CONTEXTUALIZING THE BOGARDUS SOCIAL DISTANCE SCALE: A CASE STUDY IN SABAH, MALAYSIA

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ABSTRACT

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Since Park introduced the concept of social distance in 1924, a century ago, it has become a widely used framework for understanding intergroup relationships, not only in the United States but also globally. Over the years, the concept has evolved alongside the instruments used to measure it. Notably, the Bogardus Social Distance Scale (1925) remains foundational, although it has undergone numerous adaptations, including integration with Likert-type scales, to enhance its applicability across diverse contexts. However, in the Malaysian context, particularly in the state of Sabah, the scale remains limited in capturing the nuanced dynamics of ethnic and religious relationships. Studies conducted in 2007, 2008, and 2021 that applied the Bogardus scale revealed its insufficiency in reflecting local social realities. To address this gap, this study aims to enhance the applicability of the Bogardus scale by identifying culturally relevant items specific to Sabah. A qualitative synthesis of 71 academic papers was conducted, resulting in the identification of 21 additional measurement items suited to the Sabah context. Furthermore, the inclusion of a "festival" item is proposed to reflect a critical dimension of intergroup social engagement. This article presents both theoretical and practical advancements in the measurement of social distance by offering an expanded scale tailored to multicultural societies. The findings have potential applications in other pluralistic societies worldwide.

Keywords: Social Distance; Bogardus Scale; ethnic relations; Sabah; Malaysia; scale adaptation; multiculturalism

1. INTRODUCTION

The concept of social distance has long served as a key analytical lens for understanding the dynamics of intergroup relations. Originating from Park's (1924) early theorization of social interaction and further operationalized by Bogardus (1925), the social distance perspective explains the varying degrees of closeness, acceptance, and relational boundaries that shape interactions between individuals and groups in society. Over time, the concept has been widely applied to assess attitudes toward ethnic and religious groups, migrants, and even individuals whose lifestyles are perceived as unconventional such as gay and lesbian communities. Contemporary scholars such as López (2021) and Karakayali (2017), reaffirm that social relationships

inherently involve elements of nearness and distance, expressed through feelings of affinity, estrangement, commonality, or difference.

Despite its extensive global application, research on social distance remains limited in the Malaysian context, particularly in Sabah. This gap is significant given Sabah's complex socio-political landscape, where inter-ethnic relations intersect with ongoing concerns such as political contestation, undocumented immigrants, social inequality, and state-federal tensions linked to autonomy rights and the Malaysia Agreement 1963. These issues are further compounded by Sabah's heterogeneous demographic composition, comprising 33 recognized ethnic groups, and the growing influence of ethnic and religious sentiments amplified through social media. Although existing scholarship highlights Sabah's long-standing reputation for tolerance and harmonious coexistence (Lokin et al., 2022; Sintang et al., 2019; Mariappan & Porodong, 2012), these conditions are increasingly vulnerable to strain. History has shown that interethnic relations must be carefully maintained to prevent conflicts such as the racial riots of 13 May 1969. Scholarly works on Malaysian ethnic politics (Mariappan, 2007; Lokin et al., 2022) have long noted that tensions often arise when demographic, economic, and political grievances intersect. Therefore, the discussion in this article draws upon empirical and historical literature to contextualize Sabah's unique dynamics, without implying direct equivalence or forecasting conflict.

Considering these complexities, a nuanced understanding of social distance is essential for assessing the quality of intergroup relations in Sabah. While Malaysia's National Unity Policy provides a framework for promoting unity, many initiatives continue to emphasize economic development as the primary pathway to cohesion. Although such efforts are important, they require stronger integration of social and cultural dimensions that capture lived realities on the ground. In this regard, the social distance perspective offers a valuable analytical tool for identifying relational patterns, diagnosing areas of tension, and evaluating the effectiveness of unity-based programs. Its application can serve as a monitoring mechanism for policymakers, particularly within the Department of National Unity and Integration, to ensure that interventions remain relevant, targeted, and sensitive to local dynamics.

Given these considerations, this article aims to clarify and extend the theoretical grounding of the social distance concept and demonstrate its applicability to the context of Sabah. By doing so, the study contributes to a more comprehensive understanding of intergroup relations in the state and offers insights that can inform improved policy design and more inclusive practices in managing ethnic relations in Malaysia. Therefore, this study aims to develop a contextually relevant extension of the Bogardus Social Distance Scale tailored specifically for Sabah's multicultural and multi-religious social landscape.

2. RESEARCH METHODOLOGY

This article employs a literature-based analytical and synthesis approach, drawing entirely on past findings and secondary data, including theses, journal articles, books, and other scholarly resources. To enhance analytical clarity, the study applies a thematic-historical analytical technique, in which the evolution of social distance theory is examined chronologically while themes related to intergroup relations are synthesized across sources.

The review incorporates theoretical contributions and empirical insights from both local and international scholars. These materials form the conceptual backbone of the article, particularly in tracing how the social distance framework has been interpreted, adapted, and transformed in understanding relationships between social groups. This analytical approach enables the article to connect historical foundations with contemporary applications, especially within the context of Sabah and, more broadly, Malaysia. The decision to analyze literature spanning from 1924 to 2024 is a deliberate methodological choice, allowing the study to capture the full trajectory of the theory, from its classical origins to its latest developments.

Figure 1 outlines the procedures used for collecting and selecting the literature. The search process relied primarily on Google Scholar, a widely used academic database providing access to reliable, publicly accessible scholarly materials. Keywords such as "social distance," "Bogardus scale," "intergroup relations," and "tolerance" guided the search strategy. A total of 71 academic works were selected based on their relevance to theoretical development, methodological insights, and empirical relevance to the Malaysian and Sabah contexts. To ensure methodological transparency, the selection of these works followed explicit inclusion and exclusion criteria. The inclusion criteria comprised peer-reviewed status, conceptual relevance to social distance theory and empirical significance to Malaysia, Sabah, or comparable contexts. Only materials written in English or Malay and accessible through Google Scholar were considered. Non-scholarly sources, including opinion pieces, news articles, and blog entries, as well as duplicate records and works lacking methodological clarity, were excluded. As Google Scholar offers limited filtering functions, the literature was manually screened using year ranges, keyword relevance and the suitability of titles and abstracts, to ensure that only high-quality

and directly relevant materials were retained. While the review prioritized contemporary studies—particularly those published in the last five years—classical works were also included to ensure conceptual continuity and a provide comprehensive understanding of the theory's evolution.
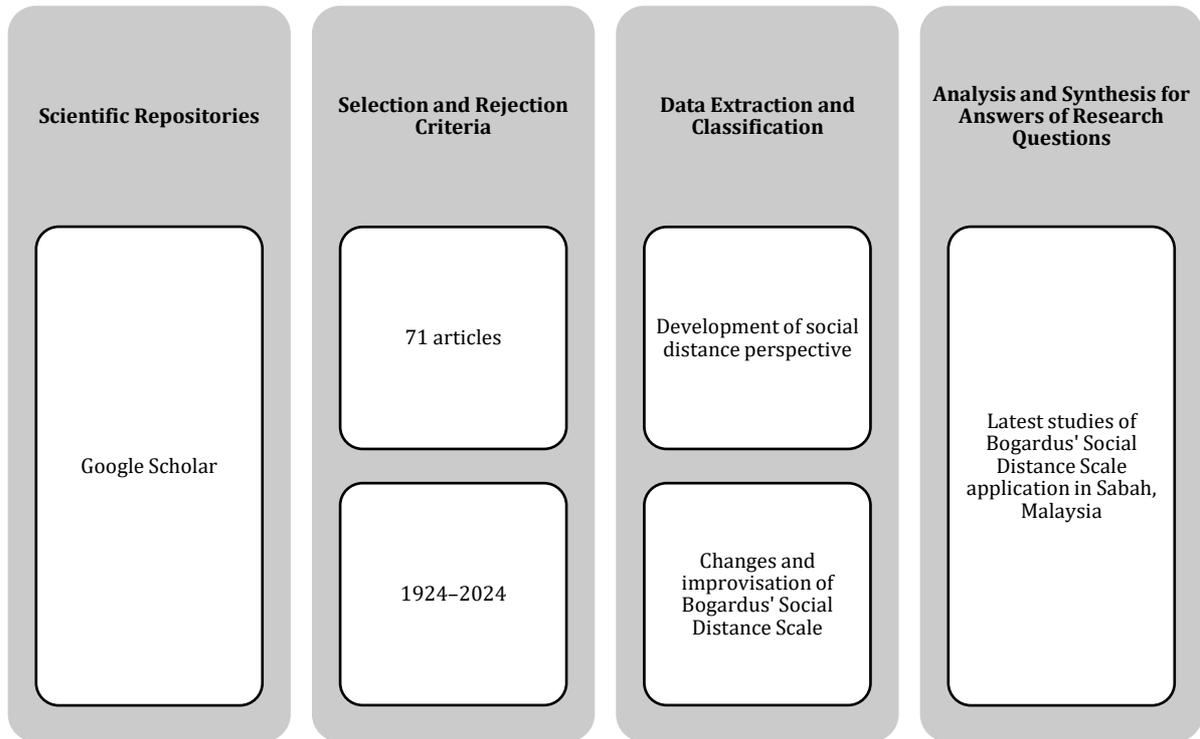
Scientific Repositories	Selection and Rejection Criteria	Data Extraction and Classification	Analysis and Synthesis for Answers of Research Questions
Google Scholar	71 articles 1924–2024	Development of social distance perspective Changes and improvisation of Bogardus' Social Distance Scale	Latest studies of Bogardus' Social Distance Scale application in Sabah, Malaysia

