Explaining Cultural Change through Individual Psychological Processes

A Thesis Submitted for the Degree of Doctor of Philosophy

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Abstract

This thesis looks at cultural change that arises from globalisation processes such as migration, and technological advances (mainly in the form of the internet) in two societies, Mauritius, and the UK. We approach this using an interdisciplinary lens: we adopt the culture sensitive methodological approaches of indigenous psychology, combined with theoretical ideas from the fields of cultural evolution, and social, and cross-cultural psychology. Across our three studies, we look at cultural change in the form of changing identities and identity processes (Study 1), cultural learning and acculturation processes which underlie broader cultural change (Study 2), and how various dimensions of changing norms influence behaviour (Study 3). These three studies highlight the importance of 1) cultural sensitivity in how we approach different cultures, and 2) updating scientific theories as the world around us changes.

Introduction

This thesis consists of three studies that intend to contribute towards describing various aspects of cultural change, such as processes of identity development (study 1), the components of culture that are changing (study 2) and some of the mechanism underlying this change (studies 2 and 3). To do so, we bring together concepts from various perspectives within psychology and the social sciences, mainly cultural evolution (to broadly frame the concept of cultural change, and in the form of cultural learning theories), and social, cross-cultural (identity theories, and acculturation), and indigenous (for increased cultural validity) psychologies. Alongside this, we also use these studies to highlight the need for more culturally appropriate approaches that will allow us to capture the full spectrum of lived human experiences. This includes, for example, laying out a contextual background relevant to the samples being studied, and using methods that are tailored to both the purpose of the research and the population being studied. In the next sections, we outline how the main concepts used across our three studies are linked to one another. We do this by first describing the need for culturally valid research, then move on to how cultural evolution approaches and concepts in social and cross-cultural psychology can be used to better explain some processes of cultural change.

Culture and Its Position Across Fields and Subfields

Richerson and Boyd (2005) define culture as " any information capable of affecting individuals' behaviour that they acquire from other members of their species through teaching, imitation, and other forms of social transmission" (p. 5). This information consists of ideas, knowledge, beliefs, values, skills, and attitudes (Mesoudi, 2009). Using these definitions as a frame for reference, in this thesis, we look at some of the main components of culture as a form of information, and how this information is transmitted through members of the groups that make up a society, and any variation between groups.

We have often discussed the role of culture in the study of human species (Arnett, 2009; Henrich et al., 2010; Masuda et al., 2020; Triandis, 1995) and adopted different approaches that match varying accounts of how it influences our cognition, behaviours, and relationships. In mainstream psychology, a large portion of the founding literature was developed in Europe and the United States with samples of mostly university students (Henrich et al., 2010). However, most of the concepts and theories about human psychologies, such as self-concepts and identities, vary across cultures (Heine & Norenzayan, 2006). In recent years, the cultural nature of humans has received more attention, leading us to question the universality of western psychology (Gergen, 2015; Medin & Bang, 2015; Sundararajan, 2014) and pushing to the forefront subfields of psychology that attend to culture in several ways such as using culture as a grouping variable to compare populations, or using culture to inform and develop theories. Some of the fields and subfields that have positioned culture in different ways when trying to understand human behaviour are cross-cultural psychology, cultural psychology, indigenous psychology, and cultural evolution. The next sections briefly describe these various perspectives on culture, and how indigenous psychology and cultural evolution underpin our research.

Cross-cultural psychology attempts to test the generalisability and variability of culturally-bound psychological phenomena mostly through scales for comparisons across cultural groups. However, most of these concepts tend to be based in Western ideas and comparisons are usually made with Euro-Americanised concepts and samples as the frame of reference (Hwang, 2014). Cultural psychology, on the other hand, instead of using culture as a category for comparison, places culture at the centre of research by adopting more bottom-up, culture-informed approaches. Psychological phenomena are studied in a cultural context which shapes the research process and design. Close to this, indigenous psychology, and its various subfields, specific to multiple societies provide an even more in-depth focus on these societies' histories, and ecologies, describing how various social, political, economic, and environmental factors, and changes to these factors, are intertwined with the psychological processes of individuals from that society. Although the indigenous approach is adopted across various geographical regions, most of the work remains empirical and endemic to the populations being studied, with little work done to reunite findings under explicit theories, or larger frameworks that could be applied universally. We further describe this issue in the next section. Cultural evolution, on the other hand, has adopted this more intensive culture specific approach, integrated with evolutionary explanations to explain social and cultural change. Despite the culture-specific approach, cultural evolution researchers work within elaborate, formal theories to explain patterns of behaviours across cultural boundaries. This thesis adopts principles from indigenous psychology (to formulate research methodologies that allows us to capture culture-specific processes), and cultural evolution (for theoretical groundedness to explain processes of cultural change). With cultural evolution being a new field, some of our studies (Studies 1 and 2) also rely on theories from social and cross-cultural psychologies to understand some of the processes we are interested in such as identity and psychological changes that arise from intercultural contact.

Indigenous Psychologies

Indigenous psychology approaches the study of humans within a cultural context by relying on that culture's values, beliefs, and social structures to frame research. What differentiates indigenous approaches from general cultural psychology is how methodologies and concepts are based in the culture being studied. There is a strong emphasis on studying individuals with regards to their cultural processes, histories of discrimination, decolonisation processes and community-engaged practices (Smith, 2012). This makes indigenous psychology sensitive to social structures, power dynamics, and ongoing societal changes (Poesche, 2019). Contrary to how cultures are reduced to dichotomies in western psychology (e.g., individualistic vs collectivistic, WEIRD vs non-WEIRD, see Apicella et al., 2020 for a more in-depth discussion of this issue), indigenous psychology is sensitive to the multiple cultures outside of the global north with various branches (or perspectives, see Jahoda, 2016) focusing on African, Chinese, Vietnamese, Indian, Hispanic, and several other indigenous populations. By focusing only on Western indigenous psychology's conceptualisations, we limit our ability to understand the richness of human

social identities and the variation we are capable of as a species. Each of the branches within indigenous psychology has developed comparatively different research designs adapted to the sampled population, but they all share an overarching preference for hypothesis-generating methods. Hypothesis-generating methods tend to be more exploratory and allow room for discovering new concepts, processes, or links between them. The emic indigenous approach has contributed to tackling some of the issues around psychometric qualities (mainly reliability and internal validity) of these westernised constructs by moving away from generalising and replicating westernised concepts across cultures (Mataragnon, 1979; see Lee et al., 2012 for an example of a concept in Chinese societies, and Gurven et al., 2012 for an example of how the Big 5 personality factors do not replicate in the Bolivian Amazon). In this thesis, we adopt some of these indigenous approaches to form a more wholesome image of the cultural groups we are studying by taking into consideration their histories, social and political structures, and power dynamics, and how they influence individual psychological processes.

Despite its cross-cultural presence, findings from indigenous psychology remain endemic: there has been little integration of findings both within the various indigenous psychologies and with western and cross-cultural research. As a result, indigenous psychological research hardly influences the mainstream perspective. While the primary goal of indigenous psychologies is to produce research tailored to its specific population, indigenous psychology researchers also aim to develop a larger global psychology (Enriquez, 1993; Hwang, 2005; Sinha, 1997). Researchers (Kim & Berry, 1993; Sundararajan, 2019)have suggested that indigenous psychology has the right tools to form the base of this new global psychology to which all the indigenous psychologies contribute equitably. Nonetheless, little has been done to unite current findings and theories across different branches under this universal psychology.

Reconciliation under Unifying Frameworks: Explaining Variations and Universals

Across the multiple cultures included within indigenous psychologies, we see a large emphasis on placing the culture and its people at the centre of research. For example, in Māori psychology, this can be seen at the level of research design, methodology, and ethics. In African and Asian psychologies, this is reflected in how cultural knowledge and philosophies are entwined with theories. These various indigenous psychologies have established approaches that are well-suited to their populations. As a result, they produce accurate indigenous knowledge in an ethical and sustainable manner while uncovering aspects of their populations previously unstudied through traditional western psychological approaches. Indigenous psychologies are especially sensitive to ecological changes and as a result, knowledge and theories about the population constantly evolve with ongoing occurrences in the world. This can largely be attributed to their methodological acuity: various improvements have been made at multiple levels of the research process in a way that is streamlined yet also culturally flexible to accommodate the various indigenous psychology branches. These methodological and ethical alterations have been discussed extensively within indigenous psychology (Kovach, 2009; Smith, 2012); as well as outside of the realm of indigenous psychology, especially in the field of cultural evolution (see: Broesch et al., 2020; Kline et al.,

2018). These alterations range from making sure researchers have adequate, up-to-date knowledge of the culture being studied, to creating long-lasting partnerships with the community. Nonetheless, little has been done to adapt and adopt these improvements within western psychology, nor has there been much reflection about the need for these changes.

While indigenous psychology consistently works towards their aim of a culturally accurate psychology, the goal of a global psychology (Enriquez, 1993) has moved to the backburner. Little advancement has been made in that respect. We argue that this can been attributed to the lack of formal theorising, both of individual concepts such as identity which we discussed earlier, as well as of a larger framework that would enable us to efficiently make sense of smaller conceptual theories. The outputs of indigenous psychology have been mostly in the form of empirical contributions; however, these have not been coherently collated to form a larger system of knowledge (Jahoda, 2016).

Articulating conceptual theories would enable succinct summarising of findings and comparison across indigenous psychologies. For example, across various indigenous psychologies, we find similarities in terms of kin networks and other social structures shaping identities (see Houkamau et al., 2021; te Huia, 2015 for Maori psychology, Liu, 2014 for Asian psychologies, and Kessi et al., 2021 for African and Sub-Saharan psychology). There is an emphasis on the relational nature of identities. Where diversity exists, we also find identities linked to ethnicity and religion, yet those are also described as being shaped and maintained through engagement with the community and ongoing events. An indigenous framework that has been used in the African context is Nsamenang's theory of social ontogenesis (2006). Nsamenang's ecological theory describes human development in western Africa as being rooted in their social ecology: individuals throughout their lifespan learn and develop through participation with the environment. This can be applied to the study of identity as it is reflective of how identities form through a dynamic, reciprocal process through individuals' interactions with the environment around them. Although Nsamenang's theory is tailored to West Africa, we can also find overlaps with findings from other indigenous psychologies, as well as Western psychology. Articulating theories within each indigenous psychology would include cultural specificities, allowing us to compare both similarities, and variations across cultures, as well as how and why these come to be. For instance, Nsamenang's theory can be used for comparison against Sundararajan's ecological rationality model (2015), Māori and First Nation ecological models (both attend to other species and the natural environment, see Bang, 2015 for a discussion on nature-culture relations), and has already been compared against other ecological theories that originate from the West (see Nsamenang, 2015 for comparisons).

To keep track and make sense of the large number of existing theories, as well as new theories to be articulated, those need to be rooted in a larger cumulative theoretical framework (or meta-theory, Gervais, 2021; Muthukrishna & Henrich, 2019). This framework should emphasise socio-ecological structures that explain variances in behaviours and other psychological constructs, while still trying to account for species universal traits and other factors that could give rise to this variance. This will form a better understanding of universality and variances in human behaviours and point towards the most

appropriate set of theories for the population being studied. Crucially, the construction of this larger framework will allow us to move towards a more unified and global psychology. This angle has been extensively discussed over the years with several suggestions for an overarching framework such as a constructivist approach (Gergen, 2015); evolutionary theory (Caporael, 2000), and dual-inheritance (or gene-culture coevolution) theory (Muthukrishna & Henrich, 2019). These, of course, are not the only options and there is always room for new frameworks that could reconcile these theories (see Ho, 1998 for a discussion on how to create a meta-theory). However, generally little has been done in terms of reconciling existing theories under any suggested framework. In this thesis, we use the cultural evolution perspective, with the formal dual-inheritance theory as an overarching framework to thread together our three empirical studies.

The Cultural Evolution Perspective

The cultural evolution perspective explains social and cultural change using an evolutionary lens. Theories of cultural evolution suggest that cultural change occurs in a similar manner to biological evolution as suggested by Darwin: cultures broken up into traits that are passed down, however, unlike Darwinian evolution, in this case cultural traits are inherited through various learning pathways (Henrich & McElreath, 2007; Mesoudi, 2009; 2011). Over time this field has moved from theory to theory to better describe this process of change, and one of the components of human research that received a large amount of emphasis is cultural relevance. Cultural evolution focuses on various aspects of individuals and their environments, and how they influence cultural traits and processes. For explanations of human behaviour to be more robust, they should account for how beliefs, behaviours, and norms are culturally acquired. Various researchers outline how changes in an individuals' sociocultural environment led to larger changes within the population (e.g., Henrich's (2020) weirdest people in the world describes how agriculture, industrialisation, and religion have influenced the evolution of the culture in places across the West, China, and other regions).

There is a focus on how individual societies change and develop as a result of their unique ecologies, histories, and cultural dimensions (such as norms), instead of generalisations across cultures. This emphasis on treating cultures as unique, yet equal, contributes to the movement away from previous conceptions of the WEIRD world being considered the normative reference point for cross cultural comparisons (as is often the case in cross-cultural research), or superior to other cultures (a misconception from earlier theories of evolutionary psychology and cultural evolution). The field highlights the incorrect dichotomous categorisation of the world as WEIRD and non-WEIRD (or collectivist/individualist, or tight/loose), which has led to new sampling issues with a bias for large- and small- scale societies, with the larger portion of mid-scale, developing societies such as Nigeria, or Mauritius being underrepresented (Barrett, 2020). The cultural specificity of the field is aligned with indigenous approaches to research, but unlike indigenous psychology, in cultural evolution, there is often outsiders doing research with communities that they are not part of. To ensure an ethical dynamic

between researchers (both indigenous, and outsiders) and the societies they work with, there have been various publications describing guidelines for working with participants in terms of understanding power dynamics, etiquette during fieldwork, and doing community-engaged research by involving community members at various levels of the research process. Careful attention goes towards not exoticizing these communities, especially when studying small-scale, hunter-gatherer, or forager communities. As a result, cultural evolution research is often informed by rich background knowledge on the population of interest.

Alongside being attentive to individual cultures and their unique characteristics, there has been much work reconciling findings from these various world regions under a broader unifying framework, the dual-inheritance theory, or the gene-culture coevolution theory. Broadly, gene-culture coevolution theory suggests the dynamic, intertwined evolution of genes and cultural traits: as culture evolves faster than genes, this constantly creates new environments, and thus more, and newer selection pressures in gene transmission. Several studies describe genetic evolution in humans linked to changes to the human's ecology: new epidemic diseases have appeared with the growth of human populations, and our genes have evolved to adapt to the agricultural revolution. More recently, studies have identified the role of both genetic and cultural evolution on educational attainment, describing how cultural evolution is a stronger influencer on these outcomes. This highlights the need to understand cultural change and how it influences behaviour.

To understand this process of change, gene-culture coevolution (Muthukrishna & Henrich, 2019) draws a parallel between biological and cultural evolution, describing how cultural traits are reproduced, and mutate across individuals through vertical (from parent to child, similar to genes in humans), horizontal, and oblique (between individuals of the same generation, or between unrelated individuals across generations, similar to microbes and plants) learning pathways. One of the cultural components used to describe this interrelated process, is norms (Gelfand & Jackson, 2016) and the human propensity for morality, which has a genetic basis, but is also emphasised by various socialisation processes which lead to the internalisation of moral values as norms (Gintis, 2011). In this thesis, we focus on this dimension of dual-inheritance theory to approach cultural change (in the form of changing social groups in study 1, and cultures changing as a result of cultural learning processes in study 2), and its influence on behaviour (by looking at how various dimensions of norms influence behaviour in a changing cultural setting). In the next section, we describe how processes of cultural change occur as a result of changes to individuals' social, cultural, and physical environments.

Cultural Change

Most components of culture are passed among humans through cultural contact. This can come in the form of children being raised in a family within a specific cultural background, someone learning about a new culture online, or an individual moving to a new country. One of the by-products of this transmission process is cultural change. For example, as some traits fail to be transmitted within, and across generations, they inevitably go extinct over time. In other cases, traits can adapt to the

environment - both physical and social - they exist in to remain functional. One common example for the functional evolution of culture are the steps involved in cooking Indian food: individual, freshly ground spices have largely been replaced by store-bought ground spice mixes in most households so as to save time.

Historical evidence has previously been used to showcase the process of cultural change due to both the cultural extinction and adaptations of some traits. Archaeological records of cultural tools and artifacts attest to how the latter have been subject to change over time, both as a result of natural transmission processes, and transmission processes linked to intercultural contact (Basalla, 1988; Keller, 1931). Statistical models have demonstrated how in the prehistoric Tasmanian population, which was cut-off from mainland Australia due to rising sea levels, impaired cultural learning pathways (due to a decline in social exposure) are linked to the loss of cultural characters such as clothing adapted to the cold weather, and fishing tools. Similarly, phylogenetic approaches have been used to outline the evolution of languages, which can be viewed as a cultural domain (Mace & Holden, 2005). Lab experiments have also mimicked cultural adaptations on tools, which are considered cultural artifacts (e.g., Derex et al., n.d., 2013).

In the case of the modern world, this process of cultural change is amplified due to unpreceded cross-cultural contact between individuals that occurs in multiple spheres as a result of various globalisation processes. Geographical location and changes (for example those similar to rising sea levels in Tasmania) still play a role in how cultures evolve, however in the current world, it does so in a less uniform manner, and to a lesser extent, as culture is not as bound to these constraints. Instead, technology has facilitated both in-person (through tourism and migration becoming more accessible and common), and indirect (with the internet making international media and social media more handy) intercultural contact. Individual level processes behind larger cultural change have been studied within the cultural evolution literature in the form of cultural learning (social learning and cultural transmission), and in social and cross-cultural psychology in the form of acculturation, and identity processes. In the next sections, we elaborate on globalisation processes and how they contribute to cultural change. Throughout the next chapters we further describe some of the processes we selected to study this process of cultural change: identity formation, cultural learning, acculturation, and norm change.

Globalisation and Globalisation Processes

Globalisation is a term that has been widely used and defined in multiple ways. In a nutshell, it refers to processes that have make cultures across the globe increasingly connected and interdependent in multiple domains (demographic, economic, political, socio-cultural and environmental). For the purpose of this paper, this is the broad definition that we will be using, while taking into consideration that it slightly differs from other widely used definitions (such as Dreher, 2006; Gygli et al., n.d.; Ullah & Ho, 2020). As well as multiple definitions, there has also been various ways in which this concept has been measured (see Ullah & Ho, 2020 for an overview of different scales and how they differ). Because

globalisation is a singular concept which is hard to define and measure, a larger portion of literature across multiple fields such as psychology, anthropology, and economics, instead look into the various processes that make up the construct of globalisation and other proxies, such as trade as a percentage of GDP (Yameogo et al., 2021).

