive messages explain why realistic threat indices in New Zealand were the lowest of the 4 participant nations. Inconsistent government responses to the COVID-19 pandemic may cause public uncertainty and lead to blame and xenophobia attribution.

The level of intergroup anxiety of Italian dataset scored higher than American, Spanish, and New Zealand samples. The findings in this study support previous studies on intergroup anxiety between native Italians and immigrants. This could mean different observations in this thesis partially attributed to the intergroup anxiety among native Italians existed even before the outbreak of COVID-19 pandemic.

Such cross-cultural research like this study can assist government and health care professionals with a better understanding of how prejudice can influence one's behaviours and actions. Also, media coverage plays an important role in informing the public about national responses and trusted information. Therefore, it is vital for both governments and media platforms not to frame/isolate any one group to blame for the spread of the disease. Instead of providing misleading messages, they should only focus on a facts-led and long-term response to the pandemic leading to the right actions rather than causing false public alarm. The findings of this study have suggested that such cross-national comparisons enable researchers to (1) analyse initial constructs, which only appear in a specific national setting, (2) explore how these theoretical concepts have been contextualised, and (3) compare the practical implications among samples. For example, as of the time collecting data for this study, the U.S., Italy, and Spain were ranked among the top countries having the most deaths and confirmed cases while New Zealand sat among the countries having a low number of death toll and cases. On the other hand, New Zealand has responded to the pandemic at one

centralised national level, which is different from the other three nations implementing both national and state/local levels. As the responses are based on different levels, the messages might not be consistent nationally and misleading information might become problematic when informing the public.

Theoretical and practical implications

Historically, there has been a huge interest in prejudice and researchers from different disciplines have studied related constructs to understand prejudice. While there is a substantial literature on this field, one of the most often theories to explore prejudice is integrated threat theory.

The objective of this thesis was to apply this theoretical framework, ITT, to study how prejudice is functioning and its impacts on individual beliefs, behaviours, and attitudes on society in the modern world. The three empirical studies in this thesis drew on related research over the years on prejudice and its many forms around the world. As well as presenting the development of ITT, the discussion focused on the understanding of prejudice in different cultural contexts.

Since the outbreak of the COVID-19 pandemic, there have been innumerable cases reported in relation to hatred crimes, racial slurs, prejudicial attitudes, and discriminatory behaviours toward several subculture groups around the world. From a research point of view, it is crucial to investigate prejudice including a brief review of the crisis and its impacts on global society by applying ITT in more diverse contexts.

On the other hand, the book chapter introduced in this thesis provides an overview of ITT which has been studied and applied in various settings until now. The chapter goes on to present suggestions to governments, policy makers, and health care professionals to

determine the extent and seriousness of the situation. Consequently, they might have better strategies to respond to similar situations in the future. In general, the book chapter aims to offer a comprehensive overview of ITT and its potential application in exploring prejudice in different contexts.

The findings of this study have significant theoretical implications for a better understanding of how minority groups, especially Asian descent individuals, have become a target of prejudice target group amid the COVID-19 pandemic. As the novel virus becomes a common threat regardless of physical context, it is crucial for researchers to examine how this threat influences dominant cultural groups' reactions to minority groups.

Integrated threat theory, which has been used as a fundamental theoretical framework to explore prejudice for the past several decades, was found to be strong, but not strong enough to explain prejudice, discrimination, and stigmatization in such a global health crisis as the COVID-19 pandemic. Such ambiguous events have an impact on how a dominant group perceives threats posed by minority groups.

Although ITT has been tested on different target groups in different locations, there is very little to no research in relation to the same cultural minority group (outgroup) but different dominant groups (ingroup). Therefore, one of the purposes of this study was to discover how prejudice manifested in different countries amid the COVID-19 pandemic. Such cross-cultural study helps public health professionals and government understand how socio-psychological attitudes and behaviours are changing and can lead to prejudicial actions in an uncertain event like the COVID-19 pandemic.

Understanding the link between threats and online communication

The Internet and technological innovations have had a massive impact on how people communicate on daily basis. Online communication, thanks to computer technology, is unlike any other form of communication (Wood & Smith, 2015). As part of computer-mediated communication tools, the evolution of social media applications marks a shift in how the public create and share content online (Kim et al., 2010). In particular, social media platforms have been found to be useful in terms of immediate communication at the time of an emerging contagious disease (Vos et al., 2018) and they facilitate user-generated content as well as real-time public interaction/engagement (Kaplan & Haenlein, 2010; Kent, 2010; Terry, 2009).

However, the use of social media has also led to cyber-bullying, which is much more difficult to monitor (Best et al., 2014; Juvonen & Gross, 2008). In a significant event, such as a health crisis, the public is particularly interested in rapid communication and seeks related information including threat components (either perceived severity of the crisis or perceived susceptibility of social media users) (Hoang, 2015). Technologies and social media continuously evolve and so does online communication along with its processes (Carr & Hayes, 2015).

Internet and technological advances have accommodated human interactions via hundreds of forms. The evolution of social media has brought both advantages and disadvantages to online communication. Human interactions can occur anytime and anywhere with the aid of technology; however, human behaviours become more complex to predict in online settings. Hence, there is a need to apply multidisciplinary approaches to understand how people communicate and transmit messages via social media platforms (Carr

& Hayes, 2015; Ledbetter, 2014). The findings of this thesis suggest a link between social media use and threat-related components when the public shares information, passes on messages, and engages with others through social platforms during a global pandemic. This suggests a shift in paradigm, reconsidering how we have conceptualised and theorised online communication so far. According to Kuhn (1962), facts and theories support and define each other in normal science. They are inseparable within a set of normal conventions – paradigms – until ‘unexpected discovery’ points in new directions and scientific change occurs in a logical way from then. Theories change/shift due to (1) their inadequacies and (2) inappropriate scientific methods in the current world view. The results of this study have shown unexpected events, such as COVID-19 pandemic, may become extraneous factors requiring scientists to re-establish existing theoretical frameworks and employing multiple scientific methods to further explain the current foundational assumptions of a paradigm.

Realistic threat, symbolic threat and fear of contagion

According to the updated version of integrated threat theory, realistic threat and symbolic threat includes both individual-level and group-level threats (Stephan et al., 2015). Even though they are separated, there are still similar patterns in public perceptions of threat in the context of a fatal disease (Bennett, 1998). The results of this study showed not much difference between realistic threat and symbolic threat.

Recent studies have indicated the distinguishable roles of either realistic threat or symbolic threat are unclear as they both predict similar outcomes, which are prejudice (Stephan et al., 2002; Tausch et al., 2007). Depending on the target, both types of threat can either distinctly or similarly exist (Aberson, 2019). For instance, job (realistic) and social norms (symbolic) are distinguishable threats (either real or perceived) posed by immigrants

toward the host-culture group. On the other hand, threats drawn from the fear of a contagious disease seem to lean more into realistic threat rather than symbolic threat.

First, regarding to the context of this study, COVID-19 is a novel contagious disease spreading in particles from person to person and there is no specific treatment for it yet as of October 2022. The fear of contracting the virus is a psychological conscious awareness of normal people. The fear of an infectious disease is also a response to stress-coping process (Meisenhelder & LaCharite, 1989b). Unfortunately, the first case of the disease was found in China and Chinese/Asian communities around the world have been perceived as initial virus carriers and become the main target of prejudice. Even though previous study has also implied a link between prejudice and the fear of infection (Schaller & Neuberg, 2012), one of the questions here, which is whether the fear of an infectious disease is a key threatened object rather than sub-cultural groups per se, remains undiscovered. Second, irrational behaviours and negative attitudes toward patients suffering from a fatal disease are the results of individual conscious awareness of a dreaded object and the stress-coping process (Meisenhelder & LaCharite, 1989a). Therefore, given the fact that realistic threat and symbolic threat overlap in some situations (Rios et al., 2018), this study has raised the question of how realistic threat and symbolic threat are similar in terms of a contagious disease.

Validation of fear of COVID-19 scale

At the time collecting the data, there was no scale to measure fear of COVID-19, so the author borrowed 14 items from Bouton et al. (1987). Originally, these items were developed to measure fear of contracting HIV/AIDS, through seven positive and seven negative statements on the basis of criteria related to three factors: (1) contact factor, (2)

public health factor, and (3) personal factor (Bouton et al., 1987; O'Hare et al., 1996). The Cronbach's alpha has ranged from .80 to .89 in previous research (Bouton et al., 1987).

While adapting the original scale of Bouton et al. (1987), all 14 items were modified to focus on COVID-19 but three main factors related to individual fear and attitudes were retained. As a result, the participants were asked to respond to 14 statements using a five-point Likert scale from strongly agree (1) to strongly disagree (5) to describe their fear of contact with COVID-19 (e.g., 'I am afraid that I will get COVID-19'), personal fear of contracting COVID-19 (e.g., 'Even if a friend has Covid-19, I wouldn't mind touching him/her'), and belief that COVID-19 is a public health concern (e.g., 'The seriousness of COVID-19 is greatly overblown by the media'). The Cronbach's alpha ranged from .78 to .81 in this study.

As this thesis modified the existing scale to adapt to the new population sample in a different context, it was necessary to use confirmatory factor analysis (CFA) to ensure the validity as well as reliability of the construct (Harrington, 2009; Hu & Bentler, 1999; Moore, 2012). As a result, the modified fear of COVID-19 scale adapted from Bouton et al.'s fear of HIV/AIDS (1987) showed an excellent fit in this study ($\chi^2(24) = 44.19$, $p < 0.001$, CFI = 0.98, SRMR = 0.05, RMSEA = .07) with no items dropped from the measure. The fit indices of this research suggest possible modification of Bouton et al.'s fear of HIV/AIDS scale to apply to similar contexts.

Study limitations

No study is completely flawless, and this thesis is not an exception. With the assistance of Qualtrics, an online research firm, the questionnaire was disseminated through its platform. Despite the fact that Qualtrics, like any other online research firms, can provide

robust sampling, it is not random. Therefore, generalizations based on these results might be supposed to be similar to that of any other convenience sample.

The correlation coefficients of realistic threat and symbolic threat measures range from .76 to .82, which was relatively high. Even though Stephan et al. (1999) have argued these variables are two distinct dimensions among prejudice measures, the high correlation coefficients raise questions as whether they measure two different constructs.

Even though there is a correlation between social media use and prejudice, the study could not show that prejudice was caused by social media due to the limitation of this cross-sectional study. Experimental and longitudinal study design is recommended for future research to explore the causal relationships between prejudice and social media use.

While doing this study, there was no scale for fear of COVID-19; therefore, the author borrowed the scale for fear of HIV/AIDS and adapted it for fear of COVID-19 contact. As a novel disease, attitudes towards COVID-19 are far more complex than HIV/AIDS. Hence, it is recommended that close attention is paid when interpreting the study findings because there might be other factors and differences between these two diseases. As a result, it is essential that a scale to measure fear of COVID-19 itself is developed.

In this study, blame attribution was measured through two open-ended questions and coded by qualitative thematic analysis. While a mixed methods approach is necessary across the field of communication (Fielding, 2010), future research might have more potential benefits by using the same methodological approach to measure all constructs used in the study.

This study demonstrated how threats posed by minority groups, particularly Asian in this case, were perceived by dominant groups amid a global health crisis – the COVID-19

pandemic. The key findings from this study provide better understanding of how fears of contacting a contagious disease have manifested and led to prejudicial attitudes and behaviours against Asian-descent individuals during the outbreak of COVID-19 around the world. Also, this thesis findings have suggested several directions for future research.

First, the study results suggested social media use might intensify intergroup threats leading to prejudice. For instance, during the first wave of the COVID-19 outbreak in the U.S., the higher the social media belief of native-born Americans, the more they considered Chinese Americans a threat, particularly realistic and symbolic threats. This suggests further research is needed regarding to what extent media use has potential impacts on prejudice. Furthermore, in order to understand the relationship between media use and prejudice, it is necessary to look at how minority groups are portrayed on media channels as these messages could raise awareness of how blame and threats are reinforced through media.

Second, such a cross-cultural study as this affects potential for further research because results from different national samples showed both differences and similarities in prejudice in diverse national contexts. Therefore, it is necessary to do more research in a cross-cultural context to understand prejudice and provide governments and medical professionals with better suggestions for effective responses to the crisis.

Third, the study findings indicated that by exploring symbolic and realistic threats, there was a link with fear of a contagious disease, such as COVID-19. Moreover, according to the results of this study, even though the perceptions of blame still stayed ambiguous during a global health crisis, this thesis highlights the need for further research on the relationship between ITT and blame attribution to better understand prejudice in public health crises and many other contexts.

A proposed agenda for research and action

Fear of contagion

Four decades ago, a negative public reaction toward patients with a new disease – HIV/AIDS – was triggered due to fear of contagion (Kaur, 2021; Meisenhelder & LaCharite, 1989a). Fear of contagion was initially defined by Meisenhelder and LaCharite (1989b, p.29) as conscious awareness of a dreaded object and the affective response of the stress-coping process. Psychologically, fear and anxiety are two different definitions based on the ability to focus on the threatened object (Bennett, 1998). Bennett (1998) has indicated when threat is obviously in focus, fear arises; otherwise, there is just anxiety. Therefore, fear of contagion is the result of more than one generalized anxiety coming from diverse sources which are either real or perceived only (Meisenhelder and LaCharite, 1989b).

Also, Meisenhelder and LaCharite (1989a) have argued this social phenomenon includes four main irrational behaviours reflecting fear of contagion: avoidance, expressions of fear of catching the disease, lack of regard for the victims, and attempting extreme precautions. Alongside misperceptions about the disease transmission, social and cultural values related to a deep symbolic meaning of AIDS lead to negative public reactions to the existence of a disease (Meisenhelder & LaCharite, 1989a).

A disease is seen as a mystery when it is not understood and there is no cure yet; then, it becomes a metaphor for fear of contagion (Sontag, 1978). On the other hand, contagion concerns are conceptualized as a symbolic response to threats associated with mystery (Bennett, 1998). Moreover, any fatal illness is also seen as mystery and people tend to deny or avoid it (Sontag, 1978). Sontag (1978) has also said the mystery will end when there is an effective prevention or cure. However, until then, unfortunately, prejudice toward victims of

fatal illnesses is negatively perpetuated because of fear of contagion (Meisenhelder & LaCharite, 1989a). The proposed stress-coping model of Meisenhelder and LaCharite (1989b) emphasises the importance of continuing threat appraisal process according to behavioural changes. On the other hand, providing information related to transmission risk serves as an intervention to reduce fear of contagion (Bernette, 1998). Such references imply there are some similar patterns between public reactions toward unknown fatal diseases since fear of contagion is caused by a perception of threat leading to negative attitudes and behaviours (Bernette, 1998).

Stigma and disease

In the context of a contagious disease, public stigmatization of a given community, race, or even a country as an origin or carrier of disease has occurred through world history and has frequently become a pretext for discriminatory behaviours and violence (Goffman, 1963; Perry & Donini-Lenhoff, 2010). For instance, since late 1880s, several influenza pandemics have been named as Russian flu, Spanish flu, Asian flu; and in 2009, many called H1N1 Mexican flu (Perry & Donini-Lenhoff, 2010). Most recently, during the first outbreak of the COVID-19 pandemic, several media outlets have called coronavirus as the Chinese virus, Kungflu or the Wuhan virus (Aten, 2020; McGuire, 2020; Wen et al., 2020). Alongside these misleading messages through media reports, common myths and misconceptions of the novel virus have led to public fears as well as stigmatization toward a specific community (Perry & Donini-Lenhoff, 2010). Perry and Donini-Lenhoff (2010) have also argued a disease named after a country of origin emphasizes the aspect of “other” in political and social terms.

Recently, research on identifying the linkages between specific perception of threat and specific expression of prejudice toward specific people and/or groups of people has been

magnified thanks to evolutionary perspectives on human cognition (Schaller & Neuberg, 2012). One of the threats leading to prejudice, either exaggerated or inhibited, against specific individuals who are considered deviate from normative standards is the (inferred) threat of an infectious disease (Schaller & Neuberg, 2012). Particularly, Schaller and Neuberg (2012) have argued the appearance of this kind of prejudice implies fear of vulnerability of infection.

The world history of medicine has recorded a number of repercussions of fatal infectious diseases such as cholera, tuberculosis, yellow fever, influenza, HIV/AIDS, etc. During the course of doing research described in the book ‘Twelve diseases that changed our world’, Sherman (2007) has witnessed a large number of patients suffering from not only these fatal diseases but also public stigmatization against them. Regarding global health ethics, stigmatization towards patients with infectious diseases prevents them from seeking appropriate care and more seriously, causes prejudice and leads to violence against these stigmatized groups (Perry & Donini-Lenhoff, 2010).

In general, understanding the origin of prejudice against specific groups with contagious diseases together with perception of threat (of an infectious disease) can contribute to providing prejudice-reducing interventions based on contemporary/certain contexts (Schaller & Neuberg, 2012). Ideally, better knowledge of prejudice and public health challenges combined with media cooperation can help promote health education and proactively prepare for ambiguous events due to a contagious disease (Perry & Donini-Lenhoff, 2010).

Conceptualisation and operationalisation of prejudice

Studies of prejudice have consistently demonstrated perception of threat serves as one of the explanatory factors contributing to prejudicial attitudes and discriminatory incidents

toward a specific group of people or community. However, there is little research on the linkage between extraneous factor(s), perception of threat and prejudice. On the other hand, the original integrated threat theory does not show how an extraneous factor, COVID-19 – a contagious disease in this case, may be conceptualised as a potential variable leading to negative behaviours and prejudicial attitudes against a stigmatised outgroup during an ambiguous crisis. A study of Jackman (1977) has shown the interference of extraneous environmental factors are related to affect and action orientation of an ingroup member toward outgroup individuals; therefore, a potentially influential variable regarding negative attitudes against a specific group/community cannot be ignored while measuring threat and prejudice as extraneous factors may shape the perception of discrimination (Canache et al., 2014; Schweitzer et al., 2005).

Throughout the existing literature, items of the ITT measures are usually used to operationalise the effect of a target group on threat and/or perception of threat of the ingroup but this fails to identify any other potential extraneous factor(s) influencing how the ingroup perceive the outgroup as a threat. In addition, the perception of threat, negative attitudes and prejudicial behaviours against the outgroup is more complicated than what is being described in the literature (Laurence et al., 2018). Therefore, the author would argue the current conceptualisation of ITT is too general and not strong enough to predict prejudice appropriately and entirely in some certain contexts, especially in an ambiguous situation.

While it is not possible to fully produce a complete scheme to understand prejudice, discrimination and stigmatization related to a contagious disease – COVID-19 in this case – within the scope of this thesis, the findings have provided some insights and suggested several directions for further exploration.

First, theoretical perspectives generating new conceptual and operational hypotheses, as well as contributing to the understanding of prejudice, may provide more valuable directions for future research. Previous studies have suggested any concerns related to a disease play an important role in prejudice against patients with this illness (Park et al., 2003). This empirical study not only provides some preliminary evidence to support the theoretical framework of the existing integrated threat theory but also suggests that this framework alone is not enough to understand prejudice in such an ambiguous event as the COVID-19 pandemic. This can be explained by the complicated nature of prejudice per se, which is composed of more than one social process rather than a single general one (Park et al., 2003). Therefore, it is necessary to investigate new patterns of thinking and understanding to identify and explain prejudice. This study examines both the successes and failures of previous research and significantly contributes to the new development of the theory (Parker & Aggleton, 2003).

Second, the ultimate goal of any research is to not only contribute to the development of the theory but also provide practical suggestions for reducing new contagious disease-related prejudice, discrimination, and stigmatization (Parker & Aggleton, 2003). Also, Parker and Aggleton (2003) have emphasized the complexity of prejudice, discrimination, and stigmatization in the context of an infectious disease. The findings of this study have presented useful ideas for an instructive program of strategic and policy-oriented research. The nature of prejudice is made of several social processes; therefore, moving beyond more than one research discipline to understand prejudice in different cultural settings is recommended.

Similarly, employing different methods to generate appropriate research designs depending on specific contexts is essential to test theories/models and/or suggest a new

model leading to practical implications for the field of study. Together with new theoretical perspectives, an appropriate methodological research design aims to provide practical approaches for reducing prejudice towards individuals with contagious illnesses.

Study on fear and threats

Research on intergroup relations has assumed that along with motivational variables, affective variables also need to be considered when studying attitudes and behaviours toward other group individuals (Corenblum & Stephan, 2001). A recent study has revealed fear of COVID-19 is positively related to risk perception in terms of psychological factors (Han et al., 2021). Besides, study results have suggested fear of COVID-19 is also positively associated with anxiety (Harper et al., 2020; Satıcı et al., 2020). Based on these study assumption and results, the author of this thesis has also argued fear of a contagious disease, in this case COVID-19, may serve as an affective factor predicting prejudice toward people with the disease. Especially, the symbolic meaning attached to the contagion is an affective response to fear of contracting the disease (Meisenhelder & LaCharite, 1989b).

In the author's view, in such a global health crisis as the COVID-19 pandemic, we need to consider fear of contagion as a threat itself rather than fitting it into one of the threat categories described in ITT. Even though ITT has been used as a theoretical framework to study prejudice, it lacks extraneous factors, such as fear of contagion, which can serve as potential variables to predict prejudice. Hypothetically, in this particular case, would the norms about dominant versus minority groups remain the same or would fear of things become an explicit threat and overwrite anything else in the current guideline of ITT? The question at hand is not merely to test whether ITT is still valid in some specific context, but

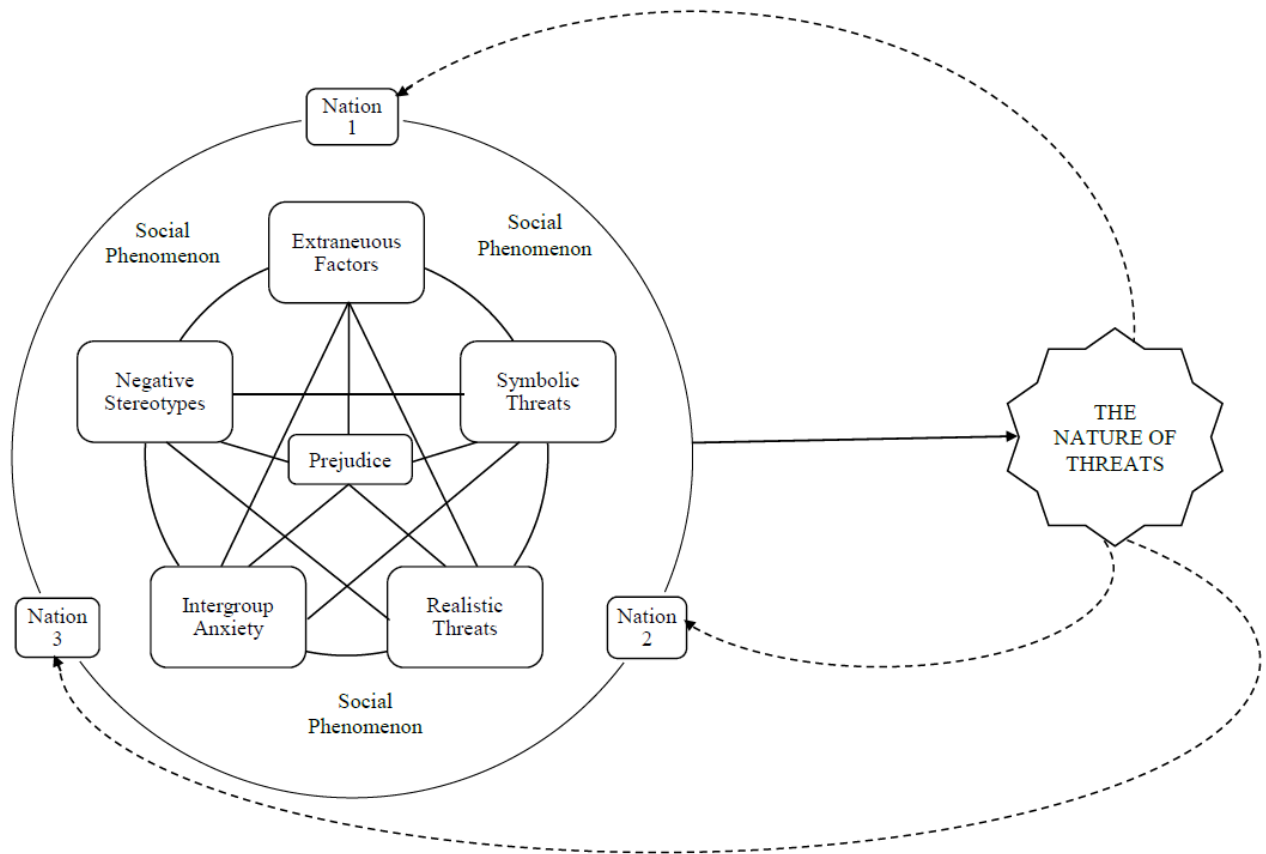
rather to expand the perceptions of threat described in the current theory in need of prejudice intervention or minimisation.

To date, there is not yet empirical support for the author's view; therefore, predicting prejudice based on other potential affective factors requires further exploration including the possibility that fear of things is a contributor to prejudice. Moreover, in such a cross-cultural study as this thesis, prejudicial attitudes and behaviours may be more relevant to fear of things itself rather than a specific group of individuals in a national context. If so, it would be more productive to investigate perceptions of fear of things as a threat. On top of that, it would be more practical to look beyond theoretical framework of more than one discipline and employ mixed methods approach to study anticipated prejudice associated with fear of things to reduce emotional and social discomfort as well as provide effective guidelines to ease the crisis.

Thus, to do so, the author suggests reappraising current Integrated Threat Theory by: (1) focusing on not only symbolic threat, realistic threat, negative stereotypes and intergroup anxiety but also extraneous factors such as affective contributors to prejudice; (2) considering studying the same social phenomenon in different national contexts to see whether the theoretical framework is useful for explaining and understanding prejudice; (3) examining the nature of threats rather than exploring four types of threats only; and then (4) evaluating how well people cope with threats to suggest better plans for policy makers and all related stakeholders (Figure 2). For instance, fear of things as a threat leading to prejudice, particularly a contagious disease in this study, indicates further research on the nature of threat perceptions including how to anticipate potential threats to provide effective ways, which are applicable in each national context, to reduce prejudice.