Figure 1: Research methodology flow chart

3. SOCIAL PERSPECTIVE

The concept of social distance has long been used to indicate tolerance in society. Bogardus' Social Distance Scale (1925) is the most widely recognized measure and has become a foundational tool for many researchers in the field of ethnic relation in explaining societal tolerance. According to Sahal et al. (2018):

> The study of tolerance has been widely practiced, one of which is commonly used as a quantitative model of research coming from Bogardus in 1925. The study was then replicated in 1946, 1956, 1966, and 2005. The focus of the study was on measuring the extent to which a person's acceptance of others which has different social and cultural characteristics with itself [sic]. Bogardus concept is then popularly called Social Distance Scale which is then widely used as a measure of social tolerance. (Sahal et al., 2018, p. 119)

The concept of social distance has existed since 1924 and was introduced by Park to understand social relations within society. As quoted in Park (1924):

> The concept of "distance" as applied to human, as distinguished from special relations, has come into use among sociologists, in an attempt to reduce to something like measurable terms the grades and degrees of understanding and intimacy which characterize personal and social relations generally. We frequently say of A that he is very "close" to B, but that C is distant and reserved, but that D, on the other hand, is open-minded, sympathetic, understanding, and generally "easy to meet." All these expressions describe and to some extent measure "social distance." (Park, 1924, para. 1 & 2)

Although the concept of social distance was popularized by Bogardus, its originator was the sociologist Robert Ezra Park (Wark & Galliher, 2007). Bogardus later developed and popularized the concept further, leading to the creation of the first social distance scale. Bogardus (1925) described social distance in terms of grades and degrees to understand the intimacy and closeness formed in social relationships. His work significantly advanced research on social relations, particularly in understanding interactions among groups differing in racial status, ethnic, culture, and religion, both in the United States and globally. Social distance

generally provides a framework for understanding societal relations. Higher social distance indicates lower levels of tolerance, which may foster increased prejudice within society.

The concept of social distance in understanding social relationships has continued to develop through critiques by scholars such as Sorokin (1927), Ossowski (1963), and Bourdieu (1984). Sorokin (1927) asserted that social distance among individuals in society is based on differences such as family status, citizenship, religion, ethnic group, occupation, political affiliation, economy status, race, and others (Bottero, 2005). Levels of social distance among individuals may persist when they differ ethnically, but rapport can be established if they share other similarities such as belonging to the same religious group (Bottero, 2005).
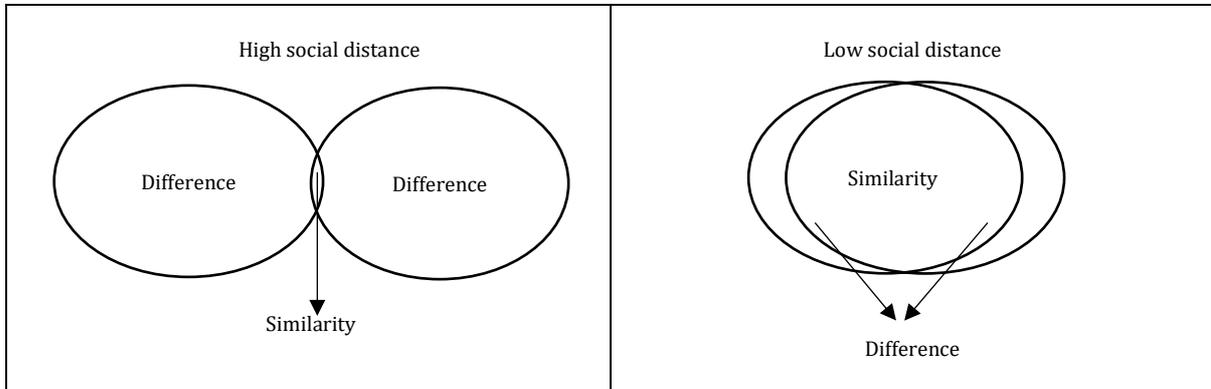

Figure 2: Social distance based on identity differences

Ossowski (1963) described social distance as a concept used to explain the relationships among social groups that differ in terms of hierarchy and stratification. Differences among members of society can generate social distance when they are perceived in terms of hierarchical or unequal dimensions. These differences may include status, reputation, wealth, income, occupation, education, skills, gender, race, ethnicity, age, disability, religion, and other social characteristics (Bottero, 2005).

Several approaches have been introduced by sociologists and anthropologists to understand social distance in society. Many of these described social distance as a relative individual position within the social structure and as an illustration of segregation among groups, determined by specific characteristics such as wealth, illustrating differences in economic status (Bottero, 2005).
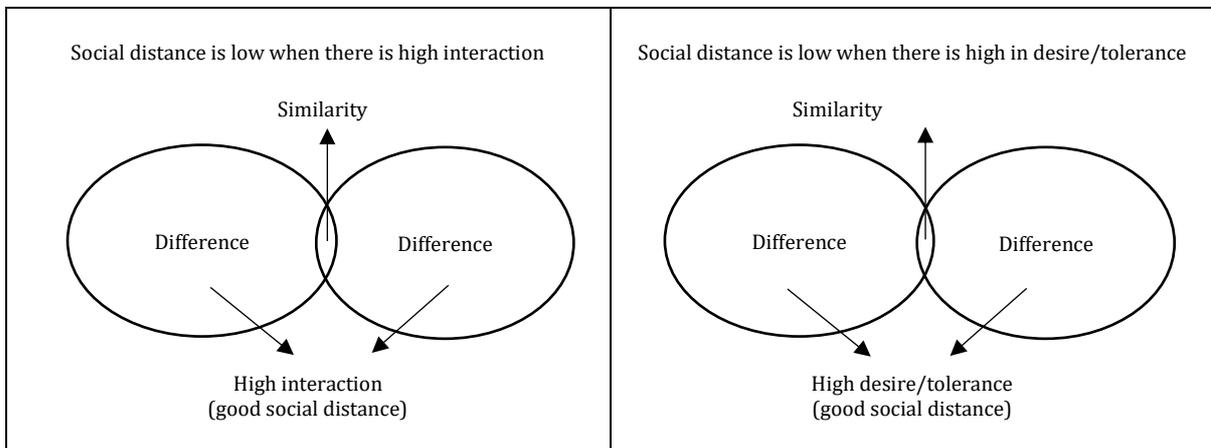

Figure 3: Social distance based on interaction and acceptance

Identity differences (Figure 2), as well as interaction and distance (Figure 3) can lead to either a low or high level.

Bottero (2005) noted that social distance among members of ethnic groups in society tends to be greater when they rarely work together. This suggests that individual or social groups perceived as socially different can generate social distance based on the frequency and nature of their interactions. Group members may differ significantly in terms of class, status, race, religion, and other characteristics, but social relationships can become more intimate when these groups form alternative types of connections, such as friendships and

marriages (Bottero, 2005). Bogardus (1925), as a pioneering scholar who introduced a method for measuring social distance, further examined social distance in society by emphasizing on individual openness toward differences in terms of ethnicity, religion, and nation. This has been measured via intimacy level in various forms of relationship such as neighbor, friend, marriage, colleague and others (Bottero, 2005). Bordieu (1984) argued that social distance in society is not determined solely by similarities or differences, such as ethnicity, religion, class or status, but by similarities and differences in individuals' desires and dispositions. This perspective emphasizes that relationships between individuals who share similar desires tend to be more intimate than those between individuals or groups with different desires. Differences in desires between two groups or individuals, therefore, generate social difference (Bordieu, 1984; Bottero, 2005).