In line with the varied definitions of globalisation, there are differences in what globalisation processes consist of (e.g., see Scholte, 2008). Some of the processes of interest in this study are increased technological advances, ease of travel and migration which have resulted into increased intercultural contact across groups all over the globe. In the modern day, this intercultural contact has reached its peak by being facilitated across various spaces both online (with technological advances making media and social media more accessible, Flew & Iosifidis, 2020; Kaul, 2011) and in real life (increased ease of travel has resulted in more international tourism and migration, Tolkach & Pratt, 2019), and in turn led to more cultural exchanges. In this thesis, we are interested in looking at how these globalisation-related processes have influenced social groups, and the process of forming identities linked to these groups in the cultural context of Mauritius (Study 1), and how in the UK, this intercultural exchange has led to the creating of hybrid cultures as a result of cultural learning pathways, which lead to the creating of new norms.

Changing Cultures, New Spaces, New Identities

Social identity is a concept that is considered a human universal (Brewer & Yuki, 2007) central to multiple aspects of our experiences. Empirical research has tied identity as an important aspect of various wellbeing outcomes such as physical and mental health, and processes such as cooperation and intergroup relations (Cruwys et al., 2020; Greenway et al., 2015; Haslam et al., 2005; Liu, 2002; Smaldino, 2019; Yuki, 2003), as well as several behavioural outcomes (Dono et al., 2010). Both cultural evolution, and cross-cultural psychology research emphasise the importance of understanding identity, its functions, and its processes as this contributes largely to our understanding of humans. Over the years, social identity has been defined in multiple ways, usually to attempt to better define its dimensions and scope. One of the more prominent definitions describes identity as "the part of an individual's self-concept which derives from his knowledge of his membership in social group(s) together with the value and emotional significance attached to that group membership" (Tajfel, 1981). Over time, some researchers have produced more definitions (e.g., Deaux, 1993; Hogg, 2003) while others preferred to not adhere to any.

When looking at group identities, it is important to consider the context within which they exist. Cultural and indigenous approaches have been more attentive to this, as we described. In study 1, we discuss these various approaches in the study of identity. However, across the globe, including in WEIRD societies, we find societies to be rapidly changing. When it comes to identities for example, researchers have described how substantial economic, demographic, and cultural changes, for example those that came with the industrial revolution, may influence previously established identity development patterns. For example, in Japan's fast-paced changing culture, it has been found that parents and elders have a smaller role in group identity formation processes. This is a by-product of increased intercultural contact

as a result of globalisation processes which facilitates intercultural contact over various mediums, such as migration, tourism, and the internet. This creates new spaces for cultural learning and identity formation, and thus new processes linked to these changes. As a result, youngsters have to balance their traditions with new ideals that they are exposed to and assimilate. Broadly, this results in new groups, within new spaces, and hence changes to existing processes (e.g., it has been suggested that identity exploration occurs through a longer period of time, into early adulthood) or new processes for identity formation (Sugimura, 2020).

Balancing Cultures through Multiple Identities

One of the most prominent movements to capture changes to identity processes and how they correspond to larger changes happening in the world tie the acculturation literature to Erikson's developmental periods (together with Marcia's complimentary model) and social identity theory (SIT, Tajfel, 1981). These are some of the pillars of social psychology, which underlie most of the existing body of work on the topic, and are often used in conjunction with each other (e.g., Crocetti, 2017; Crocetti et al., 2008; Schwartz, 2001). Although these theories are considered ubiquitous, little has been done to test the cultural fit of these theories outside of the global north.

With an increase in migration patterns and increased contact between individuals from varying cultural backgrounds, these individuals develop new identities (e.g., bicultural or third-culture identities). By linking these theories, various models have been developed to accommodate multiple social identities and explain how they are managed by multicultural individuals (e.g.,: the bicultural identity integration model by Benet-Martínez & Haritatos, 2005; and the multiple identity integration style scale by Ward et al., 2018). The aim is to understand how the growing population of migrants balance their heritage culture (associated with where they come from) with the mainstream culture of the country that they have moved to. Identity research approaches this by focusing on the various strategies for managing multiple identities (e.g., cultural frame switching, hybrid/blended or alternating identities, see Benet-Martínez et al., 2002; Nguyen & Benet-Martínez, 2007). Over the years, these models have been applied to non-immigrants and cross culturally in places such as New Zealand and Mauritius (Ward et al., 2018). The identities investigated tend to be politically salient ones such as race, religion, ethnicity, and nationality with little exploration of other types of group identities such as gender or sexual orientation. Although both gender and sexual orientation are used as variables for intergroup comparison (e.g.: gender differences in identity styles, e.g., Kroger, 1997), there are few studies within mainstream psychology that approach gender or sexual identity alongside other group identities.

Identity

Despite the lack of consensus on definitions and dimensions, there is pervasive agreement that identities and their processes are embedded within, and interdependent with culture (Masuda et al., 2020). For example, although belonging to some groups, such as ethnic and religious groups are biologically

determined, the characteristics of those groups are shaped by cultural determinants such as the artifacts, values, and norms associated with that group in a specific setting. Similarly, identity processes are prone to variances as a result of cultural differences and cultural change (Sugimura, 2020). However, the centrality of culture in identity research varies across researchers, often depending on the perspectives they adopt, as well as the methodology being used. For instance, in 'mainstream' research, the approach tends to be a-cultural, with a tendency to focus on individual experiences separate from the environment that they occur in. Indigenous research, on the other hand, study identity as a concept that is interlinked with the individuals' social and ecological environment, as the changes that have influenced both of these over times. In the next sections, we describe some of these identity frameworks.

Psychology and its Problems: Sampling, Cultural Validity, and Theoretical Reconciliations

In recent years, an increasing number of papers have been published describing the various interrelated 'crises' within psychological research. Most of these pertain to the lack of formal theory, biased sampling, and replication of research findings. The theory crisis describes how theories within psychology are of poor quality, and too abstract (Gervais, 2021; Muthukrishna & Henrich, 2019). Many theories are unrelated but have been built around similar (or even identical) concepts which have been defined in various ways by different researchers. As a result, the various theories in psychological science remain unconsolidated. It is not clear that we are building a single cumulative science of human psychology with the current collection of psychological theories. This is amplified by the sampling crisis, which shows that most psychological theories and concepts have been tested and validated almost exclusively among American and European college students (i.e., the WEIRD problem, ref). Among the existing array of often unrelated psychological research, theories and constructs are considered universally valid and are used as building blocks for new concepts, despite having been tested on only a tiny slice of the human population. In turn, findings often do not replicate cross-culturally as these tools lack cultural validity. In response to these issues, researchers have started to move towards improving their methodologies and sampling strategies as well as verifying the validity of different theories.

To contribute towards the solution, across our three studies we start with more emic, or bottom-up approaches to understand how our constructs of interest exist within the population we are studying. This can be seen in Study 1 where we use an individual-focused narrative procedure to understand how participants negotiate their identities within their changing socio-ecological environment. Similarly, in Study 2, we use a cultural consensus approach (Purzycki & Jamieson-Lane, 2016a) to understand some of the cultural transmission processes underlying cultural change in the context of migration, as well as cultural domains that are relevant to our participants. In this study, we also attempt to contribute to resolving the theory problem by bridging the gap between theories and concepts within cultural evolution (e.g., cultural learning), and social and cross-cultural psychologies (acculturation). In Study 3, we build onto some of the findings from Study 2 to look at some predictors of behaviour for a changing cultural domain using a social norms approach.

Understanding The Changing World and its Impact on Psychological Processes

Another thread that ties together the various components of this thesis looks at cultural change, the processes underlying it, and the processes influenced by it. Across our three studies, despite being set in two different societies (Mauritius and the UK), we describe processes of globalisation, which include increased levels of education, new economic structures (e.g., a shift from agrarian based to more diversified economy as is the case in Mauritius), technological advances (e.g., easily accessible gadgets and internet), and tourism and migration (both in Mauritius and the UK). A number of these processes have facilitated intercultural contact both in physical and virtual environments. Our studies look at the processes and products of intercultural contact.

In Study 1, which is set in Mauritius, we describe the changing structures within the island and look at how life course events linked to identity formation processes are influenced by these changes. We frame this study using existing descriptions of various dimensions of identity and its processes, in the form of both larger theories such as the social identity theory and Erikson's developmental stages, as well as more local descriptions of identity experiences in Mauritius. Study 2 directly targets the process of cultural change in the UK, where we sample some of the largest migrant groups (Black, Polish, and South Asian), and the majority national group (White British). We use the cultural learning literature from cultural evolution to describe processes of cultural transmission and social learning, which underlie acculturation (from social and cross-cultural psychology). The acculturation literature describes the various strategies individuals can use to adapt to new cultures that they are in constant contact with, however it contains little descriptions of the mechanisms underlying these changes, therefore we use cultural learning theories to complement this concept. In this study, we also help move away from culture-general views of acculturation by allowing participants to list cultural domains they believe are relevant through the cultural consensus approach. Study 3 focuses on romantic relationships, a domain that in Study 2, Polish and South Asian participants describe wanting to adopt from the host culture. Still sampling Polish and South Asian migrants, we look at various components of this domain such as normative and moral beliefs, and parental approval, and how they influence behaviours within this domain (e.g., dating, intergroup relationships, etc). This helps create a broad idea of what predicts changes in behaviour in an evolving setting.

Across the studies in this thesis, we have a common thread of cultural change, mainly because of globalisation processes, which contribute to intercultural contact. We discuss how the influence of changing cultures is often overlooked in various communities or approached in desensitised ways. We adopt a cultural evolution perspective to explain how cultures evolve as a result of changes to the socio-ecological setting, and through processes of cultural learning. We tie this to the social psychology literature on acculturation and social identities to better describe changes linked to those constructs and bring in approaches from indigenous psychology to create ecologically valid research.

Study 1

Introduction

Social identity is traditionally defined as the part of an individual's self-concept which is defined by their membership to various social groups. Applied to the real world, for a man who was born in a Christian family in the USA, this would refer to him knowing he is part of three social groups: males, Christian and American. However, throughout the individual's lifetime, he may be exposed to other groups and start to identify with those. For example, in the case of this man, if he moves and settles in a different country, for example the UK, he may over time start to identify with British culture. This adds another dimension to his self-concept. Similarly, if he finds that he is homosexual, this will be a new group that he may identify with and will be another part of his self-concept. Although these are all groups that he identifies with, the identification process with all these groups may all differ based on various factors such as the type of group and how and when he learns about them.

As is the case with most current concepts in mainstream psychology, most of the literature on identity is based in Euro-American-centric approaches. Most scales, models and theories of identity and its processes have been validated in the global north mainly during the late 20th century. Identity, its formation, and other processes associated with it are experienced across the world; however, basing sweeping theories on specific Western, highly developed samples which are culturally quite different from the rest of the world limits the applicability and universality of the psychological theories of identity. In order to form better, more comprehensive theories of identity, it is important to understand how the concept exists and influences other aspects of human behaviour within multiple cultural contexts and how it is similar and varies across those cultures.

Researchers have agreed on the importance of theories that reflect cross-cultural realities, but there has been little discussion on how the existing body of knowledge may not be up to date. Due to various processes such as globalisation (including migration, increased educational levels, and economic and technological advances), countries across the globe have experienced changes to their demographic and social structures (e.g., decline in fertility and kinship ties becoming looser, see Colleran, 2020; Colleran & Snopkowski, 2018), which permeate changes in various dimensions of culture. Some examples of these shifts are the loss of some traditional knowledge (e.g., Gómez-Baggethun et al., 2013), changing social norms, new ways of learning (Acerbi, 2020), and emerging social groups, as well as new spaces for cultures to develop and exist in (e.g., social media and the internet, Lüders et al., 2022). These changing and emerging cultural dimensions inevitably contribute to changes in identity processes as well as the formation of identities linked to newly emerged groups. In mainstream psychology, a large part of these identities and processes is often overlooked. Other schools, such as indigenous and cultural psychology, on the other hand, have adopted more inclusive designs which are attentive to changes in the environment and the resulting impact on psychological processes including identity. Nonetheless, these findings rarely contribute towards theory development: indigenous psychology has outlined only a few theories, and findings from these schools of psychology are yet to be incorporated into mainstream

psychology to form larger, cross-culturally blanketing body of knowledge and theoretical frameworks. The next sections describe how identity has been studied from these various perspectives.

An Overview of Identity from Various Perspectives

Mainstream Social Identity

Mainstream social psychology describes identity using Erikson's psychosocial theory, together with social identity and social categorisation theories. Researchers adhere to the prevailing view of a three-dimensional structure of identity (cognitive, affective, and evaluative) (Ashmore et al., 2004; Brown et al., 1986; Cameron, 2004; Phinney & Ong, 2007), as well as certain identity processes and time periods, such as identity exploration during adolescence as crucial for healthy development of the self-concept (Crocetti et al., 2010; Meeus, 2008; Meeus, 2011). Across cultures, there is a large amount of research focusing on adolescence as the prime time for identity development, mainly due to the popularity of Eriksonian theory. In the current fast-paced and changing world, by focusing only on adolescence, we may be missing a shift in identity development processes that coincide with external changes in the world. This may be at the level of these when these processes occur (e.g., a shift from adolescence to early adulthood for identity development), or in the content of these processes (e.g., Lyncx et al., found additional identity statuses relevant to Marcia's model).

Intersectional and Indigenous Identities

In other areas of psychology, we find other findings and theories that are more inclusive of other types of identities (e.g.: Bates et al., 2019; Horowitz & Newcomb, 2008 for sexual identity; Janga et al., 1995 for political party identities; and Kuss et al., 2022; Shaw, 2011 for gamer identity; Sythes & Bedford, 2021 for anti-vaxxer identity, and xx for furry identities) and more contextually appropriate, especially in the fields of cultural and indigenous psychology. Attention to the diversity in types of identities can be found especially in research based in intersectionality. An intersectional approach, in a way similar to indigenous approaches, is more considerate of how individuals have multiple identities (not limited to gender, race, religion, nationality, and other traditionally emphasised groups) which may overlap and interact to influence the experiences of the individual, especially when it comes to prejudice and discrimination.

In both intersectional and indigenous approaches, there tends to be a preference for more qualitative methods. This has allowed researchers to better conceptualise the boundaries and content of identities, as well as uncover new aspects of identities. For instance, indigenous perspectives in Māori, Chinese and African communities have found identity to be anchored in socio-cultural contexts and relational structures (Tsui & Farh, 1997; e.g., individuals' identification dependent on role relations). There is an emphasis on looking at the individual as a dynamic organism, constantly interacting with the community and identities being formed during these interactions (Adams & Dzokoto, 2003; Houkamau & Sibley, 2010; 2015). With this attention to the cultural environment, societal changes in terms of

economy, politics and broader social structures, as well as the changes that they bring about to psychological processes (and identity) are also scrutinised within indigenous and intersectional perspectives. Colonisation (especially in Māori and African psychologies), globalisation, and environmental changes (such as the consideration of melting ice caps in Inuit psychology) are treated as important factors in the shaping of identity, therefore resulting in culturally sensitive understandings of identity processes that may be more up to date with the changing world than traditional mainstream research.

Other Identities: 'Niche' Groups

Although intersectional and indigenous approaches have additional considerations for power differences and cultural minorities, they do not always englobe all the group identities within the realm of human experience. The tendency to focus on race, ethnicity and nationality expands to accommodate gender and sexual orientation in intersectional approaches. In indigenous approaches, there is increased consideration towards socioecological factors, which are constantly undergoing change, and more cultural awareness when describing those group identities. However, it is important to consider that other groups, such as fan groups, or groups linked to social movements, also exist beyond this. This is where even more niche areas come into play: a small portion of research has looked into these other identities beyond race, ethnicity, nationality, and even gender and sexual orientation (which could also be argued to be politically salient). In these more niche areas is where we find research on other identities linked to various phenomena, especially those that have gathered a lot of international attention. For example, a large portion of research emerged from the Black Lives Matter, anti-vaxxer, and radicalised movements. Similarly, there is a substantially growing body of research on gamer identities (since the growth in popularity of gaming culture). There is a portion of research looking into identities associated with fetishes. However, other groups, such as football and music fanclubs, that individuals may actively be involved with, tend to gather less scientific attention. We should also consider how these groups are discussed less within the media and social media, and therefore may seem less important to researchers since they can be interpreted as being less impactful than they really are.

Overall, the bias in terms of which groups are studied persists even in niche psychological research, with a disproportionate focus on groups that are highly salient within the media and other public spheres. The groups that are subject to scientific interest seem to fluctuate with their popularity within the media. Beyond traditional identities, there seems to be less interest in knowing which long-standing group identities individuals claim and why. Even in the case of gamer identities, or other similar identities that were sustained for longer periods than their initial popularity lifespan, most of the research seems to be qualitative and descriptive. Little work has gone towards understanding the prevalence and conceptualisation of these identities, how they overlap with other traditional identities and how these various identity processes may be similar or different.

In this paper, we use a set of three modified case studies to understand how identities and identity processes are changing and emerging in Mauritius, a multi-religious, multi-ethnic country that is undergoing fast-paced changes in terms of its economy, demography, and social structures. We use a combination of three techniques (freelists, narratives, and interviews) to explore the content of young adults' identities, how they are formed, and their bidirectional influence on various aspects of everyday life. We contribute to addressing the issues around limited non-representative sampling, lack of focus on the impacts of ongoing rapid development, and schisms between mainstream and indigenous and cultural schools of psychology by 1) expanding the cultural scope of psychological research to include a diverse and unique, understudied population, 2) adopting an approach that can target new identities and changes to identity processes, and 3) contributing towards the reconciliation of mainstream and more niche areas of psychology by considering both western and more indigenous theories and findings.