Figure 2

A proposed model of reappraising intergroup cognitions and extraneous factors



Paradigm shift in social science research

The introduction of mixed methods research design has made it a good combination of research methods, namely quantitative and qualitative (Neupane, 2019). Even though both quantitative and qualitative research methods have their own strengths, there has been ongoing dispute about their weaknesses. For example, quantitative research is overly simplistic because it only uses numbers and qualitative research lacks generalisation due to its sample size (Brannen, 2005).

Thus, because of these two different positions, the debut of mixed methods research design serves as a new research paradigm to overcome weaknesses and make the most of each method's strengths (Anderson, 2016; Neupane, 2019). The author employed a mixed methods approach to learn and experience this new form of research paradigm.

First, the nature of the study context is complex due to an affective factor – COVID-19 – so one type of research is not enough to address research questions related to a social phenomenon (Creswell, 2012) as even though prejudice was already in existence, the outbreak of the novel coronavirus has led to even more prejudice globally.

Second, a mixed methods approach allows researchers to dive deeper into their research problems to enhance a complex overview of a social phenomenon (Greene & Caracelli, 1997), which is significant in the context of a global health pandemic like COVID-19.

Last but not least, when it comes to a cross-national study, a mixed methods approach helps make sense of the data regarding the development of research instruments, the wording – especially when translated into different languages – of questions, and the interpretation of responses in a given national context (Hantrais, 1999).

To conclude, the author utilised a mixed method study with the hope of making the most of her cross-national research investigation and to better our understanding of prejudice in relation to the COVID-19 pandemic. This study made a significant and timely contribution to the field by testing the current theory in different national contexts and then proposing a model for reappraising the application of ITT. Might ITT itself or in combination with other theories in different disciplines provide a better understanding of prejudice? To answer this question, we should be open-minded in terms of research philosophies and methods.

Cross-cultural research on prejudice

The findings of this thesis have implied a need of exploring prejudice in a cross-cultural setting. Additionally, there are two concepts that might be considered when obtaining data from different cultural populations are equivalence and bias (van de Vijver & Tanzer, 2004). There are three levels of equivalence including construct equivalence, measurement unit equivalence, and full-scale equivalence (van de Vijver, & Leung, 1997a; 1997b). Construct equivalence implies universal validity of all constructs used in a study; measurement unit equivalence requires the same unit of measurement; full-scale equivalence is also called scalar equivalence assuming applying completely unbiased measurement (van de Vijver & Tanzer, 2004).

On the other hand, common critique of prejudice is social desirability bias concerning respondents' tendency to provide answers to make themselves look good (Burkhard et al., 2002). Social desirability bias also concerns the validity of within self-report prejudice measures (Burkhard et al., 2002). There is a possibility for social desirability bias affects self-report measures, like ITT (Nshom & Croucher, 2017). While conducting the study, the author borrowed existing self-report measures which are usually criticized for not being reliable,

such as social desirability, when compared with other-report measures (Oetzel, 1998; Podsakoff & Organ, 1986).

Due to the scope of a doctoral study, both theoretically and practically, the central goal was to focus on exploring the reliability of the self-report measures rather than testing the assumption that these scales are either problematic or not equivalent because of the following reasons. First, there are not many empirical studies testing whether self-report measures are problematic themselves or not (Croucher et. al, 2017). Second, a recent study has found no significant difference between self-reports and other reports on most indices of integrated threat instruments (Croucher et. al, 2019). Third, the author collected the data through Qualtrics, an online platform, and it was anonymous so the participants did not have any reason to have social desirability bias. Fourth, a robust sample size (at least 200) can serve as the representative of the population and it is statistically valid (Byrne, 2016). Fifth, the same constructs were conducted in the U.S., New Zealand, Spain, and Italy. Also, CFA was performed for each national sample to ensure the validity and reliability of all measures used in the study (Moore, 2012).

In spite of that, dealing with bias and equivalence issues might be a potential for future cross-cultural research related to exploring prejudice in similar context. For example, to ensure the equivalence of a cross-cultural study, researchers may apply: (1) judgemental procedures and psychometric procedures to assess item bias (Grill & Bariel, 1977; Valencia et al., 1995); and (2) training, test-retest, or intervention studies to detect method bias (van de Vijver & Tanzer, 2004). On the other hand, to identify social desirability's potential effects on self-report measures, measures of social desirability can be used to exclude its effects in a construct's measures (Edwards, 1970; Nicotera, 1996; three additional procedural methods

can be applied to eliminate bias created by self-reports: reordering the scales, separating the measures, and escalating the unit of analysis (Podsakoff & Organ, 1986); and other reports are recommended to be used in collaboration with or instead of self-reports to reduce bias produced by self-reports alone (Spitzberg & Hecht, 1984).

References

- Aberson, C. L. (2019). Indirect effects of threat on the contact–prejudice relationship. *Social Psychology*, 50(2), 105–126. <https://doi.org/10.1027/1864-9335/a000364>
- Agroskin, D., & Jonas, E. (2010). Out of control: How and why does perceived lack of control lead to ethnocentrism? *Review of Psychology*, 17, 1-12.
- Allport, G. (1954). *The Nature of Prejudice*. Addison-Wesley.
- Almeida, F. (2018). Strategies to perform a mixed methods study. *European Journal of Education Studies*, 5(1), 137-151. <https://doi.org/10.5281/zenodo.140621>
- Altemeyer, B. (1996). *The authoritarian specter*. Harvard University Press.
- Altemeyer, B. (2003). Research: Why do religious fundamentalists tend to be prejudiced? *The International Journal for the Psychology of Religion*, 13, 17-28.
https://doi.10.1207/S15327582IJPR1301_03
- Anderson, V. R. (2016). Introduction to mixed methods approaches. In L. A. Jason & D. S. Glenwick (Eds.), *Handbook of methodological approaches to community-based research: Qualitative, quantitative, and mixed methods* (pp. 233-241). Oxford University Press.
- Aten, J. D. (2020, April 16). Long-term COVID-19 mental health effects for Asian Americans. *Psychology Today*. <https://www.psychologytoday.com/nz/blog/hope-resilience/202004/long-term-covid-19-mental-health-effects-asian-americans>
- Atwell-Seate, A., & Mastro, D. (2016). Media’s influence on immigration attitudes: An intergroup threat theory approach. *Communication Monographs*, 83(2), 194–213.
<https://doi.org/10.1080/03637751.2015.1068433>

- Atwell-Seate, A., Ma, R., Chien, H. Y., & Mastro, D. (2018). Cultivating intergroup emotions: An intergroup threat theory approach. *Mass Communication and Society*, 21(2), 178–197. <https://doi.org/10.1080/15205436.2017.1381262>
- Bauerle, S. Y., Amirkhan, J. H., & Hupka, R. B. (2002). An attribution theory analysis of romantic jealousy. *Motivation and Emotion*, 26(4), 297–319
- Bennett, J. (1998). Fear of contagion: A response to stress? *Advances in Nursing Science*, 21(1), 76–87.
- Berrenberg, J. L. (1989). Attitudes towards cancer: A test of three models. *Psychology and Health: An international Journal*, 3, 233–243.
- Berrenberg, J. L., Finlay, K. A., Stephan, W. G., & Stephan, C. (2002). Prejudice toward people with cancer or AIDS: Applying the integrated threat model. *Journal of Applied Biobehavioral Research*, 7, 75–86.
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and Adolescent Wellbeing: A systematic narrative review. *Children and Youth Services Review*, 41, 27–36. <https://doi.org/10.1016/j.childyouth.2014.03.001>
- Betancourt, H., Hardin, C., & Manzi, J. (1992). Beliefs, value orientation, and culture in attribution processes and helping behavior. *Journal of Cross-cultural Psychology*, 23(2), 179–195.
- Bhattacharjee, A. (2012). *Social Science Research: Principles, methods, and practices*. Createspace.
- Bissell, K., & Parrott, S. (2013). Prejudice: The role of the media in the development of social bias. *Journalism & Communication Monographs*, 15, 219–270. <https://doi.org/10.1177/1522637913504401>

- Bizumic, B. (2018). *Ethnocentrism: Integrated perspectives*. Routledge.
- Bizumic, B., & Duckitt, J. (2012). What is and is not ethnocentrism? A conceptual analysis and political implications. *Political Psychology*, 33, 887–909.
- Block, J., & Block, J. (1951). An investigation of the relationship between intolerance of ambiguity and ethnocentrism. *Journal of Personality*, 19, 303–311.
<https://doi.org/10.1111/j.1467-6494.1951.tb01104.x>
- Blumer, H. (1958). Race prejudice as a sense of group position. *The Pacific Sociological Review*, 1(1), 3–7.
- Bobo, L. (1988). Group conflict, prejudice, and the paradox of contemporary racial attitudes. In P. A. Katz & D. A. Taylor (Eds.), *Eliminating racism. Profiles in controversy* (pp. 85- 116). Plenum Press.
- Bouton, R. A., Gallaher, P. E., Garlinghouse, P. A., Leal, T., Rosenstein, L. D., & Young, R. K. (1987). Scales for measuring fear of AIDS and homophobia. *Journal of Personality Assessment*, 51(4), 606-614.
https://doi.org/10.1207/s15327752jpa5104_13
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Brannen, J. (2005). Mixing methods: The entry of qualitative and quantitative approaches into the research process. *International Journal of Social Research Methodology*, 8(3), 173-184. <https://doi.org/10.1080/13645570500154642>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues*, 55, 429-444.
- Burkard, A. W., Boticki, M. A., & Madson, M. B. (2002). Workplace discrimination, prejudice, and diversity measurement: A review of instrumentation. *Journal of Career Assessment*, 10, 343-361.
- Bustillos, A., & Silván-Ferrero, M. (2013). Attitudes toward peers with physical disabilities at high school: Applying the integrated threat theory. *Rehabilitation Counseling Bulletin*, 56(2), 108-119. <https://doi.org/10.1177/0034355212451145>
- Byrne, B. M. (2016). Structural equation modeling with AMOS: Basic concepts, applications, and programming. Routledge.
- Canache, D., Hayes, M., Mondak, J., & Seligson, M., (2014). Determinants of perceived skin-color discrimination in Latin America. *The Journal of Politics*, 76(2), 506-520. <https://doi.org/10.1017/S0022381613001424>
- Cao, D., Meadows, M., Wong, D., & Xia, S. (2021). Understanding consumers' social media engagement behaviour: An examination of the moderation effect of social media context. *Journal of Business Research*, 122, 835–846. <https://doi.org/10.1016/j.jbusres.2020.06.025>
- Cargile, A. C. (2013). Mitigating inter- and intra-group ethnocentrism: Comparing the effects of culture knowledge, exposure, and uncertainty intolerance. *International Journal of Intercultural Relations*, 37, 345–353. <https://doi.org/10.1016/j.ijintrel.2012.12.002>
- Carr, C. T., & Hayes, R. A. (2015). Social Media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1), 46–65. <https://doi.org/10.1080/15456870.2015.972282>

CDC. (n.d.). *CDC museum COVID-19 timeline*.

<https://www.cdc.gov/museum/timeline/covid19.html#:~:text=January%2020%2C%202020,January%2018%20in%20Washington%20state>.

Chakraborty, I., & Maity, P. (2020). COVID-19 outbreak: Migration, effects on society, global environment and *prevention*. *Science of the Total Environment*, 728(138882).
<https://doi.org/10.1016/j.scitotenv.2020.138882>

Chavez-Dueñas, N. Y., & Adames, H. Y. (2018). #NeotERICracism: Exploring race-based content in social media during racially charged current events. *Interamerican Journal of Psychology (IJP)*, 52(1), 3–14. <https://doi.org/10.30849/rip/ijp.v52i1.493>

Chen, J. A., Zhang, E., & Liu, C. H. (2020). Potential impact of COVID-19–related racial discrimination on the health of Asian Americans. *American Journal of Public Health*, 110(11), 1624-1627. <https://doi.org/10.2105/ajph.2020.305858>

Choi, S., Lee, J., Kang, M.-G., Min, H., Chang, Y.-S., & Yoon, S. (2017). Large-scale machine learning of media outlets for understanding public reactions to nation-wide viral infection outbreaks. *Methods*, 129, 50-59.
<https://doi.org/10.1016/j.ymeth.2017.07.027>

Chriscaden, K. (2020, October 13). *Impact of COVID-19 on people's livelihoods, their health and our food systems*. World Health Organization. <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>

Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoti, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, 10. <https://doi.org/10.1038/s41598-020-73510-5>

- Coombs, W. T. (2021). *Ongoing crisis communication: Planning, managing, and responding* (6th ed.). SAGE.
- Corenblum, B., & Stephan, W. G. (2001). White fears and native apprehensions: An integrated threat theory approach to intergroup attitudes. *Canadian Journal of Behavioural Science*, 33(4), 251–268. <https://doi.org/10.1037/h0087147>
- Coronavirus: Global COVID-19 death toll passes one million.* (2020, September 29). BBC News. <https://www.bbc.com/news/world-54334496>
- Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology Science and Practice*, 7(1), 48-67. <https://doi.org/10.1093/clipsy.7.1.48>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Creswell, J., Plano, C., Gutmann, M., & Hanson, W. (2003). Advances in mixed methods research designs. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209-240). Sage.
- Croucher, S. M. (2013). Integrated threat theory and acceptance of immigrant assimilation: An analysis of Muslim immigration in Western Europe. *Communication Monographs*, 80, 46–62. <https://doi.org/10.1080/03637751.2012.739704>
- Croucher, S. M. (2016). Further development of integrated threat theory and intergroup contact: A reply to Aberson (2015). *Communication Monographs*, 83(2), 269–275. <https://doi.org/10.1080/03637751.2015.1119866>

- Croucher, S. M. (2017). Integrated threat theory. In H. Giles & J. Harwood (Eds.), *The Oxford encyclopedia of intergroup communication*. Oxford University Press.
<https://doi.org/10.1093/acrefore/9780190228613.013.490>
- Croucher, S. M., & Cronn-Mills, D. (2019). *Understanding communication research methods* (2nd ed.). Routledge.
- Croucher, S. M., Aalto, J., Hirvonen, S., and Sommier, M. (2013). Integrated threat and intergroup contact: an analysis of Muslim immigration to Finland. *Human Communication, 16*, 109-120.
- Croucher, S. M., DeMaris, A., Diers-Lawson, A., & Roper, S. (2017). Self-reporting and the Argumentativeness Scale: An empirical examination. *Argumentation, 31*, 23-43.
- Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the United States. *Frontiers, 5*(39). <https://doi.org/10.3389/fcomm.2020.00039>
- Croucher, S. M., Nshom, E., Rahmani, D., & Zeng, C. (2019). Social desirability bias among prejudice instruments: An integrated threat. *Journal of Intercultural Communication, 50*.
- Curşeu, P. L., Stoop, R., & Schalk, R. (2007). Prejudice toward immigrant workers among Dutch employees: Integrated threat theory revisited. *European Journal of Social Psychology, 37*(1), 125-140. <https://doi.org/10.1002/ejsp.331>
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness, and structural design. *Management Science, 32*, 554– 571. <https://doi.org.ezproxy.massey.ac.nz/10.1287/mnsc.32.5.554>

- Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection and manager performance: Implications for information systems. *MIS Quarterly*, 11, 355–366. <https://doi-org.ezproxy.massey.ac.nz/10.2307/248682>
- Daft, R., & Lengel, R. (1984). Information richness: A new approach to managerial behavior and organization design. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 6, pp. 191–233). JAI Press.
- Darwin, C. (1874). *The descent of man and selection in relation to sex* (2nd ed.). A. L. Burt Co.
- Davidson, T., & Farquhar, L. (2020). Prejudice and social media: attitudes toward illegal immigrants, refugees, and transgender people. In D. N. Farris, D. R. Compton, and A. P. Herrera (Eds.), *Gender, Sexuality and Race in the Digital Age* (pp. 151–167). Springer.
- DelGreco, M., Denes, A., Davis, S., & Webber, K. T. (2020). Revisiting attribution theory: Toward a critical feminist approach for understanding attributions of blame. *Communication Theory*, 31, 250–276. <https://doi.org/10.1093/ct/qtab001>
- Dennis, A. R., Kinney, S. T., & Hung, Y. T. C. (1999). Gender differences in the effect of media richness. *Small Group Research*, 30(4), 405–437.
- Dreu, C. K., Greer, L. L., Kleef, G. A., Shalvi, S., & Handgraaf, M. J. (2011). Oxytocin promotes human ethnocentrism. *Proceedings of the National Academy of Sciences*, 108(4), 1262–1266. <https://doi.org/10.1073/pnas.1015316108>
- Edwards, A. R. (1970). Inmate adaptations and socialization in the prison. *Sociology*, 4, 213–225.

- Esses, V. M., Haddock, G., & Zanna, M. P. (1993). Values, stereotypes, and emotions as determinants of intergroup attitudes. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition and stereotyping: Interactive processes in group perception* (pp. 137-166). Academic Press.
- Faulkner, J., Schaller, M., Park, J. H., & Duncan, L. A. (2004). Evolved disease-avoidance mechanisms and contemporary xenophobic attitudes. *Group Processes and Intergroup Relations*, 7, 333–353. <https://doi.org/10.1177/1368430204046142>
- Fielding, N. (2010). Mixed methods research in the real world. *International Journal of Social Research Methodology*, 13, 127–138.
- Fulk, J., Steinfield, C. W., Schmitz, J., & Power, J. G. (1987). Social information processing model of media use in organizations. *Communication Research*, 14, 529–553. <https://doi.org/10.1177/009365087014005005>
- Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism*. Academic Press.
- Gallois, C., Watson, B. M., & Giles, H. (2018). Intergroup communication: Identities and effective interactions. *Journal of Communication*, 68, 309-317. <https://doi.org/10.1093/joc/jqx016>
- Gaskins, B., & Jerit, J. (2012). Internet news: Is it a replacement for traditional media outlets? *The International Journal of Press Politics*, 17(2), 190-213. <http://doi.org/10.1177/1940161211434640>
- Gerritsen, M. (2009). The impact of culture on media choice: The role of context, media richness and uncertainty avoidance. In V. K. Bhatia, W. Cheng, & B. Du Babcock (Ed.), *Language for Professional Communication: Research, Practice and Training*

- (pp. 146–160). City University of Hong Kong, Asia-Pacific LSP and Professional Communication Association, and the Hong Kong Polytechnic University.
- Giles, H., & Harwood, J. (2018). *The Oxford Encyclopedia of Intergroup Communication*. Oxford University Press.
- Giles, H., & Maass, A. (Eds.). (2016). *Advances in intergroup communication*. Peter Lang.
- Goffman, E. (1963). *Stigma*. Prentice-Hall.
- Goldstein, S. B., & Kim, R. I. (2006). Predictors of US college students' participation in study abroad programs: A longitudinal study. *International Journal of Intercultural Relations*, 30, 507-521. <https://doi.org/10.1016/j.ijintrel.2005.10.001>
- González, K.V., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, 47, 667-685. <https://doi.org/10.1348/014466608X284443>
- Greene, J. C., & Caracelli, V. J. (1997). Defining and describing the paradigm issue in mixed-method evaluation. *New Directions for Evaluation*, 74, 5-17. <https://doi.org/10.1002/ev.1068>
- Grill, J. J., & Bartel, N. R. (1977). Language bias in tests: ITPA grammatic closure. *Journal of Learning Disabilities*, 10(4), 229–235. <https://doi.org/10.1177/002221947701000411>
- Gudykunst, W. B. (1995). Anxiety/uncertainty management (AUM) theory: Development and current status. In R. L. Wiseman (Ed.), *Intercultural communication theory* (pp. 8-58). Sage.

- Guterres, A. (2020, April 23). *We are all in this together: Human rights and COVID-19 response and recovery*. UN. <https://www.un.org/en/un-coronavirus-communications-team/we-are-all-together-human-rights-and-covid-19-response-and>
- Hamilton, D. L., Sherman, S. J., & Ruvolo, C. M. (1990). Stereotype-based expectancies: Effects on information processing and social behavior. *Journal of Social Issues*, 46(2), 35–60. <https://doi.org/10.1111/j.1540-4560.1990.tb01922.x>
- Hammond, R. A., & Axelrod, R. (2006). The evolution of ethnocentrism. *Journal of Conflict Resolution*, 50(6), 926-936. <https://doi.org/10.1177/0022002706293470>
- Han, M. F. Y., Mahendran, R., & Yu, J. (2021). Associations between fear of COVID-19, affective symptoms and risk perception among community-dwelling older adults during COVID-19 lockdown. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.638831>
- Hantrais, L. (1999). Contextualisation in cross-national comparative research. *International Journal of Social Research Methodology*, 2(2), 93–108. <https://doi.org/10.1080/136455799295078>
- Harper, J. F., Satchel, L. P., Fido, D., & Latzman, R. D. (2021). Functional fear predicts public health compliance in the COVID-19 pandemic. *International Journal of Mental Health Addict*, 19(5), 1875-1888. <https://doi.org/10.1007/s11469-020-00281-5>
- Harrington, D. (2009). *Confirmatory factor analysis*. Oxford University Press.
- Harwood, J., Giles, H., & Palomares, N. A. (2005). Intergroup Theory and Communication Processes. In J. Harwood & H. Giles (Eds.), *Intergroup communication: Multiple perspectives* (pp. 1–17). Peter Lang Publishing.

- Hassan, M. K. (1978). A study of ethnocentrism, prejudice & related personality factors in Hindu and Muslim college students. *Psychologia: An International Journal of Psychology in the Orient*, 21(3), 150–154.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*. John Wiley & Sons Inc.
<https://doi.org/10.1037/10628-000>
- Hirschfeld, L. A. (1996). *Race in the making: Cognition, culture, and the child's construction of human kinds*. Cambridge University Press.
- Hoang, T. S. (2015). Blogging during a crisis: Threat and efficacy in online communication during a hurricane. *Online Journal of Communication and Media Technologies*, 5(2).
<https://doi.org/10.29333/ojcm/2502>
- Holmes, R. (2020, April 24). *Is COVID-19 social media's levelling up moment?* Forbes.
<https://www.forbes.com/sites/ryanholmes/2020/04/24/is-covid-19-social-medias-levelling-up-moment/?sh=71955c166c60>
- Holt-Lunstad, J. (2020, June 22). *The double pandemic of social isolation and COVID-19: Cross-sector policy must address both*. Health Affairs.
<https://www.healthaffairs.org/doi/10.1377/hblog20200609.53823>
- Hopkins, P. D., & Shook, N. J. (2017). Development of an intergroup anxiety toward Muslims scale. *International Journal of Intercultural Relations*, 61, 7–20.
<https://doi.org/10.1016/j.ijintrel.2017.08.002>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55. <https://doi.org/10.1080/10705519909540118>

- Hunt, J. M., Domzal, T. J., & Kernan, J. B. (1982). Causal attributions and persuasions: The case of disconfirmed expectancies. In A. Mitchell (Ed.), *Advances in consumer research* (pp. 287–290). Association for Consumer Research.
- Huxley, E., Bizumic, B., and Kenny, A. (2015). The Role of Ethnocentrism in the Relationship Between Openness to Experience and Ethnic Prejudice. In A. D. Warner, *Ethnic and Cultural Identity: Perceptions, Discrimination and Social Challenges* (pp. 85-101). Nova Science.
- Ishii, K., Lyons, M. M., & Carr, S. A. (2019). Revisiting media richness theory for today and future. *Human Behavior and Emerging Technologies, 1*, 124–131.
<https://doi.org/10.1002/hbe2.138>
- Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived outgroup variability, and outgroup attitude: An integrative model. *Personality and Social Psychology Bulletin, 19*(6), 700-710.
<https://doi.org/10.1177/0146167293196005>
- Jackman, M. R. (1977). Prejudice, tolerance, and attitudes toward ethnic groups. *Social Science Research, 6*, 145-169.
- Jackson, K. (2020, March 11). *Amid coronavirus panic, Chinese restaurants in the US are emptier than ever*. Today. <https://www.today.com/food/amid-coronavirus-panic-chinese-restaurants-us-are-emptier-ever-t175326>
- Johns Hopkins Coronavirus Resource Center. (updated daily). *COVID-19 Dashboard be the Center for Systems for Science and Engineering (CSSE) at Johns Hopkins University*.
<https://coronavirus.jhu.edu/map.html>

- Johnson, M. (2019). Mixed methods. In S. M. Croucher & D. Cronn-Mills (Eds.), *Understanding communication research methods* (2nd ed., pp. 275-290). Routledge.
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? Bullying experiences in Cyberspace. *Journal of School Health*, 78(9), 496–505. <https://doi.org/10.1111/j.1746-1561.2008.00335.x>
- Kahn, K. B., Spencer, K., & Glaser, J. (2013). Online prejudice and discrimination: From dating to hating. In Y. Amichai-Hamburger (Ed.), *The social net: Understanding our online behavior* (2nd ed., pp. 201–219). Oxford University Press.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! the challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Katz, D. L. (2001). *Clinical Epidemiology & Evidence-based medicine: Fundamental principles of clinical reasoning & research*. Sage.
- Katz, I., Wackenhut, J., & Glass, D. C. (1988). An ambivalence-amplification theory of behavior toward the stigmatized. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed.) (pp. 103-117). Nelson-Hall.
- Kaur, H. (2021, June 5). 40 years ago, the first cases of AIDS were reported in the US. *CNN Health*. <https://edition.cnn.com/2021/06/05/health/aids-40-anniversary-first-reported-cases-trnd/index.html>
- Keith, K. D. (2019). *Ethnocentrism: Seeing the world from where we stand*. John Wiley & Sons Ltd.
- Kent, M. L. (2010). Directions in social media for professionals and scholars. In R. L. Heath (Ed.), *Handbook of public relations* (2nd ed., pp. 643–656). Sage.