The relationship between social distance theory and the current plurality framework in Southeast Asia can be observed through the efforts of many ASEAN nations to assess levels of social integration, tolerance and cross-ethnic acceptance, which align with cultural and religious harmony—central to ASEAN's collective identity. The multi-ethnic composition of residents in several ASEAN countries has sparked numerous ethnic and religion conflicts, some of which have been violent. Malaysia, as noted earlier, experienced the 13 May 1969 tragedy; Indonesia has recorded a series of ethnic and religious conflicts; and southern Thailand, southern Philippines and Myanmar have also faced prolonged conflicts involving ethnic and religious groups. The ability of the government to manage social harmony is crucial for ensuring political and economic stability. In this context, social distance measurement provides a suitable empirical approach for understanding the relationships among groups in society. This method is not only relevant globally but also particularly significant in ASEAN countries, which are rich in cultural plurality and diversity.

Beyond the classical Bogardus approach, this research is also informed by contemporary developments in social distance theory, which differentiate between affective social distance and normative social distance. These distinctions explain that social distance can arise from individual emotional reactions or be influenced by norms and social pressure toward other groups (Sibley & Duckitt, 2008; Pettigrew & Tropp, 2011). This perspective enables social distance to be measured holistically, taking into account not only the emotional dimension and interpersonal comfort but also the normative and social trajectories that influence assessment of other groups. To strengthen the theoretical foundation of this research, the conceptual framework integrates Intergroup Contact Theory (Allport, 1954), Social Identity Theory (Tajfel & Turner, 1979) and Intergroup Threat Theory (Stephan & Stephan, 2000). Collectively, these theories explain cross-group interactions, the formation of social identities and threat perceptions—both symbolic and realistic—that affect the development and degree of social distance among students from various ethnic backgrounds. The integration of these theories provides a robust analytical foundation for understanding relationship dynamics among students in a plural society such as Sabah.

Park (1924) introduced the concept of social distance, which has served as a foundational framework for understanding relationships among groups. The social distance measurement scale developed by Bogardus in 1925 has been used in United States and other countries up to the present. Over time, this scale has undergone recalibration, including the addition and removal of items from the original seven levels to suit the study's population and the cultural context of different societies (Lakshminarayana, 1975; Kass, 2008; Ab Rahman et al., 2011; Tamring, 2021). Furthermore, the scale has been expanded through the integration of the Bogardus and Likert scales, enabling a more flexible measurement and widespread application by scholars worldwide (Mariappan & Tamring, 2007; Tamring, 2008, 2021; Mather et al., 2017; Belakovsky, 2024).

4. BOGARDUS' SOCIAL DISTANCE MEASUREMENT

Bogardus (1925) introduced a social distance measurement scale comprising seven levels, designed to assess individual's acceptance of others across various relationship dimensions. He implemented this scale through questions directed at individuals, which explored their acceptance of others with distinct identities. For example, the scale could measure the acceptance of an individual towards relationship acceptance among race (Table 1).

Table 1: Example of social distance scale application toward relationship acceptance among race

	Choose one from the scale to represent your acceptance						
Race	Getting married	Be a friend	Be a neighbour	Be a colleague	Accept the individual to stay in this country	Accept the individual as a tourist	Cannot accept the individual's presence to this country
Malay							
Chinese							
Indian							
Murut							
Bajau							

The social distance scale is analyzed using the scores obtained. According to Bogardus' social distance measurement, lower scores indicate closer social distance, or greater acceptance. These values are determined by respondents' selected answers, with the following scoring system: getting married (1 mark), being a friend (2 marks), being a neighbor (3 marks), being a colleague (4 marks), accepting the individual to stay in this country (5 marks), accepting the individual as a tourist (6 marks), and being unable to accept the individual's presence (7 marks).

5. DEVELOPMENT AND TRANSFORMATION OF THE SOCIAL DISTANCE APPROACH

Concepts of social distance have continued to evolve through their application by scholars, both in terms of theoretical understanding and measurement. In recent years, several scholars have introduced changes to the methods of measuring social distance. Originally, Bogardus' Social Distance Scale comprised seven items, which also represented seven levels of tolerance: acceptance to marry, become a friend, become a neighbor, become a colleague, share citizenship, accept as a tourist, and total rejection of presence. These were referred to as levels of acceptance. Following the subsequent transformations, the seven items listed by Bogardus are no longer treated as fixed acceptance level; instead, respondents indicate their acceptance of each item using a Likert scale. Individual responses across all items are then aggregated to generate an ethnic tolerance score. These modifications have been applied by Mariappan and Tamring (2007), Tamring (2008, 2021), Mather et al. (2017), and Belakovsky (2024). The social distance perspective remains a widely used framework for understanding relationships among groups, particularly in the context of racial and ethnic relations. It continues to be discussed in contemporary scholarship, as noted by López (2021), Tusini (2022), and Clemente (2024).

6. SOCIAL DISTANCE SCALE AND ITS DEVELOPMENT

6.1 Applications and modifications across countries

This section outlines past studies that have utilized social distance measurement scale to examine the relationships between individuals and different groups in society. The discussion focuses on studies using Bogardus' original Social Distance Scale, as well as those that have modified it.

Bogardus' 1925 study, *Social Distance and Its Origin*, laid the foundation for the social distance measurement scale, which he further discussed in his subsequent work, *Measuring Social Distances* (1925). The scale comprises seven statements, each requiring respondents to select the option that best reflects their level of tolerance. The statements are as follows:

1. Accept as a family member (getting married)
2. Accept as a close friend
3. Accept as a neighbor
4. Accept as a working colleague
5. Accept as a resident of this country
6. Accept as a foreign tourist
7. Refuse to accept the individual's presence to this country

The social distance concept, initiated by Park and expanded by Bogardus, has served as a foundation for the evolution of thought regarding relationships among ethnic groups in sociology. This concept has also been applied in other fields. Bogardus conducted four studies on social distance in the United States during his lifetime, in 1926, 1946, 1956 and 1966. Research on social distance has continued into the present day, as reported by Boyd (2025), Hampton and Cotter (2025), Shi et al. (2024), Belakovsky (2024), Maurer and Keim

(2018), Smith et al. (2014), and Michalikova and Yang (2011). Social distance studies have also been conducted internationally, including: Lee and Park (2025) in South Korea; Gaymard (2024) in France; Eyice (2024) in Turkey; Kazanowski et al. (2024) in Czech Republic, Poland and Serbia; Masood (2024) in Pakistan; Kaliyev et al. (2024) in Kazakhstan; Chen et al. (2024) in Taiwan; Kharwar and Singh (2024) in India; Jonáš et al. (2024) and Preiss et al. (2023) in Czech Republic; Ristić and Čolic (2023) in Serbia; Petrović and Porobić (2022) in Bosnia; Robot et al. (2021) in Indonesia; Fedor (2021) in Moldova and Romania; Żemojtel-Piotrowska et al. (2020) in Poland; Rahardjo et al. (2020) in Indonesia; and Celik (2019) in Turkey.

A study by Gaymard (2024) in France recalibrated the instrument to five levels that are well suited to daily social interactions: readiness to accept someone as 1. a couple relationship, 2. part of the inner circle of friends, 3. a work team member, 4. staying in the same hotel, and 5. living in the same country. Another study by Eyice and Yazıcı (2024) in Turkey examined education students' perceptions of social distance regarding different national identities. The researchers used the Bogardus Social Distance Scale as a measurement guide, demonstrating that this classic scale remains relevant in modern contexts for assessing behavior and tolerance toward different social groups.

Kazanowski et al. (2024) examine the social distance of nursing students toward patients with intellectual disabilities (ID) in Poland, the Czech Republic and Serbia using an adapted social distance scale. The scale measured students' acceptance of ID patients in various situation: (1) accepting ID patients at the hospital that they are currently working, (2) accepting ID patients at own ward, (3) accepting ID patients that have been given prescription by students, (4) accepting ID patient from the person that the students gaining research materials, (5) accepting ID patients that have been assisted in self-service activities, (6) accepting ID patients to be together during rest time or free time at workplace, (7) accepting ID patients that have been given full attention for their happiness, (8) accepting ID patients that are having special privileges, (9) accepting ID patients that are engaging with students in out-of-office activities, and (10) accepting the needs to enhance self-competence during free time in fulfilling ID patients' needs.