Methodological Background of this Study

Identity Narratives

In this study, we adopted a narrative life story approach. Compared to other in-depth methods, for example ethnographies, the narrative focuses on individual experiences of identity processes instead of a subjective account of larger identity processes occurring with this culture. This approach provides an integrative image of human experiences from the point of view of the individual by capturing perceived internal and external factors shaping the self. Narrative methods have also been built in as part of identity theories: narrative identity theories (McAdams, 2017; McAdams & McLean, 2013). These are based in developmental and relational theories of identity and can be further linked to other aspects of the human mind. Narrative construction depends on the human brain's capacity for autobiographical memory, a form of episodic memory which contains an element of personal importance (Wang & Hanyu, 2005). Both the ability for storytelling and autobiographical memory are considered universals and can be found across cultures (Fivush & Haden, 2003; Zaragoza Scherman et al., 2017). Combined, these abilities allow us to recollect and organise memories of various past experiences coherently, linking them based on personal meaning. This determines what experiences are remembered, how they influence the construction of the self, and how this is described within our narratives. These memories and narratives are shaped by social interactions within specific sociocultural settings. As a result, narratives tend to be culturally bound social representations which capture the three levels of identity (individual, relational, and social), contextual aspects (histories, social structures, interactions between different groups, and individuals) and changes across the individuals' lifespans. The range of cultural specificities captured by narrative frameworks creates room for more contextually relevant findings when applied to less WEIRD populations, or generally across all cultures which are currently evolving.

Narratives allow us to capture identity processes in a more contextualised way as individuals describe how these processes are shaped by the environment around them. In a changing socio-historical context, as cultures are becoming more and more intertwined, this approach helps us capture complex

interactions between changing socio-cultural and psychological processes, especially those that occur throughout the lifespan. The retrospective component of this method helps us capture a portion of past events and their influence over time, which are harder to investigate using traditional methods. Finding similar elements and patterns across individual narratives will help us identify elements that are central in identity development.

The Mauritian Context

An Overview: Ethnicity, Religion and a Changing World

Mauritius is a small island in the Indian Ocean. The unique aspects of this country come in the form of its diversity and its quickly changing environment. To form an understanding how this society functions, it is important to look into its history, demographics and social structures.

History and Cultural Layout: Group Dynamics

Mauritius has a history of colonialism, slavery, and indentured labour which has contributed to its current multicultural society. The island currently contains three constitutionally recognised ethno-religious groups: Hindus including Tamils, Telegus and Marathis, Muslims, and General Population which consists of Creoles (African descent), Franco-Mauritians (European descent), Sino-Mauritian (Chinese descent) and individuals that do not fall under the religion-based Hindu and Muslim categories. This reflects how the concepts of ethnicity and religion are overlapped in the Mauritian society. The country allows and encourages cultural practices from all groups as can be seen through the various public holidays catering to most groups and sub-groups. There is inevitable yet peaceful mixing in everyday interactions: most individuals have friends, neighbours, and co-workers from multiple backgrounds. Alongside this, there are varying levels of mixing at the edge of cultural practices, as can be seen through food sharing on specific occasions.

This mixing across group boundaries makes the island a cultural hotspot. This intermingling has resulted in syncretism at several levels of the Mauritian society: people have pervasive knowledge about group-specific beliefs and practices and it common to participate in some way in others' ethno-cultural practices and rituals. This co-existence and involvement, commonly referred to as *"l'acorité"* between cultures within the island has been termed '*Mauricianisme'* and is reflective of the multicultural ideology of the population. Despite this, some boundaries are quite prominent and considered taboo to cross: social distance is composed of two dimensions -public and private social distance (Ng Tseung-Wong, & Verkuyten, 2014), indicating that this intermingling is frowned upon when it comes to accepting out-group members, including ethno-religious subgroups (e.g, Tamils and Hindus; see Nave, 2000) as romantic partners and family members (Eriksen, 1997). This cultural ambience where Mauritians actively engage with the various social groups and the boundaries between these groups are unusual, is only one aspect of what makes this population an interesting site for identity research.

Globalisation and Internal Changes

Over the past decades, the country has been subject to a fast-paced economic growth which has led to changes at various levels: education was made free and compulsory, the economy moved from being agrarian-based to becoming more diverse with booming tourism, finance, and export sectors, and technological facilities increasingly accessible (Durbarry, 2004; Zafar, 2011). Alongside this, there has been a small stream of migrants from India, Bangladesh, China and France. These changes, in turn, led to a generally quite different cultural environment and lifestyle for the younger generations compared to the original agrarian society.

Since these changes occurred within a short time span, the current population consists of several generations of Mauritians with markedly different experiences, resulting in a cultural limbo where traditional values are maintained and valued, especially by older generations, while some WEIRD cultural aspects are integrated by younger generations who are more educated, more exposed to the outside world, and drive the working force. Although some aspects of these cultural changes are more prominent among some age groups, the Mauritian population has experienced considerable change, as can be seen by Mauritians' increased willingness to engage in social protests towards various causes such as the LGBTQ+ movement, eco-consciousness, and desire for governmental reform. These fast past changes, combined with the high intensity of intercultural mixing makes for a community undergoing experience that are important to understand, however there has not been any attempt to investigate the effects of these changes on the population.

Identity Research in Mauritius

Currently, research looking into social identities and intergroup processes has mainly approached the Mauritian population from the traditional lenses based in SIT and acculturation theories. A large portion of this research has used a quantitative approach, looking into the different ways that the national, ethnic, and religious identities are integrated and managed by Mauritians (e.g., Jungers et al., 2009; van der Werf et al., 2020, 2020), while most of the qualitative, ethnographic research (Eisenlohr, 2020; Eriksen, 1994) has been conducted by ideological anthropologists coming from an outsider's perspective and does not delve into the intricacies of how individuals experience and conceptualise their identities.

Although researchers have acknowledged that Mauritians manage multiple social identities, the focus has not strayed from the Mauritian identity as a form of mainstream, superordinate identity while ethnic and religious identities (often separated despite being conflated concepts: individuals' typical description of their group membership varies between ethnicity and religion (eg: *"I am a Creole"* vs *"I am Hindu"*); reflecting how ethnicity and religion are intermingled in this context) are seen as heritage identities that individuals hold on to create a sense of belongingness to a place of origin. While ethno-religious identities can be assumed to have clear boundaries, the national Mauritian identity is harder to define as there is no specific trait or characteristic that defines a Mauritian. Its depiction as the

mainstream identity is unusual considering the paucity of criteria one has to meet to be part of the culture. Little work (but see van der Werf et al., 2018; 2020) has attempted to find empirical definitions of the Mauritian national identity and it has been argued that being *multicultural* is the only criteria (Ng Tseung-Wong & Verkuyten, 2015).

Despite the evident ongoing changes that the Mauritian population is experiencing, there has not been any research looking into how these ethno-religious and national identities may be evolving, or how they interact with each other. Not much has been done on other group identities either, including gender and sexual identities, and the possibility of new groups emerging as a result of the evolving Mauritian context has not been explored either.

The Present Study

This study attempts to fill in this gap in the literature on social identity in Mauritius. We use an exploratory approach to study identity, its context, and processes in Mauritius' multi-ethnic, multi-religious, diasporic society. The purpose of this study is to go beyond mainstream, politically salient group identities to 1) reframe them to better suit the Mauritian context and 2) find other groups that may be overlooked. These unstudied identities could prove to be underlying influences to various other psychological processes and behaviours. To understand identity, its development, and the different sociocultural factors affecting it, this study leans on several theories, models, and methods from the existing literature on multicultural identity. The narrative framework is used to investigate identity development and the effect of cultural factors on the latter. Adaptations of SIT and the BII model are used to explain how intergroup interactions shape these identities. Broadly, our research questions are:

1. What are the cultural groups that Mauritian young adults identify with?

2. How are these group identities formed within this constantly changing social context?

We use these questions to highlight the importance of culture, and adopting culturally-conscious approaches in the study of humans.

Methodology

Design

To capture the multiple dimensions of cultural identities, their processes such as learning mechanisms, development processes and styles, we adopted a qualitative approach. This study was originally intended to be carried out in the form of interviews across field sites in Mauritius but due to the coronavirus pandemic, the design was modified to be completed online. We instead shifted towards a combination of three methods: a freelisting item, a written cultural narrative, and an online interview.

Participants

Our sample consisted of two participants, recruited through a purposeful snowball sampling to ensure different ethno-religious background. The participants live in Mauritius and have been for all their lives. For this study, they have been given pseudonyms: Juliette, and Ali.

Participant 1: Juliette

Juliette is a 20-year-old female who constitutionally falls under the Creole group denomination.

Participant 2: Ali

Ali is 24, male and Muslim.

Measures

The freelisting item (Please list and describe all the cultural groups that you feel you belong to in order of most to least important) was used to capture the various facets of identity content.

The cultural narrative attempted to capture retrospective information about various identity processes and factors that have influenced these processes. The narrative section of the questionnaire included a set of instructions and an optional template which outlined 6 prompts about what the focus of the chapters could be. The instructions, which were adapted from the narrative procedure by Yampolsky et al., (2013), invited participants to write about life events and experiences which have defined their identities in the form of 2-7 short chapters (about 100 words each). The prompts were designed by the PI to target various aspects of the participants' identity experiences such as the identity formation process, and how being in a multicultural setting and interactions with those around them affected this.

Procedure

There was a three-step procedure: 1) participants filled out the initial questionnaire which contained the freelists and narratives, 2) they completed the narratives over a time period, and 3) they had an interview with the researcher.

Initial Questionnaire: Freelists and Narratives

The form contained the participant information sheet and consent form. After providing informed consent on Qualtrics, participants were given access to the freelist item, as well as the

instructions and response template, which was in the form of a word document. The instructions and template can be found in Appendix 1. The participants had weekly check-ins with the PI and could also contact her at any time to discuss any issues that could arise. These weekly communications contributed to establishing a rapport between the participant and researcher, which was useful during the interviews.

Following the submission of the narratives, the participants were compensated for their participation through bank transfers effected by the Brunel University. Since participant recruitment was staggered, this was also the case for the submission of the chapters. Each narrative was thematically analysed to form an interview schedule tailored to each participant. The aim of these interviews was to clarify and expand upon some sections of the narratives as needed.

Interviews

Tailored interview schedules were constructed using themes that emerged from the analysis of the corresponding narratives. The purpose of these interviews was to clarify aspects of the narratives that required expanding as well as to further discuss some of the themes that were described in the narratives.

The interviews were conducted by the PI, and recorded (with consent), over Zoom in the participant's language of choice (English, Mauritian Creole or both). These interviews were later transcribed and thematically analysed. Findings from the narratives have been written up separately from the interviews as the analysis was done in a two-step process.

Participant Compensation

Due to the time involvement expected from the participants of this project, they were compensated with a lump sum of MUR 800 (~£16) each. This was obtained through Brunel University's College of Health, Medicine, and Life Sciences Doctoral Researcher fund.

Results

Juliette.

From the Freelist

Juliette listed 4 group identities: 1) 7th day Adventist (religious group), 2) introvert, 3) EXO-L (a K-Pop fanclub) and 4) asexual (sexual orientation).

From the Cultural Narrative

Three codes emerged from the thematic analysis of the narratives: 1) identity content, 2) learning and socialisation and 3) contextual meanings: diversity and discrimination.

Identity Content. In this theme, we look at the identities that Juliette listed and described, as well as other social groups that she describes within her narrative and indicates some degree of affiliation with. This includes both groups that she identifies with and those that others believe she may be part of. This theme illustrates how the realm of multicultural identities is not limited to only ethnic, national, and racial identities but can also include other groups, some of which, for example the EXO-L group identity, are largely formed on online spaces. Alongside this, the theme also shows how group identification, when studied as part of social contexts is a complex process. In order to make sense of this theme, it has been further broken down into two overlapping subthemes: 1) traditional and new identities, and 2) chosen or ascribed identities.

Traditional and New Identities. Here, traditional identities refer to those that have typically been the focus of a large portion of the existing literature. This includes politically salient ones such as nationality, race, ethnicity, and religion. In Juliette's narrative, the only *traditional* identity explicitly listed is her religious group identity as a 7th day Adventist. She describes her introduction to the group, and how over the years the importance and influence her religious identity has had on how she experiences life has remained constant. Overall, she describes religion as the main criteria for in- and out-group categorisation in Mauritius, compared to her other identities.

"I would accompany my father to church every Saturday (…) Religion remains important to me even after I've stopped attending church (…) it is the most basic form of cultural difference to me (…)"

New identities, on the other hand, refer to groups which are not normally included in mainstream studies of social identities. This includes Juliette's identities as an EXO-L (fangroup identities), an introvert (a personality trait) and as an asexual (sexual orientation). These *new* groups identities reflect how the Mauritian culture is changing and expanding beyond ethno-religious and national group boundaries to make space for groups that are more abstract (such as being introverts) or imported from other cultures (the EXO-L identity). Identities associated with these three groups have partly risen in popularity with the help of the internet and social media as they allow bubbles for individuals to create a sense of relatedness, for example to other introverts, and facilitates the sharing of

cultures beyond geographical borders (e.g., K-Pop). In her narrative, Juliette describes how these group identities were formed, why she joined those groups, and what maintains these identities:

"My closest friends in secondary school introduced me to 'kpop' – Korean popular music (…) the artists became my role models for embodying principles that I believe in- hard work, perseverance, perfectionism and diversity, so I officially joined the fandom of the group EXO."

"I found out about 'asexuality' while browsing the web and identified with its concept."

Chosen or Ascribed Identities. Chosen identities, in this subtheme, consist of those explicitly listed or described by Juliette as groups that she personally identifies with. For example, while she describes a strong sense of identification with her religion, she makes little mention of her ethnic group or how she identifies with it but indicates that is it something mainly highlighted by others:

" (…) being told I would never be among the top students in Hindi class because I don't belong to the ethnicity, indirectly learning that others think it's pretentious of me to only speak in French as a child even though Creole is not my mother tongue, my preferences being undermined during group projects (…)"

Within these two subthemes, there are some overlaps: although Juliette's ethnic identity would normally be discussed as a *traditional* identity, in this case it is ascribed to her, indicating different processes such as those involved in identity separation/rejection. We further look at this in the themes 3 and 4.

Learning and Socialisation. This theme discusses how Juliette was introduced to, and learned about her various identities through other individuals, groups, and institutions. There are 4 main contributors: 1) her family, 2) her religious group, 3) her friends and 4) through media and the internet. The influence of these contributors varies across identities. For instance, her family introduced her to religion, following which the religious group, which was the first social group she was involved with, shaped her religious identity as well as her outlook on life:

"I would accompany my father to Church every Saturday(…)"

"Takin part in the church's activities and attending those classes also shaped my first understanding of the world and engrained several habits."

Through her friends, she was introduced to '*new*' groups such as the K-Pop fandom. Following this first initiation, she then turned towards media and the internet to learn more about K-Pop, and eventually as a platform to further shape this fan identity:

"Around 2016/17, my closest friends introduced me to KPop- Korean Popular Music (…) In April 2017, I officially joined the fandom of the group 'EXO'. My consumption of media differed a lot from then onwards, which has in turn changed my perspective and attitude (…)"

Through media and the internet, Juliette has been able to explore a variety of other cultures:

"The media also played a major role in exposing me to other cultures (…)"

It is also through the internet that she discovered asexuality and felt a sense of identification with the concept, although she describes that the development of this identity was limited by the lack of contact with individuals who identify as such in real life:

"I found out about asexuality while browsing the web and identified with its concept. There is no one in my social network who currently identifies as one. This made it difficult to understand the extent to which I truly belong to that category."

Contextual Meanings: Diversity and Discrimination. This theme looks at how the Mauritian social context, the social structures it contains and the multicultural atmosphere within the island contribute to shaping group identities within the island. This theme englobes the intersectional aspects of Juliette's identities, especially with respect to her *traditional* identities: her identity as a 7th day Adventist makes her a religious minority in the island while her ascribed Creole identity is interlinked with various negative stereotypes which are perpetuated by various structures within the society which further encourage social hierarchies in terms of power, economic status, and education. Juliette describes how her experiences are impacted by these factors despite not feeling a sense of belonging to her ethnic group.

"Differences in ethnicity go increasingly noticeable the more I grow up (…) status segregation, in relation to financial means, is also increasingly noticeable and mostly through the unfair opportunities observed. One simple example is how I had to change my initial plans and pursue my studies locally despite my good academic performance, unlike other childhood acquaintances who are my age."

The influence of the Mauritian social context is not limited to her traditional identities, but also her *new* identities as an asexual and EXO fan. Currently, Juliette views her asexual identity as one of the less important ones, partially because of the lack of a social group she can connect to in her real life, but also because of the lack of understanding around the concept in Mauritius. She mentions multiple times that the concept of asexuality is not easily understood and because of this, she prefers to keep her sexual orientation private.

"I've only told three people about it since I don't think it's something that people can easily understand (…) out of the three people who know about my sexuality, two immediately expressed doubt about it."

Nonetheless, she describes that learning about asexuality and being able to relate to the concept has helped her when it comes to romantic relationships:

"(…) an important step for me to feel more comfortable and react appropriately when exposed to the inevitable topic of 'dating' during interactions with my university classmates."

Misunderstandings and stereotypes can also be found around her EXO-L identity as K-Pop gets conflated with Chinese culture. The Chinese-Mauritian ethnic group is a minority in Mauritius, and despite claims to multiculturalism and peaceful diversity, the group is also subject to negative stereotypes. In this case, Juliette also experiences these stereotypes.

"(…) people generally comment on my fan-girl identity and indirectly *insult* the Chinese culture – which they automatically link to my fangirling. It mostly results from ignorance, but it creates a divide between us. Subconsciously, it makes me feel part of the insulted recipients (…)"

From the Interview

From the thematic analysis of Juliette's interview, we found five themes: 1) identity characteristics, structure, and processes, 2) overlapping identities, 3) Mauritian culture and diversity claims and 4) managing cultural change.

Identities: Characteristics, Structure and Processes. This theme focuses on the different group identities that Juliette described, the cultural traits that she attributes to each of them and the processes around maintaining those group identities.

Her descriptions of these groups (7th day Adventist, EXO-L, introvert and asexual) can be viewed as characteristics necessary for group belonging. In the case of her introvert and asexual identities, both include essentialising characteristics. She does not describe any type of affect related to these aspects of herself, and there are no ingroup interactions that have contributed to the formation and maintenance of these identities. She illustrates these identities as long-lasting solely due to them being perceived inherent traits that have some degree of influence on her lived experiences.

"(..)For introvert, it's someone who is more comfortable being in smaller groups or alone than interacting with the outside world in an active way…. based on the influence they have on me; my introversion is probably first (in the order of listing identities)"

"That's about having no sexual attraction to people, either man or woman"

On the other hand, her religious group, and EXO-L identities both pertain to believing in certain ideologies.

"… based on the idea that on Saturday, God stopped creating the world and rested, and that's why we should follow that same rule and reserve that day for God."

"Being an EXO fan is about supporting a group of idols (…) was more my type because of how mature they are (…) they nurtured their Korean culture (…)"

These two identities were built through interactions with the ingroup. However, this did not change even as she grew distant from the EXO fanclub: she describes her EXO-L identity as most important to her, but also mentions that the relationships with others within the fanclub, which initially encouraged this group identification, have lately decreased.