- Kim, B., Cooks, E., & Kim, S.-K. (2021). Exploring incivility and moral foundations toward Asians in English-speaking tweets in hate crime-reporting cities during the COVID-19 pandemic. *Internet Research, ahead-of-print*(ahead-of-print).
<https://doi.org/10.1108/intr-11-2020-0678>
- Kim, W., Jeong, O., & Lee, S. (2010). On social web sites. *Information Systems*, 35(2), 215–236. <http://doi.org/10.3846/bm.2012.120>
- Kinder, D. R., & Sears, D. O. (1981). Prejudice and politics: Symbolic racism versus racial threats to the good life. *Journal of Personality and Social Psychology*, 40, 414-431.
- Kinder, D. R., & Kam, C. D. (2010). *Us Against Them: Ethnocentric Foundations of American Opinion*. University of Chicago Press.
- Kringos, D., Carinci, F., Barbazza, E., Bos, V., Gilmore, K., Groene, O., Gulácsi, L., Ivankovic, D., Jansen, T., Johnsen, S. P., de Lusignan, S., Mainz, J., Nuti, S., Klazinga, N., Baji, P., Brito Fernandes, O., Kara, P., Larrain, N., Meza, B., ... Yang, Y. (2020). Managing covid-19 within and across Health Systems: Why we need performance intelligence to coordinate a global response. *Health Research Policy and Systems*, 18(1). <https://doi.org/10.1186/s12961-020-00593-x>
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. University of Chicago Press.
- Lambert, W. E., Hodgson, R. C., Gardner, R. C., & Fillenbaum, S. (1960). Evaluational reactions to spoken languages. *Journal of Abnormal and Social Psychology*, 60, 44–51.
<https://dx.doi.org/10.1037/h0044430>
- Lamont, M., & Molnár, V. (2002). The study of boundaries in the social sciences. *Annual Review of Sociology*, 28, 167-195.
<https://doi.org/10.1146/annurev.soc.28.110601.141107>

- Laurence, J., Schmid, K., & Hewstone, M. (2018). Ethnic diversity, ethnic threat, and social cohesion: (re)-evaluating the role of perceived out-group threat and prejudice in the relationship between community ethnic diversity and intra-community cohesion. *Journal of Ethnic and Migration Studies*, 45(3), 395-418.
<https://doi.org/10.1080/1369183X.2018.1490638>
- Ledbetter, A. M. (2014). The past and future of technology in interpersonal communication theory and research. *Communication Studies*, 65, 456–459.
<https://doi.org/10.1080/10510974.2014.927298>
- Lee, D. K. L., & Borah, P. (2020). Self-presentation on Instagram and friendship development among young adults: A moderated mediation model of media richness, perceived functionality, and openness. *Computers in Human Behavior*, 103, 57–66.
<https://doi.org/10.1016/j.chb.2019.09.017>
- LeVine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes and group behaviours*. John Wiley.
- Levy, B. R., Chung, P. H., Bedford, T., and Navrazhina, K. (2013). Facebook as a site for negative age stereotypes. *Gerontologist*, 54, 172–176.
<https://doi.org/10.1093/geront/gns194>
- Levy, E. C., Rafaeli, S., & Ariel, Y. (2016). The effect of online interruptions on the quality of cognitive performance. *Telematics and Informatics*, 33(4), 1014–1021.
<https://doi.org/10.1016/j.tele.2016.03.003>
- Lewis, I. M. (1985). *Social Anthropology in Perspective*. Cambridge University Press.
- Li, L., Zhang, Q., Wang, X., Zhang, J., Wang, T., Gao, T.-L., Duan, W., Tsoi, K. K.-F., & Wang, F.-Y. (2020). Characterizing the propagation of situational information in

social media during COVID-19 epidemic: a case study on Weibo. *IEEE Transactions on Computer Social System*, 7(2), 556–562.

<https://doi.org/10.1109/TCSS.2020.2980007>

Lodhia, S., & Stone, G. (2017). Integrated reporting in an internet and social media communication environment: Conceptual insights. *Australian Accounting Review*, 80(27), 17–33. <https://doi.org/10.1111/auar.12143>

Lynn, R. (1976). The sociobiology of nationalism. *New Society*, July, 11-14.

Mangan, D. (2020, March 18). *Trump defends calling coronavirus ‘Chinese virus’ — ‘it’s not racist at all’*. CNBC. <https://www.cnbc.com/2020/03/18/coronavirus-criticism-trump-defends-saying-chinese-virus.html>

Margolin, J. (2020, March 28). *FBI warns of potential surge in hate crimes against Asian Americans amid coronavirus*. ABC News. Retrieved from <https://abcnews.go.com/US/fbi-warns-potential-surge-hate-crimes-asian-americans/story?id=69831920>

Markus, M. L. (1994). Electronic mail as the medium of managerial choice. *Organization Science*, 5(4), 502-527.

Matsumoto, D. (2003). Cross-cultural research. In S. F. Davis (Ed.), *Handbook of research methods in experimental psychology*. Blackwell.

Mayer, G., Alvarez, S., Gronewold, N., & Schultz, J. H. (2020). Expressions of individualization on the internet and social media: Multigenerational focus group study. *Journal of Medical Internet Research*, 22(11). <https://doi.org/10.2196/20528>

- McConahay, J. G. (1986). Modern racism, ambivalence, and the modern racism scale. In Dovidio, J. F., & Gaertner, S. L. (Eds.), *Prejudice, discrimination, and racism* (pp. 91-125). Academic Press.
- McConahay, J. B., & Hough, J. C. (1976). Symbolic racism. *Journal of Social Issues*, 32(2), 23-45. <https://doi.org/10.1111/j.1540-4560.1976.tb02493.x>
- McDermott, V. M. (2009). Attribution theory. In S. W. Littlejohn & K. A. Foss (Eds.), *Encyclopedia of communication theory* (pp. 61–31). Sage.
<http://doi.org/10.4135/9781412959384>
- McDonald, L. M., & Cokley, J. (2013). Prepare for anger, look for love: A ready reckoner for crisis scenario planners. *Prism*, 10(1), 1-11.
- McGuire, E. (2020, April 5). *Anti-Asian hate continues to spread online amid COVID-19 pandemic*. Aljazeera. <https://www.aljazeera.com/news/2020/04/anti-asian-hate-continues-spread-online-covid-19-pandemic-200405063015286.html>
- Meisenhelder, J. B., & LaCharite, C. L. (1989a). Fear of contagion: The public response to AIDS. *The Journal of Nursing Scholarship*, 21(1), 7-9.
<https://doi.org/10.1111/j.15475069.1989.tb00089.x>
- Meisenhelder, J. B., & LaCharite, C. L. (1989b). Fear of contagion: A stress response to acquired immunodeficiency syndrome. *Advances in Nursing Science*, 11(2), 29–38.
<https://doi.org/10.1097/00012272-198901000-00007>
- Migiro, S. O., & Magangi, B. A. (2011). Mixed methods: A new literature and the future of the new research paradigm. *African Journal of Business Management*, 5(10), 3757-3764. <https://doi.org/10.5897/AJBM09.082>

- Moore, M. T. (2012). Confirmatory factor analysis. In R. H. Hoyle (Ed.), *Handbook of structural equation modelling* (pp. 361-379). The Guilford Press.
- Mou, Y., & Lin, C. A. (2014). Communicating food safety via the social media: The role of knowledge and emotions on risk perception and prevention. *Science Communication*, 36(5), 593-616. <https://doi.org/10.1177/1075547014549480>
- Navarrette, C. D., & Fessler, D. M. T. (2006). Disease avoidance and ethnocentrism: The effects of disease vulnerability and disgust sensitivity on intergroup attitudes. *Evolution and Human Behavior*, 27, 270–282.
<https://doi.org/10.1016/j.evolhumbehav.2005.12.001>
- Navarrette, C. D., Fessler, D. M. T., & Eng, S. J. (2007). Elevated ethnocentrism in the first trimester of pregnancy. *Evolution and Human Behavior*, 28, 60–65. <https://doi.org/10.1016/j.evolhumbehav.2006.06.002>
- Neuliep, J. W. (2002). Assessing the reliability and validity of the generalized ethnocentrism scale. *Journal of Intercultural Communication Research*, 31, 201-214.
- Neuliep, J. W. (2017). Ethnocentrism and intercultural communication. In C. Lin (Ed.), *Intercultural Communication* (pp. 331-348). De Gruyter Mouton.
<https://doi.org/10.1515/9781501500060>
- Neuliep, J. W. (2017). Ethnocentrism. In Y. Y. Kim (Ed.), *The International Encyclopedia of Intercultural Communication*. Wiley-Blackwell.
<https://doi.org/10.1002/978111873665.ieicc0030>
- Neuliep, J. W., & McCroskey, J. C. (1997). The development of a U.S. and generalized ethnocentrism scale. *Communication Research Reports*, 14(4), 385-398.
<https://doi.org/10.1080/08824099709388682>

- Neuliep, J. W., Hintz, S. M., & McCroskey, J. C. (2005). The influence of ethnocentrism in organizational contexts: Perceptions of interviewee and managerial attractiveness, credibility, and effectiveness. *Communication Quarterly*, 53, 41-56.
- Neupane, N. (2019). Paradigm Shift in Research: Emergence of Mixed Methods Research Design. *Journal of NELTA Gandaki*, 1, 74.86. <https://doi.org/10.3126/jong.v1i0.24462>
- Ngwenyama, O. K., & Lee, A. S. (1997). Communication richness in electronic mail: Critical social theory and the contextuality of meaning. *MIS Quarterly*, 21(2), 145-167.
- Nicotera, A. M. (1996). An assessment of the Argumentativeness Scale for social desirability bias. *Communication Reports*, 9, 23–35.
- Nshom, E., & Croucher, S. M. (2017). Perceived threat and prejudice towards immigrants in Finland: A study among early, middle, and late Finnish adolescents. *Journal of International and Intercultural Communication*, 10, 309-323.
- Nshom, E., Khalimzoda, I., Sadaf, S., & Shaymardanov, M. (2022). Perceived threat or perceived benefit? immigrants' perception of how Finns tend to perceive them. *International Journal of Intercultural Relations*, 86, 46–55.
<https://doi.org/10.1016/j.ijintrel.2021.11.001>
- O'Connor, P. (1952). Ethnocentrism, "intolerance of ambiguity," and abstract reasoning ability. *Journal of Abnormal and Social Psychology*, 47, 526–530.
<https://doi.org/10.1037/h0056142>
- Oetzel, J. G. (1998). The effects of self-construals and ethnicity on self-reported conflict styles. *Communication Reports*, 11, 133–144.
<https://doi.org/10.1080/08934219809367695>.

- O'Hare, T., Williams, C. L., & Ezoviski, A. (1996). Fear of AIDS and homophobia: Implications for direct practice and advocacy. *Social Work*, 41(1), 51–58.
<https://doi.org/10.1093/sw/41.1.51>
- Palen, L. (2008). Online social media in crisis events. *Educause Quarterly*, 3, 76–78.
- Palen, L., & Anderson, K. M. (2016). Crisis informatics: New data for extraordinary times. *Science*, 353(6296), 224–225.
- Park, J. H., Faulkner, J., & Schaller, M. (2003). Evolved disease-avoidance processes and contemporary anti-social behavior: Prejudicial attitudes and avoidance of people with physical disabilities. *Journal of nonverbal behavior*, 27(2), 65-87.
- Parker, R., & Aggleton, P. (2003). HIV- and AIDS-related stigma and discrimination: A conceptual framework and implications for action. *Social Science and Medicine*, 57(1), 13-24. [https://doi.org/10.1016/s0277-9536\(02\)00304-0](https://doi.org/10.1016/s0277-9536(02)00304-0)
- Paterson, J. L., Brown, R., & Walters, M. A. (2019). The short and longer term impacts of hate crimes experienced directly, indirectly, and through the media. *Personality and Social Psychology Bulletin*, 45(7), 994-1010.
<https://doi.org/10.1177/0146167218802835>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Sage.
- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction*. Wadsworth.
- Perry, P., & Donini-Lenhoff, F. (2010). History of medicine: Stigmatization complicates infectious disease management. *American Medical Association Journal of Ethics*, 12(3), 225-230.

- Pettegrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *European Journal of Social Psychology*, 25, 57-75.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531–544.
- Rajendran, L., & Thesinghraj, P. The impact of new media on traditional media. (2014). *Middle East Journal of Scientific Research*, 22(4), 609-616.
<https://doi.org/10.5829/idosi.mejsr.2014.22.04.21945>
- Ramsay, J. E., & Pang, J. S. (2017). Anti-immigrant prejudice in rising East Asia: A stereotype content and integrated threat analysis. *Political Psychology*, 38(2), 227–244. <https://doi.org/10.1111/pops.12312>
- Reichardt, C. S., & Rallis, S. F. (1994). *The qualitative – quantitative debate: New perspectives*. Jossey – Bass.
- Relia, K., Li, Z., Cook, S. H., and Chunara, R. (2019). Race, ethnicity and national origin-based discrimination in social media and hate crimes across 100 US cities. *Proceedings of International AAAI Conference on Web and Social Media*, 13, 417–427.
- Reuter, C., Hughes, A. L., & Kaufhold, M.-A. (2018). Social Media in Crisis Management: An evaluation and analysis of crisis informatics research. *International Journal of Human–Computer Interaction*, 34(4), 280–294.
<https://doi.org/10.1080/10447318.2018.1427832>
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and the integrated threat theory: A meta-analytic review. *Personality and Social Psychology Review*, 10(4), 336– 353.

- Rios, K., Sosa, N., & Osborn, H. (2018). An experimental approach to intergroup threat theory: Manipulations, moderators, and consequences of realistic vs. symbolic threat. *European Review of Social Psychology*, 29(1), 212–255.
<https://doi.org/10.1080/10463283.2018.1537049>
- Roberto, K. J., Johnson, A. F., & Rauhaus, B. M. (2020). Stigmatization and prejudice during the COVID-19 pandemic. *Administrative Theory & Praxis*, 42(3), 364-378.
<https://doi.org/10.1080/10841806.2020.1782128>
- Roulin, N. (2015). Don't throw the baby out with the bathwater: Comparing data quality of crowdsourcing, online panels, and student samples. *Industrial and Organizational Psychology*, 8(2), 190-196. <https://doi.org/10.1017/iop.2015.24>.
- Rushton, J. P. (1984). Genetic similarity, human altruism, and group selection. *Behavioral and brain sciences*, 12, 503-559.
- Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2021). Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *International Journal of Mental Health Addict*, 19(6), 1980-1988.
<https://doi.org/10.1007/s11469-020-00294-0>
- Sauer, L. (2020). *What is Coronavirus?* John Hopkins Medicine.
<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus>
- Schaller, M., & Neuberg, S. L. (2012). Danger, disease, and the nature of prejudice(s). *Advances in Experimental Social Psychology*, 46, 1-54.
<https://doi.org/10.1016/B9780123942814.000015>

- Schild, L., Ling, C., Blackburn, J., Stringhini, G., Zhang, Y., & Zannettou, S. (2020). "Go eat a bat, Chang!": An early look on the emergence of sinophobic behavior on web communities in the face of COVID-19. *arXiv*. <https://arxiv.org/abs/2004.04046>
- Schultz, F., Utz, S., and Göritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via Twitter, blogs and traditional media. *Public Relations Review*, 37, 20–27. <https://doi.org/10.1016/j.pubrev.2010.12.001>
- Schweitzer, R., Perkoulidis, S., Krome, S., Ludlow, C., & Ryan, M. (2005). Attitudes towards refugees: The dark side of prejudice in Australia. *Australian Journal of Psychology*, 57(3), 170-79.
- Sears, D. O. (1988). Symbolic racism. In P. Katz & D. Taylor (Eds.), *Eliminating racism. Profiles in controversy* (pp. 53-84). Plenum Press.
- Segall, M. H. (1979). *Cross-cultural psychology: Human behavior in global perspective*. Brooks/Cole.
- Sharma, S., Shimp, T. A., & Shin, J. (1994). Consumer ethnocentrism: A test of antecedents and moderators. *Journal of the Academy of Marketing Science*, 23(1), 26-37. <https://doi.org/10.1177/0092070395231004>
- Sheer, V. C. (2020). Media richness theory. *The International Encyclopedia of Media Psychology*, 1–14. <https://doi.org/10.1002/9781119011071.iemp0118>
- Sherif, M. (1966). *Group conflict and cooperation*. Routledge & Kegan Paul.
- Sherman, I. W. (2007). *Twelve diseases that changed our world*. American Society for Microbiology.

- Sidanius, J., Devereux, E., & Pratte, F. (1992). A comparison of symbolic racism theory and social dominance theory as explanations for racial policy attitudes. *Journal of Social Psychology, 132*, 377-395.
- Siddiqui, S., & Singh, T. (2016). Social media its impact with positive and negative aspects. *International Journal of Computer Applications Technology and Research, 5*(2), 71–75. <https://doi.org/10.7753/ijcatr0502.1006>
- Sniderman, D. M., & Piazza, T. (1993). *The scar of race*. The Belknap Press of Harvard University Press.
- Sontag, S. (1978). *Illness as a metaphor*. Farrar, Straus and Giroux.
- Spencer, A. T., and Croucher, S. M. (2008). Spiral of silence and ETA: An analysis of the perceptions of French and Spanish Basque and non-Basque. *International Communication Gazette, 70*(2), 137–154. <https://doi.org/10.1177/1748048507086909>
- Spencer, A. T., Croucher, S. M., and McKee, C. (2012). Barack Obama: Examining the climate of opinion of spiral of silence. *Journal of Communication, Speech & Theater Association of North Dakota, 24*, 27–34.
- Spencer-Rodgers, J., & McGovern, T. (2002). Attitudes toward the culturally different: The role of intercultural communication barriers, affective responses, consensual stereotypes, and perceived threat. *International Journal of Intercultural Relations, 26*(6), 609–631. [https://doi.org/10.1016/S0147-1767\(02\)00038-X](https://doi.org/10.1016/S0147-1767(02)00038-X)
- Spitzberg, B. H., & Hecht, M. L. (1984). A component model of relational competence. *Human Communication Research, 10*, 575–599.

- Spitzberg, B. H., & Manusov, V. (2015). Attribution theory. In D. O. Braithwaite & P. Schrodt (Eds.), *Engaging theories in interpersonal communication: Multiple perspectives* (2nd ed., pp. 37–49). Thousand Oaks.
- Stephan, C. W., Stephan, W. C., Demitrakis, K. M., Yamada, A. M., & Clason, D. L. (2000). Women's attitudes toward men an integrated threat theory approach. *Psychology of women Quarterly*, 24(1), 63-73. <https://doi.org/10.1111/j.1471-6402.2000.tb01022.x>
- Stephan, W. G. (2014). Intergroup anxiety: Theory, research, and practice. *Personality and Social Psychology Review*, 18(3), 239-255.
<https://dx.doi.org/10.1177/1088868314530518>
- Stephan, W. G., & Renfro, C. L. (2002). The role of threat in intergroup relations. In D. Mackie and E. R. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 191–207). Psychology Press.
- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41(3), 157-176. <https://doi.org/10.1111/j.1540-4560.1985.tb01134.x>
- Stephan, W. G., & Stephan, C. W. (1993). Cognition and affect in stereotyping: Parallel interactive networks. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 111–136). Academic Press.
- Stephan, W. G., & Stephan, C. W. (1996). Predicting prejudice. *International Journal of Intercultural Relations*, 20, 409–426. [https://doi.org/10.1016/0147-1767\(96\)00026-0](https://doi.org/10.1016/0147-1767(96)00026-0)
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice in S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 225-246). Lawrence Erlbaum.

- Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L., McNatt, P., & Renfro, C. L. (2002). The role of threats in racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, 28(9), 1242–1254.
- Stephan, W. G., Diaz-Loving, R., Duran, A. (2000). Integrated threat theory and intercultural attitudes: Mexico and the United States. *Journal of Cross-Cultural Psychology*, 31(2), 240-249. <https://doi.org/10.1177/0022022100031002006>
- Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward immigrants: An integrated threat theory. *Journal of Applied Social Psychology*, 29(11), 2221–2237.
- Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). *Intergroup threat theory*. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 43–59). Psychology Press.
- Stephan, W. G., Ybarra, O., & Rios, K. (2015). Intergroup threat theory. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (2nd ed., pp. 255–278). Psychology Press. <https://doi.org/10.4324/9780203361993>
- Sumner, W. G. (1906). *Folkways: A study of the sociological importance of usages, manners, customs, mores, and morals*. Ginn & Co.
- Sumner, W. G. (2002). *Folkways: A study of mores, manners, customs and morals*. Dover Publications.
- Szmigiera, E. (2021, November 23). *Impact of the coronavirus pandemic on the global economy – statistics & facts*. Statista. <https://www.statista.com/topics/6139/covid-19-impact-on-the-global-economy/>
- Tan, L. (24, June 2020). Covid-19 coronavirus: Prejudice against Asians in NZ lower than elsewhere study finds. *NZ Herald*. Retrieved from

<https://www.nzherald.co.nz/nz/covid-19-coronavirus-prejudice-against-asians-in-nz-lower-than-elsewhere-study-finds/VDMFZCMJ55JUJWFEFX62Z63G4/>

Tartakovsky, E., & Walsh, S. D. (2016). Testing a new theoretical model for attitudes toward immigrants: the case of social workers' attitudes toward asylum seekers in Israel. *Journal of Cross-Cultural Psychology*, 47(1), 72–96.

<https://doi.org/10.1177/0022022115613860>

Tashakkori, A. (2009). Are we there yet? The state of mixed methods community. *Journal of Mixed Methods Research*, 3(4), 287–291. <https://doi.org/10.1177/1558689809346151>

Tausch, N., Hewstone, M., & Roy, R. (2009). The relationships between contact, status and prejudice: An integrated threat theory analysis of Hindu-Muslim relations in India. *Journal of Community and Applied Social Psychology*, 19(2), 83–94.

<https://doi.org/10.1002/casp.984>

Tausch, N., Hewstone, M., Kenworthy, J., Cairns, E., & Christ, O. (2007). Cross-community contact, perceived status differences, and intergroup attitudes in Northern Ireland: The mediating roles of individual-level versus group-level threats and the moderating role of social identification. *Political Psychology*, 28(1), 53–68.

<https://doi.org/10.1111/j.1467-9221.2007.00551.x>

Terry, M. (2009). Twittering healthcare: Social media and medicine. *Telemedicine and e-Health*, 15(6), 507–510. <https://doi.org/10.1089/tmj.2009.9955>

Timmerman, C. E., & Madhavapeddi, S. N. (2008). Perceptions of organizational media richness: Channel expansion effects for electronic and traditional media across richness dimensions. *IEEE Transactions on Professional Communication*, 51(1), 18–32. <https://doi.org/10.1109/TPC.2007.2000058>

- Triandis, H. C. (1994). *Culture and social behavior*. McGraw-Hill.
- Troia, G. A., & Graham, S. (2017). Use and acceptability of writing adaptations for students with disabilities: Survey of grade 3-8 teachers. *Learning Disabilities Research & Practice, 32*(4), 257-269. <https://doi.org/10.1111/ldrp.12135>
- Tynes, B., Reynolds, L., & Greenfield, P. M. (2004). Adolescence, race, and ethnicity on the internet: A comparison of discourse in monitored vs. unmonitored chat rooms. *Journal of Applied Developmental Psychology, 25*, 667–684. <https://doi.org/10.1016/j.appdev.2004.09.003>
- UN. (2020, April 14). *UN/DESA policy brief #61: COVID-19: Embracing digital government during the pandemic and beyond*. <https://www.unilibrary.org/content/papers/27081990/4/read>
- UNESCO. (2020, May 25). *COVID-19-related discrimination and stigma: a global phenomenon?* <https://en.unesco.org/news/covid-19-related-discrimination-and-stigma-global-phenomenon>
- Valencia, R. R., Rankin, R. J., & Livingston, R. (1995). K-ABC content bias: comparisons between Mexican American and White children. *Psychology in the Schools, 32*(3), 153–169. [https://doi.org/10.1002/1520-6807\(199507\)32:3<153::AID-PITS2310320302>3.0.CO;2-G](https://doi.org/10.1002/1520-6807(199507)32:3<153::AID-PITS2310320302>3.0.CO;2-G)
- van de Vijver, F., & Leung, K. (1997a). Methods and data analysis of comparative research. second ed. In Berry, J. W., Poortinga, Y. H., & Pandey, J. (Eds.), *Handbook of Cross-cultural Psychology* (pp. 257–300). Boston
- van de Vijver, F., & Leung, K. (1997b). *Methods and Data Analysis for Cross-cultural Research*. Sage.