Chen et al. (2024) conducted research on the impact of the COVID-19 pandemic on social distancing and its relationship with clinical workload and depression among nurses in Taiwan. This study utilized a social distancing scale developed based on the Bogardus Social Distance Scale, which assessed the respondents' trust in people who were willing to: (1) ride public transport with them, (2) shop with them, (3) chat with them, (4) shake hands, (5) share a meal, (6) greet by cheek kissing, and (7) express aggressiveness towards health workers during pandemic. Kaliyev et al. (2024) examined social distance among ethnic groups in Kazakhstan by using adapted version of the Bogardus Social Distance Scale. The categories included: Spouses (1.0–1.5), Relatives (1.51–2.0), Friends (2.1–2.5), Neighbors (2.51–3.0), Colleagues (3.1–3.5), Fellow citizens (3.51–4.0), Tourists (4.1–4.5), and Enemy/adversary (4.51–5.0).

Petrović and Porobić (2022) examined social distance towards migrants in Bosnia and Herzegovina using the Bogardus Social Distance Scale, which consists of seven levels. This scale assesses respondents' readiness to accept social interaction with migrants, starting from the closest relationships such as marriage or family ties, followed by close friends, neighbors, colleagues, fellow citizens within the same country, visitors, and extending to the most distant level—supporting the expulsion of migrants from the country. Jonáš et al. (2024) investigated the relationship between personality traits, social behavior and social distance in the Czech Republic by using Bogardus Social Distance Scale. Their study retained the original item, including acceptance of individual as a spouse, friend, neighbor, colleague, fellow citizen, visitor, or subject to deportation. However, the response format was modified to a 4-point scale (yes, probably yes, probably no, no).

Ristić and Čolic (2023) examined social distance among mainstream school students toward peers with speech delays, language disorders and other abnormalities within the context of inclusive education in Serbia. This study employed an adapted Bogardus Social Distance Scale tailored specifically for this research. The scale comprised 12 items with *yes/no* response options, five items focused on close relationships and seven addressed more distant ones. The key modification from the original scale was the first item, which specified the type of disability (speech delay or other abnormalities) to ensure relevance for the targeted population.

Robot et al. (2021) examined social distance between former East Timor residents and the local community at Kampung Tuapukan, Kabupaten Kupang, Nusa Tenggara Timur, Indonesia, by using a recalibrated Bogardus Social Distance Scale. The researchers identified five main items to measure the level of social acceptance: willingness to marry, willingness to socialize closely as a member of the same club, willingness to accept as a neighbor, willingness to accept as a citizen, and acceptance as a visitor/tourist or the preference for the individual to leave the country. Fedor (2021) investigated social distance in multiethnic communities in Moldova and Romania with a recalibrated version of the original Bogardus Scale. The researchers assessed respondents' acceptance of members of other ethnic groups across various social relationships, including: 1) marriage ties, 2) close friendship circles, 3) neighbors on the same street, 4) working colleagues, 5) acceptance of fellow Romanians, 6) acceptance as visitors, and 7) exclusion from the nation.

Żemojtel-Piotrowska et al. (2020) examined the relationship between dark personality traits, political values and prejudice toward refugees using an adapted 5-item Social Distance Scale based on the original Bogardus scale. Lee and Park (2025), in their study conducted in South Korea, explored the role of age in the relationship between ingroup range and intention to help during the COVID-19 pandemic. The researchers utilized 14 items adapted from social distance research by Park (1924) and Bogardus (1925), which consisted of the following categories: family, friends, coworkers, school alumni, neighbors, acquaintances, people from the same area, people from other areas, LGBTQ, North Korean defectors, refugees, migrants, Koreans living abroad, overseas Koreans of other nationalities, and non-Koreans.

These Bogardus-inspired studies have benefited society by deepening the understanding of relationships among groups that differ in terms of ethnicity, race and religion. Government agencies and local authorities can also utilize the findings as a guideline for designing relevant community programs. In addition, the outcomes of such studies can help in formulating reliable action plans to prevent unwanted conflicts in the future.

Originally, Bogardus Social Distance Scale consisted of only seven items, but many scholars have since modified it, resulting in scales with either fewer or more items. These development in measure ethnic relation—particularly ethnic tolerance—using the Bogardus scale need to be explained to highlight differences between the version used or expanded by various scholars and those applied in studies conducted in Sabah. Social distance level is often used to describe ethnic relations within a society or relationships among different social groups. The greater the social distance between individuals or ethnic groups, the weaker the level of ethnic relations. Conversely, a smaller social distance indicates stronger or more positive ethnic relations within the community.

Since the Bogardus social distance measurement scale was introduced, many scholars have attempted to understand the relationships among ethnic groups and other social groups by using the original seven-level scale. This means that the measurement scale used by Bogardus (1925) has remained unmodified and is still applied in their studies. In addition, numerous researchers to this day continue to study social distance using the original Bogardus' Social Distance Scale, either fully adopting all seven levels or reducing them to six or five (Whalen, 1987; Panina, 2005; Maurer, 2013; Javakhishvili et al., 2013; Parrillo & Donoghue, 2013; Maurer & Keim, 2018; Belakovsky, 2024). These researchers either adhere strictly to the original scale without modification or make minor changes to the wording of the scales items while maintaining the original meaning or an equivalent interpretation. Such studies have been conducted not only in the United States but also in other countries, including New Zealand and Ukraine. The application of the social distance scale is not limited to sociology; it is also widely used in other fields, such as psychology.

However, there are also a number of researchers who have modified the Bogardus Social Distance Scale to better understand relationships among groups in society. These modifications involve either adjusting the existing items (while retaining the seven-level structure), reducing the number of items or adding new ones. Among the studies that utilized a modified version of the seven-level Bogardus scale is the work of Jonáš et al. (2024), who used the following items: (1) married couples, (2) ordinary friends, (3) working colleagues, (4) neighbors (5) occasional contacts (6) individuals living outside of my neighborhood, and (7) individuals living outside of my country. Brandwein and Donoghue (2011), who examined ethnic relations among students, also used a modified seven-item scale consisting of: (1) close friends, (2) having lunch together, (3) sitting next to each other in class, (4) saying "hello" only, (5) housemates, (6) schoolmates, and (7) not accepting their presence at all.

Other than that, many researchers have modified and reduced the number of items in the Bogardus scale for use in their studies. Prakash and Reddy (2008) adapted the Bogardus Social Distance Scale by reducing it to six items, namely: (1) wanting to have family via marriage, (2) allowing someone to take food at dining place, (3) accepting an individual as a friend, (4) accepting an individual as a guest at home, (5) accepting an individual as a neighbor, and (6) accepting an individual as a contact. A similar approach was taken by Celik (2019) in his study in Turkey, where he utilized six items to understand the relationship between local residents and immigrants living in the southern region of Turkey. The study aimed to observe the level of acceptance among the original local community towards immigrant groups. The items were: (1) I do not want to face south-east person in my city, (2) I can accept south-east person as a visitor in my city, (3) I can be a working colleague with south-east person, (4) I can be a neighbor with south-east person, (5) I can be a friend with south-east person, and (6) I can be a family member with south-east person via marriage. Lakshminarayana (1975) utilized only five items, namely (1) as a citizen of a country, (2) as neighbors, (3) as guests, (4) sharing food or taking food together, and (5) starting a family line via marriage. Weinfurt and Moghaddam (2001) also adapted the scale and used the following items: (1) accepts as a family member, (2) accepts as a friend, (3) accepts as a neighbor, (4) accepts as a working colleague, and (5) accepts as a person with the same nationality.

Several other social distance studies have modified and expanded the social distance scale to more than seven items to better understand relationships among groups in society. Kass (2008), in her study in the United States, extended the Bogardus Social Distance Scale from seven to nine items, most of which differed from the original. She introduced nine social distance items: (1) accepts as working colleagues, (2) accepts as a teacher, (3) moves to neighborhood, (4) fixing cars, (5) accepts as a leader, (6) inviting to the home, (7) accepts as a president, (8) fixing computer, and (9) appointment.

Kidwell and Booth (1977) used 12 items to measure social distance in society. The items are: (1) acceptance as working colleague, (2) saying hello while passing by in front of the person, (3) informing the person about family matters, (4) sitting beside next to the person on a bus if they are stranger, (5) initiating a conversation with the person, (6) responding to a conversation initiated by the person (7) feeling comfortable spending a week-long vacation with the person (8) accepting the person as a romantic partner, (9) feeling happy spending lunchtime with the person, (10) accepting the person as a friend, (11) inviting the person for dinner at home, and (12) addressing the person by first their name.