"(…) you like people in the group and when you interact with others and they have the same views as you, they view the same things as being important, it makes you think it's okay and so you tend to be more open to continuing what you're doing (…) I don't really interact with them these days because I had a lot of stuff going on. We speak mostly when there are birthdays and other events (…)"

This is also similar for her identification with her religious group, to which she was initially introduced as a child by her father. Although she has experienced marginalisation by the religious group

and eventually stopped going to church which substantially decreased her interaction with the group, she still identifies as a 7th day Adventist since she views it as a way of thinking that she applies going through life.

"(…) since it's the first thing I learnt, it kind of became the foundation for how I'm going to see things from there onwards (…) Right now, I think it's like a conscience sort of thing. I do stuff that I learnt through my religion like being mindful and praying, but I also don't go to church these days because there was a clash between the principles they were teaching and how they were behaving (…) they (people from the church) wouldn't add me to some events and stuff like that (…) I don't talk to anyone, but if I see them on the street, it's like meeting an acquaintance and nothing more."

When discussing her ethnic identity, Juliette described it as socially ascribed mainly due to her appearance, and lack of other categories that she feels she fits in better. This is a group that she does not feel a sense of belonging to and does not attach any positive emotional value to:

"I think believe is a big word for me, I think people see me as belonging to the Creole category (…) I think that appearance wise and in terms of upbringing, I belong. But there are so many differences when you consider them, so I don't really feel…'

She describes her ethnic identity as something she does not want to think about, and that it has negative connotations attached to it within the cultural setting she lives in:

"When I'm forced to (think about my ethnic identity), yes, like I have to think about it when people mention it. In surveys as well, if I do them, they have no other categories, so I have no other choice but to admit it (…) the ethnic group that I belong to does not have a good reputation in the country (…) Is it that I'm ashamed about it? Maybe yes. For others who are Creole, I don't feel that way, but I don't want to put that forward about myself."

Intersectional Identity Experiences: Ethnicity, Religion and Social Class. This theme focuses on the intersectional nature of Juliette's identities and how the cultural layout of Mauritius promotes this intersectionality. She describes how being a minority in terms of religion, as well as being from a less favourable ethnic group within the Mauritian society predisposed her to be from a less favourable social class. Belonging to this specific combination of groups within this social context affects her lived experiences in different aspects of her life and contributes to her feelings of lack of belongingness.

"I don't really feel like there's a place for me that's really, really made for me (…) the fact that I'm from Mauritius, my situation in the country, I feel like it chains me in different ways. For example, my financial, religious, and educational situation, I feel that in Mauritius, the things I would like to do, just because of those factors, I feel like I wouldn't be able to do it at all (…) I have different factors that define my identity, it is kind of a weakness to be how I am because it's not in my favour at all."

As well as being a dimension to her ethnic and religious identities, her social class/status also functions as group identity of its own as within the society, it is used as a means for intergroup differentiation.

"It's something that I can't go about without paying attention to it, for example my economic and financial situation, like the opportunities that I'm given compared to others because of it, the things I had to give up on because of that(...)"

"I think I'm more sympathetic to people from a least favoured background (…) I see that they are in a position that's unfair, even though they may not see it themselves; whereas people who are from a higher background, I'm more critical of them sometimes."

Mauritian Culture and Diversity Claims. In this theme, we look at descriptions of the Mauritian culture and Juliette's identification with the latter. As previously outlined in the narrative results, there is some conflict around her Mauritian identity since she feels that there is a cultural mismatch. In the interview, she expands on this, describing how she does not know what the Mauritian culture consists of or represents but how over the years, her relationship with this group identity has changed.

"I really don't know (how to describe the Mauritian culture) (…) For a long time, I've been apprehensive towards it, and then the more I became mature, the more I understood that there are parts of it that were already part of me. For a long time, I didn't feel connected to it, I didn't feel like it was part of my identity but then I realised that it is even though not to a great extent, it is what it is, but I can't really understand it myself(...) it would be at the bottom of the list of my identities."

She describes how the Mauritian identity is linked to her perception of the country, and being from minority groups (in terms of both religion and ethnicity) makes her feel simultaneously disconnected *and* a part of the Mauritian culture.

Although she describes Mauritius as a multicultural place and that she likes the multicultural atmosphere on the island, she also recognises that there are boundaries and describes how these affect her as a minority on the island.

"I think (I like) the multicultural way (…) it's just that it's not to the extent I want it to be, like there's a segregation with money and religion but at the same time, people are living together and are interacting with each other (…)"

"I tried really hard to get them to switch the classes (from Saturdays), I even tried getting a letter from the Church, and they wouldn't change it, no matter what, I had to go (…) I think it's unfair, but I also understand why it's not a big deal for others. First, it's that it's a minority in the country so people don't acknowledge it (…) over the years you learn that others matter more in that sense"

Managing Cultural Difference. In this theme, the focus is on cultural differences that emerge not from being from different ethno-religious group, but mainly from the ongoing changes that result

from globalisation processes. Throughout Juliette's interview, she describes how expectations of what children are meant to be doing are now different. This is especially the case when it comes to child-rearing practices and education which has over the years become something that some Mauritians ascribe a lot of importance to. However, this focus on education varies, even within a single family.

"(…) education wise, she (her mother) mentions that her father wouldn't give them copybooks or cut their pencils to share it between siblings (…) for my grandfather, it was more like a waste of money, so at some point she had to drop out and go to work."

"(…) growing up I mentioned I was different, I did grow up differently from both my father's side and my mother's side (…) my upbringing was different, stuff like studying until late is pretty normal but I take a look at the beliefs in my family, for them it isn't important (…)"

Summarising Juliette. Across Juliette's case study, some of the main themes that we find pertain to understudied groups, especially within Mauritius (sexual orientation, personality traits, etc), the cultural diversity of Mauritius, and its social structures which may act as ascribed group identities (e.g., social status).

Ali

From the Freelists

Ali listed 2 identities: 1) Muslim (religious group) and 2) Mauritian (national group).

From the Cultural Narrative

In Ali's narratives, we found three main themes: 1) identities and learning, 2) other cultures and navigating differences, and 3) exclusion and ethnocentrism.

Identities and Learning. This theme looks at the two listed identities, other identities mentioned within the narrative, and how Ali has learned about them so as to form this sense of identification with these groups.

Religion and Nationality. Ali indicates that he was introduced to religion through his family and describes how his first interactions were limited to other Muslims. He gives little detail about his thoughts and feelings about this identity beyond this.

"I was raised as a Muslim in Mauritius. My main interactions were with Muslims, family or family friends."

In terms of his Mauritian identity, Ali does not describe how he learnt about Mauritian culture and how he identifies with it. Instead, he describes the lack of a Mauritian culture and how one of the few agreed-on aspects of the culture, its multiculturalism and diversity, is fragile.

"We in Mauritius are living in fragile peace, and we do not have anything that will culturally bind us together."

The lack of shared cultural artifacts across all groups, together with the large diversity across groups which have to be accounted for contributes to the difficulties in articulating what the Mauritian culture is.

"Nobody really wants Mauritius to have a culture, everything done for promotion of culture can be summarised as publicity stunt to create a self-image (…) For me, living in Mauritius, I realise that we do not have a culture true to us Mauritians, it is just a collection of cultures borrowed from ancestors and the upper hemisphere."

Other Cultures and Navigating Differences. This theme comprises of two subthemes. The first focused on cultural differences that are linked to ethno-religious groupings and the second comes from Ali's descriptions of individuals being more 'westernised' or 'traditional'.

Ethno-religious Differences. Ali describes his introduction to other ethno-religious groups within the island, which only occur when he starts primary school. Throughout his narrative, he takes us through some of his experiences during various interactions with others from different religious backgrounds in a chronological order. He describes how at first, he did not know how to approach others and his narrative reflects how over time he grows more comfortable with those interactions.

"My first interaction with people of different cultures was in primary school. Something I was never taught and had to learn through experience was how to act with other students (…) School was very tough, I always found it easier to mingle with students of the same religious belief as me (fear of the unknown culture) but with time and a lot of effort, I eventually started to interact with others. I always find the welcome I receive surprising."

Ali not being taught about other cultural groups and how to interact with them, and this is reflective of what he describes as fragile peace in Mauritius: despite priding itself on its diversity, Mauritians are often unwilling to discuss other cultures, resulting in limited knowledge of other cultures despite close everyday contact. He believes that Mauritians have a limited, or misconstrued knowledge about out-group cultures within the island.

Balancing the Western and Traditional. Another type of cultural difference that Ali observed in primary school is what he describes as being westernised or being more traditional. In primary school, he observed this through food practices, means of transport, and parental expectations for their children.

"The differences were in their food and transportation to and from school. There were two main groups of students foodwise; those who had their food prepared or delivered by parents or relatives, and those who had to buy food or had 'from home' fast food. Then there were students who had to come to school by themselves and those who had someone fetch them after school and drop them in the

morning. This could be by car, walking or van. (…) The more westernised one family is, the less the children believe welfare is important and the goal is only good results (Mauritians still believed in the 'American Dream' at the time), and vice versa for traditional families."

Exclusion and Ethnocentrism. This theme is somewhat interlinked with Ali's perceptions of the Mauritian culture: although the country prides itself on its multicultural ideology, he has over the years observed multiple instances of in-group preference, which in some cases have led to others feeling excluded.

"Students created segregation under the excuse of being relatives. I was not related to anyone, so I was left behind. I only knew about them being relatives, so I thought that was the motive. Being young, everything seemed so pure, but later I learnt that there was some religious 'caste-ing' things involved in it."

"There were thoughts and gossip that the teacher had favourites among the students. Looking back at those events, there may have been a correlation between religion and the differential treatment."

From the Interview

From Ali's interview, we identified 4 themes: 1) identity and relationships through the lifespan, 2) understanding the Mauritian culture, 3) forming a religious identity and 4) defining western and traditional.

Identity and Relationships Through the Lifespan. Throughout the interview, Ali takes us through his experiences of how he became part of various groups at different stages of his life. He breaks it up in terms of school years (primary and secondary school, university, and post-university). Moving across these stages consists of a significant transition as at each level, individuals attend schools in new regions, and often without the peers they have met at previous stages of their education which pushes them to form new friend groups. Ali describes how the basis of these groups varies at each stage:

"When I went to primary school, (…) everyone is trying not to find themselves, but to find a space where they can fit in (…) They try to find people similar to them (…) by virtue of their religion. In early primary school, people started to kind of group, based on 'I'm from this religion', 'I do this oriental language'. But when we get to secondary school, (…) people who like to sit in the front will have friends who sit in the front, those who like playing cards will be friends with others who like playing cards and those who like football will have their group. University is interesting because you have settled down and know what kind of person you are, but you meet more people, and you compare yourself to them, and you get closer to people generally based on their personality."

He attributes the changes to how people create friend groups to first an increase in freedom, and later an increased sense of responsibility and maturity, together with a decline in how much time is spent with family.

"The change comes from the freedom that you get- most people live far from their (secondary) schools, they have to take the bus, get to school at 8am, it ends at 2 and then you go to tuition, so you get back home around 5 or 6pm where you probably only sleep. At some point you realise that you spend more time at school than at home, and this gives you a sort of freedom which helps you leave your comfort zone (…) but I noticed another difference when I joined university, you feel this sense of responsibility and you realised you have to straighten up. Although you might not be completely free (from family restrictions), you become more mature in terms of being responsible for the decisions you take."

While it is important for some to only be in groups that they feel comfortable in, he also describes that other may join groups because they believe that it is expected of them to be part of those groups. This reflects how sometimes the groups we become part of can by shaped by social beliefs and how culture has a large influence on the formation of our identities.

"(in secondary school) some people feel that for example, they have to like football because everyone likes football, so they become good at it, but they don't even like it. Others think that they should skip class to prove they're badass, because society expects us to be a bit badass, but some might not feel like they want to be this way (…) It's culture that shapes our decisions and conversations and who we are, for example we are meant to be part of a group, our family, that's what we're meant to be like."

Understanding the Mauritian Culture. This theme looks at what makes the Mauritian culture hard to define as a result of its largely multicultural population and how the peaceful balance is maintained.

"In Mauritius, we don't really have a culture, we don't have anything specific to us to identify with (…) The problem is that we're a rainbow nation, there's a lot of cultures that have come together (…) In terms of what we call '*Mauricianisme'*, we don't really have that because we keep dividing the nation (into cultural groups) while keeping it whole. "

The lack of consensus on what the united culture is can also be seen through various artifacts such as language, dance, and the general lifestyle. Ali explains this in terms of his, and others from his religious group, lack of participation in some 'traditional' parts of Mauritian culture, such as the *sega* dance, since it does not align with their religious beliefs.

"For example, am I meant to speak Creole or Bhojpuri? Both form part of our culture, but one dominates over the other."

"It's also the way that people live - for people who live on an island, we're not islanders, we live like we're on a main continent so that doesn't make *mauricianisme.*"

"Everyone has their own code, their own ways of thinking. For example, I'm not meant to listen to *sega*, or Bhojpuri songs. These are two things that are specific to Mauritian culture, but it doesn't form part of my culture (as a muslim). So I'm a Mauritian but am I a Mauritian?"

He then describes how in an attempt to form a more cohesive Mauritian culture, people at one point shifted towards identifying with celebrities, mainly in the form of politicians. Although there's growing mistrust in the political system, there is still a portion of the population that forms groups aligned with political parties.

"At some point we start identifying with celebrities in Mauritius- maybe 10 years ago it was singers but now it's politicians because they're 'bigger people'. But now people don't believe in the system, that's why you have the protests. People say they're not interested anymore, and they don't believe in it but they do believe in it. They say there's bad and worst (…) really, it's worst and worst."

He concludes with how maybe the Mauritian identity may just mean having links to the island.

"You're a Mauritian because you live in Mauritius and nothing more."

Forming a Religious Identity. In this theme, we look at Ali's religious identity, how he was introduced to his religion, how he maintains this identity and how it affects his interactions with others.

He describes how he was introduced to religion from birth, as part of the religious practices and his first interactions with the world, other than his family, was in a mosque.

"When you are born, they say a prayer in your ear, but I don't remember that happening. My first recollection is when I was 7, my dad started to take me to the mosque with him and I stood in the back alone with the other kids."

Throughout his life, religion has instilled in him a sense of discipline by helping him create a routine structured around prayers, and how this overall contributes to maintaining good health.

"At that time (when he was 7), it made me more disciplined as I had to stay quiet in the mosque and not run around playing. At home, it's something normal, it's routine and it's just the way it is (…) you learn that there's a pattern to it. And you wake up early, it's good for your skin, you can play your day and have extra time in the mornings. Overtime, the importance of religion stays but it shifts to the background and helps you stay disciplined."

In terms of social interactions, he describes how now in various social settings, he prefers to first interact with individuals that are from different backgrounds so as to be exposed to other cultural ideas, keeping in-group members as a last resort.

"If I'm in a social gathering, if I know there's a group of muslims, I won't go to them, I'll keep my distance. You need to be able to interact with everyone and then finally identify yourself with your ingroup. Otherwise, you're creating a barrier between yourself and others, it's not a barrier that already exists but one that I would be creating. It doesn't make sense that just because we're from different religions, we can't communicate. It's interactions that you have with others that help you flourish (…)"

This illustrates how while he values his religious identity, he is also willing to explore new ideas through social interactions. While these may not change his religious identification, these interactions shape cultural understanding and his perspectives.

Defining Western and Traditional. Ali goes into more detail about what 'western' and 'traditional' mean. He redefines the two groups as traditional and conformist or avant-garde:

"The difference between the conformists and avant-garde is that some people, and it doesn't have to be about religion, it's a bit about everything, some accept how things are and other want more. Culturally, some people are satisfied: they're happy with waking up early, buying '*pain maison*' and all that, while others will say they want toast or baguette instead."

He explains how this group membership can fluctuate across the lifespan:

"When you're young and you're just starting out, you're avant-garde and as you live, you try things and become more mature, you're more accepting of conformity. You accept simplicity. People don't realise they're looking for stability, and the longer you live, the more you realise this. That's why you start seeing more people conform and accept their situation."

He further explains how the Mauritian context that is quickly changing and demands that its people also change, may not be ideal for those who want more stability.

"I have already started to become a conformist, but I'm still young and that's the issue. If I could not worry about it, I would but sometimes the society we're in demands change (…) especially from youngsters (…) I think conformity is a luxury (…)"

Discussion

In this study, we explore identity and its processes in a population outside of the global north to test the validity of various pockets of the literature on social identities. Across out two case studies, we find various groups, and types of groups that we may be overlooking. This refers to identities being chosen or ascribed, as well as the content of those groups, such as those related to personality traits. We found some patterns in identity formation processes, in terms of who identities are learnt from (parents, the group itself, and the internet), and how other social structures (e.g., power hierarchies, being a majority/minority group) may influence the conceptualisation of these identities into the individual's self-concept. In the case of Mauritius, we see how the diversity of the population also contributes to conflicts towards being part of a larger national group with poorly defined boundaries.

Linking some of these findings to the various pockets of literature we previously described, we highlight again the importance of moving towards more culturally conscious approaches. This refers to paying attention to things that are relevant to this specific population, affects this specific population and processes being studied. For example, Juliette's religious identity, which normally would be broadly categorised into Christian, would lead us to overlook her experiences as a small minority, as well as misunderstand her conceptions of her creole and Mauritian identities. The experiences linked to her religious identity is in bright contrast with Ali's experiences as part of the larger minority which has political structures in place to encourage their religious practice. What we suggest based on this finding, is for researchers to include sufficiently detailed cultural descriptions of their samples, as is often done in indigenous psychology, or ethnographies in anthropology. This facilitates the dissemination of results in a more contextually relevant way. We suggest that this is done through the inclusion of historical accounts, and details of the structure of the society being studied. This can be further supported by doing bottom-up background research on the population as part of pilot studies.

Some of the bottom-up approaches we suggest are 1) ethnographic observations of the population, and 2) ethnographic interviews with members of the group to be sampled. Observing the population of interest helps to build an understanding of how the society functions and the patterns that enable this from an outsider perspective. For example, this can give us insight of daily rituals (e.g., religious practice), and intergroup relations, which can give us an indication of social hierarchical structures, and the various norms underlying these groups. Interviews, on the other hand, will provide us with folk conceptions of the group members' experiences of being part of these various structures. In the case of Mauritius, which has a fast-changing culture, this can also help us better understand the influence of these various structures on both the individual, and the social structures they are part of. While both observational and unstructured interview data are time-consuming to collect and analyse this step will allow us to form more contextually valid research designs and tools, as well as theories. This step should not be regarded as additional research, and instead should go towards shaping better research questions, methods and sections that describe the socio-cultural setting of the population.