- van de Vijver, F., & Tanzer, N. K. (2004). Bias and equivalence in cross-cultural assessment: An overview. *European Review of Applied Psychology*, 54(2), 119–135.
<https://doi.org/10.1016/j.erap.2003.12.004>
- Vidgen, B., Botelho, A., Broniatowski, D., Guest, E., Hall, M., Margetts, H., Tromble, R., Waseem, Z., & Hale, S. (2020). Detecting East Asian prejudice on social media. *arXiv*. <https://arxiv.org/abs/2005.03909>
- Vishwanath, A. (2014). Negative public perceptions of juvenile diabetics: Applying attribution theory to understand the public's stigmatizing views. *Health Communication*, 29(5), 516-526. <https://doi.org/10.1080/10410236.2013.777685>
- Vos, S. C., Sutton, J., Yu, Y., Renshaw, S. L., Olson, M. K., Gibson, C. B., & Butts, C. T. (2018). Retweeting risk communication: The role of threat and efficacy. *Risk Analysis*, 38(12), 2580–2598. <https://doi.org/10.1111/risa.13140>
- Wang, H., Cleary, P. D., Little, J., & Auffray, C. (2020). Communicating in a public health crisis. *The Lancet Digital Health*, 2(10).
[https://doi.org/10.1016/S25897500\(20\)30197-7](https://doi.org/10.1016/S25897500(20)30197-7)
- Ward, C., Szabo, A., & Stuart, J. (2016). Prejudice against immigrants in multicultural societies. In C. Sibley & F. Barlow (Eds.), *The Cambridge Handbook of the Psychology of Prejudice* (pp. 413-437). Cambridge University Press.
<https://doi.org/10.1017/9781316161579.018>
- Weiner, B. (1974). *Achievement motivation and attribution theory*. General Learning Press.
- Weiner, B. (1985). An attributional theory of achievement, motivation and emotion. *Psychological Review*, 92, 548–573. <https://doi.org/doi:10.1037/0033-295X.92.4.548>

- Weiner, B. (1986). Attribution, emotion, and action. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 281–312). Guilford Press.
- Weiner, B. (2000). Attributional thoughts about consumer behavior. *Journal of Consumer Research*, 27, 382-387.
- Weiner, B., Frieze, I., Kukla, A., Reed L., Rest S., & Rosenbaum, R. M. (1971). *Perceiving the causes of success and failure*. General Learning Press.
- Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
- Weinstein, M., Jensen, M. R., & Tynes, B. M. (2021). Victimized in many ways: Online and offline bullying/harassment and perceived racial discrimination in diverse racial–ethnic minority adolescents. *Cultural Diversity and Ethnic Minority Psychology*, 27(3), 397–407.
- Wen, J., Aston, J., Liu, X., and Ying, T. (2020). Effects of misleading media coverage on public health crisis: a case of the 2019 novel coronavirus outbreak in China. *Anatolia*, 31(2), 331-336. <https://doi.org/10.1080/13032917.2020.1730621>
- White, C., Duck, J. M., & Newcombe, P. A. (2012). The impact of media reliance on the role of perceived threat in predicting tolerance of Muslim cultural practice. *Journal of Applied Social Psychology*, 42(2), 3051-3082.
<https://doi.org/10.1111/j.15591816.2012.00973.x>
- WHO. (2020, April 27). *Archived: WHO timeline – COVID-19*.
<https://www.who.int/news/item/27-04-2020-who-timeline---covid-19>

- Winsor, M., & Shapiro, E. (2020, September 17). *Worldwide coronavirus cases top 30 million*. ABC News. <https://abcnews.go.com/Health/live-updates/coronavirus/?id=73065540>
- Wood, A. F., & Smith, M. J. (2015). *Online communication: Linking technology, identity, and culture* (2nd ed.). Routledge.
- World Health Organization (n.d.). *Coronavirus disease (COVID-19) pandemic*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Worldometer. (n.d.). *COVID-19 Coronavirus pandemic*. <https://www.worldometers.info/coronavirus/>
- Wunsch, G., Russo, F., & Mouchart, M. (2010). Do we necessarily need longitudinal data to infer causal relations? *Bulletin of Sociological Methodology/Bulletin De Méthodologie Sociologique*, 106(1), 5–18. <https://doi.org/10.1177/0759106309360114>
- Yang, D., & Counts, S. (2018). Understanding self-narration of personally experienced racism on Reddit. *Proceedings of International AAAI Conference on Web and Social Media*, 12, 704–707.
- Ziems, C., He, B., Soni, S., & Kumar, S. (2020). Racism is a virus: Anti-Asian hate and counter hate in social media during the COVID-19 crisis. *arXiv preprint*. arXiv:2005.12423. <https://arxiv.org/abs/2005.12423>

Appendix A

Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the United States

DRC 16



GRADUATE
RESEARCH
SCHOOL

STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Thao Thanh Thi Nguyen
Name/title of Primary Supervisor:	Professor Stephen Croucher
In which chapter is the manuscript /published work: Appendix A	
<p>Please select one of the following three options:</p> <p><input checked="" type="radio"/> The manuscript/published work is published or in press</p> <ul style="list-style-type: none"> Please provide the full reference of the Research Output: Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian Americans in the COVID-19 pandemic: The effects of social media use in the United States. <i>Frontiers</i>, 5(39). https://doi.org/10.3389/fcomm.2020.00039 <p><input type="radio"/> The manuscript is currently under review for publication – please indicate:</p> <ul style="list-style-type: none"> The name of the journal: The percentage of the manuscript/published work that was contributed by the candidate: Describe the contribution that the candidate has made to the manuscript/published work: The candidate made the following contributions to the study. First, the candidate outlined the study. Second, the candidate wrote the bulk of the literature review. Third, the candidate wrote the majority of the discussion section. <p><input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal</p>	
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The ongoing COVID-19 outbreak has brought increased incidents of racism, discrimination, and violence against “Asians,” particularly in the United States, with reports of hate crimes of over 100 per day. Since January 2020, many Asian Americans have reported suffering racial slurs, wrongful workplace termination, being spat on, physical violence, extreme physical distancing, etc., as media and government officials increasingly stigmatize and blame Asians for the spread of COVID-19. The links with social media are increasingly evident, as anti-Asian sentiment increases, with reports of anti-Asian sentiment spreading and Asian-Americans fighting hate via social media. Using integrated threat theory, this study explores the links between prejudice/hate toward Asian-Americans, in particular Chinese, and social media use. Three key results emerged from the study. First, the more a social media user believes their most used daily social media is fair, accurate, presents the facts, and is concerned about the public (social media believe), the more likely that user is to believe Chinese pose a realistic and symbolic threat to America. Second, men and women significantly differed on each type of prejudice, with men scoring higher on intergroup anxiety and women higher on symbolic and realistic threat. Third, respondents who do not use social media on a daily basis are less likely than those who use Facebook to perceive Chinese as a symbolic threat. Implications and recommendations for practitioners, health workers and government are proposed.

Keywords: prejudice, regression, social media, intergroup anxiety, integrated threat

theory

Introduction

Our world is confronting the novel coronavirus (COVID-19) pandemic. As of May 2020, the World Health Organization (2020) declared there are more than three million confirmed cases of Covid- 19 in 213 countries, areas and territories. The outbreak of COVID-19 has sent billions of people into lockdown, health services into crises, and economies into turmoil worldwide.

While anxiety and fear about the pandemic have been widespread, racist incidents, including hate crimes and Asian-focused racism, have also occurred, particularly in the United States. The Asian population, the fastest growing ethnic group in the U.S. (Lopez et al., 2017), has become targets of discrimination, harassment, racial slurs, and physical attacks. Negative attitudes and prejudice toward Asian Americans are trending upwards as more and more COVID-19 cases and deaths are confirmed in the U.S. The FBI (Federal Bureau of Investigation) also said that as COVID-19 grows, hate crimes against Asian Americans will more than likely increase as well (Margolin, 2020). This study explores these negative attitudes toward Asian-Americans. Specifically, this study explores how prejudice toward Asian-Americans during the COVID-19 pandemic is related to social media use. As of early 2020, many parts of the world have been in physical isolation due to the COVID-19 pandemic. Due to physical and social isolation, people increasingly rely on social media platforms, such as Facebook, Twitter or Instagram, etc. to facilitate human interactions and keep themselves up to date with information. Also, authorities use situational information to organize official COVID-19 related posts on their social media platforms to popularize their response strategies to the public (Li et al., 2020). For example, United Nations (2020)

statistics from April 8, 2020, there are 167 countries using national portals and social media platforms to engage people and provide vital information against COVID-19. Consequently, social media plays a crucial role in the public's perceptions and significantly influences their communication during a crisis (Schultz et al., 2011).

In recent years, social media platforms have been used as a tool to express people's reactions, thoughts and opinions on current events (Chavez-Dueñas & Adames, 2018). However, according to recent research, social media also creates a playground for racism; and people of different races have experienced discrimination online because of their race (appearance or accent related) (Yang & Counts, 2018). Moreover, Relia et al. (2019) have said the proportion of discrimination on social media is strongly related to the number of hate crimes across 100 cities in the U.S. For instance, Trump's presidential campaign concentrated on Twitter usage and his tweets about Islam- related topics have been correlated with hate crimes toward Muslims (Müller & Schwarz, 2019). The findings of Müller and Schwarz's study (2019) stated social media accounts for the spread of anti-Muslim hate crimes since the start of Trump's 2016 presidential campaign.

People also use social media to oppose unfair treatment based on race or to support anti-racism activism (Chavez-Dueñas & Adames, 2018). Similarly, following the election of Barack Obama, the first African American president in the U.S., in 2008, words like "post-racial" and "colorblind" became popular in many social media outlets (Bonilla-Silva, 2010). These popular words have suggested the historic election minimized the role of race in the lives of many ethnic groups in the U.S. (López, 2009). In recent years, more and more people have used Twitter as a platform to promote social and racial activism by creating hashtags such as #BlackLivesMatter or #SayHerName (Chavez- Dueñas & Adames, 2018).

In the U.S., social media has become a means to either discriminate against Asian Americans or to fight against prejudice. Media outlets have been considered as one of the main factors contributing to discrimination and xenophobia (Aten, 2020). Some media outlets have had misleading headlines such as “Chinese virus pandemonium” or “China kids stay home” (Wen et al., 2020). As of early April 2020, there have been around 72,000 posts with hashtag #WuhanVirus and 10,000 others with hashtag #KungFlu on Instagram (McGuire, 2020). In the U.S., across social media, posts like these have negatively impacted the Asian community and are unlikely to stop (Aten, 2020). Such posts have flamed anti-Asian sentiment, with acts of anti-Asian violence in direct response to fears of COVID-19 being reported. For example, a man in Texas attempted to kill an Asian-American family including a 2-year-old and a 2-year-old in late March 2020 (Melendez, 2020). Such an attack represents a potential surge of hate crimes toward Asian Americans amid the COVID-19 outbreak in the U.S. (Margolin, 2020).

In contrast, social media platforms also deliver messages to help counter prejudice/discrimination against the Asian community. Social media firms like Twitter, Instagram, and Facebook have all taken action. Their platforms have been used to support those suffering from abuse. Campaigns such as posts including hashtag #IAmNotAVirus have been promoted atop user feeds on their sites (McGuire, 2020). In general, depending on different types of messages and distribution platforms, public’s perceptions on social media vary, particularly in such crisis like COVID-19 pandemic.

Prejudice and fear toward Asians have increased in the U.S. during the COVID-19 pandemic. Drawing on prejudice and intergroup contact research (Allport, 1954; Stephan and Stephan, 2000; Croucher, 2013) First, such negative sentiments, particularly via social media

demonstrate how the dominant cultural group (predominantly Caucasian) express their fears and hatred toward Asians (a minority group) and a fear of coming into contact with the virus. One explanatory reason for anti-Asian attitudes is threat perception. Stephan and Stephan (1996) in their integrated threat theory (ITT) proposed four types of threat: realistic threats, symbolic threats, stereotypes, and intergroup anxiety, may cause prejudice. Since then, these types of threat have been a framework for understanding, explaining, and predicting prejudice and negative attitudes toward minorities (Croucher, 2013).

Integrated threat theory

Prejudice and discrimination do not have a single cause; instead, they are the result of negative attitudes or beliefs of the in- group toward outgroup members (Allport, 1954). One of the explanatory factors of these negative emotions or hostility is threat perception. Stephan and Stephan (1993, 1996) stated that when the ingroup members believe their values or beliefs are threatened by the outgroup, negative attitudes emerge as defensive mechanisms. In line with Allport's research on prejudice, Stephan and Stephan (1993, 1996, 2000) developed integrated threat theory (ITT). The theory includes four kinds of threat that explain and predict negative attitudes toward minority groups: realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes (Croucher, 2013). According to ITT, intergroup feelings of threat and fear result in prejudice and discrimination (Stephan and Stephan, 2000). The key to ITT is that threat does not need to be real, the perception of threat is enough to lead the ingroup (a dominant cultural group) to have and express negative attitudes, prejudice, and hate toward an outgroup (a minority group).

Realistic threats are related to concerns posed by the out- group to the ingroup's existence (Stephan and Stephan, 1996). Realistic threats emphasize threats to welfare,

political and economic power, physical and material well-being of the in- group and its members. Moreover, Stephan and Stephan (2000) stated realistic threats lead to prejudice whether the threat is real or not.

Symbolic threats describe concerns to the ingroup's "way of life," which is different from "morals, values, standards, beliefs and attitudes of the outgroup (Stephan and Stephan, 1996). These threats occur when members of the ingroup feel their "way of life" perceptions are threatened by the outgroup. Perceived symbolic threats predict prejudice as perceptions of cultural differences indirectly affect attitudes toward the out- group (Spencer-Rodgers and McGovern, 2002).

Stephan and Stephan (2000) have argued intergroup anxiety occurs when people feel personally threatened while having intergroup interactions since they are worried about individually negative outcomes. On the other hand, negative outcomes result from the fear of embarrassment, rejection, or ridicule (Stephan and Stephan, 2000). Islam and Hewstone (1993) argued when the outgroup has more advantages (perceived or real) than the in- group, intergroup anxiety arises; and this is a result of dislike toward the outgroup members. Stephan and Stephan (1996) have also argued intergroup anxiety directly causes negative expressions toward outgroup members.

Negative stereotypes are the ingroup's assumptions about the outgroup. These assumptions are implied threats to the ingroup because while having an interaction, the ingroup members are often afraid of negative effects (Croucher, 2017). For example, if ingroup members assume members of the outgroup are dishonest or aggressive, they will expect negative interactions with them. Consequently, ingroup members might dislike outgroup members (Stephan et al., 2000). The stereotypes of the outgroup may consist of threats

to the ingroup when the outgroup does not meet the ingroup's social or behavioral expectations (Hamilton et al., 1990). Studies have shown that negative stereotypes exist in social media (Levy et al., 2013), as stereotypes about social groups are one form of media content (Bissell & Parrott, 2013). Consequently, social media often reinforce prejudice (Davidson & Farquhar, 2020).

The digital era is characterized by an unprecedented number of media and the invention of new platforms available to both professional journalists and the public. Also, raising digital intergroup/intercultural contacts are increasingly affecting the quantity and quality of intergroup dynamics such as prejudicial messages disseminated via social media. The level of prejudice in social media is linked to the selective exposure to media and type of media content, and the resulting polarization, described as the deepened tendency toward the chosen source of media exposure (Davidson and Farquhar, 2020). However, as different social platforms provide various content production and distribution facilities, the quality of produced messages could vary across these media, which could be explained by the notion of media richness.

Media richness theory (MRT) posits that richness of medium and equivocality of task influence the media chosen for communication (Ishii et al., 2019). MRT bases media richness on the availability of immediate feedback, multiple cues, language variety, and personal focus. Later on, social information and individual experiences were also added to the measures of media richness (Ishii et al., 2019). Recent studies have expanded MRT to social media and showed there is a valance variation in the ability of social media to convey specific types of messages; for example, the perceived media richness of Instagram was found to be more related to young adults' self-presentation via photos and videos while on Facebook and

Twitter it more relies on openness in writing (longer or shorter) texts (Lee & Borah, 2020).

Social media is a platform often used to communicate prejudice (Davidson and Farquhar, 2020). During the Covid- 19 pandemic in the U.S., prejudice, hatred, and other forms of negative sentiments have been expressed on social media toward Asian Americans, particularly Chinese Americans (McGuire, 2020). Moreover, the extent to which these media vary in levels of media richness differs. Thus, to understand the extent to which during the COVID-19 pandemic in the U.S. that social media use is related to prejudice toward Asian Americans, in particular Chinese Americans the following research question is proposed:

RQ: During the COVID-19 pandemic in the United States, to what extent does social media use predict prejudice toward Chinese Americans?

Method

To answer the research question, we collected data in the U.S. via an online survey with the assistance of Qualtrics, a research firm. Online participant panels, such as Qualtrics have been shown to be comparable in composition to other population in prior research (Roulin, 2015; Troia & Graham, 2017). Qualtrics provided a small amount of compensation to each respondent. We included various quality checks (analysis of Means, and Standard Deviations) that led to a final sample of 288. We received ethical approval before data collection began. The survey included a series of demographic questions, a measure of social media use, and scales assessing integrated threat.

Participants

Participants for this study included 288 participants. Participants not born in the U.S. were removed from the sample for final analysis, leaving a final sample of 274 participants. Participants not born in the U.S. were removed so that the sample only included native born

individuals to remove nation of birth as an additional point of comparison. All participants were Caucasian (White). Table 1 presents the full demographic information.

Measures

All surveys included demographic questions and the following measures: Social Media use (Believe and Share Opinion) (Spencer and Croucher, 2008), Measure of Intergroup Contact (González et al., 2008), Measure of Symbolic Threat (Stephan et al., 1999), Measure of Realistic Threat (Stephan et al., 1999), and the Intergroup Anxiety Scale (Stephan and Stephan, 1985). See Table 2 for the means, standard deviations, correlations, and alphas associated with the study variables. Confirmatory factor analysis (CFA) was performed to ensure the validity and reliability of the study constructs. CFA using social media belief and social media share opinion showed acceptable fit: $\chi^2(17) = 37.71$, $p < 0.001$, CFI = 0.99, SRMR = 0.02, RMSEA = 0.07, PClose = 0.17 (Hu and Bentler, 1999). CFA using contact, symbolic threat, realistic threat and intergroup anxiety also showed excellent fit: $\chi^2(112) = 231.57$, $p < 0.001$, CFI = 0.97, SRMR = 0.06, RMSEA = 0.06, PClose = 0.05.

Social Media Use. Social media use was measured using eight Likert-type questions from Spencer and Croucher (2008). The eight items make up two factors: Believe the Media and Share its Opinion. The items measure a participant's perception of their most used daily social media in terms of: how much they believe it, think it is fair, think it is accurate, think it presents the facts, think it is concerned about the public, represents their own opinion, and represents their own opinion on COVID-19. In addition, one question asks participants to identify the social media they use on a daily basis and a final question asks the participants to identify their most used daily social media. Reliabilities have ranged from 0.70 to 0.80

(Spencer & Croucher, 2008; Spencer et al., 2012).

Integrated threat. Integrated threat was assessed using a Measure of Intergroup Contact (González et al., 2008), Measure of Symbolic Threat (Stephan et al., 1999), Measure of Realistic Threat (Stephan et al., 1999), and the Intergroup Anxiety Scale (Stephan & Stephan, 1985).

Measure of intergroup contact. Four items from González et al. (2008) measured intergroup contact. The items were: “How many Chinese friends do you have?” This item was rated from (1) none to (4) only Chinese friends. The remaining three items were: “Do you have contact with Chinese students or co-workers?” “Do you have contact with Chinese in your neighborhood?” and “Do you have contact with Chinese somewhere else, such as at a sports club or other organization?” These items were rated from (1) never to (4) often. The alpha for the scale was 0.70 in the González et al. (2008) study and has ranged from 0.75 to 0.90 in another research (Croucher, 2013; Croucher et al., 2013).

Measure of symbolic threat. Three items measured symbolic threat (Stephan et al., 1999). The items were: “American identity is threatened because there are too many Chinese today,” “American norms and values are threatened because of the presence of Chinese today,” and “Chinese are a threat to American culture.” “Chinese” was used as the target group for prejudice due to the high amount of social media commentary directed toward “China,” “the Chinese” and “Chinese Americans” in relation to COVID-19, as opposed to other Asian groups. Responses ranged from (1) strongly disagree to (5) strongly agree. A higher score indicated a stronger feeling of threat. The scale has shown high reliability in previous research, 0.89 (González et al., 2008) and 0.85 to 0.90 (Croucher, 2013; Croucher et al., 2013).

Measure of realistic threat. The measure of realistic threat included three statements that assessed the effects of Chinese on the economic situation in the U.S. The statements included: “Because of the presence of Chinese, Americans have more difficulties finding a job,” “Because of the presence of Chinese, Americans have more difficulties finding a house,” and “Because of the presence of Chinese, unemployment will increase.” Responses ranged from (1) strongly disagree to (5) strongly agree. Higher scores indicate more threat. This scale has also shown reliability, 0.80 (González et al., 2008) and 0.82 to 0.86 (Croucher, 2013).

Intergroup anxiety scale. Stephan and Stephan’s (1985) 10-item semantic differential Intergroup Anxiety Scale assessed the extent to which respondents have an affective/emotional response to interacting with outgroup members in an ambiguous situation. The items are rated on a 10-point scale from 1 not at all to 10 extremely. Reliabilities have ranged from 0.86 (Stephan & Stephan, 1985) to 0.91 (Hopkins & Shook, 2017).

Analysis and results

To answer the research question, three multiple regressions were constructed using symbolic threat, realistic threat, and intergroup anxiety as the criterion variables. The following predictor variables were included in each multiple regression: intergroup contact, social media belief, social media share opinion, sex, political affiliation, educational level, number of people the participant knows with COVID-19, and most used daily social media outlet. Research has shown sex, political affiliation, and education differ in attitudes toward outgroup members. For example, research has shown women have more implicit racial prejudice toward minorities than men because women are more concerned about crime

threats from outgroup members (Valentova & Alieva, 2013). Political affiliation also predicts attitudes toward immigrants (Hawley, 2011). Meeusen et al. (2017) said prejudice against immigrants differ in political parties; thus, it also affects voters in diverse ways. Furthermore, education has a strong effect on prejudice (Carvacho et al., 2013). Hello et al. (2002) stated varied levels of education have different influences on prejudice, with more educated individuals showing lower levels of prejudice. Dummy variables were therefore created for political affiliation, and most used daily social media outlet. Cross- produce terms were generated to test for interaction effects. Interaction effects were tested using a hierarchical regression analysis (Pedhazur, 1997).

Multiple hierarchical regression modeling was used to test the research question. For each multiple regression, five models were created. The regression results are presented in Tables 3–5. For symbolic threat (Table 3), in model 1, sex, education, and political affiliation were entered as predictors ($R^2 = 0.09$). In model 2, intergroup contact and the number of individuals known with COVID-19 were entered as predictors ($R^2 = 0.13$). The nested F statistic comparing model 1 and model 2 was significant ($\Delta F = 4.86, p < 0.01$). In model 3, a cross-product for intergroup contact and individuals known with COVID-19 was entered ($R^2 = 0.13$). This model was not a significant improvement over model 2 ($\Delta F = 0.06, p = ns$). In model 4, most used daily social media, social media belief, and social media share opinion were entered ($R^2 = 0.24$). This model was a significant improvement over model 3 ($\Delta F = 4.34, p < 0.01$). As Table 3 reveals, various independent variables predict symbolic threat. Sex was a significant predictor of symbolic threat ($b = -0.13, p < 0.05$), with males scoring lower on symbolic threat than female respondents. Democrats ($b = 0.21, p < 0.01$) scored higher on symbolic threat than Republicans. Individuals who reported not using social media

on a daily basis scored significantly lower on symbolic threat ($b = -0.22$, $p < 0.01$) than those who identify Facebook as their most used daily social media. Finally, there is a significant positive relationship between symbolic threat and the extent to which an individual believes their most used daily social media score ($b = 0.37$, $p < 0.01$).

For realistic threat (Table 4), in model 1, sex, education, and political affiliation were entered as predictors ($R^2 = 0.11$). In model 2, intergroup contact and the number of individuals known with COVID-19 were entered as predictors ($R^2 = 0.14$). The nested F statistic comparing model 1 and model 2 was significant ($\Delta F = 4.62$, $p < 0.01$). In model 3, a cross-product for intergroup contact and individuals known with COVID-19 was entered ($R^2 = 0.14$). This model was not a significant improvement over model 2 ($\Delta F = 0.97$, $p = ns$). In model 4, most used daily social media, social media belief, and social media share opinion were entered ($R^2 = 0.24$). This model was a significant improvement over model 3 ($\Delta F = 3.43$, $p < 0.01$). In model 5, cross-product terms for most used daily social media and social media belief, and most used social media and social media share opinion were entered ($R^2 = 0.27$). This model was not a significant improvement over model 4 ($\Delta F = 0.87$, $p = ns$). As model 4 had the most significant explanatory power of the models, it was retained for the final analysis. As Table 4 reveals, various independent variables predict realistic threat. Sex was a significant predictor of realistic threat ($b = -0.19$, $p < 0.01$), with males scoring lower on realistic threat than female respondents. There is a significant positive relationship between realistic threat and the extent to which an individual believes their most used daily social media score ($b = 0.38$, $p < 0.01$), and a negative relationship between realistic threat and sharing opinions with social media ($b = -0.28$, $p < 0.01$).

For intergroup anxiety (Table 5), in model 1, sex, education, and political affiliation

were entered as predictors ($R^2 = 0.09$). In model 2, intergroup contact and the number of individuals known with COVID-19 were entered as predictors ($R^2 = 0.11$). The nested F statistic comparing model 1 and model 2 was significant ($\Delta F = 2.73, p < 0.05$). In model 3, a cross-product for intergroup contact and individuals known with COVID-19 was entered ($R^2 = 0.11$). This model was not a significant improvement over model 2 ($\Delta F = 1.46, p = ns$). In model 4, most used daily social media, social media belief, and social media share opinion were entered ($R^2 = 0.16$). This model was a significant improvement over model 3 ($\Delta F = 1.42, p = ns$). In model 5, cross-product terms for most used daily social media and social media belief, and most used social media and social media share opinion were entered ($R^2 = 0.18$). This model was not a significant improvement over model 4 ($\Delta F = 0.62, p = ns$). As model 2 had the most significant explanatory power of the models, it was retained for the final analysis. As Table 5 reveals, sex and intergroup contact predicted intergroup anxiety. Sex was a significant predictor of intergroup anxiety ($b = 0.25, p < 0.01$), with males scoring higher on intergroup anxiety than female respondents. Finally, there is a significant negative relationship between intergroup anxiety and intergroup contact ($b = -0.13, p < 0.05$).

In sum, social media's predictive influence on prejudice is mixed. Social media had no statistical effects on intergroup anxiety. Intergroup contact had a negative effect on intergroup anxiety. However, the more a social media user believes their most used daily social media is fair, accurate, presents the facts, and is concerned about the public (social media belief), the more likely that user is to believe Chinese Americans pose a realistic and symbolic threat. In addition, respondents who do not use social media on a daily basis are less likely than those who use Facebook to perceive Chinese Americans as a symbolic threat. Interestingly, there is a negative relationship between the extent to which a respondent shares

their opinions with social media outlets and realistic threat. Essentially, there is an inverse relationship between sharing opinions with social media and realistic threat: more similar opinion lower threat, less similar opinion higher threat. Democrats scored higher on symbolic threat than Republicans on symbolic threat, while political affiliation had no effect on other types of prejudice. Men and women significantly differed on each type of prejudice, with men scoring higher on intergroup anxiety and women higher on symbolic and realistic threat.