6.2 Modifications and adaptations in the Malaysian context

Ab Rahman et al. (2011), in their study on social relation and patriotism levels in Johor Bahru, utilized 16 items that share several similarities with the social distance items used in Tamring (2008). Those items are: (1) hanging out with friends of different ethnicities, (2) always exercising with friends of different ethnicities, (3) shopping with friends of different ethnicities, (4) travelling with friends of different ethnicities, (5) willingness to share a room with friends of different ethnicities, (6) feeling comfortable being close to friends of different ethnicities, (7) willingness to assist friends of different ethnicities if they face problems, (8) feeling comfortable performing academic tasks with friends of different ethnicities, (9) lending money to friends of different ethnicities, (10) having friendly conversations with neighbors of different ethnicities, (11) visiting neighbors of different ethnicities during their respective festival celebrations, (12) joining multi-ethnic association, (13) willingness to assist individuals of different ethnicities who are in need, (14) only willing to accept student leaders from one own's ethnic group, (15) only knowing political leaders from one's own ethnic group, and (16) preferring to follow political development related to one's own ethnic group.

Besides that, the study by Tamring (2008) in Sabah, utilized a set of items to measure ethnic tolerance, namely (1) marrying an individual from a different ethnic group, (2) being friends with an individual from a different ethnic group, (3) being neighbors with an individual from a different ethnic group, (4) conducting business with an individual from a different ethnic group, (5) sharing a home with an individual from a different ethnic group, (6) sharing a room with an individual from a different ethnic group, (7) helping an individual from a different ethnic group, (8) hanging out with an individual from a different ethnic group, (9) sharing a business with an individual from a different ethnic group, (10) sharing business premises with an individual from a different ethnic group, (11) having a meal with an individual from a different ethnic group, (12) inviting an individual from a different ethnic group to a family gathering, (13) attending a family gathering of an individual from a different ethnic group, (14) being a political teammate with an individual from a different ethnic group, (15) being teammates with an individual from a different ethnic group in formal or informal social associations, and (16) being led by leader from a different ethnic group.

The use of items to measure relationships among groups in society varies in number due to differences in each study's focus and scope and the specific requirement of the items that serve as response variable in addressing the respective research questions and objectives. The study by Mohd Said and Yin (2008) in Johor employed 20 items to examine the level of ethnic relations among students. Many of these items also share similarities with those used in other studies. Among the items were (1) eating at the same canteen, (2) going to the library, (3) hanging out together, (4) watching movies at cinema, (5) having discussions, (6) playing sports, (7) eating food only from one's own ethnic group, (8) tending to sit in the same-ethnic and same-religion group during mealtimes, (9) tending to joke or tease only with same-ethnic and same-religion friends, and (10) tending to discuss personal problems only with same-ethnic and same-religion friends.

The past studies described in the previous paragraphs have shown that Bogardus Social Distance Scale has been widely used and modified according to the context relevance of each study, while still maintaining the original idea of the scale. The addition of new items is one approach taken by researchers to specify a wider variety of relationship form in daily life—not only in terms of intimacy but also extending to economic and political relationships.

One of the earliest studies on social distance in Sabah was conducted by Osman (2007), who utilized 16 social distance items developed by Mariappan and Tamring (2007). The 16-item measurement scale used by Tamring (2008) aimed to assess the level of social distance between ethnic groups among students in Kota Kinabalu. However, the scale was later remodeled by Tamring (2021) to align more appropriately with the characteristics of the respondents being studied.

7. SOCIAL DISTANCE STUDIES IN SABAH

Sabah is in the Malaysian state with the most complex societal composition compared to other states, due to its diverse ethnic groups that differ in religion, language, culture and daily practices. As mentioned at the beginning of this paper, there are 33 local native groups in Sabah, including Kadazandusun, Bajau, Rungus, Murut, Iranun, Orang Sungai, Kedayan and many others. This complexity is further heightened by the presence of non-indegenous groups such as the Chinese and Indians who arrived during the British colonial period, as well as immigrants—both documented and undocumented—particularly from Indonesia and the Philippines, which has significantly altered the ethnic relations landscape in Sabah. In addition, Sabah's involvement in the formation of Malaysia in 1963 has influenced the dynamics of ethnic relations in the state through political, social and economic integration with other Malaysian states. This unique social landscape makes Sabah a highly relevant context for examining ethnic and religion relations through the lens of social distance.

Furthermore, Sabah's complex society has been shaped over a long history through interactions and intermarriages among different groups. The phenomenon of multi-ethnic and multi-religious families is common, with joint celebrations of festivals occurring despite differences in race and religion. The large number of ethnic groups in Sabah has enriched the state's sociocultural landscape, reflected in the diversity of ethnic festivals and cultural or religious rituals. The willingness to participate in joint celebrations for various ethnic festivals and cultural events can serve as an indicator of an individual's social distance towards members of other groups, or of intergroup social distance more broadly. Based on this phenomenon, this study proposes an additional item to be included in the Borgadus Social Distance Scale: **"Attending festival celebration of other ethnic groups"** which is particularly relevant in the Sabah context.

Four studies of social distance have been conducted in Sabah between 2007 and 2021. The first was carried out by Osman (2007), at a time when the social distance measurement in Sabah had been developed by Mariappan and Tamring (2007). The original seven-item social distance scale was expanded to 16 items, covering social, economic and political dimensions of intergroup relations.

The study by Tamring (2008) was the second social distance study conducted in Sabah. It utilized 16 items developed by Mariappan and Tamring (2007), but in this study, the scale was used not only to measure social distance among ethnic groups (Table 2), but also among religious groups (Table 3) in Sabah.

7.1 Proposed 21-item social distance scale for Sabah

Table 2: Social distance measurement items among ethnic groups in Sabah

No.	Item	Relation dimension
1	Getting married with individual from other ethnic	
2	Be a close friend with individual from other ethnic	
3	Be a roommate with individual from other ethnic	
4	Be a housemate with individual from other ethnic	
5	Be a neighbor with individual from other ethnic	Social relation
6	Having meal with individual from other ethnic	
7	Having family gathering and inviting friends from other ethnic	
8	Attending family gathering that are organized by friends from other ethnic	
9	Hanging out with individual from other ethnic	
10	Helping individual from other ethnic	
11	Sharing business with individual from other ethnic	
12	Sharing business premise with individual from other ethnic	Economical relation
13	Having business with individual from other ethnic	
14	Be a teammate in politics or political party with individual from other ethnic	
15	Be a teammate with individual from other ethnic groups in formal or informal social association	Political relation
16	Being led by leaders from other ethnic groups	

Source: Mariappan and Tamring (2007)

Table 3: Social distance measurement items among religious groups in Sabah

No.	Item	Relation dimension
1	Getting married with individual from different religion	
2	Be a close friend with individual from different religion	
3	Be a roommate with individual from different religion	
4	Be a housemate with individual from different religion	
5	Be a neighbor with individual from different religion	Social relation
6	Having meal with individual from different religion	
7	Having family gathering and inviting friends from different religion	
8	Attending family gathering that are organized by friends from other religion	
9	Hanging out with individual from other religion	
10	Helping individual from other religion	
11	Sharing business with individual from other religion	
12	Sharing business premise with individual from other religion	Economical relation
13	Having business with individual from other religion	
14	Be a teammate in politics or political party with individual from other religion	
15	Be a teammate with individual from other religion in formal or informal social association	Political relation
16	Being led by leaders from other religion group	

Source: Tamring (2008)

The most recent studies on social distance in Sabah were conducted in 2020 and 2021, with improvements made to the measurement scales, increasing the total number of items to 21. Several new items were added, including: (1) being an adopted child in a family of different ethnic group, (2) adopting a child from a different ethnic group, (3) being a classmate with an individual from a different ethnic group, (4) sitting next to an individual from a different ethnic group in class, and (5) being a working colleague with an individual from a different ethnic group.

Table 4: The statement to measure social distance among ethnic groups in Kota Kinabalu

Statements that represent various forms of relation in respondent's daily life	Relation dimension
1. Getting married with individual from other ethnic	
2. Be an adopted child to other ethnic family	
3. Adopt a child from other ethnic groups	
4. Be a close friend with individual from other ethnic	
5. Be a roommate with individual from other ethnic	
6. Be a housemate with individual from other ethnic	
7. Be a neighbor with individual from other ethnic	
8. Be a classmate with individual from other ethnic	Social relation
9. Sit beside with individual from other ethnic in class	
10. Having meal with individual from other ethnic	
11. Having family gathering and inviting friends from other ethnic	
12. Attending family gathering that are organized by friends from other ethnic	
13. Hanging out with individual from other ethnic	
14. Helping individual from other ethnic	
15. Sharing business with individual from other ethnic	
16. Sharing business premise with individual from other ethnic	
17. Be a working colleague with individual from other ethnic	Economical relation
18. Having business with individual from other ethnic	
19. Be a teammate in politics or political party with individual from other ethnic	
20. Be a teammate with individuals from other ethnic groups in formal or informal social association	Political relation
21. Being led by leaders from other ethnic groups	

Source: Tamring (2021)

One of the purposes of adding these items is to recalibrate the scale to align with the characteristics of the respondents, such as students. In other contexts, these items are also relevant because child adoption is a common practice among residents of Sabah. The phenomenon of child adoption in Malaysia is neither unusual nor rare and has become a socially accepted norm (Abas & Sintang, 2019). In short, both adopting a child and being an adopted child serve as indicators that can explain the level of social distance or the quality of ethnic

relations in society. In the family context, family bonds are not determined solely by marriage or birth, but also through adoption and the relationships formed as an adopted child or within an adoptive family. Scholars have defined family as "a social unit of people related by marriage, birth, or adoption, who reside together in officially sanctioned relationships and who engage in economic cooperation, socially approved sexual relations, and the reproduction and rearing of children" (Andersen & Taylor, 2004; Gough, 1971).