As well as highlighting the importance of cultural validity, and the culture-centredness of psychological processes, this study also brings to attention the need to be mindful of larger changes within the socio-ecological environment. In the case of Mauritius, we see these changes in terms of level of education, or westernisation and cultural retention (being traditional, as described by Ali). These components are all related to various components of the identity formation process; such as how identities are learnt (e.g., the internet is a source of learning that has not previously been discussed in the literature on identities in Mauritius), however they are rarely looked into as main influencers of psychological changes. The link between changes in larger political, economic, social, and other environmental structures have been shown to influence both psychological processes at the individual levels, and group level processes such as social norms and other shared beliefs which eventually reflect into individuals' behaviours. Studying the link between these changes as they are happening, for example as is the case in Mauritius, gives us better chances of understanding this relationship.

Conclusion

While the findings of this study contribute to making a case for culturally relevant research and updating existing theories, due to our very small sample size, we cannot make other generalisations about Mauritians' identity experiences. Due to our in-depth methodological approach, the sample involved in this study was restricted, nor does it allow for a representative sample of the population. However, the findings of this study can be used to identify areas that need to be further investigated. Some of this pertains to the types of groups that Mauritian identify with, further explorations of the differences between chosen and ascribed identities, and generally the various changing social structures in Mauritius (e.g., group dynamics, stereotypes, etc). Further work needs to be done to better tie experiences of social identity in Mauritius with existing theories in an attempt to help update or build theories.

Study 2

Introduction

The impacts of globalisation on cultures have been of increasing interest to psychologists over the past few decades. One of the main impacts of globalisation that has been the focus of psychological research is cultural change as a result of migration. This has largely been approached in the acculturation literature where researchers look at how migrant populations adapt to the culture of the country they have moved to. Beyond this, there has been a smaller portion of acculturation research looking at these processes in the endemic population (Kunst, Lefringhausen, Sam, et al., 2021), as well as cultural change that results from intergroup contact between migrant groups, and other globalisation processes that do not result in direct intergroup contact between populations across the globe (for example, intercultural exposure through media and the internet, see Ferguson et al., 2017). Nonetheless, the latter mainly still approach cultural change through an acculturation perspective, focusing on different acculturation strategies, and the mechanisms behind it (Berry, 1997). Most of this work treats culture as a singular concept that is an attribute of the receiving and migrant populations and only a smaller portion of research has considered that acculturation may be a process that differs across cultural domains (Arends-Tóth & van de Vijver, 2004; Bornstein, 2017; Demes & Geeraert, 2014; Schwartz et al., 2010a). For example, people may adopt the language of the new culture they have been introduced to, but may never adopt food from that culture. In this study, we go beyond traditional acculturation research to understand more intricate processes that result in the larger cultural changes at the population level. To do this, we combine the domain approach to acculturation and research on cultural transmission processes (from the cultural evolution perspective which we previously describe) in order to identify the drivers of cultural change. Cultural learning underlies cultural change, both of which vary across cultural domains. We propose that understanding how people learn new cultures they migrate to is an essential part of understanding acculturation. Alongside this, we adopt a cultural consensus approach to identify cultural domains that are important to the populations being studied.

One of the main effects from this increased contact, which we focus on in this study is cultural change that occurs a result of both migration (Richerson & Boyd, 2008) and intercultural exposure through technologies (including media such as books, music, films, and online platforms; see for eg., (G. M. Ferguson et al., 2018; Horský, 2022), both of which have been extensively studied. In this paper, we will outline some of the research that has been done and some of the gaps in the literature. We describe 1) what culture consists of and how it maintains some continuity over time, 2) cultural change that happens as a result of intergroup contact, 3) some of the processes through which this happens at the individual level (e.g., acculturation and cultural transmission), 4) how this aggregate to group level changes, and 5) some of the effects and concerns around this ongoing change.

Cultural Change Processes and Pathways

As previously described, the two main approaches to explaining individual level processes behind cultural change has been through cultural learning. This includes social learning and cultural transmission, which both describe the process of learning about culture which can lead to cultural change, and acculturation, which describes cultural change at the individual level. These two perspectives come from different subfields of psychology, with cultural learning being based mainly in the cultural evolution literature while acculturation is mainly a social and cross-cultural psychology concept. In this study, we work within the overlap of these two perspectives, which we propose can be used to complement each other in the study of globalisation based cultural change. We first give an overview of the two concepts before suggesting how to reconcile them.

An Overview of Cultural Learning: Cultural Transmission.

We adopt a cultural evolutionary perspective to describe the processes of cultural learning and how it results in gradual cultural change. Cultural learning within this portion of the literature usually refers to various cultural transmission processes. Broadly, cultural transmission consists of the process of cultural elements being passed between individuals. This process can happen through three pathways: vertical (from parents to children), horizontal (between individuals within the same generation, e.g., children in a classroom learning from each other), and oblique (between unrelated individuals from different generations, e.g., teachers and students) (Acerbi & Parisi, 2006; Cavalli-Sforza & Feldmann, 1981). In all three pathways, there are various processes which enable cultural transmission, such as social learning, and transmission and learning related biases (e.g., prestige and conformity bias).

Social learning refers to any form of learning that occurs through the observation of, or interactions with other individuals (Kendal et al., 2018; van Schaik & Burkart, 2011). This form of learning leads to the imitation and/or the adaptation of observed traits; however, it is also important to consider that there is selectivity in terms of what people learn, as well as who they learn from. Transmission biases describe patterns in how individuals selectively learn. For instance, there is a preference for traits that are more common within the population (frequency-dependent biases, e.g., conformity bias), more useful (content related biases), or to learn from more prestigious individuals (model-based biases and 'WHO' strategies, which include prestige bias). These are only a few of the biases that pertain to cultural transmission processes, however they work together to contribute towards cumulative cultural change, or how certain types of cultural information can become prevalent, disappear, or replace some prior cultural information. Various studies have demonstrated how processes of cultural transmission, and its related biases result in this incremental change with regards to various cultural traits (see for example, Bietti et al., 2019 for cultural transmission of food preparation, Jiménez & Mesoudi, 2020 for social cues, and Mengel, 2008 for social norms).

While this approach gives us an outline of how traits are passed within a population, while accounting for variations in terms of individual characteristics (e.g., age and gender), social context and structures, as well as other cognitive biases, there are still gaps in some aspects of how this framework

explains cultural transmission in the modern day. The three transmission pathways detail social learning between individuals, however there is little elaboration of cultural transmission across groups. This may happen in the context of immigration, or generally online through media and social media. The transmission processes in these two cases, which are of main interest to us in this study, may vary from broader, within-culture transmission processes, as they may include new dimensions, for instance in the form of more biases, which influence the learning process.

While there is a substantial body of work looking at cultural evolution among migrating animals (Aplin, 2019; Mundinger, 1980) there is less work that focuses on human migration despite the latter being described as one of the main drivers of cultural evolution (Boyd & Richerson, 2009; Richerson & Boyd, 2008). Richerson and Boyd (2009) describe a theoretical model of transmission processes within the context of non-random migration (i.e., they suggest a tendency to move to societies that are perceived as richer and more equal) in a host country, however, while there has been some further theoretical elaborations (e.g., the Tasmanian model by Henrich, 2004; and other models by (Derex & Mesoudi, 2020 andPowell et al., 2009), there has been little empirical exploration (e.g., Mesoudi et al., 2016; Schmitz & Weinhardt, 2019) of how this model fits into real-life settings. Historical accounts describe how some ancient populations (e.g., India) have evolved and expanded as a result of migration; and how in some cases (e.g., the Roman empire), even after the original population has fallen, some of their cultural traits still persist in societies disconnected from the original group (e.g., governments). In phylogenetic approaches to languages, there has been more attention to how migration processes have facilitated the evolution of this cultural trait (e.g., Neureiter et al., 2021).

In this study, we will specifically look at migrant and host populations to identify how they learn about outgroup cultural traits, as well as any preferences for certain cultural domains. To do this, we link together cultural transmission mechanisms to the acculturation literature from cross-cultural psychology, which describes processes of cultural change in migrant populations, as well as in other contexts of intercultural contact. We suggest that acculturation occurs through cultural learning processes such as social learning: as individuals are exposed to other cultural traits, whether in their immediate physical environment or online.

An Overview of the Acculturation Literature.

Acculturation refers to the cultural and psychological change that results from intercultural contact. It refers to how as a result of long term, continuous contact with other cultures, people perceive themselves as adapting to the new cultures (Ward & Geeraert, 2016). The acculturation literature till date is mostly based in Berry's work (1997; Sam & Berry, n.d.) which outlines the need to understand contextual influences on psychological processes. This means being attentive to the social groups, communities, social structures, norms, and policies that individuals/ function within. In the application of theory to research, several layers of context are often lost as most researchers focus on individual

acculturation with limited attention to intergroup relations, and migrant and multicultural attitudes and policies within the country being studied.

Berry's acculturation model suggests four ways of adapting to the new culture: integration, assimilation, separation, and marginalisation. This model has been substantially supported by empirical research and even expanded upon into the realm of multicultural identity processes and well-being. Integration is viewed as the most preferred and healthiest strategy - individuals maintain their heritage culture while also adopting the country's majority culture (Lakey, n.d.). Beyond processes and strategies, there are various gaps within acculturation literature that have been highlighted over the years, however little has been done to add to these components.

The main issue is sampling: there has been a disproportionate focus on migrant populations especially within some regions (e.g.; Northern America, Western Europe and Australia): with globalisation processes leading to a peak in migration rates, migrants have become an easily accessible population for the study of intercultural contact and the psychological processes underlying this. People move to other countries with vastly differing cultures and have to reconcile their existing heritage cultures with new cultures that they are exposed to in order to function in this new society. This disproportionate focus results in a psychology of acculturation which suggests that only migrants in a new environment will undergo cultural change by acculturating to the host culture. In terms of sampling, this results in researchers overlooking how members of the host society may also be undergoing this process of cultural change, for example how grandparents adapt to a culture increasingly created by their grandchildren.

For the most part, researchers have overlooked how the majority group also adapts to the influx of new cultures that they are exposed to. In recent years, some research has considered acculturation from the majority perspective (Kunst et al., 2021; Lefringhausen, 2015; Lefringhausen & Marshall, 2016). Some of these studies build on existing definitions and findings from migrant-acculturation research. Majority group acculturation is posited as not only acknowledgement of other cultures that have joined the country's cultural ecology but includes majority group members adopting some of these other cultural traits. Some examples of this are the celebration of holidays such as Diwali and Eid, which are mainly from migrant cultures, in British schools. Despite using the existing migrant acculturation research as a base, researchers have still been attentive to differences at various levels of the acculturation process. For instance, this can be at the level of group characteristics (e.g., majority groups having more power), and the acculturation strategies adopted Lefringhausen & Marshall (2016) found that the strategies adopted by the receiving group are mainly integration, separation and no preference/diffused, and only small proportions use assimilation and marginalisation strategies). It is also important to consider how the reasons for migration of various groups (e.g., economic migrants vs refugees who were forced to leave their country) may influence the acculturation process of both the migrants, and the receiving population.

Alongside these sampling issues, another understudied area is acculturation resulting from other areas of intercultural contact, beyond migration. In this paper, we refer specifically to indirect intercultural contact over technology. While migration is one of the main phenomena that has led to the extensive

body of work detailing acculturation processes, over time other pathways for intercultural contact have emerged, for example in online spaces and through international media (books, music, TV, films). This is mostly due to technological advances, in the form of easily accessible internet (e.g., at affordable prices for at home usage, and free in most public spaces), and devices such as mobile phones and laptops. The accessibility of these tools allow individuals to quickly access information about other cultures (especially with most newspapers such as the Guardian, the Sun and the Times, having online subscriptions available), or communicate with people for free in geographically distant locations through messaging services that work online (e.g., WhatsApp) or through social media platforms (e.g., Twitter, Instagram, and TikTok), which also allow users to showcase various aspects of their daily lives, and thus their cultures. The quality of this virtual intercultural contact is significantly different from migration- and tourism-based contact; however this is not often highlighted by the literature.

In recent years, the concept of remote acculturation (Ferguson, 2013) has extended our understanding of these processes to include those that happen online and through media, both of which may currently be more widespread. The small portion of research on remote acculturation (Adams et al., 2021; Ferguson et al., n.d.; Ferguson & Bornstein, 2015; Ferguson et al., 2017; Giray & Ferguson, 2018) has been more attentive to contextual factors. Remote acculturation theory is often anchored in ecological models (e.g., Bronfenbrenner's ecological theory, 2006) which describe the cultural effects of two macrosystems (e.g., American and Jamaican cultures, see Ferguson et al., 2018) coming into contact with each other due to globalisation processes. Other smaller structures within the larger cultural groups, for example the family unit, are also taken into consideration, together with individual level factors such as developmental periods (e.g., adolescence). This portion of the acculturation literature has also adopted a more dimension-specific perspective to acculturation, looking at how different cultural traits (e.g., nutrition, music, fashion) may be differently adopted. In the next section, we will be discussing specificity approaches to acculturation which we use to frame this study.

Dimensional approaches to acculturation

Within the larger acculturation literature, cultural changes have often been reduced to broad cultural changes that an individual undergoes as all aspects of culture are reduced to one broad concept. Others have attempted to break down culture into various domains (or traits) to look at acculturation processes across these various domains (e.g., Bornstein, 2017; Salamonson et al., 2008). There is some variation in terms of how cultural characters are grouped and what these domains should be called. The three groupings suggested over the years are behavioural and value domains, public-private domains, and categorisations based on Schwartz's values (Arends-Tóth & van de Vijver, 2004; Demes & Geeraert, 2014; Schwartz et al., 2010b).

While there are variations in categorization, the domain specific perspective broadly suggests that across different cultural domains, individuals may adopt different acculturation strategies and acculturate to varying degrees. For example, an individual may integrate both values, and languages from

their heritage and the mainstream cultures, but they may retain less values from their heritage culture than they do their heritage language. On the other hand, they may choose to use a completely different acculturation strategy and assimilate clothing from the mainstream culture. Irrespective of the categorisations used, this outlook empirically supports similar patterns in various groups, suggesting that components of behavioural domains (e.g., language and other daily living habits such as food) tend to be adopted faster than value components (e.g., beliefs systems; see for eg., Kim et al., 1999; Miller, 2007; Yoon et al., 2013).

The little work that has been done to elaborate on the dimensional view of acculturation theoretically presents itself as the specificity principle (Bornstein, 2017). The specificity principle suggests that "specific characteristics of individuals are affected by specific experiences in specific ways at specific times" (Bornstein, 2017, pg). This principle bases itself in life-span development theories and adopts a more individual-centered, yet ecologically based view of acculturation. This approach explains variations in individual strategies, across cultural domains, and when aggregated, variations in cultural change across groups and in different social contexts. Some of the things to consider are the individual characteristics (e.g., gender, personality), the conditions behind migration (e.g., reasons for migration, place of migration), time (e.g., age, historical setting), the process (e.g., socialisation and other opportunities), and cultural domains that we previously described. These factors all interact with each other to determine how people acculturate to different facets of their cultures. Although these factors are often described within broader acculturation theories or individually measured, the specificity principle brings attention to these factors, especially more socio-ecological and historical factors, and how they need to be studied in tandem with the acculturation process: for example, when studying South Asians in the UK, we should also consider how their colonial histories linked to the receiving country will influence their acculturation experiences. This could be included as background information which can help frame the interpretation of our findings, or as additional variables which influence acculturation outcomes. Applying the specificity principle to acculturation research will have various implications: it could explain variations in findings, add new dimensions to consider, and generate new ways for measuring the construct.

As well as implications for measurements, the specificity principle highlights how participant samples are described and different factors that need to be reconsidered. As the principle emphasises how the conditions behind, and during migration influence acculturation, it brings to attention the need to account for migrant histories, and to not lump individuals together based on broad geographical regions without giving thought to whether smaller cultural groups share similar experiences. An example of this is how some scales are often tailored to Latino migrants, grouping these individuals under the broad ethnic categorisation, irrespective of whether they come from the same countries (Bornstein, 2017). Broadly, the specificity principle encourages more ecologically valid acculturation research.

To summarise how we attempt to contribute directly to these gaps, in this study, we target individuals on both sides of the migration context in the UK (both migrants and majority culture members), while also allowing room for intercultural exchanges beyond the scope of in-person contact

within the country. This enables us to understand how online acculturation processes function alongside traditionally studied acculturation processes. With regards to the migrant populations targeted in this study, while we group them based on ethnicities, we account for similarities in their histories and lived experiences within mainstream UK by contextualising these experiences. The next section details the characteristics and backgrounds of the cultural groups that we worked with.

The Present Research

In the current study, we adopt a cultural consensus approach to look into how cultural change occurs in a social context where intercultural contact is normative in both physical and online spaces. We approach this by identifying different cultural learning pathways involved in this process and attempting to understand whether there are trends in terms of which domains are resilient, or more easily eroded. This helps us understand the process of acculturation from a cultural transmission perspective by linking processes of cultural learning to acculturation.

We attempt to go beyond the larger portion of acculturation studies by taking a domain specific approach and attempting to better detail the mechanisms behind acculturation processes. We first identify how people learn about cultures (both their own and others') and how cultural change occurs by individuals favouring specific domains of their own culture for their in-group to retain, while simultaneously adopting other, or the same, domains from other cultures. Understanding the cultural learning processes that underlie acculturation will shape our understanding of how differences in modes of learning may have different effects on broader acculturation strategies, across different cultural domains, and across groups. By aggregating individual preferences for various cultural domains to the group level, we contribute to the existing domain-specific acculturation work by identifying domains relevant to our sample, and trends across these domains within and across cultural groups.

To do this, we focus on a UK sample, evenly distributed across the national group and three migrant populations (Black, South Asian, and Polish). In the next sections, we describe the socio-cultural context of these various groups in the UK, as well as some cultural domains where a cultural shift can already be seen. In this study, we adopt a bottom-up approach to explore whether these cultural domains are salient in our sample, as well as any other salient domains. We expected to find similar sources for learning about individuals' own cultures as Study 1 (i.e., parents, heritage group, schooling and the internet), as cultural learning pathways have been found to be largely comparatively generalisable (Kendal et al., 2018). We expected that parents may not be as involved in learning about other cultures and other sources would be more salient. In terms of cultural domains, we expected that participants would prefer to retain domains of culture which function as identity markers, for example, food, while more ideological domains, such as ideas about social hierarchies, will be more open to change.