Discussion

The purpose of this study was to explore the extent to which social media use predicts prejudice toward Chinese Americans during the COVID-19 pandemic in the United States. Three general conclusions emerged from the data. First, results revealed sex plays a significant role in predicting realistic threats and intergroup anxiety among Americans toward outgroup members (in this case, Chinese Americans). Women feel more threatened than men as they are more likely to believe the presence of Chinese Americans has a negative influence on their welfare, political and economic power, physical and material well-being such as difficulties finding a job or a house and increases unemployment. Even if the threat is not real, in-group members have prejudicial attitudes to outgroup members (Stephan and Stephan, 2000). Maddux et al. (2008) asserted realistic threats account for prejudice and negative emotions toward ethnic groups. Men have more intergroup anxiety than women, as they personally perceive more threats when having intergroup interactions. This is a clear indicator that men feel more awkward, irritated, suspicious, anxious, defensive, and self-conscious while having communicative interactions with Chinese Americans. Such feelings directly cause negative expressions toward outgroup members (Stephan and Stephan, 1996). Also, intergroup anxiety is a powerful and consistent predictor of prejudice against ethnic

groups (Stephan et al., 1998). Together, these results show women tend toward more cognitive fears of Chinese Americans (realistic and symbolic) while men tend to have more affective fears (intergroup anxiety) of Chinese Americans, at least during the COVID-19 pandemic.

Second, social media belief or sharing of opinions was not related to intergroup anxiety. There is debate over the conceptualization of intergroup anxiety as a predictor of negative attitudes. Riek et al. (2006), in their meta-analysis showed how researchers increasingly replace intergroup anxiety with group self-esteem. Moreover, more and more ITT researchers have reduced the original four ITT threats (realistic threat, symbolic threat, intergroup anxiety and negative stereotypes) to only realistic and symbolic threats (Stephan and Renfro, 2002; Stephan et al., 2009; Nshom and Croucher, 2017, 2018). Thus, while the construct of intergroup anxiety still relates to the other ITT constructs (realistic and symbolic threat and intergroup contact) in this study, it is possible that intergroup anxiety is not the most applicable construct to link with social media use. As social media has been extensively linked to the promotion of self-esteem (Blachnio et al., 2016; Hawi and Samaha, 2017), a more practical way to measure the relationship between social media and “anxiety” could be to explore group self-esteem as a substitute for intergroup anxiety. Exploring how social media use influences one’s self-esteem during a pandemic might provide a more nuanced and fruitful understanding of how threats to self-esteem are impacted by perceived threats from potential virus carriers or those blamed for carrying the virus in the media.

Third, the distinction between intergroup anxiety and other threat factors in ITT is also evident in the relationship between belief in social media, and media representation of one’s opinion and ITT. The study showed that higher levels of believing one’s preferred

social media predicts increased symbolic and realistic threat and decreased intergroup anxiety. The impact of belief in social media on symbolic and realistic threats could reflect social media content during the COVID-19 pandemic, in which resentment about the outcome of COVID-19 is associated with higher levels of prejudice toward the outgroup perceived to be responsible for the virus. This is in line with social identity theory (Tajfel and Turner, 1979), which indicates that group identification is based on maximizing the positive aspects of ingroup and negative aspects of the outgroup. The maximization of the negative aspects of the outgroup during the COVID-19 pandemic, Chinese Americans, has caused an increase in how the symbolic (i.e., the new lifestyle and social relationships and distancing), and unpleasant realistic aspects of the virus (i.e., economic hardship, unemployment and stockpiling) are ascribed and perceived. Sharing opinions with a preferred social media, however, had a negative impact on realistic threat and no impact on symbolic threat and intergroup anxiety. Based on spiral-of-silence (Noelle-Neumann, 1993), a lower level of being exposed to one's opinion in the media increases the perception that one is in the minority position, which can decrease one's self-esteem in dealing with intergroup situations, especially realistic situations that have more immediate economic effects. Both media belief and sharing opinions showed a distinctive effect on intergroup anxiety, which could be related to the varied nature of intergroup anxiety, which functions at the individual level compared to the other ITT factors which define threat at the group level (Rahmani, 2017). While believing and relating to media message were related to the one of some forms of integrated threat, the study found no difference among the various type of media in perceiving intergroup threat. This could be related to the similar content of the social media, as the main media for most of the participant, which provide a platform for the various mass

media to disseminate their content.

Fourth, the study showed men have more intergroup anxiety while their realistic and symbolic threat levels are lower. This finding could be related to higher position of males in the more patriarchal American society where males perceive to lose more should the status quo change. Rye et al. (2019) used the same stance to explain the why threat to gender norms could be more distressing for males and Stephan C. W. et al. (2000) mentioned that as most American women have accepted inevitability of male economic and political hegemony, they do not perceive males to be a realistic threat. Higher levels of intergroup anxiety can be related to the individual nature of this threat compared realistic and symbolic threat. This is in line with previous studies that showed perception of threat about transgender individuals, males showed more hostile sexism while for female the same process included more internalized and personal hatred or hostility (Rye et al., 2019). Fifth, the results showed that those respondents who identified as Democrats reported higher levels of symbolic threat from Chinese Americans. Essentially, this result shows that Democrats, as opposed to Republicans see Chinese Americans as posing a higher risk to the U.S. cultural way of life. This result is counter to previous work on political affiliation and prejudice (Hawley, 2011; Meeusen et al., 2017). This result is also counter to the work of Gries and Crowson (2010) who explored American prejudice toward China and found Democrats have lower prejudice than Conservatives. While the results of the current study are statistically significant, further research should be conducted to validate this finding in different samples to ascertain whether during a crisis (such as a pandemic) political merging or shifts of values/ideas could take place toward an outgroup.

Future research and recommendations

Research has demonstrated that stereotypes are perpetuated on social media and that social media often reinforce prejudice (Bissell and Parrott, 2013; Levy et al., 2013; Davidson and Farquhar, 2020). The findings from this study provide further evidence that social media use reinforces the elements of intergroup threat which could lead to prejudice. Specifically, during the COVID-19 pandemic in the U.S., the more an individual believes their most used daily social media is fair, accurate, presents the facts, and is concerned about the public (social media belief), the more that person sees Chinese Americans as a realistic and symbolic threat. Further research can reveal the extend of media use impact on prejudice. Also, to better understand this relationship, it is important for future research to look at how Chinese Americans and other groups have been framed/portrayed on social media. In depth analyses of these messages could facilitate a critical awareness of how social media messages have introduced or reinforced blame for realistic and symbolic threats from Chinese Americans for COVID-19.

As the world continues to grapple with COVID-19, instances of prejudice and blaming minorities for the spread of the virus outside of the U.S. should be examined and compared. As of May 6, 2020, there were a total of 3,656,644 global confirmed COVID-19 cases, with 1,202,246 of those in the U.S. (Johns Hopkins University COVID-19 Dashboard, 2020); the reaming cases were from around the globe. While the current study explores how prejudice toward Chinese Americans during the COVID-19 pandemic is related to social media use in the U.S., prejudice toward other groups in other nations has grown dramatically (Muzi, 2020; Serhan and McLaughlin, 2020; Sim et al., 2020). As the virus spreads around the world, so has prejudice, xenophobia, and racism. To better defend against and rebuild from the virus it is essential we understand how societies are socially responding to the virus.

To what extent are societies and cultural groups blaming each other for its spread? To what extent is social media being used to unite or divide against Covid- 19? What is the social cost of COVID-19? Such questions are crucial to our COVID-19 response and must be discussed. Knowing what we know about social media's influence on prejudice during the COVID-19 pandemic, we propose governments and health care industries use social media to combat COVID-19 prejudice. While many governments (like New Zealand, Australia, Canada, Finland, etc.) have developed well- organized campaigns (television, radio, and social media) to educate their populations on the risks of COVID-19, prevention, governmental steps and actions, such campaigns should do more to explicitly combat COVID-19 prejudice and racism. Such campaigns should respond to prejudicial and racist incidents by directly discussing the social cost of COVID-19 prejudice and racism. Moreover, while many nations remain in different levels of lockdown and adjust to social distancing, health practitioners could use social media to explore new techniques to communicate ways to reduce transmission of COVID-19. Governments have already been using social media to encourage social distancing and to promote better health practices, through social media health practitioners can continue these practices.

This study has two limitations. First, as this study is a cross-sectional study it does not show causality. The study cannot demonstrate that social media causes prejudice, only that there is a correlation between social media use and prejudice. Future research should be conducted using longitudinal and/or experimental designs to examine potential causal relationships between social media use and prejudice. Second, the integrated threat items used the term "Chinese" to identify the target group for participants. It is possible that this term might have confused participants in that participants may have answered questions in

terms of “Chinese Americans,” “the Chinese,” “China” or “Chinese culture,” etc. Therefore, the results should be interpreted with caution, knowing that the term, “Chinese” in the measure could have caused some confusion.

This study is one of the first attempts to examine the extent to which social media use predicts prejudice toward a minority group (Chinese Americans) blamed for the spread of a virus (COVID-19). The results reveal social media use has a significant influence on prejudice toward Chinese Americans. The more a social media user believes their most used daily social media, the more they believe Chinese Americans are a realistic and symbolic threat to the U.S. With cases of COVID-19 continuing to increase globally, so does prejudice, racism, and violence against those individuals and/or groups who are blamed for carrying and spreading the virus. Vince (2020) argued that our tribal culture influences how we see the world more than facts. She added that Americans tend to adopt the opinions of their tribal elites, often political leaders and celebrities. These opinions once shared via social media are deemed fact. As COVID-19 grips the U.S., the nation with the highest numbers of cases in the world as of May 2020, it’s critical we understand not only the human but also the social costs of the virus to have any chance at slowing and stopping its spread.

References

- Allport, G. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Aten, J. D. (2020, April 16). *Long-term COVID-19 mental health effects for Asian Americans*. Psychology Today. Retrieved from <https://www.psychologytoday.com/us/blog/hope-resilience/202004/long-term-COVID-19-mental-health-effects-asian-americans>
- Bissell, K., & Parrott, S. (2013). Prejudice: The role of the media in the development of social bias. *Journalism & Communication Monographs*, 15, 219–270.
<https://doi.org/10.1177/1522637913504401>
- Blachnio, A., Przepiorka, A., & Rudnicka, P. (2016). Narcissism and self-esteem as predictors of dimensions of Facebook use. *Personality and Individual Differences*, 90, 296-301. <https://doi.org/10.1016/j.paid.2015.11.018>
- Carvacho, H., Zick, A., Haye, A., González, R., Manzi, J., Kocik, C., & Bertl, M. (2013). On the relation between social class and prejudice: The roles of education, income, and ideological attitudes. *European Journal of Social Psychology*, 43, 272–285.
<https://doi.org/10.1002/ejsp.1961>
- Chavez-Dueñas, N. Y., & Adames, H. Y. (2018). #Neoteriacracism: Exploring race-based content in social media during racially charged current events. *Revista Interamericana de psicologia/Interamerican Journal of Psychology*, 52(1), 3-14.
<https://doi.org/10.30849/rip/ijp.v52i1.493>
- Croucher, S. M. (2013). Integrated threat theory and acceptance of immigrant assimilation: an analysis of Muslim immigration in Western Europe. *Communication Monographs*, 80, 46–62. <https://doi.org/10.1080/03637751.2012.739704>

- Croucher, S. M. (2017). Integrated threat theory. In Harwood, J., & Giles, H. (Eds.), *Oxford Communication Encyclopedias*. Oxford University Press.
<https://doi.org/10.1093/acrefore/9780190228613.013.490>
- Croucher, S. M., Aalto, J., Hirvonen, S., and Sommier, M. (2013). Integrated threat and intergroup contact: an analysis of Muslim immigration to Finland. *Human Communication, 16*, 109-120.
- Davidson, T., & Farquhar, L. (2020). Prejudice and social media: attitudes toward illegal immigrants, refugees, and transgender people. In Farris, D. N., Compton, D. R., & Herrera, A. P. (Eds.), *Gender, sexuality and race in the digital age* (pp. 151-167). Springer.
- González, K. V., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology, 47*, 667-685.
- Gries, P. H., & Crowson, H. M. (2010). Political orientation, party affiliation, and American attitudes towards China. *Journal of Chinese Political Science, 15*(3), 219-244.
<https://doi.org/10.1007/s11366-010-9115-1>
- Hamilton, D. L., Sherman, S. J., & Ruvolo, C. M. (1990). Stereotype-based expectancies: Effects on information processing and social behavior. *Journal of Social Issues, 46*, 35-60. <https://doi.org/10.1111/j.1540-4560.1990.tb01922.x>
- Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and list satisfaction in university students. *Social Science Computer Review, 35*, 576-586. <https://doi.10.1177.0894439316660340>

- Hawley, G. (2011). Political threat and immigration: Party identification, demographic context, and immigration policy Preference. *Social Science Quarterly*, 92, 404–422.
<https://doi.org/10.1111/j.1540-6237.2011.00775.x>
- Hello, E., Scheepers, P., & Gijsberts, M. (2002). Education and ethnic prejudice in Europe: Explanations for cross-national variances in the educational effect on ethnic prejudice. *Scandinavian Journal of Educational Research*, 46, 5–24.
<https://doi.org/10.1080/00313830120115589>
- Hopkins, P. D., & Shook, N. J. (2017). Development of an intergroup anxiety toward Muslims scale. *International Journal of Intercultural Relations*, 61, 7-20.
<https://doi.org/10.1016/j.ijintrel.2017.08.002>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55.
<https://doi.org/10.1080/10705519909540118>
- Ishii, K., Lyons, M. M., & Carr, S. A. (2019). Revisiting media richness theory for today and future. *Human Behavior and Emerging Technologies*, 1, 124-131.
<https://doi.org/10.1002/hbe2.138>
- Islam, R. M., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived outgroup variability, and outgroup attitude: An integrative model. *Personality and Social Psychology Bulletin*, 19, 700–710.
- Johns Hopkins University COVID-19 Dashboard (2020). *COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE)*. Retrieved from
<https://coronavirus.jhu.edu/map.html>

- Lee, D. K. L., & Borah, P. (2020). Self-presentation on Instagram and friendship development among young adults: A moderated mediation model of media richness, perceived functionality, and openness. *Computers in Human Behavior*, 103, 57-66. <https://doi.org/10.1016/j.chb.2019.09.017>
- Levy, B. R., Chung, P. H., Bedford, T., & Navrazhina, K. (2013). Facebook as a site for negative age stereotypes. *The Gerontologist*, 54, 172–176. <https://doi.org/10.1093/geront/gns194>
- Li, L., Zhang, Q., Wang, X., Zhang, J., Wang, T., Gao, T.-L., ... Wang, F. Y. (2020). Characterizing the propagation of situational information in social media during COVID-19 epidemic: A case study on Weibo. *IEEE Transactions on Computational Social Systems*, 7(2), 556–562. <https://doi.org/10.1109/tcss.2020.2980007>
- Lopez, G., Ruize, N. G., & Patten, E. (2017). Key facts about Asian Americans, a diverse and growing population. *Pew Research Center*. Retrieved from <https://www.pewresearch.org/fact-tank/2017/09/08/key-facts-about-asian-americans/>
- López, M. H. (2009). *Dissecting the 2008 electorate: most diverse in U.S. history*. Washington, D.C.: Pew Hispanic Center.
- Maddux, W. W., Galinsky, A. D., Cuddy, A. J. C., & Polifroni, M. (2008). When being a model minority is good ... and bad: Realistic threat explains negativity toward Asian Americans. *Personality and Social Psychology Bulletin*, 34, 74–89. <https://doi.org/10.1177/0146167207309195>
- Margolin, J. (2020, March 28). *FBI warns of potential surge in hate crimes against Asian Americans amid coronavirus*. ABC News. Retrieved from

<https://abcnews.go.com/US/fbi-warns-potential-surge-hate-crimes-asian-americans/story?id=69831920>

- McGuire, E. (2020, April 5). *Anti-Asian hate continues to spread online amid COVID-19 pandemic*. Aljazeera. Retrieved from <https://www.aljazeera.com/news/2020/04/anti-asian-hate-continues-spread-online-COVID-19-pandemic-200405063015286.html>
- Meeusen, C., Boonen, J., & Dassonneville, R. (2017). The Structure of prejudice and its relation to party preferences in Belgium: Flanders and Wallonia compared. *Psychologica Belgica*, 57, 52. <https://doi.org/10.5334/pb.335>
- Melendez, P. (2020, March 31). *Stabbing of Asian-American 2-year-old and her family was a virus-fueled hate crime: Feds*. The Daily Beast. Retrieved from <https://www.thedailybeast.com/stabbing-of-asian-american-2-year-old-and-her-family-was-a-coronavirus-fueled-hate-crime-feds-say>
- Müller, K., & Schwarz, C. (2019). From hashtag to hate crime: Twitter and anti-minority sentiment. SSRN Electronic Journal. <http://dx.doi.org/10.2139/ssrn.3149103>
- Muzi, L. (2020, March 25). *“As if we were the disease”: Coronavirus brings prejudice for Italy’s Chinese workers*. The Guardian. Retrieved from: <https://www.theguardian.com/global-development/2020/mar/25/as-if-we-were-the-disease-coronavirus-brings-prejudice-for-italys-chinese-workers>
- Noelle-Neumann, E. (1993). *The spiral of silence: Public opinion—our social skin* (2nd ed.). University of Chicago Press.
- Nshom, E., & Croucher, S. (2017). Perceived threat and prejudice towards immigrants in Finland: A study among early, middle, and late Finnish adolescents. *Journal of*

International and Intercultural Communication, 10(4), 309-323.

<https://doi.org/10.1080/17513057.2017.1312489>

Nshom, E., & Croucher, S. M. (2018). An exploratory study on the attitudes of elderly Finns towards Russian-speaking minorities. *Journal of International and Intercultural Communication*, 11(4), 324-338. <https://doi.org/10.1080/17513057.2018.1469783>

Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction*. Wadsworth.

Rahmani, D. (2017). *Minorities' communication apprehension and conflict: An investigation of Kurds in Iran and Malays in Singapore*. (PhD thesis). University of Jyväskylä, Jyväskylä, Finland. (331)

Relia, K., Li, Z., Cook, S. H., and Chunara, R. (2019). Race, ethnicity and national origin-based discrimination in social media and hate crimes across 100 US cities. *Proceedings of International AAAI Conference on Web and Social Media*, 13, 417–427.

Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and the integrated threat theory: A meta-analytic review. *Personality and Social Psychology Review*, 10, 336-353. https://doi.org/10.1207/s1537958pspr1004_4

Roulin, N. (2015). Don't throw the baby out with the bathwater: Comparing data quality of crowdsourcing, online panels, and student samples. *Industrial and Organizational Psychology*, 8, 190-196. <https://doi.org/10.1017/iop.2015.24>

Rye, B. J., Merritt, O. A., & Straatsma, D. (2019). Individual difference predictors of transgender beliefs: Expanding our conceptualization of conservatism. *Personality and Individual Differences*, 149, 179-185. <https://doi.org/10.1016/j.paid.2019.05.033>

- Schultz, F., Utz, S., & Göritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via twitter, blogs and traditional media. *Public Relations Review*, 37(1), 20–27. <https://doi:10.1016/j.pubrev.2010.12.001>
- Serhan, Y., & McLaughlin, T. (2020, March 13). *The other problematic outbreak: As the coronavirus spreads across the globe, so too does racism*. The Atlantic. Retrieved from: <https://www.theatlantic.com/international/archive/2020/03/coronavirus-covid19-xenophobia-racism/607816/>
- Sim, D., Xinghui, K., & Lim, K. (2020, May 2). Coronavirus: After Little India riot, Singapore promised migrant workers decent housing. What happened? South China Morning Post. Retrieved from: <https://www.scmp.com/week-asia/health-environment/article/3082453/coronavirus-after-little-india-riot-singapore-promised>
- Spencer, A. T., and Croucher, S. M. (2008). Spiral of silence and ETA: An analysis of the perceptions of French and Spanish Basque and non-Basque. *International Communication Gazette*, 70(2), 137–154. <https://doi.org/10.1177/1748048507086909>
- Spencer, A. T., Croucher, S. M., and McKee, C. (2012). Barack Obama: Examining the climate of opinion of spiral of silence. *Journal of Communication, Speech & Theater Association of North Dakota*, 24, 27–34.
- Spencer-Rodgers, J., & McGovern, T. (2002). Attitudes toward the culturally different: The role of intercultural communication barriers, affective responses, consensual stereotypes, and perceived threat. *International Journal of Intercultural Relations*, 26(6), 609–631. [https://doi.org/10.1016/S0147-1767\(02\)00038-X](https://doi.org/10.1016/S0147-1767(02)00038-X)

Stephan, C. W., Stephan, W. C., Demitrakis, K. M., Yamada, A. M., & Clason, D. L. (2000).

Women's attitudes toward men: An Integrated Threat Theory approach. *Psychology of women Quarterly*, 24(1), 63-73. <https://doi.org/10.1111/j.1471-6402.2000.tb01022.x>

Stephan, W. G., & Renfro, C. L. (2002). The role of threat in intergroup relations. In D.

Mackie and E. R. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 191–207). Psychology Press.

Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social issues*, 41,

157-175. <https://doi.org/10.1111/j.1540-4560.1985.tb01134.x>

Stephan, W. G., & Stephan, C. W. (1993). Cognition and affect in stereotyping: Parallel

interactive networks. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 111–136). Orlando, FL: Academic Press.

Stephan, W. G., & Stephan, C. W. (1996). Predicting prejudice. *International Journal of*

Intercultural Relations, 20, 409–426.

Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice in S.

Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 225-246). Lawrence Erlbaum.

Stephan, W. G., Diaz-Loving, R., & Duran, A. (2000). Integrated threat theory and

intercultural attitudes. *Journal of Cross-Cultural Psychology*, 31, 240–249.

<https://doi.org/10.1177/0022022100031002006>

Stephan, W. G., Diaz-Loving, R., Duran, A. (2000). Integrated threat theory and intercultural

attitudes: Mexico and the United States. *Journal of Cross-Cultural Psychology*, 31(2),

240-249. <https://doi.org/10.1177/0022022100031002006>

- Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward immigrants: An integrated threat theory. *Journal of Applied Social Psychology*, 29, 2221–2237.
- Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). *Intergroup threat theory*. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 43–59). Psychology Press.
- Stephan, W. G., Ybarra, O., Martinez, C. M., Schwarzwald, J., & Tur-Kaspa, M. (1998). Prejudice toward immigrants to Spain and Israel. *Journal of Cross-Cultural Psychology*, 29, 559–576. <https://doi.org/10.1177/0022022198294004>
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Troia, G. A., & Graham, S. (2017). Use and acceptability of writing adaptations for students with disabilities: Survey of grade 3-8 teachers. *Learning Disabilities Research & Practice*, 32(4), 257-269. <https://doi.org/10.1111/ldrp.12135>
- UN. (2020, April 14). *UN/DESA policy brief #61: COVID-19: Embracing digital government during the pandemic and beyond*. <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-61-COVID-19-embracing-digital-government-during-the-pandemic-and-beyond/>
- Valentova, M., & Alieva, A. (2014). Gender differences in the perception of immigration-related threats. *International Journal of Intercultural Relations*, 39, 175-182. <https://doi.org/10.1016/j.ijintrel.2013.08.010>
- Vince, G. (2020, May 7). Why is it so hard to be rational about COVID-19? *BBC Online*. Retrieved from: <https://www.bbc.com/future/article/20200505-why-its-so-hard-to-be->

[rational-about-COVID-19?fbclid=IwAR1RcACzGG4Famnp-14pSGWC7-oqmHgxfqnm0BxRKcWjaRDiVsAl94vHJo](https://doi.org/10.1080/13032917.2020.1730621)

Wen, J., Aston, J., Liu, X., & Ying, T. (2020). Effects of misleading media coverage on public health crisis: a case of the 2019 novel coronavirus outbreak in China. *Anatolia*, 1–6. <https://doi.org/10.1080/13032917.2020.1730621>

with disabilities: Survey of Grade 3–8 teachers. *Learning Disabilities Research & Practice*, 32, 257–269.

WHO (n.d.). Coronavirus disease (COVID-19) pandemic.

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Yang, D., & Counts, S. (2018). Understanding self-narration of personally experienced racism on Reddit. *Proceedings of International AAAI Conference on Web and Social Media*, 12, 704–707.