In addition, the item "be a working colleague" should be included as an indicator for measuring social distance level, as acceptance of this role reflects students' willingness to work with individuals from diverse ethnic and cultural backgrounds in the future. The item "accepts as a working colleague" is an original item in the Bogardus Social Distance Scale and has been used by other researchers to measure social distance, as described in previous sections. Overall, 21 items were utilized in the social distance study by Tamring (2021), as shown in Table 4.

The studies by Tamring and Mahali (2020a) and Tamring (2021) also have applied these 21 items to measure social distance between religious groups, using the same items that were developed for measuring social distance between ethnic groups.

Table 5: Summary of comparative Bogardus social distance scale adaptations

Study/Author(s)	Country/ Context	No. of items	Type of modification	Themes added/Removed
Bogardus (1925–1966)	USA	7	Original baseline scale	Purely social intimacy ladder: marriage, friendship, neighbor, colleague, citizen, tourist, exclusion
Gaymard (2024)	France	5	Reduction & contextual adaptation	Focused on romantic partner, close friends, work team, hotel sharing, same country; removed explicit "citizen/tourist/expulsion" framing
Eyice and Yazıcı (2024)	Turkey	7	Rewording within original structure	Retained core social relations; emphasized national identity differences among education students
Kazanowski et al. (2024)	Poland, Czech Republic, Serbia	10	Expansion for healthcare context	Added professional care roles: hospital ward, medication, research participation, self-care assistance, break-time contact, special attention, privileges, extra involvement, competence development
Chen et al. (2024)	Taiwan (COVID-19)	7	Contextual adaptation to pandemic	Added everyday social distancing behaviors: public transport, shopping, chatting, handshaking, eating together, cheek kissing, aggression toward health workers
Kaliyev et al. (2024)	Kazakhstan	8 (distance categories)	Re-scaling of original categories	Defined hierarchical categories: spouse, relatives, friends, neighbors, colleagues, fellow citizens, tourists, enemy/adversary
Petrović and Porobić (2022)	Bosnia & Herzegovina	7	Minimal adaptation of classical scale	Applied full intimacy → exclusion ladder to migrants; no major thematic additions
Jonáš et al. (2024)	Czech Republic	7	Response-format modification	Kept original items; changed to 4-point scale (yes, probably yes, probably no, no) without altering themes
Ristić and Čolić (2023)	Serbia (inclusive education)	12	Expansion & population-specific adaptation	Added disability-specific wording; distinguished close vs less-close relations with peers with speech/developmental disorders
Robot et al. (2021)	Indonesia (Timor communities)	5	Reduction & contextual adaptation	Condensed to key social ties: marriage, close socializing in group/club, neighbor, citizen, visitor/leave country
Fedor (2021)	Moldova & Romania	7	Minimal adaptation	Retained classical family-friend-neighbor-colleague-citizen-visitor-exclusion structure in multi-ethnic context
Żemojtel-Piotrowska et al. (2020)	Poland (refugees)	5	Reduction of original scale	Focused on refugee acceptance; dropped some intermediate social roles to shorten measurement
Celik (2019)	Turkey (south-east migrants)	6	Reduction & reordering	From avoidance in city to visitor, colleague, neighbor, friend, marriage; emphasized contact with internal migrants
Lakshminarayana (1975)	India	5	Reduction	Used citizen, neighbor, guest, food-sharing, marriage; removed tourist and expulsion items

Table 5: Summary of comparative Bogardus social distance scale adaptations (continued)

Study/Author(s)	Country/ Context	No. of items	Type of modification	Themes added/Removed
Weinfurt and Moghaddam (2001)	USA	5	Reduction & reframing	Family member, friend, neighbor, colleague, same nationality; tourist/exclusion removed
Kass (2008)	USA	9	Expansion to everyday & political roles	Added teacher, leader, president, service roles (car/computer repair), home invitation, appointments; extended into political leadership and service exchange
Panina (2005)	Ukraine	7	Methodological application & analytical operationalization	Applied Bogardus scale to measure national tolerance and ethnic acceptance; emphasized interpretation of social distance as an indicator of societal tolerance rather than modifying item structure
Kidwell and Booth (1977)	USA	12	Expansion of interactional behaviors	Added greeting, bus seating, starting/responding to conversations, vacationing, lunch, friendship, dinner, first-name use
Prakash and Reddy (2008)	India	6	Reduction & cultural adaptation	Family via marriage, food at dining place, friendship, guest at home, neighbor, contact; stressed food-sharing and guest hood
Lee and Park (2025)	South Korea (COVID-19)	14	Expansion to multiple in-/out-groups	Items for family, friends, coworkers, neighbors, acquaintances, same/other area, LGBTQ, North Korean defectors, refugees, migrants, Koreans abroad, overseas Koreans, non-Koreans; broadened group targets, not just roles
Md Yunus et al. (2020)	Peninsular Malaysia	Not specified (adapted Bogardus items)	Direct application of Bogardus approach	Adapted classic items to interreligious/ethnic context; integrated into Likert-type responses
Ab Rahman et al. (2011)	Johor, Malaysia (students)	16	Expansion from social intimacy to daily activities	Added exercise, shopping, travelling, room-sharing, academic work, money lending, neighbors, multi-ethnic associations, political preferences, helping behavior
Mariappan and Tamring (2007)	Sabah, Malaysia (ethnic)	16	Expansion of original 7 to social-economic-political	Added business partnership, sharing premises, political teammates, organizational membership, leadership acceptance to original social relations
Osman (2007)	Sabah, Malaysia (ethnic)	16	Adoption of expanded Sabah scale	Applied 16-item social-economic-political scale to measure ethnic social distance
Tamring (2008)	Sabah, Malaysia (ethnic & religion)	16	Scale application & extension to religion	Used same 16 items to measure both interethnic and interreligious social distance/tolerance
Mohd Said and Yin (2008)	Johor, Malaysia (students)	20	Further expansion for campus life	Added canteen, library, hanging out, cinema, discussion, sports, food preferences, homophily in friendship and discussion patterns
Tamring and Mahali (2020a)	Sabah, Malaysia (ethnic & religion)	21 + 21	Extension & Likert integration	Used expanded 21-item scale for ethnic and religious distance; integrated Likert responses for each relationship form
Tamring (2021)	Sabah, Malaysia (students)	21	Expansion & recalibration to student context	Added adoption (be adopted/adopted child), classmate, sit beside in class, working colleague; strengthened social, economic, political dimensions
Present study (Proposed scale for Sabah)	Sabah, Malaysia (multi-ethnic, multi-religious)	22 (proposed)	Further expansion & cultural contextualization	Adds "attending cultural or religious festival of another group" as a new indicator; explicitly incorporates festival participation as a marker of social proximity and intergroup tolerance

Studies that have used Bogardus' social distance approach directly are quite limited, with only one study conducted in Peninsular Malaysia (Md Yunus et al., 2020) and three in Sabah (Osman, 2007; Mariappan & Tamring, 2007; Tamring, 2021). These studies provided an initial view of the level of social acceptance among ethnic groups and improved the original seven-item Bogardus scale by adding items suited to the local cultural and relational contexts, with integration into a Likert-scale format. Subsequent studies expanded the scale to cover economic and politic relationships. Tamring (2021) emphasized that social distance measurement should include acceptance in the context of adopted family as a valid item alongside marriage, recognizing its significance in explaining relational contexts. Adoption is a common practice in Malaysia, particularly in Sabah, and acceptance of an adopted child and family from different ethnic and religious backgrounds indicate a high level of ethnic tolerance. Several items in Tamring (2021) specifically addressed adopted family, making the measurement scale more comprehensive, holistic and relevant to the local student population. It should be noted that these studies require further revision, particularly with the inclusion of new measurement items such as participation in cultural and religious festivals, which serve as a crucial indicator of social distance. The following studies are expected to yield findings that reflect Malaysia's multi-ethnic and multi-religious population, especially in Sabah. A summary of comparative adaptation of the Bogardus Social Distance Scale is presented in Table 5.