Contextualising the UK and Migration

In this section, we contextualise the immigration context of the United Kingdom. As this is a small exploratory study, we are unable to account for various individual, group, and contextual factors, we describe the relevant general social, cultural, politic, and economic events that have marked the groups involved in this study. We describe migration patterns in the country over time, events that may have largely influenced these trends, and some aspects of the intergroup relations of our sample. These more qualitative details about our sample will help shape a broader picture of these various factors that affect acculturation and cultural learning processes.

The United Kingdom has over the last several decades experienced large waves of migration from countries from across the globe. Between the years of 2004 and 2021, the percentage of foreign-born individuals increased from 9% to 14.5%. The individuals who make up this large group come from multiple countries, mainly India, Poland, and Pakistan (Vargas-Silva & Rienzo, 2022). As suggested by the specificity principle, the reasons for migration vary across migrants, based on where they come from (i.e., by country), and when they left their country. As well as differing migration conditions, there are variances in the experiences of these migrant groups within the UK, and thus variances in how these heritages cultures were integrated with British culture. In the next sections, we outline some of these differences for our main participant groups (South Asian, Black and Polish).

South Asians in the UK

Migration from South Asian countries is largely intertwined with these countries' histories of colonisation by the British empire. There have been a few large waves of migration from these three countries: the first was a by-product of the migrants' involvement in world wars one and two, which was punctuated by the separation of the colonised nations into India, Pakistan, and Bangladesh. The next wave of South Asian descent migrants came from East African countries, such as Uganda and Kenya. The diaspora in East African countries was also a product of the British rule and following independence and Africanisation during the 60's and 70's, this propelled South Asians to move to the UK, in some cases as refugees. Another large wave of migration followed, bringing a large number of Sri Lankan Tamils to the country during the Sri Lankan civil war. A large portion of these movements was facilitated by these countries being part of the Commonwealth.

While some differences exist in the reasons for migration across these groups which make up the larger South Asian community in the UK, in terms of their experiences in the country, there seems to be more convergence. There are some areas of the United Kingdom that seem to be more popular among South Asian migrants than others. For example, Manchester contains a significant percentage of Pakistanis, Birmingham is popular among Mirpuri Pakistanis, Indians are gathered in Southall, and Brick Lane has historical value for Bengalis. While these ethnic enclaves allow for cultural pockets for heritage cultures to flourish, beyond this there have been various areas for the integration of South Asian cultures within mainstream British culture. The most prominent examples of this are, for example, the inclusion of Chicken Tikka Masala, a dish of South Asian origins, as one of the UK's national dishes, the re-

popularisation of boxing by British Asian boxers such as Amir Khan, and at more structural levels, the South Asian community has revolutionised British economy, mainly the retail industry through the opening of corner shops.

Black Communities

Similar to the South Asian groups in the UK, the Black community consists of individuals from a variety of national backgrounds. The history of Black migrants is also deeply interlinked to their histories of slavery and colonialism. There was a rise in the number of Black people in the UK in the 17th and 18th centuries, as the latter were brought to the country as slaves. After the abolition, most stayed and worked for their previous 'owners', however less Black people brought to the country, resulting in a marked decline in the population in Britain, up until the 19th century. During that time, they settled largely around British ports and docks, for example, in Liverpool and Cardiff. The next large wave of Black migrants, mainly from the Caribbean and West Africa, was during World War 2. They came as wartime workers and were concentrated mainly in London. Following the war, migrants from the Commonwealth countries, in the case of the Black population, mainly countries in the West Indies (e.g., Jamaica) were encouraged to move to the UK due to shortages in the Labour force.

Over the years, like the South Asians, the Black community left its mark on British culture in various domains, mainly food, language, and entertainment. A variety of Caribbean brands, such as Tropical Sun, have made their way into speciality stores, and gradually into large supermarkets so that they can be easily accessible to the larger population. The National Restaurant Association predicts an increase in the popularity of Caribbean food over the coming years, and there has also been an increase in the number of restaurants over the last few years. In other domains, the Black community have added new dimensions to the English vernacular through the *Jafaican* accent taking over a portion of the population, mainly youths in some areas of London. Alongside language, music originating from Black communities has had significant influence on the entertainment industry, for example through the popularisation of the 'rude boy' subculture which is interlinked with modern British urban and street cultures. Also linked to the entertainment sector, the Notting Hill Carnival, which originally started as events to encourage and celebrate cultural diversity in London, is currently one of the largest annual carnivals across Europe.

Polish Britons

Polish migrants are, alongside South Asians, one of the largest ethnic minority groups in the UK. Similarly to South Asian and Black population, there have been various waves of migration into Britain. The first wave followed uprisings against Russia during which political activists and exiles fled to London. After this, similarly to the South Asian and Black communities, a wave came with World War 2, during which a number of Poles moved due to the German-Soviet occupation of their country, as well as to help in the war. A portion of Poles stayed in the UK, and this encouraged a steady stream of migrants into the

country, which was then accelerated by the fall of communism. The most notable and recent wave was the 21st century economic migration when Poland joined the European Union and gained less restricted freedom of movement. This was encouraged by the UK government immediately granting the migrants full access to the labour market, compared to most other countries who negotiated temporary restrictions to their labour markets. It is important to consider how this is in contrast with the Black and South Asian populations who have longstanding histories of colonialism and slavery linked to the receiving country.

Following the last mass movement, Polish migrants have had high employment rates in the UK. Many moved as a family, leading to the inclusion of a number of Polish-born children into the British education system. In terms of cultural integration, again similarly to the South Asian and Black population, Polish food has found its way into specialty 'Polish' shops, into supermarkets, and a few Polish restaurants can also be found around the country.

Discrimination and Racism

Despite these multiple contributions, the South Asian, Black, and Polish communities have faced discrimination and racism, a lot of which is structurally engrained. In the case of the South Asian and Black population, this can be seen in terms of how they have been treated during their earlier moves to the country. For example, after a large portion of the Black population reached the UK on the ship *Empire Windrush,* the government worked towards policies to prevent such mass migration while Black migrants received poor treatment from the society, in terms of denied housing and employment, or being banned from some spaces. While discrimination on the basis of race has become illegal since, the unfair treatment of these migrants continued into the 21st century with the Windrush scandal where several British-born migrants, mainly from the Caribbean islands, were wrongfully detained as a result of the government's hostile environment policies. This has marked the experiences of Black individuals in the UK.

Similar patterns can be observed among South Asian migrants, where upon arrival they were often mistreated. In terms of structures that contributed to South Asian racism, 'Paki-bashing' peaked after anti-immigrant political discourse (e.g., the Rivers of Blood speech), encouraged partly by the media. In more recent years, after some Jihadist terrorist attacks in the UK, the governmental anti-terrorism programme PREVENT somewhat disproportionately focused on South Asians, especially Muslims in the UK, contributing to the narrative demonising migrants (Ozduzen, Ferenczi, Holmes, Rosun, Liu, & Alsayednoor, 2021). Both Black and South Asian individuals have recounted experiences of discrimination that start in school. There has been discussion about racial profiling in the UK, with Blacks and South Asians being one of the main groups being targeted with these groups having the highest stop and search rates between 2020 and 2021 (52.6, 28.0, and 19.3 per 1000 people for Blacks, Bangladeshis and Pakistanis respectively, Home Office, 2022).

Polish migrants have also been subject to racism in the form of stereotypes (e.g., the Polish plumber) which reinforced the idea of these migrants both as cheap labour that will steal jobs from the

British, and individuals who will profit off the welfare system. In terms of employment, Poles are often stuck in temporary jobs where they are overworked and underpaid. Over the years there have been various instances of anti-Polish hate crimes, in the form of xenophobic messages, and verbal and physical attacks (Rzepnikowska, 2019). This sense of antipathy towards the group contributed to the Brexit referendum being passed, which followed with even more anti-Polish hate crimes: on the day after announcing results from the Brexit vote, over 200 incidents were reported.

Methodology

Participants

In this study, we recruited 109 participants through Prolific UK. We targeted White British nationals as well as three of the largest migrant groups within the UK. The Black sample included participants of Black-British, Black-African and Black-Caribbean origins. The South Asian sample included participants of Indian, Pakistani, Bengali and Sri-Lankan descent. Following the completion of the survey, the participants were compensated for their time (£1.55). Prolific UK ensures that participants are paid minimum wage, or above. This study was funded through the Simon Fraser University, President's Research Start-Up Grant (Kline).

Table 1

Descriptive Statistics

Cultural Background	n	%
British	33	30.28
Black	23	21.10
Polish	21	19.27
South Asian	22	20.18
Other	10	9.17
Total	109	100.00

Materials

For this study, we only used a portion of the data collected as part of a larger set of studies looking at cultural change and transmission. The larger survey contained several demographic questions (age, gender, ethnicity, religion, nationality) and various free-list items asking about cultural and religious learning, maintenance, and change. The part of the free-lists used in this study specifically asked participants: 1) how they learnt about their heritage culture, 2) how they learnt about other cultures, 3) what parts of their culture they believe are important to maintain (which only appeared to non-British participants due to a data collection error), and 4) what parts of other cultures they think should be adopted by people from their heritage culture.

Procedure

Data was collected online, through Prolific UK, an online platform for data collection. Participants were directed to a Qualtrics survey where they could read the participant information sheet, provide consent, and then the questionnaire. The order in which questions are presented was randomised. After completing the survey, participants were directed back to Prolific UK and were paid through the

platform. The dataset was then coded systematically before being analysed using the AnthroTools package in R Studio.

Analysis

As this was an exploratory study, we did not create a coding scheme beforehand. Each freelist question was coded in a systematic process. Items were first recoded to reconcile variations in responses with no extra meaning (e.g., spelling errors). The items were then grouped under categories that are broad enough to englobe a variety of answers while not completely losing the variation in meaning. For example, books, poetry, art, music and TV were all grouped under media (since each of those items also appeared at a low frequency within the dataset) while parents and family were two different categories as they could be linked to different learning pathways (e.g., vertical vs oblique).

The coded freelists were then analysed using the AnthroTools package (Purzycki & Jamieson-Lane, 2016b) to calculate salience scores. For example, if a participant has a list of 5 cultural domains (1. Food, 2. Clothing, …, 5. Books), the salience score of food (1) would be calculated by the inverse of the order of that item in the list, divided by the number of items in the list.

$$S = \frac{(n + 1 - k)}{n}$$

However, for a cultural model, we need to calculate the salience score of the group. The most shared components of individual mental models create this mental model, and is indicated by a higher group salience score, or Smith's S. To calculate this, we use the group's mean of the item salience score.

Categories with higher salience scores indicate that the category was both present at a high frequency across the dataset and was listed higher in the lists.

$$SS = \frac{S1 + S2 + S3 + (\ldots)SN}{N}$$

Results

Learning about Cultures

Question 1

The first freelist item looked at how people learn about the culture they were born into, for example British participants were asked about British culture, and South Asian participants were asked about South Asian culture. The salient categories for each group can be seen in Figure 1.

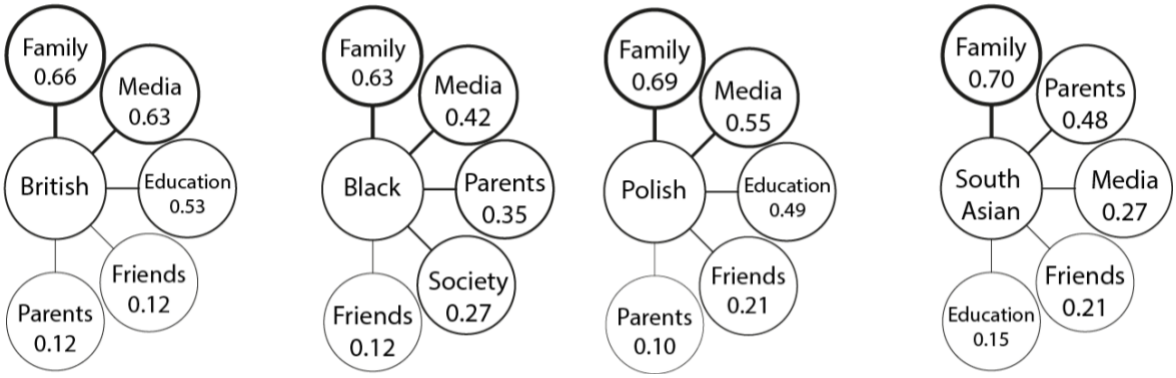

Figure 1: Most salient categories (salience scores ≤0.10) for how participants learn about their heritage culture (clockwise from top).

The most salient items (family, media, education, parents and friends; see figure 1) were similar across all four groups, indicating that in all four communities, the most common transmission pathways are a mixture of vertical, horizontal and oblique. Learning through media, a category which includes TV, music, books and the Internet indicate how technological advances play an active role in shaping cultures. Learning through media is something that has not been extensively explored through a cultural transmission lens, and may be quite different from vertical, horizontal, and oblique pathways, especially since cultural exposure and contact do not occur through direct contact between individuals and is instead facilitated by technological medium.

Across groups, we find variances in the salience of the different sources. For example, the vertical pathway (through parents) is more salient among Black and South Asian participants. This may be explained by various factors, such as differences in language use (e.g., participants referring to their parents as family vs as parents), or group-specific characteristics (e.g., kinship structures and norms). This can also be linked to the sample composition, where the Black and South Asian samples consisted mainly of second-generation migrants and above, who had to learn about their cultures through parental transmission.

Question 2

The second freelist item looks at how individuals learn about other cultures. In migrant samples, we asked about they learnt about British culture, and for the British sample we asked about 'non-British cultures' broadly. Salient categories for each group are presented in Figure 2.

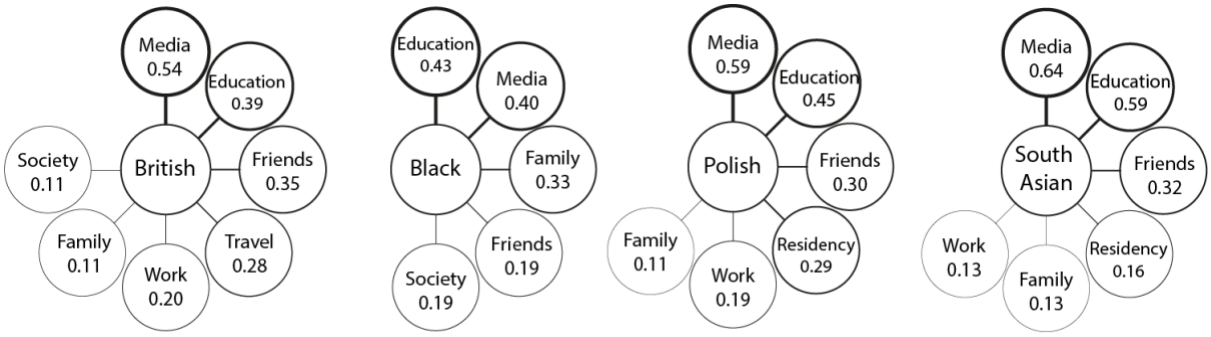

Figure 2: Most salient categories (salience scores ≤0.10) for how participants learn about other cultures (clockwise from top).

The categories involved in learning about other cultures indicate only three types of transmission pathways (horizontal, oblique, media). The most salient categories remained consistent across groups (Media, Education, and Friends). *Media* was very consistently the most salient category and contained similar items as the first question. This again highlights how technological advances, cultural artifacts, and tools (e.g., music, books, etc), and online exposure and interactions with other groups shape knowledge of outgroups. The *Education* category mainly contained items such as schooling, and education, but lacked any description beyond this, leaving it vague whether participants learnt about other cultures through teachers, school friends, the general school setting, or the curriculum content. The category *Friends* only contained the item *friends*, and this indicates that social networks may be diverse and multicultural.

Question 3

The third item asked participants what parts of their heritage cultures are important to maintain (e.g., *Which parts of your ___ culture are important to maintain?*). We only have data for the three migrant groups and the number of salient categories varied across the three groups (see Figure 3).

Figure 3: Most salient categories (salience scores ≤0.10) for parts of heritage culture to maintain, clockwise from the top.

The Black and South Asian samples had the highest number of salient categories. This may be due to these two groups having more in-group variation as they include individuals from various national and religious backgrounds.

Most of the categories, such as *Food, Language, Clothing* and *Media* (which includes music for example) function as identity markers which contribute to maintaining a sense of identification to the heritage culture. The salient categories present across all three groups are *Food*, *Language* and *History*. Across all groups, the only category with a high salience score (<0.20) is *Food*. All three groups have food preparation practices that are distinct from British dietary practices, as well as one another's. This suggest that food may be a domain that is central to heritage cultural identity.

Question 4

The last question looks at what parts of *other* cultures the participants think their communities should adopt. Similar to question 2, the migrant samples were asked about adopting aspects of the British culture, while British group was asked about 'non-British cultures'. We intended to suggest the adoption of cultural domains from multiple cultures (both in the participants' immediate physical location, through media, and online). The number of salient categories varied across the four groups (see Figure 4), however most of the categories refer to ideologies and norms (e.g., secularism and values). *Food,* the only functional (or material) domain which was salient in this question was found in the British sample.

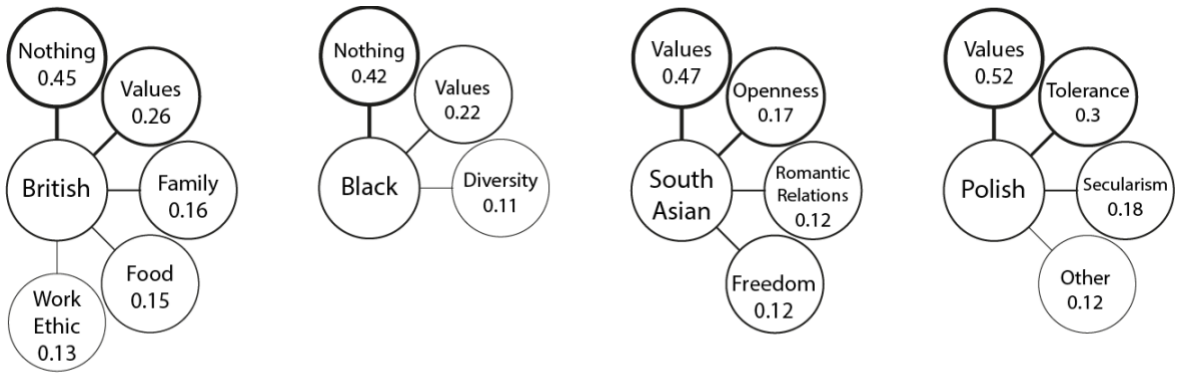

Figure 4: Most salient categories (salience scores ³0.10) for parts of other cultures to adopt.