Table 1*Participant Demographics*

Variable	<i>n</i>
Age	
18-19 years of age	25
20-29 years of age	72
30-39 years of age	50
40-49 years of age	46
50-59 years of age	33
60-69 years of age	33
70 years and older	15
How Many People the Participant Knows Who with Covid-19	
None	163
1-3 People	82
4-6 People	21
7 or More People	8
Sex	
Male	81
Female	193
Political Affiliation	
Democrat	98
Republican	66
Independent	100

Other	10
Highest Educational Level	
High school	105
2 year degree	52
4 year degree	74
Masters	31
Doctorate	12
Most Used Social Media	
Twitter	14
Facebook	125
Instagram	37
Youtube	12
TV	11
None	41
Snapchat	15
Other	19

Table 2*Means, Standard Deviation, Reliability Coefficients, and Correlations*

Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)	(5)	(6)
(1) SoMe Believe	4.47	1.53	.93	-					
(2) SoMe Share Opinion	4.32	1.50	.88	.85**	-				
(3) Intergroup Contact	1.94	.83	.79	.01	.01	-			
(4) Symbolic Threat	3.78	1.13	.90	.15**	.07	.16*	-		
(5) Realistic Threat	3.85	1.14	.94	.16**	.07	.14*	.82**	-	
(6) Intergroup Anxiety	3.74	2.26	.89	-.07	-.02	-.09	-.52**	-.48**	-

Note: * $p < .05$, ** $p < .01$.; SoMe: Social Media

Table 3*Regression Model for Symbolic Threat*

Regressor	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	4.26	3.99	3.91	3.49	3.58
Sex	-.16**	-.15	-.15	-.13*	-.14*
Independents	-.04	-.02	-.02	.03	.02
Democrats	.20	.21**	.21**	.21**	.21**
Others	-.07	-.07	-.07	-.01	.02
Education	-.04	-.06	-.06	-.06	-.05
Intergroup Contact		.18**	.21	.25	.26
People Known with Covid		-.10	-.07	-.04	-.04
Intergroup Contact*People Known with Covid			-.07	-.11	-.11
Twitter				-.06	-.23
Instagram				-.02	.01
Youtube				.04	-.01
TV				-.02	.34
None				-.22**	-.25
Snapchat				.11	.25
Other				-.15	-.25
Social Media Believe				.37**	.17
Social Media Share Opinion				-.27	-.09
Twitter* Social Media Believe					.78
Instagram* Social Media Believe					.37

Youtube* Social Media Believe					.15
TV* Social Media Believe					.36
None* Social Media Believe					.17
Snapchat* Social Media Believe					-.15
Other* Social Media Believe					.59*
Twitter* Social Media Share Opinion					-.59
Instagram* Social Media Share Opinion					-.49
Youtube* Social Media Share Opinion					-.10
TV* Social Media Share Opinion					.01
None* Social Media Share Opinion					-.14
Snapchat* Social Media Share Opinion					.01
Other* Social Media Share Opinion					-.48
<i>F</i>	5.57**	5.48**	4.79	4.80**	2.85**
ΔF		4.86**	.06	4.34**	.61
R^2	.09	.13	.13	.24	.27
R^2_{adj}	.08	.10	.10	.19	.17

Table 4*Regression Model for Realistic Threat*

Regressor	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	4.38	4.23	4.57	4.20	4.35
Sex	-.22**	-.21	-.21**	-.19**	.20**
Independents	-.05	-.03	-.03	-.01	-.02
Democrats	.16	.18	.19	.18	.18
Education	.04	.04	.40	.04	.04*
Intergroup Contact		.15	.03	.07	.08
People Known with Covid-19		-.14	-.29	-2.81	-.31
Intergroup Contact*People Known with Covid			-.23	.20	.20
Twitter				-.07	-.26
Instagram				-.05	.08
Youtube				.07	-.13
TV				-.01	.34
None				-.14	-.17
Snapchat				.04	.12
Other				-.19	-.32
Social Media Believe				.38**	.28
Social Media Share Opinion				-.28*	-.21
Twitter* Social Media Believe					.69
Instagram* Social Media Believe					.06
Youtube* Social Media Believe					.40

TV* Social Media Believe					-.57
None* Social Media Believe					-.10
Snapchat* Social Media Believe					-.45
Other* Social Media Believe					.57
Twitter* Social Media Share Opinion					-.48
Instagram* Social Media Share Opinion					-.20
Youtube* Social Media Share Opinion					-.18
TV* Social Media Share Opinion					.23
None* Social Media Share Opinion					.13
Snapchat* Social Media Share Opinion					.36
Other* Social Media Share Opinion					.43
<i>F</i>	6.65**	6.20**	5.55**	4.64**	2.92**
ΔF		4.62*	.97	3.43**	.87
R^2	.11	.14	.14	.24	.27
R^2_{adj}	.09	.12	.12	.19	.18

Table 5*Regression Model for Intergroup Anxiety*

Regressor	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	1.60	1.95	2.78	3.56	3.58
Sex	.26**	.25**	0.25**	.25**	.27**
Independents	.80	.07	.07	.06	.05
Democrats	-.01	-.03	-.03	-.02	-.05
Education	.09	.10	.10	.96	.09
Intergroup Contact		-.13*	-2.81*	-.33*	-.33*
People Known with Covid-19		.09	-.10	-.14	-.12
Intergroup Contact*People Known with Covid			.28	.35	.35
Twitter				-.02	-.11
Instagram				.02	-.16
Youtube				-.08	-.11
TV				.05	1.06
None				.05	.14
Snapchat				-.10	.04
Other				.01	-.09
Social Media Believe				-.27*	-.13
Social Media Share Opinion				.19	.17
Twitter* Social Media Believe					.17
Instagram* Social Media Believe					-.17
Youtube* Social Media Believe					-.75

TV* Social Media Believe					.02
None* Social Media Believe					-.29
Snapchat* Social Media Believe					-.40
Other* Social Media Believe					-.35
Twitter* Social Media Share Opinion					-.07
Instagram* Social Media Share Opinion					.35
Youtube* Social Media Share Opinion					.78
TV* Social Media Share Opinion					-.60
None* Social Media Share Opinion					.19
Snapchat* Social Media Share Opinion					.26
Other* Social Media Share Opinion					.46
<i>F</i>	5.30**	4.62**	4.23**	2.77**	1.77*
ΔF		2.73*	1.46	1.42	.62
R^2	.09	.11	.11	.16	.18
R^2_{adj}	.07	.09	.09	.10	.08

Appendix B

A comparative analysis of Covid-19-related prejudice: the United States, Spain, Italy, and New Zealand

DRC 16



GRADUATE
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SCHOOL

STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Thao Thanh Thi Nguyen
Name/title of Primary Supervisor:	Professor Stephen Croucher
In which chapter is the manuscript /published work:	Appendix B
<p>Please select one of the following three options:</p> <p><input checked="" type="radio"/> The manuscript/published work is published or in press</p> <ul style="list-style-type: none"> Please provide the full reference of the Research Output: Croucher, S. M., Nguyen, T., Pearson, E., Murray, N., Feekery, A., Spencer, A., Gomez, O., Girardelli, D., & Kelly, S. (2021). A comparative analysis of COVID-19-related prejudice: The United States, Spain, Italy, and New Zealand. <i>Communication Research Reports</i>, 38(2), 79-89. https://doi.org/10.1080/08824096.2021.1885371 <p><input type="radio"/> The manuscript is currently under review for publication – please indicate:</p> <ul style="list-style-type: none"> The name of the journal: The percentage of the manuscript/published work that was contributed by the candidate: Describe the contribution that the candidate has made to the manuscript/published work: The candidate made the following contributions to the study. First, the candidate wrote the bulk of the literature review for the study. Second, the candidate assisted with the methodological framing and the data analysis, and presentation. Third, the candidate wrote part of the discussion section. Fourth, the candidate handled most of the article submission and review process. <p><input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal</p>	
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Date:	7-Nov-2022

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Following the global outbreak of Coronavirus disease 2019 (COVID-19), different countries took different approaches to informing their citizens about the pandemic and planned local public health initiatives. We use online participant panels in 4 affected countries – the US, Spain, Italy, and New Zealand – to explore the extent to which prejudice to Asian ethnic groups differed in these countries during the first wave of the pandemic. We argue that New Zealand’s lower scores on most indices of prejudice can be understood in part due to New Zealand’s cohesive, centralized government response to the pandemic that started early, included clear stages of response, and was led consistently by an a-political, public health and facts-base framing.

Keywords: prejudice; xenophobia; integrated threat; intergroup communication; ANOVA

Introduction

From December 2019, the COVID-19 virus forced the world into a state of emergency. Following the first outbreak in Wuhan, China, the virus spread to pandemic proportions with the World Health Organization (WHO) declaring a global public health emergency in January 2020 (WHO, 2020). As of December 31, 2020, over 82 million cases have been confirmed, with more than 1.8 million COVID-19-related deaths (Johns Hopkins University Coronavirus Resource Center, updated daily). In the United States, there have been more than 340,000 deaths, and more than 19 million cases. Italy and Spain’s confirmed

deaths are over 73,000 and 50,000, respectively (from an ongoing total of 2 and 1.9 million cases).

These nations continue to implement strategies including travel restrictions, shutting down facilities, and observing social distancing at various levels (Thu, Ngoc, Hai, & Tuan, 2020). However, in each nation, there are differences in how the federal, state and/or local levels are responding to the virus. New Zealand’s confirmed death toll sits at 25 (with 2151 cases) (Johns Hopkins Coronavirus Resource Center, updated daily). The low number is likely due to an early lockdown, strict border controls, and strict quarantine processes. Unlike the US, Spain, and Italy, New Zealand’s response has been centralized at the national level.

Following traditional and social media coverage that COVID-19 originated in China, many Asian groups have experienced increased prejudice (Ziems, He, Soni, & Kumar, 2020). For example, xenophobic reactions to Asian medical students in Poland have been attributed to COVID-19 (Rzymiski & Nowicki, 2020). As of April 2020, there were more than 72,000 posts with hashtags such as #WuhanVirus and #Kungflu on Instagram (Mcguire, 2020). Anti-Asian sentiment has increased since the outbreak of COVID-19 (Croucher, Nguyen, & Rahmani, 2020). The COVID-19 outbreak has led to increased incidences of hate crimes and Asian-focused racism, particularly in the US (Croucher, et al., 2020). Prejudice has been reportedly lower in New Zealand than in other nations (Tan, 2020). This may be in part due to central government health messaging around the virus, which has focused on community cohesion to stopping community transmission, rather than assigning blame to any nation/group. Using Stephan and Stephan (2000) integrated threat theory (ITT), this study explores the extent to which prejudice toward Asians differed in the US, Italy, Spain, and New Zealand during the COVID-19 pandemic.

Integrated threat

ITT asserts perception of threat by members of the dominant culture from a minority

group explains negative emotions and hostility, prejudice. Threat is comprised of realistic and symbolic threat, intergroup anxiety, and intergroup contact. Realistic threats are perceived threats to the dominant group’s welfare, economic and political power, and/or material well-being. Realistic threats have been found to be a predictor of prejudice as the more threats the ingroup members perceive, the more negatively they react toward an outgroup (Stephan & Stephan, 1996).

Symbolic threats are perceived threats to the dominant culture’s way of life such as beliefs, morals, and values (Stephan & Stephan, 1996). Symbolic threats can predict prejudice as perceptions of cultural differences have an indirect and adverse effect on attitudes toward the outgroup individuals (Spencer-Rodgers & McGovern, 2002).

Intergroup anxiety occurs with individuals feel threatened while interacting with outgroup members. Stephan and Stephan (1996) argued the ingroup’s negative expressions against the outgroup individuals directly result from intergroup anxiety. When the outgroup has more perceived or real advantages than the ingroup, intergroup anxiety arises among ingroup members (Islam & Hewstone, 1993).

Intergroup contact is the extent to which individuals interact with out group members (Stephan & Stephan, 2000). The more intergroup contact individuals have, the lower levels of threats and anxiety the ingroup members typically perceive (Pettigrew & Tropp, 2008). During the COVID-19 pandemic, positive contact with the minority group has been negatively correlated with prejudice, welfare-related threat, and fear (Alston, Meleady, & Seger, 2020).

ITT has been studied extensively in communication, with research demonstrating support for ITT in different contexts (Meng, Zhu, & Cao, 2017; Nshom, 2016; Nshom & Croucher, 2018; Zhang, 2016). A study on the influence of media on immigration attitudes in the US showed perceived intergroup threat associated with media consumption has a

significant impact on outgroup discrimination (Atwell-Seate & Mastro, 2016). In terms of immigration media coverage, threatening messages such as job competition with the outgroup causes intergroup anxiety, lead to negative attitudes, and increase feelings of anger against the outgroup (Atwell-Seate & Mastro, 2016). Research has shown increased prejudice, and racism toward Asians during the COVID-19 pandemic in the US, Italy, Spain, and New Zealand (Croucher et al., 2020; Mcguire, 2020; Rzymiski & Nowicki, 2020; Ziems et al., 2020). Thus, the following question explores prejudice toward Asians during the pandemic:

RQ: To what extent does prejudice toward Asians during the COVID-19 pandemic differ in the United States, Italy, Spain, and New Zealand?

Method

After ethical approval, data for this study were collected in April 2020 in the US, Spain, New Zealand, and Italy via Qualtrics. Online participant panels are comparable in composition to face to face survey panels (Troia & Graham, 2017). Qualtrics provided a small amount of compensation to each participant.

The anonymous online survey included demographic questions, the Measure of Intergroup Contact, Measure of Symbolic Threat, Measure of Realistic Threat, and the Intergroup Anxiety Scale. Surveys were translated into Spanish and Italian. All translations involved a three-step process. First, the surveys were translated from English into Spanish and Italian by native bilingual speakers. Second, the translations were checked by a professional translator for connotational and denotational issues. Third, the translator discussed all issues with the researchers and an independent bilingual speaker for consensus. Table 1 shows demographic information for participants. Table 2 shows the correlations, means, standard deviations, and reliabilities for each measure.

Confirmatory factor analysis (CFA) was performed to ensure the validity and reliability of the study constructs. Croucher, et al. (2020) previously validated the measures in

a US sample. In the New Zealand sample, CFA showed an excellent fit among the constructs: $\chi^2(110) = 210.48$, $p < .001$, CFI = .98, SRMR = .05, RMSEA = .05. In the Spanish sample, CFA showed excellent fit among the constructs: $\chi^2(111) = 197.28$, $p < .001$, CFI = .96, SRMR = .05, RMSEA = .06. Finally, in the Italian sample, CFA showed excellent fit among the constructs: $\chi^2(98) = 233.48$, $p < .001$, CFI = .95, SRMR = .07, RMSEA = .06.

Measure of intergroup contact

Four items measured intergroup contact (González, Verkuyten, Weesie, & Poppe, 2008). The items were: “How many Asian friends do you have?” This item was rated from (1) none to (4) only Asian friends. The remaining three items were: “Do you have contact with Asian students or co-workers?” “Do you have contact with Asians in your neighbourhood?” and “Do you have contact with Asians somewhere else, such as at a sports club or other organization?” These items were rated from (1) never to (4) often. This measure has shown strong reliability, .70 - .90 (Croucher, S. M., 2013; Croucher, Galy-Badenas, & Routsalainen, 2014).

Measure of symbolic threat

Three items measured symbolic threat (Stephan, Ybarra, & Bachman, 1999). The items were: “X identity is threatened because there are too many Asians today,” “X norms and values are threatened because of the presence of Asians today,” and “Asians are a threat to X culture.” “Asians” was used as the target group for prejudice due to the high amount of social media commentary directed toward Asians, in each of the nations during the Covid-19 pandemic. In each nation, “X” was replaced with the respective culture, such as American, Spanish, Italian, and/or New Zealand. Responses ranged from (1) strongly disagree to (5) strongly agree. A higher score indicated a stronger feeling of threat. The measure has shown high reliability, .85 - .95 (Croucher, S. M., 2013; Nshom, 2016).

Measure of realistic threat

This measure included three statements that assessed the effects of Asians on the economic situation in the four nations (Stephan et al., 1999). The statements included: “Because of the presence of Asians, X have more difficulties finding a job,” “Because of the presence of Asians, X have more difficulties finding a house,” and “Because of the presence of Asians, unemployment will increase.” Responses ranged from (1) strongly disagree to (5) strongly agree. Higher scores indicate more threat. The measure has shown high reliability, .86 - .93 (Nshom, 2016).

Intergroup anxiety scale

Stephan and Stephan (1985) 10-item semantic differential Intergroup Anxiety Scale assessed the extent to which respondents have an emotional response to interacting with outgroup members. The items are rated on a 10-point scale from 1 not at all to 10 extremely. The measure has shown high reliability, .70 - .85 (Stephan & Stephan, 2000).

Results

To explore the research question, a series of one-way analysis of variances (ANOVA) were conducted. The four nations differed significantly on symbolic threat, realistic threat, intergroup anxiety, and intergroup contact. See Table 2 for the means and standard deviations. For symbolic threat, there was a significant main effect, $F(3, 1168) = 3.73, p < .05, \eta^2 = .01$. Planned comparisons revealed Spaniards were higher than New Zealanders $t(585) = 3.03, p < .01$ on symbolic threat.

For realistic threat, there was a significant main effect, $F(3, 1168) = 13.81, p < .0001, \eta^2 = .03$. Planned comparisons revealed New Zealanders were significantly lower than US Americans, $t(585) = 3.03, p < .01$, Spaniards, $t(585) = 5.02, p < .0001$, and Italians, $t(607) = 3.94, p < .0001$.

For intergroup anxiety, there was a significant main effect, $F(3, 1168) = 6.14, p < .0001, \eta^2 = .02$. Planned comparisons revealed New Zealanders, $t(607) = 3.97, p < .0001$,

Americans, $t(583) = 2.91$, $p < .0001$, and Spaniards, $t(598) = 3.55$, $p < .0001$, were significantly lower than Italians on intergroup anxiety. Intergroup anxiety across all four samples was low, considering that anxiety is measured from 1 to 10 and Italy ranked the highest with a mean of 4.25.

For intergroup contact, there was a significant main effect, $F(3, 1168) = 37.56$, $p < .0001$, $\eta^2 = .09$. Planned comparisons revealed New Zealanders were significantly higher than US Americans, $t(570) = 7.77$, $p < .0001$, and Italians, $t(607) = 8.97$, $p < .0001$. Spaniards were also significantly higher than US Americans, $t(561) = 5.66$, $p < .0001$.

Discussion

Overall, the data were inconsistent in terms of substantive differences among samples for the prejudice indices examined. While New Zealanders consistently scored as the least prejudice, they only scored statistically significantly less than other participant groups in terms of realistic threat. Realistic threat differs from the other measures in this study because it asks participants to consider their knowledge of facts rather than their feelings. While this study cannot prove cause and effect, due to its design, we attribute this finding to governmental action, media depictions that framed the COVID-19 national response as a collective public health effort, and cultural differences between the nations. Unlike the US, Spain, and Italy, New Zealand had (and still has at the time of writing this piece) a centralized national response to the pandemic. The response, which included a total lockdown when there were only 205 active COVID-19 cases (and no deaths), a strong government and media campaign including the messages “Be Kind” and “Team of Five Million,” and closed international borders that were centrally managed by the New Zealand national government. Each day the Prime Minister, or another high-ranking official with appropriate qualifications in health, civil defense or policing spoke with the nation about the current state of the pandemic, the New Zealand response, and the planned steps forward (Baker, 2020). This

messaging was consistent across all of government and focused strongly on informational rather than political framings. In the US, Spain, and Italy, the responses have been mostly smaller in scale, and they are markedly decentralized, and highly politicized. Such differences in how the governments have responded to the pandemic may have contributed to uncertainty among their populations, which may heighten levels of blame and xenophobia (1News, 2020) and subsequently affect public health outcomes.

The less politically divisive mediascape of New Zealand also offers an explanation for why New Zealanders perceive less realistic threat from Asians. Unlike Spain, Italy, and the US, which all have large-scale media outlets ranging from far left to right politically, New Zealand mainstream media is largely centrist. New Zealand media is not apolitical; however, its news media tends to maintain its watchdog role while still fostering constructive political debate (Hollings, Lealand, Samson, & Tilley, 2007). In the case of COVID-19, New Zealand news media, compared to media in the US, Spain, and Italy, focused more on the facts without much political commentary (1News, 2020). Framing a health issue, such as a pandemic, as an issue of science rather than political ideologies reduced uncertainty around the pandemic, which in turn could attribute to reduced xenophobia (Zeng, 2020).

The results of this study also found that Italians scored higher than other groups in intergroup anxiety. Even before COVID-19, reports of anxiety toward immigrants were reported in Italy (Servidio, 2020). This anxiety is thought to come from a fear of the Italian identity disappearing as immigrants repopulate Italy at a much higher rate than native Italians (Marchesi, 2012). This could mean differences observed in this study are at least partially attributable to anxiety that existed before COVID-19.

Implications

A strength of this study is its cross-cultural nature. The results from different national samples demonstrate both similarities and differences in how prejudice manifests in four

different nations. Such cross-cultural research can assist public health practitioners/professionals understand how socio-psychological attitudes and behaviours such as prejudice influence health behaviours and actions. The results of this study show that prejudice in the form of perceived realistic threat toward Asians during the COVID-19 pandemic is lower in New Zealand than in the US, Spain, and Italy. New Zealand has not faced the number of COVID-19 cases as the US, Spain, and Italy. New Zealand has had closed borders since March 25, 2020 and has moved through 4 different lockdown levels to combat the virus. At the same time, the government has encouraged the population to be kind to one another, and to unite as a team to all help each other. The government and media have not isolated any one group to blame for the virus or its spread. These results demonstrate that during a pandemic like COVID-19, different stakeholders can take on different responsibilities to manage information and responses to the pandemic. Health/medical professionals and scientists work to study the virus, transmission, risk factors, immune response, manifestations, diagnosis, treatments, etc. (Harapan et al., 2020). As seen in New Zealand, good science communication from publicly trusted figures was an important part of the overall strategy to emphasize a facts-led response and allay emerging fears (Morton, 2020).

Alongside all this, governments must also inform its population about the virus and the government's long-term response in ways that trigger action but not alarm. Media coverage played a key role in informing the New Zealanders about the virus and responses, and the importance of this could be seen in the daily performance of the media briefing, where trusted government figures, most notably the Director-General of Health, discussed the day's cases and explained the situation in language couched in scientific detail. Though originally targeted at journalists, this daily event was live-streamed and watched keenly by the general population for reassurance and support (Rae, 2020). Governments work to contain

or suppress the virus, support health/medical personnel, protect its population internally and externally (economically, politically, socially, and other).

Limitations

This study is not without limitations. While Qualtrics, like other online survey firms provides robust sampling, the sampling is not random. Generalizations based on these results need to be considered in terms of any other convenience sample. Also of note are the high correlations between symbolic and realistic threat. The correlation coefficients of these measures among the samples ranged from .76 to .82. While Stephan et al. (1999) did conceptualize these variables as two dimensions of a multidimensional prejudice measure, those effects are high. This brings to question whether they are measuring two distinct constructs. When this measure was developed, social media did not exist; news was distributed through newspapers or designated news television programs that aimed to be bias-free. The framing of news on social media and the proliferation of biased or inaccurate news (Ribeiro et al., 2018), may have removed some modern consumers' ability to completely distinguish between the facts necessary to assess realistic threat and the feelings that burgeon symbolic threat.

These results reveal that governments, public health officials/practitioners, and media must consider the extent to which xenophobia/racism influence populations affected by a virus and adjust health messaging accordingly. As we have seen with COVID-19, Asians have been discriminated against in many nations, and blamed by many for spreading the virus. Governments have a responsibility to protect all their people from misconceptions, discrimination, racism, hatred, and violence. This can be done through health promotion campaigns that counter virus-based racism and promote facts, inclusivity, and intercultural awareness (Welhausen, 2015). The promotions must be accessible, reinforced, and consistent. Moreover, politicians need to carefully consider the words they use when framing a virus.

Publicly labeling COVID-19 the “Wuhan Virus” or “Kung flu” are racist acts. Public health officials and practitioners need to be consistent in their support and reiteration of these messages. While the pandemic is evolving, it is likely intergroup attitudes and behaviours are also changing. Thus, future work should continue to explore this issue to better understand within nation and cross-cultural similarities and differences.

References

- 1News. (2020, June 24). *NZ less racially prejudiced than other countries amid Covid-19 pandemic, study finds*. TVNZ. <https://www.tvnz.co.nz/one-news/new-zealand/nzless-racially-prejudiced-than-other-countries-amid-covid-19-pandemic-study-finds>
- Alston, L., Meleady, R., & Seger, C. R. (2020). Can past intergroup contact shape support for policies in a pandemic? Processes predicting endorsement of discriminatory Chinese restrictions during the COVID-19 crisis. *Group Processes and Intergroup Relations*. <https://doi.org/10.1177/1368430220959710>
- Atwell-Seate, A., & Mastro, D. (2016). Media’s influence on immigration attitudes: An intergroup threat theory approach. *Communication Monographs*, 83(2), 194–213. <https://doi.org/10.1080/03637751.2015.1068433>
- Baker, M. (2020, June 23). *Why New Zealand decided to go for full elimination of the coronavirus*. New Scientist. <https://www.newscientist.com/article/2246858-why-new-zealand-decided-to-go-for-full-elimination-of-the-coronavirus/>
- Croucher, S. M. (2013). Integrated threat theory and acceptance of immigrant assimilation: An analysis of Muslim immigration in Western Europe. *Communication Monographs*, 80, 46–62.
- Croucher, S. M., Galy-Badenas, & Routsalainen, M. (2014). Host culture acceptance, religiosity, and the threat of Muslim immigration: An integrated threat analysis in Spain. *Journal of Intercultural Communication*, 35.
- Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian-Americans in the Covid-19 Pandemic: The effects of social media use in the United States. *Frontiers in Health Communication*. <https://doi.org/10.3389/fcomm.2020.00039>
- González, K. V., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social*

- Psychology*, 47(4), 667–685. <https://doi.org/10.1348/014466608X284443>
- Harapan, H., Itoh, N., Yufika, A., Winardi, W., Keam, S., Te, H., . . . Mudatsir, M. (2020). Coronavirus disease 2019 (COVID-19): A literature review. *Journal of Infection and Public Health*, 13(5), 667–673. <https://doi.org/10.1016/j.jiph.2020.03.019>
- Hollings, J., Lealand, G., Samson, A., & Tilley, E. (2007). The big NZ journalism survey: Underpaid, under-trained, under-resourced, unsure about the future—but still idealistic. *Pacific Journalism Review*, 13(2), 175–197. <https://doi.org/10.24135/pjr.v13i2.908>
- Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived outgroup variability, and outgroup attitude: An integrative model. *Personality and Social Psychology Bulletin*, 19(6), 700–710. <https://doi.org/10.1177/0146167293196005>
- Johns Hopkins University Coronavirus Resource Center. (updated daily). <https://coronavirus.jhu.edu/map.html>
- Marchesi, M. (2012). Reproducing Italians: Contested biopolitics in the age of ‘replacement anxiety’. *Anthropology & Medicine*, 19(2), 171–188. <https://doi.org/10.1080/13648470.2012.675043>
- McGuire, E. (2020, July 1). *Anti-Asian hate continues to spread online amid COVID-19 pandemic*. Aljazeera. <https://www.aljazeera.com/news/2020/04/anti-asianhate-continues-spread-online-covid-19-pandemic-200405063015286.html>
- Meng, Q., Zhu, C., & Cao, C. (2017). The role of intergroup contact and acculturation strategies in developing Chinese international students’ global competence. *Journal of Intercultural Communication Research*, 46(3), 210–226. <https://doi.org/10.1080/17475759.2017.1308423>
- Morton, J. (2020, June 13). *Covid-19: Seven science heroes of the pandemic*. NZ Herald. https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12337525

- Nshom, E. (2016). Predictors of Finnish adolescent's prejudice towards Russian immigrants and the effect of intergroup contact. *Journal of Intercultural Communication Research*, 45(1), 31–44. <https://doi.org/10.1080/17475759.2015.1136347>
- Nshom, E., & Croucher, S. M. (2018). Acculturation preferences towards immigrants: Age and gender differences among Finnish adolescents. *International Journal of Intercultural Relations*, 65, 51–60.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38(6), 922–934. <https://doi.org/10.1002/ejsp.504>
- Rae, F. (2020, June 14). *So long to Ashley TV: How a nation got hooked on the daily Covid show*. The Spinoff. <https://thespinoff.co.nz/tv/14-06-2020/so-long-to-theashley-show-how-a-nation-got-hooked-on-the-covid-stand-ups/>
- Ribeiro, F. N., Henrique, L., Benevenuto, F., Chakraborty, A., Kulshrestha, J., Babaei, M., & Gummadi, K. P. (2018, June). Media bias monitor: Quantifying biases of social media news outlets at large-scale. *Twelfth International AAAI Conference on Web and Social Media*. <https://www.aaai.org/ocs/index.php/ICWSM/ICWSM18/paper/viewFile/17878/17020>
- Rzymiski, P., & Nowicki, M. (2020). COVID-19 related prejudice toward Asian medical students: A consequence of SARS-CoV-2 fears in Poland. *Journal of Infection and Public Health*, 13(6), 873–876. <https://doi.org/10.1016/j.jiph.2020.04.013>
- Servidio, R. (2020). Classical and modern prejudice toward Asylum seekers: The mediating role of intergroup anxiety in a sample of Italians. *Social Sciences*, 9(2), 1–13. <https://doi.org/10.3390/socsci9020010>
- Spencer-Rodgers, J., & McGovern, T. (2002). Attitudes toward the culturally different: The role of intercultural communication barriers, affective responses, consensual

- stereotypes, and perceived threat. *International Journal of Intercultural Relations*, 26(6), 609–631. [https://doi.org/10.1016/S0147-1767\(02\)00038-X](https://doi.org/10.1016/S0147-1767(02)00038-X)
- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41(3), 157–175. <https://doi.org/10.1111/j.1540-4560.1985.tb01134.x>
- Stephan, W. G., & Stephan, C. W. (1996). Predicting prejudice. *International Journal of Intercultural Relations*, 20(3–4), 409–426. [https://doi.org/10.1016/0147-1767\(96\)00026-0](https://doi.org/10.1016/0147-1767(96)00026-0)
- Stephan, W. G., & Stephan, C. W. (2000). *An integrated threat theory of prejudice*. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 225–246). Lawrence Erlbaum.
- Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward immigrants: An integrated threat theory. *Journal of Applied Social Psychology*, 29(11), 2221–2237. <https://doi.org/10.1111/j.1559-1816.1999.tb00107.x>
- Tan, L. (2020, June 24). Covid 19 coronavirus: Prejudice against Asians in NZ lower than elsewhere, study finds. *NZ Herald*. https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12342486
- Thu, T. P. B., Ngoc, P. N. H., Hai, N. M., & Tuan, L. A. (2020). Effect of the social distancing measures on the spread of COVID-19 in 10 highly infected countries. *Science of the Total Environment*, 742, 1–8. <https://doi.org/doi:10.1016/j.scitotenv.2020.140430>
- Troia, G. A., & Graham, S. (2017). Use and acceptability of writing adaptations for students with disabilities: Survey of Grade 3–8 teachers. *Learning Disabilities Research & Practice*, 32, 257–269.
- Welhausen, C. (2015). Visualizing a non-pandemic: Considerations for communicating public health risks in intercultural contexts. *Technical Communication*, 62, 244–257.