7.2 Findings from the present study in Sabah

The synthesis of four key studies conducted in Sabah between 2007 and 2021 reveals a clear progression in how the Bogardus Social Distance Scale has been adapted to reflect Sabah's multicultural landscape. The earliest applications, in 2007 and 2008, expanded the original seven Bogardus items to sixteen indicators, incorporating social, economic and political relational dimensions. The most recent studies (2020–2021) further extended the scale to twenty-one items by adding relationship forms particularly relevant to Sabah's social environment, including adoption practices, classroom interactions and co-working relations.

These findings demonstrate that interethnic and interreligious relations in Sabah are not adequately captured by classical intimacy-based indicators alone. Instead, social cohesion in Sabah is expressed through a broader range of everyday interactions, communal engagements and collaborative practices. The review also identifies an important cultural indicator not previously included in local measurements: participation in the festivals of other ethnic or religious groups. This practice is widely documented in Sabah and functions as a meaningful expression of cultural acceptance and social proximity. Accordingly, this study proposes the addition of a twenty-second item, "attending the cultural or religious festival of another group," as a new dimension of social distance measurement in Sabah. This proposed expansion enhances the scale's cultural sensitivity and strengthens its validity for assessing intergroup relations in plural societies. Collectively, the findings from Sabah illustrate the need for a more comprehensive, context-responsive operationalization of the Bogardus scale.

8. THE DEVELOPMENT OF SOCIAL DISTANCE INDEX CALCULATION APPLICATION

In early stage, Bogardus measured social distance using seven levels of social relationships as determiners for the index. The smaller the index value or score obtained, the better relationship between various groups in society. Bogardus assigned fixed values from 1 to 7, where a score of 1 represented the closest or most favorable social distance.

Bogardus' social distance measurement method has undergone transformation overtime, although some researchers still adhere to its original approach. Changes in calculation have been made in response to criticisms that the seven original items are not sufficient to capture all levels of social distance. For example, acceptance of marriage or friendship needs to be understood in terms of feelings and personal bonds. Even if individuals marry a partner from a different ethnic or racial group, it does not necessarily indicate that they are willing to cooperate or form friendships with members of other groups. Consequently, several scholars have modified the scale by integrating Bogardus' social distance items with a Likert scale to better measure the degree of intergroup relations in society (Mariappan & Tamring, 2007; Tamring, 2008; Tamring, 2021; Mather et al., 2017; Belakovsky, 2024).

Table 6: Example of Bogardus' social distance score scale calculation

Ethnic	Getting married	Be a friend	Be a neighbor	Be a working colleague	Accepts the individual to reside in this country	Accepts the individual as a tourist	Does not accept the individual's presence in this country
Suluk	√						
Bugis	√						
Tator						√	
Jawa					√		
Visaya						√	
Brunei		√					
Vietnam				√			

9. CONSTRUCT OF SOCIAL DISTANCE MEASUREMENT INDEX

The usage of an index value to measure social distance aims to simplify the data analysis process. With this index, an overall picture on social distance can be obtained.

The index method is particularly useful for understanding the varying reactions or responses given by respondents to each of the social distance statements. Using this method, the overall level of social distance can be summarized comprehensively.

Additionally, the index method is appropriate because analyzing each social distance statement can be challenging. Analyzing statements separately also does not provide a clear picture of respondents' general level of social distance. The construction of this index involves converting respondents' reactions into numerical values, a method widely used in social distance research.

To measure ethnic acceptance levels, respondents' answer choices are assigned marks as follows: totally agree (5 marks), agree (4 marks), moderately agree (3 marks), disagree (2 marks) and totally disagree (1 mark). The index value is calculated by summing the total marks obtained by a respondent for all statements and dividing by the total number of statements.

In other words, a respondents' ethnic acceptance index is derived by dividing the total marks obtained by the number of ethnic acceptance statements. An example of the index construct method used in this study is presented in Table 7.

Table 7: Example of social distance index construct

Statement that measures social distance	Respondent's answer	Marks
1. Statement 1	Totally agree	5
2. Statement 2	Agree	4
3. Statement 3	Agree	5
4. Statement 4	Agree	5
5. Statement 5	Moderately Agree	3
6. Statement 6	Disagree	4
7. Statement 7	Moderately Agree	5
8. Statement 8	Totally Disagree	3
9. Statement 1	Totally agree	5
10. Statement 2	Agree	4
11. Statement 3	Agree	5
12. Statement 4	Agree	5
13. Statement 5	Moderately Agree	3
14. Statement 6	Disagree	4
15. Statement 7	Moderately Agree	5
16. Statement 8	Totally Disagree	3
17. Statement 1	Totally agree	5
18. Statement 2	Agree	4
19. Statement 3	Agree	5
20. Statement 4	Agree	5
21. Statement 5	Moderately Agree	3
Total		90

An example of index calculation based on respondents' ethnic acceptance data, as shown in the above table, is as follows:

Calculation formula:

The total marks from all statements are divided by the number of statements: 90/21 = 4.29. The respondent's ethnic acceptance index is then categorized high, moderate or low according to Landell's (1977) interpretation of score range:
   A. 3.68 to 5.0 = High level
   B. 2.34 to 3.67 = Moderate level
   C. 1.0 to 2.33 = Low level

This means that the respondents' acceptance index of 4.29 falls within the high level. This example is provided to illustrate how to determine the acceptance level for each individual respondent. To calculate the overall level of acceptance for all respondents, the same formula can be applied, but the total is divided by the numbers of statements answered by all participants. For example, if 100 respondents each answered eight social distance statements, the total number of statements answered would be 800. The overall social distance index for the respondents is then obtained by dividing the total marks scored by all respondents across all statements by the total number of statements.

10. DISCUSSION

The social distance perspective is highly suitable for understanding ethnic relations and is widely used in studies aimed at examining intergroup relations because:

1. This approach illustrates that the level of social distance is directly related to the closeness between individuals or groups in society. Highly social distance indicates a low level of intergroup relation, whereas low social distance reflects a higher or better level of relationship.
2. The social distance approach is also effective in understanding individual-level (daily life) relationships through indicators of relational acceptance based on intimacy labels. Individual acceptance can be observed through their willingness to engage in various types of relationships, which differ in closeness and tolerance. For example, "accepts as a working colleague" convey a different level of intimacy and tolerance than "accepts as a husband/wife."
3. The social distance approach is among the earliest methods to introduce quantitative measurement in assessing ethnic or racial relations. The scale allows findings to be expressed numerically, providing an objective measure to differentiate levels of tolerance within society.
4. Studies on social distance in Sabah by Mariappan and Tamring (2007), and Tamring (2008, 2021) show an increase in harmony among various ethnic and religious communities, reflected in a positive change in the social distance index over time. Conducting social distance studies periodically is valuable for monitoring intergroup relations and preventing conflicts. The social distance index can serve as a predictive tool for societal relational dynamics, enabling timely interventions if social cohesion is found to be weak.
5. Studies in Sabah by Osman (2007), Mariappan and Tamring (2007) and Tamring (2008, 2021) have modified and expanded the Bogardus Social Distance Scale, incorporating economic and political relational dimensions. The current measurement in Sabah consists of 21 items, enhancing the diversity and applicability of social distance assessment and contributing to the theoretical development of Bogardus' scale.

With that, ethnic or group relations in society can be understood and measured by examining social distance in society. Social distance—measured based on an individual's acceptance of, or willingness to form a relationship with, others of different backgrounds such as ethnic, religion and other characteristics—provides an indication of the relationship dynamic within a country, state or specific region.

The process of modernization has brought many changes in society. For example, migration and social mobility have encouraged increased interactions across ethnic and religious groups, leading to intercultural marriages. In addition, changes in occupation, rising income levels, developments in education and urbanization have all influenced the way people think and interact. These changes will continue to occur, as technological advancement is also transforming society in terms of daily interaction, communication and working styles. Such developments bring both positive and negative effects to society, particularly in relation to intergroup relations and social harmony. Therefore, research is crucial and must be carried out continuously to understand and monitor societal conditions to preserve harmony. One effective approach to such monitoring is research that focuses on understanding social distance within society.