The one common category in all four samples refer to *Values*. Within the original dataset, this item was rarely recoded (I.e., participants referred to values in most instances), and only a few other items (e.g., being polite, generosity) were included in this category but those were comparatively sparse. Further research needs to be done to have a better understanding of which values participants referred to, as well as which cultural groups these are to be adopted from.

In the British and Black groups, the most salient category is *Nothing*. This category contains items which explicitly said 'nothing', 'none', and any other response that described this. The category does not

include any blank responses. This indicates more ethnocentric attitudes in both groups; however, these results may also be due to where most of the sample is based (location/place of living), and to what extent they are exposed to other cultures. In the British sample this finding is surprising since various aspects of British culture have been borrowed from other cultures. For example, in terms of food, curries, which originate from South Asian cultures, has become part of mainstream British cuisine. For the Black sample, this finding may be linked to the state of intergroup relations between the two groups, such as the Windrush scandal.

In both the South Asian and Polish samples, most of the categories include some degree of intergroup relationships. In the South Asian group, the *Openness* category, for example, referred to more acceptance of cultural differences, while *Romantic relationships* refer to both dating not being taboo, and having romantic relationships that can cut across religious and ethnic boundaries. In the Polish sample, *Tolerance* referred to items such as tolerance, being more accepting of LGBTQ+ members, as well as other races and religions.

Discussion

This study looked into the cultural transmission mechanisms behind acculturation across various domains of culture. We identified the learning paths that allow individuals in the UK to learn about their own, and other cultures. Participants learnt about their own cultures through the three learning paths: vertical, horizontal, and oblique, as well as through media. In terms of learning about other cultures, the vertical pathway had a lesser role than other pathways. In terms of retaining and changing cultural domains, we also find results in line with what we expected: migrant groups want to retain domains that act as identity markers (e.g., food, language, and clothing), while they want more ideological domains (e.g., secular attitudes) to change.

Patterns in Cultural Learning Pathways

In terms of cultural learning, there are slight variances in how individuals learn about their own, versus other cultures. There is a higher number of salient categories in the cultural learning item looking at learning about outgroup cultures, compared to learning about in-group culture, and there was also more variation across the four participant groups. When grouped into learning pathways, outgroup cultural learning is restricted to horizontal, oblique, and media paths when learning about other cultures, compared to in-group cultural learning which also includes vertical pathways. This indicates more qualitative variation in terms of the sources through which individuals learn about others.

An important finding to consider is the role of media in learning. This is one of the most salient categories for both in- and out- group cultural learning across all the cultural groups. As we describe in the literature review, although learning through media may employ horizontal and oblique pathways, there may be differences in this process due to the medium through which this form of learning occurs. Learning through media may not always involve learning directly from other humans- it also includes learning through cultural artifacts (e.g., books, movies, music, games). This results in a qualitatively different experience from in person learning (Barkow et al., 2012). Alongside this, a large portion of intercultural contact nowadays happens online, therefore dissipating the geographical boundedness of this process. Virtual cultural learning may also be prone to a different set of biases, such as algorithms promoting only some content on social media, this medium for cultural transmission is bound to different cognitive processes and biases (Brinkmann et al., 2022).

Trends in the Retention and Adoption of Cultural Domains

Retaining Domains.

The most salient cultural domains we found, *Food, Language, Clothing,* and *Media*, are all cultural artifacts that have been described as identity markers in several areas of research such as Anthropology, Sociology and Gastronomy. Identity markers are aspects of cultural groups that help define these groups (Story & Walker, 2018). These are often aspects that can be observed, for example through language use, dressing a specific way, or by eating specific foods. In the case of our targeted migrant groups, the

retention of the most salient markers within the everyday UK context can be easily observed for example through the integration of heritage food products from all three groups into supermarkets (*Food),* or the popularity of the Carnival (*Media*). While *Language* is also a salient marker, most studies have focused on the adoption of this cultural component from host culture as a measure of the degree of integration into the community, with mainstream language adoption often linked to positive well-being outcomes, or better school performance (Salamonson et al., 2008).

Our findings uncover a different side to migrant experiences, as most of acculturation research typically focuses on changes to the various domains that participants believe are important to maintain. Little work has been done looking into food, clothing, and media, while language is often used as a proxy for measuring acculturation. There has been a disproportionate focus on how adopting cultural domains of the mainstream culture facilitates integration into the new culture (for example, being fluent in the mainstream language facilitates communication with others which is necessary in daily life), however it is also important to consider how this occurs in parallel with the maintenance of heritage cultural domains, and how this broader process of integration, not just adoption, influences other individual psychological processes such as wellbeing.

The limited research that has approached multi-component acculturation in migrants from a longitudinal perspective (see Lee et al., 2020) suggests that some domains of culture such as food practices and language may be the first to change. Previously, changes to food practices were attributed to the limited availability of 'heritage' food products, although in the current highly globalised world, this may not still be the case (Scoppola 2021). As previously described, a number of large-scale supermarkets, and smaller speciality shops cater to these heritage food needs. In terms of language adoption, more functional explanations have been suggested: migrants need to communicate with individuals from the 'new' culture and this, most of the time, necessitate some degree of integration from the migrant in terms of learning the host language. Within the more theoretical literature, only the small body of work on domain-specific acculturation describes how language use may vary across contexts, for example using the host language in public settings (at school/work), and heritage language in private settings (with family at home). A smaller portion of research describes language adoption often may only occur for functional purposes, not only among migrant populations, but also in minority groups who have to learn the majority/dominant language often for economic purposes (Chiswick & Miller, 2014). These findings highlight the need to understand not why cultural changes happen in some domains as these changes may then occur through different processes, and lead to different outcomes.

Adopting Domains.

Compared to domains to be retained which consisted mainly of observable and material aspects of culture, a portion of the salient categories referred to more ideological cultural components, such as *Secularism, Tolerance, Work Ethic,* and *Romantic relationships*. In this case, we describe these ideological cultural components as sets of beliefs held by a group about various social constructs. For instance, this

could be beliefs about the link between the state and religion, or about acceptable forms of romantic relationships. These beliefs can often be observed in the form of various behaviours, for example tolerance can be displayed by being accepting of others' differences. Within the ingroup, these beliefs are transmitted as part of individuals' socialisation process and may be enforced in the form of norms to conform to, or by attributing moral meanings to these beliefs (Narvaez et al., 1999).In terms of why these domains should be adopted, we should consider whether this could be a functional cultural adaptation. For example, in the case of romantic relationships, it is possible that matin strategies used in the heritage country of South Asian migrants may not translate as effectively to the UK culture, and as a result South Asian migrants may prefer to adopt the practices of the British culture. Similarly, as Poland has been growing less secular, it is possible that individuals who have left their home country feel differently about the involvement of religious institutions with the State.

Informing Broader Acculturation Literature

Identifying Cultural Domains

Our findings are (to some extent) contradictory with a large portion of the acculturation literature. Within most of the theoretical literature on acculturation, 'culture' is commonly used, but not often operationalised. In terms of measurement, scales focus on some cultural aspects as proxies to determine integration, often with a disproportionate focus on language and values (see Matsudaira, 2006 for a review of general acculturation measures). By highlighting the variances in retention, and adoption of various cultural domains, we reinforce the importance of moving towards more domain-specific models of acculturation. In domain-approaches to acculturation, researchers have emphasised the importance of looking at various dimensions of culture (e.g., Schwartz; Demez & Geereart), while others (Arends-Toth & van de Vijver) refer to *life domains*, which can be relevant both to cultural domains, and the context within which they occur.

However, in most of these domain-specific approaches, there has been little convergence in how the domains are selected, often with little description of how the selection was made. Despite this, we find that individuals' cultural adoption and retention vary across different domains. Building onto the results of this study, we suggest more exploratory work this to identify domains that have folk relevance, supplemented with further confirmatory research in order to first establish relevant cultural domains, and then to look into acculturation strategies used within each of those domains. It is equally important to look into why some domains are perceived as important to retain or adopt- this could be linked to functional aspects, for identity maintenance or building, or could also be linked to emotional components of the cultural learning process (e.g., emotions towards the source of learning, e.g., parents).

Acculturation Strategies Across Domains

Although we take the first step towards identifying these domains, this study only indicates individual preferences for retention and adoption. This does not tell us what acculturation strategies are

involved, the contextual specificity of these preferences, or how these beliefs about retaining and adopting cultural domains translate into behaviour. These various other aspects of the acculturation experience often work together with various other individual (e.g., age), contextual (e.g., intergroup relations), and societal factors (e.g., social norms) to influence larger patterns in cultural change. This study provides only an overview of some of the cultural domains we should pay attention to, and to better understand how they are evolving, further research needs to be done. In the next study, we focus on one of the ideological domains to investigate some other factors which contribute to changing behaviours. As ideological beliefs are shared within the in-group and may be associated with moral judgements, we look at how perceived norms, morality can explain changes in self-reported behaviour.

Who do we acculturate to?

In this study, we asked participants from the receiving population what they would like to adopt from other cultures. While we did not ask participants which outgroups these domains are to be adopted from, we still observe the majority host group indicating that aspects of other cultures should be adopted. This aligns with the small portion of research that describes majority group acculturation (e.g., Kunst, Lefringhausen, Sam, et al., 2021; Kunst, Lefringhausen, Skaar, et al., 2021). On the other hand, since we did not ask participants from the migrant groups what aspects of cultures (other than the mainstream host culture) they would adopt, we overlook migrant-migrant cultural learning and acculturation processes.

Bridging the Gap Between Cultural Learning and Acculturation

Connecting Cultural Learning and Domain Acculturation

Since we did not connect cultural domains to the cultural learning processes involved, we cannot determine whether learning pathways may influence the retention or adoption of these domains. We should investigate whether all domains that participants believe should be retained from their heritage culture are transmitted similarly, or whether it is just the value component, or functional aspects of these cultural domains that lead to them being perceived as more important to retain. There has been limited research describing the purpose of several domains we found salient, such as food or clothing.

Intercultural Contact Influencing Cultural Learning

We also did not take into consideration other factors that may influence cultural learning processes. Beyond inherent learning biases which we described in the literature review (e.g., prestige and content biases), one of the main influencing factors, described mainly within the acculturation literature, is intercultural contact. This refers to 1) the medium for this contact, 2) the frequency of contact, and 3) the quality of contact. The medium of contact would include, as we previously describe, for example whether this happens in physical locations (i.e., geographical proximity), or online (e.g., through social media), among other settings. In terms of differentiating between online and physical medium, little work

has been done describing the different factors and processes involved within each setting (e.g., algorithms shaping what we are exposed to, see Brinkmann et al., 2022)), and only a few studies describing remote acculturation processes. Frequency and quality of contact are both concepts that have received a lot of attention within acculturation literature. Intercultural contact was previously used to infer acculturation. Quality of contact includes a variety of subcomponents, for example, ease (often interlinked with intercultural communication skills), satisfaction, or other emotional and affective values associated to that contact. These multiple dimensions of intercultural contact all influence learning pathways, and thus the cultural learning outcomes.

Further research should look into which groups these domains are to be adopted from, the cultural learning processes involved, and why individuals want to adopt each of those domains. This could be for example, for functional purposes such as adopting romantic relationship norms of other groups to improve mating strategies, or to facilitate integration within the society by displaying similar values to others. Alternatively, this could also be linked to the type and degree of exposure to these cultures, which includes intercultural contact and cultural learning processes.

Limitations

Due to the small sample size in this study, while we targeted the largest ethnic minorities within the UK, for a portion of our sample, we reduced them to broad groupings such as South Asian and Black, for ease of analysis. This is an issue that has also been outlined by the specificity principle and although there are some similarities in the experiences of the groups we collapsed under these two broader categories, we need to also recognise qualitative differences among them. For example, the South Asian sample includes Indians, most of whom are Hindus, and Pakistanis who are mainly Muslims. The difference in religion, which is another component of culture, makes for qualitatively different cultures between Indians and Pakistanis. Similarly, the reasons for migration for Indians and Sri Lankans vary, and therefore their acculturation experiences (e.g., motivation to do so, or what domains to adopt), may also vary. In the future, we should test whether these smaller cultural groups significantly differ from one another before grouping them.

Other components that we have overlooked are age, gender, residential location and other migrant specific factors. There exists a number of studies which describe differences in acculturation experiences based on individuals ages, and that over their lifecourse, the degree of retention and adoption of heritage and host cultures also vary (see Berry, 1997). Similarly, gender can also account for some differences in acculturation processes (see (Schwartz & Montgomery, 2002)). Area of residence is a factor that would influence the degree of intercultural contact, as well as the overall migrant experience. For instance, within the UK, we can find various ethnic enclaves (e.g., Slough, and Chinatowns) which contain a large portion of minority ethnic populations. This results in areas where individuals can, to a large extent, exist within a cultural bubble with little intercultural contact with the host. This may result in a lowered need to integrate into the host society through acculturation processes. On the other hand,

these ethnic enclaves may also increase migrant-migrant intercultural contact leading to the adoption of cultural domains from other ethnic minorities.

Migrant specific factors refer to details such as why individuals moved, and when. Since this was an exploratory study with a small sample size, we restricted the number of variables we would be looking into, however we also did not restrict our sample to single generations of migrants. First generation migrants, compared to second generation and above, may have different cultural learning strategies, and different preferences for cultural domains to maintain, or adopt. Since second generation migrants are born and socialised in the host culture, they may have different perceptions of what cultures they belong to (bicultural identities in migrants), and may have different socialisation experiences. A portion of the literature describes acculturation differences between first-, and second-generation migrants (Rothe & Pumariega, 2011), and outlines the influence of various aspects of their daily lives, such as exposure to multicultural settings, and managing the norms and expectations of these different cultures (Pavna, 2008; Sabatier & Berry, 2008; Stroink & Lalonde, 2009).

Conclusion

This study explores domain-specific acculturation processes from a cultural learning approach. We identify the learning pathways involved in outgroup cultural learning (horizonal, oblique, and media), compared to ingroup cultural learning, which also includes vertical paths. We also provide support for a domain-specific acculturation perspective by identifying the various cultural domains that our participants believe are important to maintain within their own cultures, and the domains they believe should be adopted from the host culture in the case of migrant samples, or from other cultures, broadly in the case of the British host sample. We suggest that future studies attempt to look into the relationship between cultural learning pathways and domain acculturation, as well as how the type and quality of intercultural contact may affect cultural learning. Alongside this, it is also important to look into how beliefs about changing cultural components lead to behavioural changes, and the various factors that may influence behavioural change.

Study 3

Introduction

Cultural change involves patterns of beliefs and behaviours evolving or emerging within cultural groups. Some of these beliefs and behaviours can be shared within the cultural groups, thus forming norms relevant to members of that group. Norms can be viewed as shared rules for what is considered acceptable, or moral within the group. These norms can be usually determined by identifying common patterns for various behaviours within the group (e.g., what to serve for dinner), and there is often a moral judgement associated with these behaviours (e.g., it is immoral for Muslims to eat pork). These norms and beliefs are learnt as part of cultural learning processes, such as social learning. In the case of migration where individuals have moved from one culture to another, these individuals are often exposed to a new set of beliefs, which may sometimes conflict with ideas from their heritage culture. As a result of cultural learning and acculturation processes, people may adopt some of these beliefs, or switch between their host and heritage beliefs in different contexts. In this study, we build onto findings from the previous chapter by looking into how normative and moral beliefs, and parental approval can predict behaviours linked to romantic relationships, a cultural domain with aspects that both our South Asian and Polish samples previously described wanting to adopt from the host British culture. In the next sections, we describe social norms (including how they are linked to behaviour, and how they change over time), the link between social norms and moral beliefs, and how both constructs are shaped by parents and the kin network.

Norms and Why We Do What We Do

The literature on social norms cuts across various disciplines including anthropology, sociology, and psychology. Descriptions of the construct also vary across these fields, and often even within the same field. In this study, we use a simplified definition: norms refer to both how people behave, or expectations for how people should behave (Chudek, 2018). This definition is aligned with ideas suggested by other researchers (e.g., Bicchieri's social norms theory (2016), and the focus theory of normative conduct by Cialdini et al., 1990. Both theories describe how norms work to enforce specific behaviours as individuals believe that 1) others act in a certain way, and 2) others expect us to also act in this same way. In Bicchieri's work these beliefs are coined as empirical and normative expectations respectively. Both approaches describe behaviours that are dependent on empirical expectations alone as descriptive norms. The second component of the focus theory of normative conduct includes injunctive norms, which in Bicchieri's approach, are described as social norms. Injunctive, or social norms are interlinked with both empirical and normative expectations, and often are described as having a moral component. This can be seen through beliefs that deviating from normative expectations will result in punishment. Injunctive and social norms are often enforced through this fear of deviating from these norms, which in some cases may result in punishment, which can take various forms such as more overt punishment (e.g., verbal confrontation, gossip, etc.), or ostracism (Eriksson et al., 2021). We further discuss the moral aspects of social norms in the next sections. These various types of norms are often

picked up from cultural learning processes and people adopt these beliefs and practices as part of adapting to the society they are in.

Irrespective of variances in theories and terminology, over the years, researchers have converged on the idea that norms are generally ubiquitously important cross-culturally (Gelfand & Jackson, 2016) and can influence behaviours that are focal to the content of the norm (Kallgren et al., 2000; Rhodes et al., 2020). The concept of social norms has received widespread attention in the study of cooperation and prosociality (Chudek & Henrich, 2011) as researchers are interested in social structures that emphasise the cultural nature of humans. These theories of social norms have also had influence in more applied areas of research. For example, several researchers have used social norms-based interventions to target specific behaviours in an attempt to change them. The areas targeted range from actions to fight against climate change (Cialdini et al., 1991; Nisa et al., 2019), and alcohol consumption (Borsari & Carey, 2003) in Western societies, to the use of latrines (Bicchieri, 2017), child marriages (Bicchieri et al., 2014), and female genital cutting (Vogt et al., 2016). These studies test the relationship between social norms and behaviour, usually in more experimental designs. Compared to those, in this study, we look into how this relationship stands in a more natural, mundane setting where cultural change, and by extension norm change, is already occurring. While the extensive body of literature on acculturation, and cultural evolution both suggest that norms are changing, there has been little work looking into this phenomenon from a more social norms focused approach.