- WHO. (2020). *WHO director-general’s statement on IHR emergency committee on novel Coronavirus (2019-nCoV)*. [https://www.who.int/dg/speeches/detail/who-director-general-s-statement-on-ihr-emergency-committee-onnovel-coronavirus-\(2019-ncov\)](https://www.who.int/dg/speeches/detail/who-director-general-s-statement-on-ihr-emergency-committee-onnovel-coronavirus-(2019-ncov))
- Zeng, J. (2020, February 28). *Sensationalist media is exacerbating racist coronavirus fears. We need to combat it*. The Guardian. <https://www.theguardian.com/commentisfree/2020/feb/28/sensationalist-media-is-exacerbating-racist-coronavirus-fears-we-need-to-combat-it>
- Zhang, Q. (2016). The mitigating effects of intergroup contact on negative stereotypes, perceived threats, and harmful discriminatory behavior toward Asian Americans. *Communication Research Reports*, 33(1), 1–8. <https://doi.org/10.1080/08824096.2015.1089854>
- Ziems, C., He, B., Soni, S., & Kumar, S. (2020). Racism is a virus: Anti-Asian hate and counter hate in social media during the COVID-19 crisis. *arXiv preprint*. arXiv:2005.12423. <https://arxiv.org/abs/2005.12423>

Table 1*Participant Demographics by Nation*

Italy		New Zealand	
Variable	<i>n</i> = 311	Variable	<i>n</i> = 298
Sex		Sex	
Male	166 (53.38%)	Male	134 (44.97%)
Female	145 (46.62%)	Female	164 (55.03%)
Age		Age	
18-19	8 (2.57%)	18-19	23 (7.71%)
20-29	31 (9.97%)	20-29	74 (24.83%)
30-39	60 (19.29%)	30-39	67 (22.48%)
40-49	102 (32.79%)	40-49	33 (11.07%)
50-59	64 (20.58%)	50-59	35 (11.74%)
60 and above	46 (14.79%)	60 and above	66 (22.15%)

Spain		United States	
Variable	<i>n</i> = 289	Variable	<i>n</i> = 274
Sex		Sex	
Male	160 (55.36%)	Male	81 (29.56%)
Female	129 (44.64%)	Female	193 (70.44%)
Age		Age	
18-19	22 (7.61%)	18-19	25 (9.12%)
20-29	92 (31.83%)	20-29	72 (26.27%)
30-39	93 (32.18%)	30-39	50 (18.24%)
40-49	51 (17.65%)	40-49	46 (16.78%)
50-59	23 (7.95%)	50-59	33 (12.04%)
60 and above	8 (2.76%)	60 and above	48 (17.51%)

Table 2*Correlations, Means, Standard Deviations, and Reliabilities of Study Variables*

Italy							
Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)
(1) Symbolic Threat	3.70	.99	.93	-			
(2) Realistic Threat _d	3.66	.96	.89	.78**	-		
(3) Intergroup Contact _i	1.92	.70	.75	.19**	.15**	-	
(4) Intergroup Anxiety _{efg}	4.25	1.99	.75	.47**	.46**	.17**	-
New Zealand							
Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)
(1) Symbolic Threat _a	3.55	1.13	.94	-			
(2) Realistic Threat _{bcd}	3.32	1.17	.90	.76**	-		
(3) Intergroup Contact _{hi}	2.47	.80	.75	.36**	.30**	-	
(4) Intergroup Anxiety _e	3.60	2.06	.77	.46**	.40**	.25**	-
Spain							
Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)
(1) Symbolic Threat _a	3.83	1.09	.91	-			
(2) Realistic Threat _c	3.78	1.06	.87	.82**	-		
(3) Intergroup Contact _j	2.31	.73	.70	.17**	.17**	-	
(4) Intergroup Anxiety _g	3.65	2.17	.75	.50**	.53**	.12**	-
United States							
Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)
(1) Symbolic Threat	3.78	1.12	.89	-			
(2) Realistic Threat _b	3.85	1.14	.93	.82**	-		
(3) Intergroup Contact _{hj}	1.94	.83	.80	.16**	.14**	-	
(4) Intergroup Anxiety _f	3.74	2.26	.76	.52**	.48**	.09	-

Note: ** $p < .01$. Subscripts designate mean differences based on Games-Howell post-hoc analyses.

Appendix C

Who's to blame for the spread of COVID-19 in New Zealand? Applying attribution theory to understand public stigma

DRC 16



GRADUATE
RESEARCH
SCHOOL

STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Thao Thanh Thi Nguyen
Name/title of Primary Supervisor:	Professor Stephen Croucher
In which chapter is the manuscript /published work:	Appendix C
<p>Please select one of the following three options:</p> <p><input checked="" type="radio"/> The manuscript/published work is published or in press</p> <ul style="list-style-type: none"> Please provide the full reference of the Research Output: Nguyen, T., Croucher, S. M., Diers-Lawson, A., & Maydell, E. (2021). Who's to blame for the spread of COVID-19 in New Zealand? Applying attribution theory to understand public stigma. <i>Communication Research and Practice</i>. https://doi.org/10.1080/22041451.2021.1958635 <p><input type="radio"/> The manuscript is currently under review for publication – please indicate:</p> <ul style="list-style-type: none"> The name of the journal: The percentage of the manuscript/published work that was contributed by the candidate: Describe the contribution that the candidate has made to the manuscript/published work: The candidate made the following contributions to the study. First, the candidate designed the study. Second, the candidate outlined and wrote the literature review. Third, the candidate coordinated and wrote the bulk of the method and conducted the majority of the qualitative analysis. Fourth, the candidate coordinated and assisted with the development of the discussion section. <p><input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal</p>	
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Date:	04-Nov-2022
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The COVID-19 pandemic has brought increased discrimination stigma, and racism toward individuals of Asian descent. Little research has concentrated on public perceptions regarding who is to blame for the spread of the virus. This study extends integrated threat and attribution theories by examining the extent to which prejudice against Asians is related to blame attribution in New Zealand. The paper employs a mixed-method approach (n = 330). The findings suggest that to understand public stigma in ambiguous crises/events, it is significant to look beyond theoretic frameworks. Particularly, this research provides better understanding of how blame attribution has developed and linked with threats in the pandemic. First, fear of contact with COVID-19 is positively related to symbolic and realistic threats. Second, the more people believe COVID-19 is a public health risk, the more symbolic and realistic threats they have. Third, realistic threat is linked to blame attribution.

Keywords: prejudice; integrated threat theory; attribution theory; COVID-19

Introduction

As of 5 July 2021, more than 183 million people have been infected and nearly 4 million people have died from COVID-19 (Johns Hopkins University Coronavirus Resource Center, n.d.). The pandemic has had a significant impact on people’s lives, global healthcare systems, and global economies. The global pandemic has sent billions of people into instability and fear, and provoked countless instances of discrimination, racism, prejudice, and violence. As the virus spreads, many world leaders, media, and people in general are increasingly looking for something and/or someone to blame.

Croucher, Nguyen, and Rahmani (2020) reported that individuals of Asian descent have suffered increased discrimination, stigma, and racism since the outbreak of the COVID-19 pandemic. In many nations, individuals of Asian descent have been blamed for the spread of the virus, and subsequently poorly treated as a result (Croucher et al., 2020). In the United States for example, Asian businesses have been boycotted, Asians have been harassed, and even attacked (Lee & Yadav, 2020; Shahrigian, 2020). Anti-Asian sentiment online has skyrocketed since the start of the pandemic, with increased incidents of online hate speech and derogatory hashtag on Twitter (Mcguire, 2020). All in all, as traditional and social media coverage reported the COVID-19 pandemic originated in China, negativity toward individuals of Asian descent linked to COVID-19 has increased in 2020 (Ziems, He, Soni, & Kumar, 2020). Therefore, the current study explores this desire to place blame, or attribution during the COVID -19 pandemic in New Zealand. Specifically, this study examines the extent to which prejudice toward Asians is related to blame attribution for COVID-19 in New Zealand.

Integrated threat theory

According to Allport (1954), prejudice is the result of negative beliefs and attitudes toward the outgroup. It is considered “thinking ill of others without sufficient warrant” (Allport, 1954, p. 6). One of the explaining factors of prejudice and discrimination in multi-ethnic and multicultural settings is threat perception (Ward et al., 2016). Stephan and Stephan developed integrated threat theory (ITT) based on Allport’s research on prejudice (Stephan & Stephan, 1993, 1996, 2000). Since then, ITT has served as a theoretical framework to understand and predict prejudice from the ingroup (cultural dominant group) toward the outgroup (cultural minority group) (Croucher, 2013).

Stephan and Stephan (2000) argue ingroup members have negative feelings of threat posed by outgroup members. Moreover, these negative feelings result in intergroup prejudice

(Esses et al., 1993). Stephan and Stephan (2000) categorize threats, whether real or perceived, into four types: realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes.

Realistic threats are perceived threats to the existence of the ingroup, for example, material and physical well-being, welfare, and economic and political power (Stephan & Stephan, 1996). Perceived threats alone are enough to cause prejudice against the outgroup (Stephan & Stephan, 2000). In fact, a recent study has shown the more realistic threats the ingroup members perceive, the more prejudiced they become (Ramsay & Pang, 2017).

Symbolic threats are perceived threats to the way of life of the outgroup, such as, values, beliefs, standards, and morals (Stephan & Stephan, 1996). Differences in cultural backgrounds has an influence on negative attitudes and behaviours of the ingroup toward the outgroup (Spencer-Rodgers & McGorvern, 2002). Furthermore, Ramsey and Pang (2017) state that symbolic threats are positively related to prejudice.

Intergroup anxiety happens when individuals feel threatened while interacting with other group members as they are afraid of being embarrassed, rejected or exploited (Stephan & Stephan, 1985; Stephan & Stephan, 2000). On the other hand, Islam and Hewstone (1993) state when the outgroup individuals have more (either real or perceived) advantages, the ingroup members may have negative feelings and anxiety against the outgroup. As a result, negative feelings and intergroup anxiety may lead to negative attitudes, behaviours, and expressions toward the outgroup (Stephan & Stephan, 1996).

Negative stereotypes include assumed and implied threats from the ingroup toward the outgroup (Stephan & Stephan, 2000). During an intergroup interaction, the ingroup is afraid of negative effects posed by the outgroup (Croucher, 2017). Moreover, stereotypes also serve as expectations associated with social attitudes and behaviours of the stereotyped groups (Hamilton et al., 1990). For instance, if an outgroup has been stereotyped as

aggressive, the ingroup members will expect a negative interaction with that group (Stephan & Stephan, 2000). Researchers demonstrate that prejudice is related to negative stereotypes because negative feelings and attitudes will take place if the outgroup members do not meet the social expectations of the ingroup (Esses et al., 1990; Islam & Hewstone, 1993).

ITT has been used as the theoretical backbone for studies in various contexts such as in communication and media (Atwel Seate et al., 2018), communication and religion (Tausch et al., 2009), communication and organizational settings (Curşeu et al., 2007), etc. ITT has also been explored in the medical context; yet, there are few studies about prejudice toward people with health issues like HIV/AIDS, cancer, and disabilities (Berrenberg, 1989; Berrenberg et al., 2002; Bustillos & Silván-Ferrero, 2013). In general, this study aims to fulfill our understanding of prejudice and blame attribution toward Asians/Chinese during a global health pandemic.

Blame attribution

People make judgments about how groups or organizations are connected to issues concerning them. Much of the non-organizational literature on blame attribution and ethnicity or religion focuses on contexts that are most readily translated into criminal contexts like the degree to which people would be more likely to blame the victim or the perpetrator of a crime based on identity (see e.g., Rozmann & Walsh, 2018) or the role of immigration status in blame attribution in cases of sexual assault (Sjöberg & Sarwar, 2020). In other contexts, it is analyzed as an interpersonal variable – such as the case of how stereotypes of ethnicity and sex influence consumer perceptions and behaviours (Wu, Han, & Mattila, 2016).

However, the research exploring blame attribution in the way that stakeholders make attributions about organizations is much more consistent with better understanding how we may understand prejudice and blame attribution towards Asians/Chinese during a global health pandemic because it more directly represents the inductive process where people select

facts and then draw conclusions about an entire group based on those selected facts as we discussed with ITT. There are four central findings on blame attribution in the organizational context, each of which provides insight into understanding and predicting the degree to which Asians or Chinese people as a ‘group’ may be blamed for the COVID-19 pandemic. First, blame attribution is higher when there is a clear association or a logical connection between an issue and an organization or group (Claeys & Cauberghe, 2015; De Bruycker & Walgrave, 2014). Second, blame attribution increases when the group that has been associated with the issue is judged to demonstrate low commitment to the issue or an inauthentic level of concern about their association with the issue (Huang, 2008; Lacey, Kennett-Hensel, & Manolis, 2015). Third, blame attribution is influenced by judgments of the group’s competence in successfully manage the issue (Hyvärinen & Vos, 2015; Sohn & Lariscy, 2014). The first three are indirect factors that increase blame attribution, so fourth, the literature also points to direct blame attribution for an emergent crisis (Coombs, 2007; Schwarz, 2008).

ITT and blame

Judgments about blame are not made in a vacuum, they come from different people’s experiences and identities. In addition to the previously discussion about how ITT influences intergroup anxieties, the previous findings are also well-aligned with research on attitude formation emphasizing the importance of constructs like perceived susceptibility, situation severity, demographics, and efficacy as key predictors of people’s reactions to stimuli and situations (Chen, Gully, & Eden, 2001; Rosenstock, Strecher, & Becker, 1988) and research predicting that our behaviours can be accounted for by our existing attitudes, social norms, and perceived situational control (Ajzen, 2005). In fact, these findings also align with research in crisis communication suggesting that public perceptions of their own control over issues and uncertainty about the situation affect not only their own emotional reactions to crises but attitudes about and actions towards groups and organizations also connected to the

crisis (Jin, Liu, Anagondahalli, & Austin, 2014; McDonald & Cokley, 2013; Mou & Lin, 2014). Fundamentally, blame attribution and competence may ultimately be reflections of people’s own insecurities and low situational efficacy rather than direct reflections of attitudes about groups or organizations in contexts, like pandemics, where blame attribution is perceptual rather than material.

Research questions

National governments and health agencies have responded differently to COVID-19. New Zealand’s confirmed death toll sits at 25 (with 2128 cases) (Johns Hopkins Coronavirus Resource Center, updated daily). This relatively low number of cases is likely due to early lockdown measures restricting public movements, strict border controls, and strict quarantine processes for returning New Zealanders. The government also initiated a media campaign including the key messages “Be Kind” and “Team of Five Million”. Throughout 2020, there were few reported cases of blaming of Asians in the New Zealand press. In fact, research shows that New Zealanders on average (unlike other nationalities) either tend to not publicly blame Asians for the spread of COVID-19 and/or actively take steps to combat racism against Asians. Research shows that New Zealand scored lower than the US, Italy and Spain on prejudice (ITT) (Croucher et al., 2020), and this is partially attributed to centralised government leadership, less polarised media in New Zealand, and less fear of COVID-19 in New Zealand (Croucher et al., 2020; Tan, 2020). In addition, when isolated incidents of racism and prejudice did occur in 2020 toward Asians, New Zealanders spoke out against the actions and told the perpetrators to “be kind” and “not be racist” (Collins, 2020). Empirical research shows New Zealanders score lower on prejudice than other nations (see Croucher et al., 2020). Research also shows that fear of COVID-19 influences how people respond to groups perceived to be carriers of the virus and to government lockdowns (manuscript under review). Additionally, press reports show that New Zealanders tend to not blame or attribute

the spread of COVID-19 or blame COVID-19 on Asians. However, to confirm previous research on anti-Asian prejudice during COVID-19, to better understand how prejudice and blame relate to one another in the New Zealand context, and to explore the influence of fear of COVID-19 on blame attribution and prejudice, the following research questions are posed:

RQ1: To what do New Zealanders attribute blame regarding COVID-19?

RQ2: To what extent can blame attribution be attributed to prejudice?

RQ3: To what extent is fear of COVID-19 related to prejudice?

Method

This study used a mixed-method approach, which includes a quantitative survey, and additional open-ended questions that were analysed qualitatively. We collected data in New Zealand via an online survey with the assistance of Qualtrics. Online panels, such as those from Qualtrics are comparable to other populations in published research (Croucher et al., 2020; Roulin, 2015). Qualtrics provided a small financial incentive for participation. The survey included a series of demographic questions, measures of integrated threat, a measure of the extent to which COVID-19 is a risk to health, and two open-ended questions.

Participants

Participants for this study included 330 individuals. However, after data cleaning for complete answers and full open-ended responses, 23 participants were removed from data analysis. In total, 307 participants were included in the final analysis. Table 1 presents the full demographic information for all participants.

Measures

All surveys included demographic questions and the following measures: Measure of Symbolic threat (Stephan et al., 1999), Measure of Realistic Threat (Stephan et al., 1999), and a Fear of COVID-19 Scale modified from the Fear of AIDS Scale (Bouton et al., 1987). See Table 2 for the means, standard deviations, correlations, and alphas associated with the

study variables. Confirmatory factor analyses (CFAs) were conducted on each construct following standards set by Hu and Bentler (1999) to ensure the validity of the study constructs. See Table 3 for fit indices for study measures.

Measure of symbolic threat. Three items from Stephan et al. (1999) measured symbolic threat. Sample items were: “New Zealand identity is threatened because there are too many Chinese today,” “New Zealand norms and values are threatened because of the presence of Chinese today,” and “Chinese are a threat to New Zealand culture.” Responses ranged from (1) strongly disagree to (5) strongly agree. A higher score indicated a stronger feeling of threat. The scale has shown high reliability ranging from .85 to .90 (Croucher, 2013; Croucher et al., 2020; González, Verkuyten, Weesie, & Poppe, 2008).

Measure of realistic threat. The measure of realistic threat included three statements that assessed the effects of the outgroup on the economic situation in New Zealand. Sample statements were: “Because of the presence of Chinese, New Zealanders have more difficulties finding a job,” “Because of the presence of Chinese, New Zealanders have more difficulties finding a house,” and “Because of the presence of Chinese, unemployment will increase.” Responses ranged from (1) strongly disagree to (5) strongly agree. Higher scores indicate more threat. This scale has also shown reliability ranging from .80 to .90 (Croucher et al., 2020; González et al., 2008).

Fear of COVID-19. To measure the extent to which individuals perceive COVID-19 as a threat, 14 items from Bouton et al. (1987) were employed. While developed to measure fear of HIV/AIDS, the items were modified to focus on COVID-19. The scale measures fear of contact with the virus, personal fear of contracting the virus, and belief that the virus is a public health concern. Sample items included: “I am afraid I will get COVID-19,” “COVID-19 will become a severe and widespread epidemic,” and “I wouldn’t mind being in the same

room with a friend who had COVID-19.” Reliabilities have ranged from .80 to .89 (Bouton et al., 1987).

Open-ended questions. Two questions in the survey were open-ended, providing the participants with a possibility to write their own answers not restricted by any criteria or space. The questions were: a) Why did COVID-19 spread so rapidly in New Zealand? And b) Who is to blame for COVID-19? The answers to both questions ranged from one word (e.g. “Tourism”) to several sentences containing up to 100 words. The analysis of the open-ended questions followed the guidelines of thematic analysis (Braun & Clarke, 2006). Thematic analysis is aimed at identifying common patterns across a dataset, where the responses from different participants are coded and then grouped into several themes based on similar meanings. Braun and Clarke (2006) recommend following the initial coding and identification of themes and sub-themes with continuous re-reading and revising existing themes until the final stages of the analysis and interpretation of findings. As our study is exploratory in nature, we employed a bottom-up thematic analysis, where the codes, categories and themes were driven by the data.

Results and analysis

To explore RQ1, examining to what do New Zealanders assign attribution regarding COVID-19, we identified the following themes: 1) It did not spread rapidly; 2) Slow Government’s response; 3) Borders were not closed in time; 4) People not following the rules; 5) Tourism and overseas visitors; 6) Asians/China; 7) Nature of the virus; 8) Multiple factors (including those above); 9) Factors beyond anyone’s control; 10) Do not know; and 11) Conspiracy/hoax. See Table 4 for a breakdown of themes as to why the virus spread.

For who is to blame for COVID-19, we identified the following themes: 1) China/Asians, including Wuhan, Chinese Government, scientists and Chinese people; 2) Euphemisms for China (or Asians), for example, “animal markets”; 3) Humans/everyone; 4)

Nobody; 5) Irresponsible people and tourists; 6) Political elites; 7) The first person who got it or created it; 8) Nature, including bats, virus, etc.; 9) No point in blaming; 10) Do not know; and 11) Conspiracy. See Table 5 for a breakdown of the themes as to who is to blame for the virus.

Relationship between ITT and blame attribution

In exploring RQ2 connecting ITT and blame attribution, these data demonstrate that on measures of blame, while there is a clear association for New Zealanders between COVID-19 and China both for realistic and symbolic threat, in both measures that threat in the first two quartiles was less than expected (see Tables 6 and 7). Generally speaking, people attributed blame to a higher degree on people in general and more specifically ‘irresponsible’ people, including political elites. However, what was also clear in blame attribution was that more people than expected were unsure of who should be blamed for the spread of COVID-19, suggesting that as an event blame attribution remains ambiguous. Overall, there was a significant difference in the Chi-Squares for symbolic threat was significant ($\chi^2(30) = 48.01$; $p < .05$); however, it was not for realistic threat.

However, when it comes to the question of how New Zealanders explained why the virus spread, there is a clearer level of blame attribution on ‘outsiders’ and the government’s response to the disease (see Tables 6 and 7). These findings would suggest that three of the tests for blame attribution could be met – association between particular groups (i.e., outsiders and the government) and the spread of the disease, a potential belief in a lower level of commitment to action or inauthentic concern about the spread of the disease, and questioning the competence of the government to manage the spread of COVID-19. Yet the overall Chi-square tests were not significant.

Relationship between ITT and fear of COVID-19

In exploring RQ3, pearson correlation analysis revealed symbolic threat was significantly correlated with fear of contacting COVID-19 ($r = .13, p < .05$) and belief that COVID-19 was a risk to public health ($r = .13, p < .05$). Realistic threat was significantly correlated with fear of contacting COVID-19 ($r = .10, p < .05$) and belief that COVID-19 was a risk to public health ($r = .12, p < .05$). Threat (realistic or symbolic) was not significantly correlated with belief that COVID-19 was a risk to one’s personal health.

Discussion

To understand the links between prejudice and blame attribution, this study utilises integrated threat theory (ITT) (Stephan & Stephan, 1996) and identifies four criteria for identifying blame attribution. Prejudice is “thinking ill of others without sufficient warrant” (Allport, 1954, p. 6). Research on prejudice (Allport, 1954; Croucher, 2013; Stephan & Stephan, 1996; Stephan, Stephan, & Gudykunst, 1999) has demonstrated that prejudicial attitudes and behaviours against minorities expose fears and stigma of the ingroup (dominant cultural group) toward the outgroup (minority group, in this case – Asians). One of the explanatory reasons for these attitudes and behaviours is threat perception. Stephan and Stephan (1996) proposed in their integrated threat theory (ITT) that perceptions of threats are a foundation for understanding, explaining, and predicting prejudicial attitudes and discriminatory incidents against minorities groups (Croucher, 2013). Blame attribution reveals four factors that explain how publics attribute blame to groups and organizations – a litmus test – of clear association, low commitment to the issue, competence to solve the problem, and material blame. However, during pandemics like COVID-19, where material blame attribution is ambiguous, there is less clarity about how public stigma towards groups may develop and even the degree to which blame attribution may simply be a reflection of the ambiguity of blame.