11. CONCLUSION

The concept of social distance has undoubtedly evolved and is highly suitable to be used as a framework for understanding relations among groups, including ethnic and religious groups, as well as groups differentiated by social identity such as social class. In addition, studies on social distance have been widely conducted to examine individuals' acceptance of groups such as gay or LGBTQ communities and other minority groups. The application of this perspective in the Sabah context—known for its highly diverse society and the ongoing debates surrounding racial and religious issues—demonstrates its potential for further expansion. The development of this perspective, particularly the Bogardus Social Distance Scale, can contribute not only to shaping future policy and practices for managing multicultural societies, but also serving as a catalyst for future research. The Bogardus Social Distance Scale, which has evolved to include 21 items and will soon be expanded to 22 items with the inclusion of a festival-based measure, remains highly relevant and suitable as a framework for studies on society relations across the globe.

The findings indicate that social distance measurement functions not only as a theoretical tool but also as a practical indicator for monitoring ethnic and religious harmony, informing national unity policies and preventing intergroup conflict in multicultural societies. Smith et al. (2014) explains that intermarriage can serve as an early-warning indicator of interethnic relations within society. Since intermarriage represents the highest level of social proximity in the social distance scale, measuring a society's social distance can therefore provide early insights that enable governments to design appropriate programs or policies aimed at preventing intergroup tensions and potential conflict.

On another hand, if the original Bogardus scale continues to be utilized, an additional level of relationship can be introduced to extend the scale to a total of eight levels (Table 7). The relation level is labelled as *adopted family*. The adopted family item—"become an adopted child" and "having an adopted child"—was previously used in Tamring (2021). This category reflects an intimate level of relationship that does not involve marriage and is considered the next closest level after the marriage category.

Table 8: The Bogardus' original social distance scale and its suggestion of item addition

Bogardus social distance scale 1925	Suggestion of item addition
1. Getting married	1. Getting married
2. Be a friend	2. Adopted family
3. Be a neighbor	3. Be a friend
4. Be a colleague	4. Be a neighbor
5. Accept the individual to stay in this country	5. Be a colleague
6. Accept the individual as a tourist	6. Accept the individual to stay in this country
7. Cannot accept the individual's presence	7. Accept the individual as a tourist
	8. Cannot accept the individual's presence

The unique dynamics of Sabah' population, characterized by its mixed ethnic and religious composition, must be continuously understood and monitored to prevent incidents similar to that of the 13 May 1969 from ever recurring.

Abas and Sintang (2019) found that child adoption in Sabah exists in formal settings and carries social and legal implications, including those related to lineage, nursing and inheritance. Sabah's legal structure supports adoption through the Local, High and Syariah Courts, while the Islamic Adoption Enactment 2024 emphasizes the importance of these institutional practices. This phenomenon has clear inter-ethnic and cultural dimensions, functioning as a mechanism of acceptance and integration within the community. Although quantitative evidence on its prevalence remains limited, their study highlights that child adoption is deeply relevant within Sabah's socio-cultural contexts and is therefore suitable to be included as an item within the social distance scale for assessing ethnic acceptance. Meanwhile, *Mokorot* rituals demonstrate that family adoption is a longstanding cultural norm among Sabah communities (Tamring, 2018). *Mokorot* is a ritual in which two individuals drink a mixture containing their blood, symbolizing the beginning of an adoptive family relationship. This cultural practice supports the inclusion of family-related acceptance items on the social distance scale. Likewise, the inclusion of another item—attending festivals of other ethnic or religious groups—is also justified, as intercultural festival participation is a common norm in Sabah, further reinforced by the high rate of mixed marriage in the state which contributes to multi-ethnic and multi-religious celebrations.

In Sabah, cultural and religious festivals are celebrated across communities, reflecting a high level of tolerance and social harmony. Studies and media reports indicate that festivals such as Hari Raya, Chinese New Year, Kaamatan, and other local celebrations are not only observed by their originating communities but are also widely attended by people of various ethnic and religious backgrounds. These celebrations are often held

in the form of open houses, national prayers, and multi-religious family gatherings (Mutual Celebration of Festivals Unites the Nation, 2024; Admin, 2025; AK-47, 2017; Gilingan, 2024). Local leaders such as Datuk Seri Christina Liew and Datuk Seri Masidi Manjun have emphasized that such inclusive celebrations are not merely symbolic markers of unity but also strengthen Sabah's social identity, which values cultural and religion plurality. Academic studies further demonstrate that ethnic and cultural festivals play an essential role in shaping inter-ethnic relations and fostering values of tolerance among Sabahans (Andin et al., 2024). This phenomenon shows that festivals in Sabah function not only as religious rituals but also as powerful social bridges that connect communities across ethnic and religious lines.

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DECLARATION

1. Conflict of interest
The authors declare no conflict of interest.

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The authors used ChatGPT 5.2 to refine the academic language and enhance the clarity of this manuscript. The authors take full responsibility for the content, interpretation, and conclusions of this work.

3. Data availability statement
The authors confirm that the data supporting the findings of this study are available within the article.

4. Ethics statement
This study did not involve human participants, primary data collection or access to confidential information. All materials analyzed were publicly available academic publications. Consequently, no ethical approval was required, and the study complied with standard academic research ethics regarding the responsible use, citation, and interpretation of secondary data.

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6. Contributor Role Taxonomy (CRediT)
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APPENDIX

Classification of sources used in the study

No.	Source	Type
1	Ab Rahman et al. (2011)	Empirical
2	Abas and Sintang (2019)	Empirical
3	Allport (1954)	Theoretical
4	Andersen and Taylor (2004)	Theoretical
5	Andin et al. (2024)	Empirical
6	Belakovsky (2024)	Empirical
7	Bogardus (1925)	Theoretical
8	Bottero (2005)	Theoretical
9	Bourdieu (1984)	Theoretical
10	Boyd (2025)	Empirical
11	Brandwein and Donoghue (2011)	Empirical
12	Celik (2019)	Empirical
13	Chen et al. (2024)	Empirical
14	Clemente (2024)	Review
15	Eyice (2024)	Empirical
16	Eyice and Yazıcı (2024)	Empirical
17	Fedor (2021)	Empirical
18	Gaymard (2024)	Empirical
19	Gough (1971)	Theoretical
20	Hampton and Cotter (2025)	Empirical
21	Javakhishvili et al. (2013)	Empirical
22	Jonáš et al. (2024)	Empirical
23	Kaliyev et al. (2024)	Empirical
24	Karakayali (2017)	Theoretical
25	Kass (2008)	Methodological
26	Kazanowski et al. (2024)	Empirical
27	Kharwar and Singh (2024)	Empirical
28	Kidwell and Booth (1977)	Empirical
29	Lakshminarayana (1975)	Empirical
30	Landell (1977)	Methodological
31	Lee and Park (2025)	Empirical
32	Lokin et al. (2022)	Empirical
33	López (2021)	Theoretical
34	Mariappan (2007)	Empirical
35	Mariappan and Porodong (2012)	Empirical
36	Mariappan and Tamring (2007)	Methodological
37	Mather et al. (2017)	Methodological
38	Maurer (2013)	Empirical
39	Maurer (2018)	Empirical
40	Michalikova and Yang (2011)	Empirical
41	Mohd Said and Yin (2008)	Empirical
42	Osman (2007)	Empirical
43	Ossowski (1963)	Theoretical
44	Panina (2005)	Empirical
45	Park (1924)	Theoretical
46	Parrillo and Donoghue (2013)	Empirical
47	Petrović and Porobić (2022)	Empirical
48	Pettigrew (1960)	Empirical
49	Pettigrew and Tropp (2011)	Theoretical/Review
50	Prakash and Reddy (2008)	Empirical
51	Preiss et al. (2023)	Empirical
52	Rahardjo et al. (2020)	Empirical
53	Ristić and Čolić (2023)	Empirical
54	Robot et al. (2021)	Empirical
55	Sahal et al. (2018)	Review
56	Sibley and Duckitt (2008)	Theoretical
57	Sintang et al. (2019)	Empirical
58	Smith et al. (2014)	Empirical
59	Sorokin (1927)	Theoretical
60	Stephan and Stephan (2000)	Theoretical

No.	Source	Type
61	Tajfel and Turner (1979)	Theoretical
62	Tamring (2008)	Empirical
63	Tamring (2018)	Empirical
64	Tamring (2021)	Empirical
65	Tamring and Mahali (2020a)	Empirical
66	Tamring and Mahali (2020b)	Empirical
67	Tusini (2022)	Review
68	Wark and Galliher (2007)	Review
69	Weinfurt and Moghaddam (2001)	Empirical
70	Whalen (1987)	Empirical
71	Żemojtel-Piotrowska et al. (2020)	Empirical