One of the purposes of this study was to discover the relationship between fear of

COVID-19 and ITT in New Zealand. Two general findings provide support for ITT.

First, the study showed higher levels of fear of contact with COVID-19 was linked with increased symbolic and realistic threats. Second, the more people believe COVID-19 is a risk to public health, the more symbolic and realistic threats they perceive. Given that COVID-19 is a highly contagious novel disease, it is seen as a threat to society and public health safety. These results support previous studies that ITT constructs can be used to predict prejudice towards individuals/groups of people with serious illness (i.e., HIV/AIDS, cancer, etc.) (Berrenberg et al., 2002; Bustillos & Silván-Ferrero, 2013). In this study, it is possible to suggest that realistic and symbolic threat are applicable constructs to be linked with fear of a contagious disease (i.e., COVID-19). Furthermore, the findings indicate COVID-19 is a stigmatising disease, as fear of contact with COVID-19 and belief that COVID-19 is a risk to public health place a strain on perceptions of economic power, well-being, and way of life imposed by Asians/Chinese during the pandemic.

On the other hand, this study aimed to explore the relationship between blame attribution and prejudice towards Asians/Chinese amid the COVID-19 pandemic in New Zealand. This study attributes the findings to blame ambiguous crises/events when it comes to public perceptions of blame amid a global health crisis and blame attribution on the ‘outsiders’ and government’s responses to the disease regarding why the virus spread quickly. Particularly, results suggest blame attribution stays ambiguous in a crisis (i.e., COVID-19 pandemic) as more participants than expected responded they were unsure of who should be blamed for the spread of COVID-19. Statistically, the result showed realistic threat is linked to blame attribution in the context of the COVID-19 pandemic in New Zealand. Previous studies have indicated that uncertain situations like crises may trigger the attributional activities among individuals (Schwarz, 2012) as publics may have attributions about the responsibility/sense for a crisis (Coombs & Holladay, 1996). This finding supports

previous research on attribution theory in ambiguous crises/events (Diers-Lawson, 2012) and sheds a new light on exploring the ship between blame attribution and ITT in other contexts.

In general, on the assumption that COVID-19 is a highly contagious novel disease and a risk to public health, the fear of contact with COVID-19 is positively linked with symbolic and realistic threats in New Zealand. Furthermore, the study has shown there is a link between realistic threat and blame attribution during the pandemic in New Zealand. However, the blame attribution stays ambiguous as participants were not sure who to blame for the spread of the virus in the context of such a global health crisis in New Zealand.

The findings of this study indicate using ITT as a guideline to predict prejudice in the medical context such as people with serious illnesses. In ambiguous crises/events, it is crucial to explore beyond attribution-based theories to understand public stigma. Perceptions of threat may be linked to blame attribution in a pandemic context. Researchers exploring prejudice and disease have found that when faced with health crises, groups will stigmatise the groups they perceive as threatening their health (Faulkner et al., 2004; Navarette & Fessler, 2006). Such stigmatising has been shown to negatively influence government and community responses to crises (Navarette & Fessler, 2006). Thus, it is critical to understand how groups interact during health/ medical crises, such as pandemics, as such interactions can frame government responses.

Limitations and future research

One of the potential limitations of the study was the use of the scale on fear of HIV/AIDS adapted for COVID-19. While there are similarities between the attitudes towards both diseases, the nature of COVID-19 is more complex, so the fear of COVID-19 may have different nuances and factors compared to fear of HIV/AIDS. This requires attention in terms of interpreting the findings. At the same time, the fear of contact with COVID-19 may drive prejudice towards specific outgroups, like Asians, and contribute to negative stereotypes, in

the same way that fear of HIV/AIDS has contributed to negative stereotyping and prejudice towards specific groups (Croucher et al., 2020). As it is important to understand how fear of COVID-19 leads to prejudice and discrimination, future work should develop a measure for fear of COVID-19. A second potential limitation is that we measured blame attribution via open-ended questions and not quantitatively. While a mixed method study, future research could benefit from measuring all constructs via the same methodological approach. A third potential limitation is that two of the co- authors coded the open-ended responses. An additional independent person coding data could have improved the overall reliability of the qualitative data. A fourth potential limitation is in the presentation of Tables 6–7. When conducting cross-tabs that include multiple themes, it is likely that many cells will have an expected cell size of less than 5. While the presentation of the tables could have excluded these cells, it is more methodologically sound to present the full results for the reader for future analyses, such as for meta-analyses.

Another direction for future research is to look into the difference between the responses to the two open-ended questions in terms of attributing blame to Chinese/Asians. While nearly 39% suggested Chinese/Asians can be blamed for COVID-19, only 2% implicated Asians for the spread of COVID-19. This discrepancy warrants a closer investigation into the attitudes towards Chinese and/or Asians in relation to the COVID-19 pandemic.

In summary, the study findings suggest that by exploring the constructs of ITT framework, prejudice towards minority group (in this case Asians/Chinese in New Zealand) during the global health crisis can be predicted. The exploration of symbolic and realistic threats is a guideline to link with fear of a contagious disease (i.e., COVID-19). The research results also support blame attribution when it comes to the public perceptions of blame amidst an ambiguous crisis/event. Accordingly, this study sheds

light on further discovering the relationship between ITT and blame attribution not only in such public health circumstances but also in other contexts.

References

- Ajzen, I. (2005). *Explaining intentions and behavior: Attitudes, personality, and behavior* (Vol. 2nd). McGraw-Hill Education.
- Allport, G. W. (1954). *The nature of prejudice*. (1954). Addison-Wesley.
- Atwell Seate, A., Ma, R., Chien, H. Y., & Mastro, D. (2018). Cultivating intergroup emotions: An intergroup threat theory approach. *Mass Communication and Society*, 21(2), 178–197. <https://doi.org/10.1080/15205436.2017.1381262>
- Bentley, J. M., Oostman, K. R., & Shah, S. F. A. (2018). We're sorry but it's not our fault: Organizational apologies in ambiguous crisis situations. *Journal of Contingencies and Crisis Management*, 26(1), 138-149. <https://doi.org/10.1111/1468-5973.12169>
- Berrenberg, J. L. (1989). Attitudes towards cancer: A test of three models. *Psychology and Health: An international Journal*, 3, 233-243.
- Berrenberg, J. L., Finlay, K. A., Stephan, W. G., & Stephan, C. (2002). Prejudice toward people with cancer or AIDS: Applying the integrated threat model. *Journal of Applied Biobehavioral Research*, 7, 75-86.
- Brown, K. A., & Ki, E.-J. (2013). Developing a valid and reliable measure of organizational crisis responsibility. *Journalism & Mass Communication Quarterly*, 90(2), 363-384. <https://doi.org/10.1177/1077699013482911>
- Bundy, J., & Pfarrer, M. D. (2015). A burden of responsibility: The role of social approval at the onset of a crisis. *Academy of Management Review*, 40(3), 345-369. <https://dx.doi.org/10.5465/amr.2013.0027>
- Bustillos, A., & Silván-Ferrero, M. (2013). Attitudes toward peers with physical disabilities at high school: Applying the integrated threat theory. *Rehabilitation Counseling f*
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62-83.

- Claeys, A.-S., & Cauberghe, V. (2015). The role of a favorable pre-crisis reputation in protecting organizations during crises. *Public Relations Review*, 41(1), 64-71.
<https://doi.org/10.1016/j.pubrev.2014.10.013>
- Collins, S. (26, March 2020). Covid 19 coronavirus: Woman challenges anti-Chinese gesture in Mission Bay. *NZ Herald*. <https://www.nzherald.co.nz/nz/covid-19-coronavirus-woman-challenges-anti-chinese-gesture-in-mission-bay/QM5RHKGLTK2OG37IVPXDHTJYUU/>
- Coombs, W. T. (2007). Attribution theory as a guide for post-crisis communication research. *Public Relations Review*, 33(2), 135-139.
- Coombs, W. T., & Holladay, S. J. (1996). Communication and attributions in a crisis: An experimental study in crisis communication. *Journal of Public Relations Research*, 8(4), 279-295.
- Croucher, S. M. (2013). Integrated threat theory and acceptance of immigrant assimilation: An analysis of Muslim immigration in Western Europe. *Communication Monographs*, 80, 46-62. <https://doi.org/10.1080/03637751.2012.739704>
- Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice toward Asian-Americans in the Covid-19 Pandemic: The effects of social media use in the United States. *Frontiers in Health Communication*. <https://doi.org/10.3389/fcomm.2020.00039>
- Curşeu, P. L., Stoop, R., & Schalk, R. (2007). Prejudice toward immigrant workers among Dutch employees: Integrated threat theory revisited. *European Journal of Social Psychology*, 37(1), 125-140. <https://doi.org/10.1002/ejsp.331>
- De Bruycker, I., & Walgrave, S. (2014). How a new issue becomes an owned issue. Media coverage and the financial crisis in Belgium (2008–2009). *International Journal of Public Opinion Research*, 26(1), 86-97.

de Fatima Oliveira, M. (2013). Multicultural environments and their challenges to crisis communication. *Journal of Business Communication*, 0021943613487070.

<https://doi.org/10.1177/0021943613487070>

Diers, A. R. (2012). Reconstructing stakeholder relationships using 'corporate social responsibility' as a response strategy to cases of corporate irresponsibility: The case of the 2010 BP spill in the Gulf of Mexico. In R. Tench, W. Sun, & B. Jones (Eds.), *Corporate Social Irresponsibility: A Challenging Concept* (Vol. 4, pp. 177-206). Emerald.

Diers-Lawson, A. (2017). Crisis Communication Oxford Research Encyclopedia of Communication: Oxford University Press.

<https://doi.org/10.1093/acrefore/9780190228613.013.397>

Esses, V. M., Haddock, G., & Zanna, M. P. (1993). Values, stereotypes, and emotions as determinants of intergroup attitudes. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition and stereotyping: Interactive processes in group perception* (pp. 137-166). Academic Press.

González, K. V., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, 47, 667-685. <https://doi.org/10.1348/014466608X284443>

Hamilton, D. L., Sherman, S. J., & Ruvolo, C. M. (1990). Stereotype-based expectancies: Effects on information processing and social behavior. *Journal of Social Issues*, 46(2), 35–60. <https://doi.org/10.1111/j.1540-4560.1990.tb01922.x>

<https://coronavirus.jhu.edu/map.html>

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55. <https://doi.org/10.1080/10705519909540118>

- Huang, Y. (2008). Trust and relational commitment in corporate crises: The effects of crisis communicative strategy and form of crisis response. *Journal of Public Relations Research, 20*(297-327).
- Hyvärinen, J., & Vos, M. (2015). Developing a conceptual framework for investigating communication supporting community resilience. *Societies, 5*(3), 583-597.
<https://doi.org/10.3390/soc5030583>
- Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived outgroup variability, and outgroup attitude: An integrative model. *Personality and Social Psychology Bulletin, 19*(6), 700-710.
<https://doi.org/10.1177/014616729319600>
- Jin, Y., Liu, B. F., Anagondahalli, D., & Austin, L. (2014). Scale development for measuring publics' emotions in organizational crises. *Public Relations Review, 40*(3), 509-518.
<http://dx.doi.org/10.1016/j.pubrev.2014.04.007>
- Johns Hopkins University Coronavirus Resource Center. (updated daily). Retrieved from:
- Kim, J., Kim, H. J., & Cameron, G. T. (2009). Making nice may not matter: The interplay of crisis type, response type and crisis issue on perceived organizational responsibility. *Public Relations Review, 35*(1), 86-88.
- Kim, S. (2013). Corporate ability or virtue? Relative effectiveness of prior corporate associations in times of crisis. *International Journal of Strategic Communication, 7*(4), 241-256. <https://doi.org/10.1080/1553118X.2013.824886>
- Kim, S. (2014). The role of prior expectancies and relational satisfaction in crisis. *Journalism & Mass Communication Quarterly, 91*(1), 139-158.
<https://doi.org/10.1177/1077699013514413>

- Lacey, R., Kennett-Hensel, P. A., & Manolis, C. (2015). Is corporate social responsibility a motivator or hygiene factor? Insights into its bivalent nature. *Journal of the Academy of Marketing Science*, 42(3). <https://doi.org/10.1007/s11747-014-0390-9>
- Lee, J., & Yadav, M. (2020, May 21). The rise of anti-Asian hate in the wake of Covid-19. *Social Science Research Council*. <https://items.ssrc.org/covid-19-and-the-social-sciences/the-rise-of-anti-asian-hate-in-the-wake-of-covid-19/>
- Ma, L. (2018). How to turn your friends into enemies: Causes and outcomes of customers' sense of betrayal in crisis communication. *Public Relations Review*, 44(3), 374-384. <https://doi.org/10.1016/j.pubrev.2018.04.009>
- McDonald, L. M., & Cokley, J. (2013). Prepare for anger, look for love: A ready reckoner for crisis scenario planners. *PRism*, 10(1), 1-11.
- Mcguire, E. (2020, April 5). Anti-Asian hate continues to spread online amid COVID-19 pandemic. *Aljazeera*. Retrieved from <https://www.aljazeera.com/news/2020/04/anti-asian-hate-continues-spread-online-covid-19-pandemic-200405063015286.html>
- Mou, Y., & Lin, C. A. (2014). Communicating food safety via the social media: The role of knowledge and emotions on risk perception and prevention. *Science Communication*, 36(5), 593-616. <https://doi.org/10.1177/1075547014549480>
- Ping, Q., Ishaq, M., & Li, C. (2015). Product harm crisis, attribution of blame and decision making: An insight from the past. *Journal of Applied Environmental and Biological Sciences*, 5(5), 35-44.
- Ramsay, J. E., & Pang, J. S. (2017). Anti-immigrant prejudice in rising East Asia: A stereotype content and integrated threat analysis. *Political Psychology*, 38(2), 227–244. <https://doi.org/10.1111/pops.12312>
- Rosati, P., Deeney, P., Cummins, M., Van der Werff, L., & Lynn, T. (2019). Social media and stock price reaction to data breach announcements: Evidence from US listed

companies. *Research in International Business and Finance*, 47, 458-469.

<https://doi.org/10.1016/j.ribaf.2018.09.007>

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the health belief model. *Health Education and Behavior*, 15(2), 175-183.

<https://doi.org/10.1177/109019818801500203>

Schwartz, S., & Ben David, A. (1976). Responsibility and helping in an emergency: Effects of blame, ability and denial of responsibility. *Sociometry*, 406-415.

Schwarz, A. (2008). Covariation-based causal attributions during organizational crises: Suggestions for extending Situational Crisis Communication Theory (SCCT).

International Journal of Strategic Communication, 2(1), 31-53.

Schwarz, A. (2012). How publics use social media to respond to blame games in crisis communication: The Love Parade tragedy in Duisburg 2010. *Public Relations*

Review, 38(3), 430-437. <https://doi.org/10.1016/j.pubrev.2012.01.009>

Shahrigian, S. (2020, March 2). New York state assembly staffer spreads xenophobic message amid coronavirus fears. *New York Daily News*.

<https://www.nydailynews.com/news/politics/ny-xenophobia-coronavirus-mathylde-frontus-20200302-inop2dq4bvdxtdsqty573vji-story.html>

Sohn, Y. J., & Lariscy, R. W. (2014). Understanding reputational crisis: Definition, properties, and consequences. *Journal of Public Relations Research*, 26(1), 23-43.

<https://doi.org/10.1080/1062726X.2013.795865>

Spencer-Rodgers, J., & McGovern, T. (2002). Attitudes toward the culturally different: The role of intercultural communication barriers, affective responses, consensual stereotypes, and perceived threat. *International Journal of Intercultural Relations*, 26(6), 609–631. [https://doi.org/10.1016/S0147-1767\(02\)00038-X](https://doi.org/10.1016/S0147-1767(02)00038-X)

- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41(3), 157-176. <https://doi.org/10.1111/j.1540-4560.1985.tb01134.x>
- Stephan, W. G., & Stephan, C. W. (1993). Cognition and affect in stereotyping: Parallel interactive networks. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 111–136). Academic Press.
- Stephan, W. G., & Stephan, C. W. (1996). Predicting prejudice. *International Journal of Intercultural Relations*, 20, 409–426.
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice in S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 225-246). Lawrence Erlbaum.
- Stephan, W. G., Stephan, C. W., & Gudykunst, W. B. (1999). Anxiety in intergroup relations: A comparison of anxiety/uncertainty management theory and integrated threat theory. *International Journal of Intercultural Relations*, 23, 613-628.
- Tan, L. (24, June 2020). Covid-19 coronavirus: Prejudice against Asians in NZ lower than elsewhere study finds. *NZ Herald*. Retrieved from <https://www.nzherald.co.nz/nz/covid-19-coronavirus-prejudice-against-asians-in-nz-lower-than-elsewhere-study-finds/VDMFZCMJ55JUJWFEFX62Z63G4/>
- Tausch, N., Hewstone, M., & Roy, R. The relationships between contact, status and prejudice: An integrated threat theory analysis of Hindu-Muslim relations in India. *Journal of Community and Applied Social Psychology*, 19(2), 83-94. <https://doi.org/10.1002/casp.984>
- Wang, P., & Park, S.-A. (2017). Communication in cybersecurity: A public communication model for business data breach incident handling. *Issues in Information Systems*, 18(2), 136-147.

- Ward, C., Szabo, A., & Stuart, J. (2016). Prejudice against immigrants in multicultural societies. In C. Sibley & F. Barlow (Eds.), *The Cambridge Handbook of the Psychology of Prejudice* (pp. 413-437). Cambridge University Press.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548.
- Weiner, B. (2000). Attributional thoughts about consumer behavior. *Journal of Consumer Research*, 27, 382-387.
- Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*: Psychology Press.
- Yum, J.-Y., & Jeong, S.-H. (2014). Examining the public’s responses to crisis communication from the perspective of three models of attribution. *Journal of Business and Technical Communication*, 29, 159-183.
<https://doi.org/10.1177/1050651914560570>
- Ziems, C., He, B., Soni, S., & Kumar, S. (2020). Racism is a virus: Anti-Asian hate and counter hate in social media during the COVID-19 crisis. arXiv preprint. arXiv:2005.12423. <https://arxiv.org/abs/2005.12423>

Table 1*Participant Demographics*

Variable	<i>n</i>
Age	
18-19 years of age	24
20-29 years of age	76
30-39 years of age	70
40-49 years of age	33
50-59 years of age	36
60-69 years of age	43
70 and above	25
Sex	
Male	141
Female	166
Political Affiliation	
National	37
Labour	80
NZ First	6
Green	6
ACT	4
Conservative	5
Did not Provide	169
Highest Educational Level	
High School	139
2-year degree	44
4-year degree	85
Master's	33
Doctorate or Equivalent	6

Table 2*Means, Standard Deviations, Correlations, and Reliabilities of Study Variables*

Variable	<i>M</i>	<i>SD</i>	α	(1)	(2)	(3)	(4)	(5)
(1) Symbolic Threat	3.55	1.15	.84	-				
(2) Realistic Threat	3.33	1.19	.85	.78**	-			
(3) COVID Contact Fear	2.85	.37	.78	.13*	.10*	-		
(4) COVID Public Health Fear	2.80	.68	.79	.12*	.12*	.03	-	
(5) COVID Personal Health Fear	3.27	.59	.81	.01	.03	.04	.22**	-

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

Table 3*Fit Indices and Dropped Items for Study Measures*

Measure	CFI	SRMR	RMSEA	χ^2	Deleted Items
Symbolic Threat	.98	.04	.04	$\chi^2(55) = 105.24, p = .05$	None
Realistic Threat	.97	.05	.05	$\chi^2(55) = 101.29, p = .05$	None
Fear of COVID-19	.98	.05	.07	$\chi^2(24) = 44.19, p < .0001$	None

Table 4*Results of Why the Virus Spread in New Zealand*

Theme	<i>n</i>	%
Tourism	79	25.7%
People Not following Rules	43	14%
Borders not Closed Soon Enough	37	12.1%
Government Response	37	12.1%
Virus did not Spread	37	12.1%
Viruses Spread	24	7.8%
Do not Know	17	5.5%
Factors out of our Control	15	4.9%
Many reasons	9	2.9%
Asians	6	2%
It's a Conspiracy	3	1%

Table 5*Results of Who/What is to Blame for the Virus in New Zealand*

Theme	<i>n</i>	%
Asians	119	38.8%
Nobody is to blame	51	16.6%
Do not know	27	8.8%
Irresponsible people (tourists)	23	7.5%
Political elites/government	21	6.8%
People in general	19	6.2%
No reason to blame anyone	15	4.9%
Nature	14	4.6%
Euphemism for Asian	11	3.6%
The first person who got it	5	1.6%
It's a conspiracy	2	.7%

Table 6*Results of Crosstabs for Blame Attribution and Symbolic, Realistic Threat*

Theme	Count/Expected	S1	S2	S3	S4	R1	R2	R3	R4
China	Count	30	24	35	30	27	24	33	35
	Expected Count	32.9	26.7	29.5	29.8	29.8	29.8	29.8	29.5
Euphemism for China	Count	<5	<5	5	<5	<5	<5	<5	<5
	Expected Count	3.0	2.5	2.7	2.8	2.8	2.8	2.8	2.7
Humans	Count	6	<5	<5	6	6	<5	<5	7
	Expected Count	5.3	4.3	4.7	4.8	4.8	4.8	4.8	4.7
Nobody	Count	11	14	11	15	11	16	11	13
	Expected Count	14.1	11.5	12.6	12.8	12.8	12.8	12.8	12.6
Irresponsible people	Count	5	10	6	<5	5	10	7	<5
	Expected Count	6.4	5.2	5.7	5.8	5.8	5.8	5.8	5.7
Political elites	Count	8	<5	<5	6	8	<5	5	5
	Expected Count	5.8	4.7	5.2	6	5.3	5.3	5.3	5.2
First to spread	Count	<5	<5	<5	<5	<5	<5	<5	<5
	Expected Count	1.4	1.1	1.2	1.3	1.3	1.3	1.3	1.2
Nature	Count	7	<5	<5	<5	<5	<5	5	<5
	Expected Count	3.9	3.1	3.5	3.5	3.5	3.5	3.5	3.5
No blame	Count	<5	<5	7	6	<5	<5	5	<5
	Expected Count	4.2	3.4	3.7	3.8	3.8	3.8	3.8	3.7
Don't know	Count	11	7	<5	7	8	6	6	7
	Expected Count	7.5	6.1	6.7	6.8	6.8	6.8	6.8	7
It's a hoax	Count	<5	<5	<5	<5	<5	<5	<5	<5
	Expected Count	<5	<5	<5	<5	<5	<5	<5	<5

*S = Symbolic Threat, R = Realistic Threat

Table 7*Results of Crosstabs for Explaining Spread and Symbolic, Realistic Threat*

Theme	Count/Expected	S1	S2	S3	S4	R1	R2	R3	R4
It did not	Count	6	10	10	11	<5	13	8	12
	Expected Count	10.2	8.3	9.2	9.3	9.3	9.3	9.3	9.2
Gov’t response	Count	16	<5	5	12	11	6	8	12
	Expected Count	10.2	8.3	9.2	9.3	9.3	9.3	9.3	9.2
Open borders	Count	16	7	6	8	13	10	5	9
	Expected Count	10.2	8.3	9.2	9.3	9.3	9.3	9.3	9.2
Not following rules	Count	11	10	12	10	9	15	12	7
	Expected Count	11.9	9.7	10.6	10.8	10.8	10.8	10.8	10.6
Tourism	Count	21	19	19	20	24	15	18	22
	Expected Count	21.9	17.8	19.6	19.8	19.8	19.8	19.8	19.6
Asians	Count	<5	<5	<5	<5	<5	<5	<5	<5
	Expected Count	1.7	1.3	1.5	1.5	1.5	1.5	1.5	1.5
It’s a virus	Count	5	<5	10	7	<5	7	9	5
	Expected Count	6.6	5.4	5.9	6.0	6.0	6.0	6.0	5.8
Many reasons	Count	<5	<5	<5	<5	<5	<5	<5	<5
	Expected Count	2.5	2.0	2.2	2.3	2.3	2.3	2.3	2.2
Out of our control	Count	<5	5	8	<5	<5	<5	8	<5
	Expected Count	4.2	3.4	3.7	3.8	3.8	3.8	3.8	3.7
Don’t know	Count	6	6	<5	<5	6	<5	<5	<5
	Expected Count	4.7	3.8	4.2	4.3	4.3	4.3	4.3	4.2
Virus is a Hoax	Count	<5	<5	<5	<5	<5	<5	<5	<5
	Expected Count	<5	<5	<5	<5	<5	<5	<5	<5

*S = Symbolic Threat, R = Realistic Threat

Appendix D

Integrated threat theory

DRC 16



STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Thao Thanh Thi Nguyen
Name/title of Primary Supervisor:	Professor Stephen Croucher
In which chapter is the manuscript /published work:	Appendix D
Please select one of the following three options:	
<input checked="" type="radio"/> The manuscript/published work is published or in press <ul style="list-style-type: none"> Please provide the full reference of the Research Output: Nguyen, T. (2024 in press). Integrated threat theory. In Croucher, S. M., & Nshom, E. (Eds.). Handbook of Communication and Prejudice Research. Edward Elgar Publishing. 	
<input type="radio"/> The manuscript is currently under review for publication – please indicate: <ul style="list-style-type: none"> The name of the journal: The percentage of the manuscript/published work that was contributed by the candidate: Describe the contribution that the candidate has made to the manuscript/published work: The candidate was the sole author on this manuscript. 	
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Date:	04-Nov-2022
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There has been a significant interest in prejudice throughout the history of social sciences in general and intergroup communication in particular. Allport defined intergroup prejudice as a group of negative emotions and irrational beliefs toward outgroup individuals without any sufficient evidence in 1954. Following Allport's direction, Stephan and Stephan introduced and developed integrated threat theory (ITT) in early 1990s to study prejudice. ITT has become a theoretical framework for thousands of empirical papers to study this social problem in various contexts since then. This chapter is an overview how ITT, followed by a brief history of intergroup communication, has been used as a guideline to apprehend, understand, and predict prejudice since it was first established.