By looking at this relationship, we can uncover some of the smaller processes and mechanisms that underlie broader cultural change in the globalised setting, especially those between migrants and the receiving community. We choose to focus on several types of behaviours within the realm of romantic relationship to do so, as we previously found that two of the largest migrant groups which are involved in this study, Polish and South Asian, described wanting to adopt more practices from the British host culture in this domain. Romantic relationships are also a particularly interesting aspect of cultural change, as it provides us with room to look into deeper cultural mixing (e.g., through intercultural relationships), and also taps into the moral domain of norms (e.g., several practices such as intercultural relationships and premarital sex may be considered immoral). For this research, we look at norms in terms of common practices (i.e., what people see as commonly done within their community). This was done to separate the normative domain from the moral domain, discussed below.

Moral Beliefs, Moral Norms, Moralising Behaviour?

In this study, we are interested in the relationship between the moral components of social norms within the realm of mating practices and romantic relationships. Morality is often described as a component of social norms, although there has been little consensus on how norms become moralised. These norms have been attributed their morality component because of the social function they perform, or due to the emotional value linked to that social norm (see Bicchieri, 2010 for more detail about both perspectives). Researchers have also described the moralisation of social norms in terms of the latter becoming internalised (i.e., becoming part of the individuals' belief and value systems, Bicchieri, 2006;

Dubreuil & Grégoire, 2012), as well as externalised (i.e., the human trait to view moral demands as external obligations, Stanford, 2018). Irrespective of these intricacies, these moral beliefs, and the moralising of social norms, enable us to create a distinction between good/right and bad/wrong behaviours. These can be further distinguished as socially independent or dependent, with some moral rules or norms being valid across social and cultural contexts and others being applicable only under certain conditions (see Gavrilets, 2020). Nonetheless, moral norms and personal moral beliefs have both been discussed as influencing various behaviours, such as environmental activism (Turaga et al., 2010), cooperation (Purzycki et al., 2018), and health related behaviours (Godin et al., 2010). As morality is an important component of social norms, and is a significant behavioural influencer across various domains, in this study we look at personal moral beliefs as one of our predictors of behaviour in a changing cultural setting.

Parents' Teachings, Parental Approval

Our previous study found that in South Asian and Polish migrant populations in the UK, one of the main paths through which the heritage culture is transmitted is through parents and the family. This includes heritage practices, values, norms, and beliefs shared across the heritage community. A portion of research describes how parents are one of the main transmitters of social norms and values, and especially moral beliefs (Barni et al., 2011). This is reflected through similarities in social beliefs of parents and their children. However, in migrant populations, we also find several studies reporting intergenerational conflict within migrant families as children start to adopt cultural artifacts and norms of the receiving society (Soltani, 2021). These differences also pervade the realm of romantic relationships, as we will later describe. Despite these differences, parental approval still plays a large role in determining various behavioural outcomes, especially for romantic relationships. This influence can be seen in partner choice (Apostolou, 2007; Bell & Hastings, 2015), sexual behaviours (Buhi & Goodson, 2007; Perilloux et al., n.d.), mating strategies (i.e., short vs long-terms, Apostolou, 2009), and practices such as marriage (Apostolou, 2010), as well as overall quality of the relationship (Blair & Holmberg, 2008). With the centrality of parents in the transmission of social and moral norms, as well as parental approval being an important determinant of various mating-related decisions, in this study, we include parental approval as a predictor of behaviours related to various aspects of romantic relationships. This will contribute to both our understanding of norm and behaviour change, and the role of parents as this change occurs.

A Brief Background: Relationship Norms in South Asian and Polish Cultures

Although social norms and moral beliefs are both central in influencing behaviours, it is also important to consider that these norms and beliefs are often culture specific. Not all social norms are the same across cultures, and similarly moral beliefs also vary across cultural groups, and individuals. Using an example specific to the domain of romantic relationships, in South Asian cultures, arranged marriages are part of the social norms of the group. On the other hand, in more Western cultures, this practice is not normative, and is often misunderstood (Gangoli et al., 2009; Pande, 2014a). This illustrates how social

norms are bound by the cultures within which they exist and may not be valid in other social contexts. To select mating behaviours to include in this study, we broadly look at some of the practices that are typical to the two groups we are studying.

Mating in South Asian Cultures

In our previous study, the South Asian sample listed romantic relationships as one of the most salient cultural domains they wish to adopt from the majority white British host. Various researchers have also supported the idea that there is often a mismatch between how younger and older migrant generations want to approach mating (Robinson, 2005). Broadly, most of the literature suggests that South Asian parents largely disapprove of dating, often in favour of arranged marriages which are traditional practice in the heritage countries (Bacchus, 2017; Samuel, 2010). Arranged marriages have been described as a custom that helps sustain various ideas (e.g., honour, respect, and purity) and structures such as the religion, ethnic lineage, and the caste system (Samuel, 2010; Shaw, 2000; Ternikar, 2008). While these structures may not exist similarly within the British society, researchers still find that first-generation migrants still place a lot of importance on arranged marriages, often at the detriment of other mating practices and strategies that younger generations of migrants wish to pursue, such as dating for shorter term relationships (Bacchus, 2017). As a result, mate choice and mating strategies are somewhat limited by the social norms of the heritage culture. Similarly, sexual experiences, especially those of women, are restricted by cultural norms, with South Asian cultures placing high value on virginity before marriage (Bhatia, 2002). Despite these restrictions, some studies also suggest that migrant children learn to navigate their heritage culture's demands through what can be deemed as domain-specific acculturation strategies where they act in line with the heritage community's norms when in that social context, and in other settings engage in the mating practices that they prefer (Nagel, 2000).

Mating among Poles

Compared to South Asian cultures, for Poles, there has been little work explaining the phenomena of arranged marriages in this community, probably since it is not a common practice. However, similar to South Asian communities, there exists a portion of literature that highlights the Polish culture's outlook on premarital sex (Jarska & Ignaciuk, 2022a). The importance attributed to sex and virginity in Poland has been described as interlinked with the country's history of socialism and Catholicism. Over time, this importance declined with the weakening of religious moralisation of premarital sex, and the practice became somewhat normalised, especially within more committed relationships (Jarska & Ignaciuk, 2022). While beliefs and norms in this branch of romantic relations have shifted, there has been little change in attitudes towards homosexuality within Poland. The Polish migrant sample listed homosexual attitudes as part of one of the more salient domains to adopt from the British culture. The current attitudes, moral beliefs, and norms in Poland towards the LGBTQ+ community is in sharp contrast with the UK. Feelings of homophobia are not uncommon in the heritage country, with LGBTQ+ rights still being debated (Hall, 2017; Tomczak et al., 2022)

Identifying Relevant Mating Behaviours and Practices

In both the Polish and South Asian communities, we find indications of controlled romantic and sexual behaviours. Even within the Polish society where premarital sex becomes more normalised, there still seems to be a distinction between short term mating (hook-ups and casual dating), and more committed relationships. Comparatively, in the British society, these behaviours appear to be more typical. With this split perception by the host and migrant groups, we included a range of mating behaviours that would be considered part of the norm in the British society but frowned upon in both migrant communities (e.g., casual dating, premarital sex in casual relationships, homosexual relationships, interethnic and interfaith relationships). We included a range of items that would be atypical only in the South Asian community (e.g., committed relationships, cohabitation, premarital sex in committed relationships), as this group appeared to have stricter boundaries for what is permissible in romantic relationships. We also included two types of marriages: arranged marriages due to the high relevance of his practice in South Asian communities, and love marriages which are considered the norm in most of the Western world.

The Present Study

This study explores some of the processes underlying cultural change in a natural setting by looking at perceived commonness (or normative beliefs, NB), moral beliefs (MB), and parental approval (PA) as predictors of various behaviours involved in mating and romantic relationships among two of the largest migrant groups in the UK, Polish and South Asians. In our previous study, we identified romantic relationship as a cultural domain that our sampled demographic wants to adopt from their host culture. This indicates that within this domain, individuals from these ethnic backgrounds are adopting more practices from the host society.

To explore how these constructs exists and are changing, we look at their structure to understand how various dimensions (i.e., normative beliefs, moral beliefs, and behaviours) are conceptualised within each culture. We also look at the relationship between these variables in a sample of South Asian and Polish migrants living in the UK. This helps us understand how these three cultural components influence behavioural outcomes, especially as the domain is undergoing change. Since this is a largely exploratory study, we do not have hypotheses about the factor structure of our scales, however, we expect normative and moral beliefs, and parental approval to all predict behaviours within the mating domain.

Methodology

Participants

A gender-balanced sample of 212 participants aged between 18 and 40 were recruited using Prolific UK. We recruited Polish and South Asian migrants (including Bangladeshi, Indian, Pakistani, and Sri Lankan) living in the UK. More information about the sample can be found in Table 2.

Table 2

Descriptive Statistics

Gender	South Asian		Polish		Total	
	n	%	n	%	n	%
Male	69	50.4	34	45.3	103	48.6
Female	67	48.9	41	54.7	108	50.9
Other	1	0.7	0	0	1	0.5
Total	137	100	75	100	212	100

Materials

The questionnaires consisted of a series of demographic items (age, gender, education, sexual orientation, and ethnic and religious background) and items targeting religiosity. We also had sets of items on normative beliefs ('Within your ethnic and religious community in the UK, how common do you think is it for individuals to *date casually*'), moral beliefs ('Within your ethnic and religious community in the UK, how immoral is it for individuals to *date casually*'), perceived parental approval ('How likely are your parents to approve of *casual dating*') and self-predicted behaviour ('How likely would you be to *date casually*') about various behaviours within the context of romantic relationships. Examples of behaviours that were included in the scales are committed relationships, marriage, interethnic and interreligious relationships, and premarital sex. The order of appearance of these four scales was counterbalanced. The full list of items can be found in Appendix B. The All items were on a 7-point Likert-type scale.

Procedure

These questionnaires were uploaded to Qualtrics, and participants matching the sampling demographic on Prolific (of Polish/South Asian descent, living in the UK, 18 or older) were invited to participate through a link. Following completion of the survey, participants were compensated with £1.55 for their time. This study was funded by internal funds for the Centre for Culture and Evolution at Brunel University London.

Data Analysis

Data analysis was done in R Studio. Our analysis can be broken up into two sections. In the first section, we use the psych package (Revelle, 2022) to explore the structure of the four scales used assessing

normative beliefs, moral beliefs, perceived parental approval, and self-predicted behaviour, using an exploratory factor analysis. In the second portion of the analyses, we look at how normative and moral beliefs, and parental approval predict behaviour. We do this using the lmerTest (Kuznetsova et al., 2017) and lme4 (Bates et al., 2015) packages to create multilevel models to test this relationship across the various types of behaviours that participants were asked about. In both sets of analysis, we study the two groups (Polish and South Asian) separately in order to better capture culture-specific nuances.

Results

Factor Analyses

We conducted an exploratory factor analysis to find out how the two groups conceptualise a set of behaviours within each of the four domains (normative beliefs, moral beliefs, parental approval, and behaviour) in the two cultural groups. We first conducted a parallel scree plot analysis to determine an approximate number of factors. As scree plots interpretations can be subjective, this was used only to identify an initial number of factors and a final factor structure was determined by the best RMSEA value of structures around the initial one. For example, in the case of Polish NB, the number of factors identified by the scree plot was 6, and we tried a 5, 6, and 7 factor fit before selecting the best one based on RMSEA (acceptable RMSEA values in exploratory factor analyses lie between 0.05 and 0.09). We used maximum likelihood estimation and oblimin rotations in all EFAs to allow factors to correlate. Items loading on a factor are highlighted in blue, with loadings less than 0.40 in a lighter blue. Items that did not load on any of the factors are highlighted in grey (see Tables 3-9). We used a lower cut-off (0.3) as this exploratory study was meant to identify clusters rather than create reliable scale items

EFA: Polish Sample

In the Polish sample, we found a seven-factor structure for normative beliefs (RMSEA = 0.081, 90% CI [0.05, 0.096], Table 3), a six-factor structure for parental approval (RMSEA = 0.074, 90% CI [0.025, 0.114], Table 4), and a seven-factor structure for behaviour (RMSEA = 0.065, 90% CI [0.025, 0.099], Table 5). We did not find a factor structure with acceptable RMSEA values for the moral beliefs. The three scales had similar number of factors, with some of the factors (e.g., homosexual, and interreligious relationships) containing the same items. However, the general factor structure of the scales all varied.

EFA: South Asian Sample

In the South Asian sample, we found a six-factor structure for normative beliefs (RMSEA = 0.067, 90% CI [0.047, 0.088], Table 4), and five-factor structures for moral beliefs (RMSEA = 0.09, 90% CI [0.074, 0.108], Table 5), parental approval (RMSEA = 0.064, 90% CI [0.037-0.09], Table 6), and behaviour (RMSEA = 0.071, 90% CI [0.049-0.092], Table 7). The scales had similar structures, with some factors having the same items (e.g., interreligious relationships, parental approval), but there were variances in factor structure of all the scales.

Table 3

Exploratory factory analysis results for Polish Normative Beliefs

Item	Homosexual Relationships	Interethnic	Interreligious	Liberal Behaviours	Parental Approval	Love	Other
Casual Relationships	0.13	-0.01	0.26	0.33	0.06	0.20	0.05
Committed Rel	0.04	0.06	0.02	0.03	0.01	0.78	0.02
Cohabitation	-0.06	0.09	0.08	0.26	0.12	0.35	-0.19
Arranged Marriage	-0.08	0.27	0.15	-0.18	-0.14	-0.23	0.33
Love Marriage	0.00	0.24	-0.06	0.15	0.14	0.34	-0.10
Interethnic Casual	0.11	0.90	0.00	-0.02	-0.01	0.14	0.00
Interethnic Committed	0.07	0.74	0.21	0.11	-0.06	-0.01	-0.01
Interethnic Marriage	0.03	0.70	0.18	0.08	0.10	-0.09	0.01
Interreligious Casual	-0.17	0.24	0.64	0.05	-0.02	0.20	0.27
Interrel Committed	0.03	-0.06	1.00	0.03	0.05	0.03	-0.02
Interreligious Marriage	0.02	0.19	0.82	-0.01	0.05	-0.10	-0.03
Homosexual Casual	0.94	0.01	0.00	0.09	-0.02	-0.03	-0.03
Homosexual Committed	0.93	0.08	-0.02	-0.04	0.06	0.05	0.01
Homosexual Marriage	0.66	0.09	0.06	-0.17	0.09	0.01	0.32
PA Casual	0.02	-0.06	0.02	-0.01	0.88	0.04	0.09
PA Committed	0.05	0.01	0.09	0.00	0.92	0.00	-0.11
PA Marriage	-0.08	0.46	-0.17	0.14	0.49	-0.13	0.17
PI Homosexual	0.36	-0.02	0.06	0.13	0.04	-0.03	0.64
Sex Casual	0.05	0.09	0.04	0.87	-0.04	-0.05	0.00
Sex Committed	-0.11	-0.05	-0.05	0.84	0.11	0.14	0.05
Sex Homosexual	0.41	0.02	0.03	0.38	0.20	-0.19	0.20
Dating Apps	0.17	0.11	0.17	0.55	-0.18	-0.04	-0.09

Table 4

Exploratory factor analysis results for Polish Parental Approval

Items	Homosexual Relationships	Committed Interethnic	Interreligious	Love	Sex & Apps	Casual & Arranged
Casual Relationships	0.04	0.11	-0.24	0.27	0.25	0.46
Committed Rel	0.03	0.06	0.04	0.88	-0.16	0.00
Cohabitation	0.06	-0.08	0.12	0.65	0.25	0.16
Arranged Marriage	0.10	0.14	-0.06	-0.29	-0.16	0.42
Love Marriage	-0.10	0.16	-0.15	0.61	0.10	-0.06
Interethnic Casual	-0.04	0.47	-0.02	0.03	0.15	0.59
Interethnic Committed	0.04	0.87	0.13	0.07	-0.02	0.00
Interethnic Marriage	0.07	0.86	0.10	-0.02	0.03	0.02
Interreligious Casual	0.20	-0.04	0.56	0.04	0.07	0.53
Interrel Committed	-0.02	0.11	0.90	0.09	-0.05	-0.02
Interreligious Marriage	0.00	0.15	0.83	-0.07	0.14	-0.06
Homosexual Casual	0.93	0.06	0.02	0.03	-0.07	0.06
Homosexual Committed	1.00	-0.01	-0.02	0.07	-0.05	-0.01
Homosexual Marriage	0.96	0.06	-0.04	-0.11	0.05	-0.08
Sex Casual	0.07	0.01	0.06	-0.08	0.94	0.07
Sex Committed	0.05	0.11	0.09	0.43	0.58	-0.17
Sex Homosexual	0.72	-0.11	0.07	0.02	0.21	0.04
Dating Apps	-0.05	0.27	0.02	0.19	0.40	0.02

Table 5

Exploratory factor analysis results for Polish Behaviours

Items	Homosexual Relationships	Interreligious	Love & Sex	Serious Interethnic	Parental Approval	Casual Interethnic	Other
Casual Relationships	-0.02	0.28	0.13	-0.36	-0.04	0.25	0.38
Committed Rel	0.13	0.04	0.42	0.26	0.00	-0.03	0.01
Cohabitation	0.01	-0.04	0.79	0.11	-0.09	-0.01	0.13
Arranged Marriage	-0.03	0.02	-0.47	-0.08	0.01	0.03	0.47
Love Marriage	0.08	0.28	0.48	0.27	-0.38	-0.12	0.09
Interethnic Casual	0.01	0.04	0.05	0.28	0.02	0.87	0.05
Interethnic Committed	-0.03	0.10	0.08	0.71	0.12	0.27	0.06
Interethnic Marriage	0.05	0.13	0.02	0.84	0.05	0.17	0.07
Interreligious Casual	0.05	0.84	0.01	-0.19	-0.09	0.35	0.05
Interrel Committed	-0.01	0.94	-0.03	0.10	0.06	-0.10	0.00
Interreligious Marriage	-0.13	0.78	0.01	0.25	0.21	-0.11	0.00
Homosexual Casual	0.88	-0.01	-0.06	-0.04	0.04	0.02	-0.01
Homosexual Committed	1.02	-0.01	0.03	-0.01	-0.06	0.02	-0.05
Homosexual Marriage	0.94	-0.05	-0.06	0.05	0.02	-0.01	0.07
PA Casual	0.20	0.04	0.13	-0.13	0.64	0.21	0.12
PA Committed	0.11	0.08	0.11	0.08	0.85	-0.05	-0.06
PA Marriage	0.17	0.18	-0.03	0.25	0.56	-0.10	0.19
PI Homosexual	0.62	-0.02	0.00	0.10	0.12	-0.20	0.16
Sex Casual	0.02	0.03	0.65	-0.18	0.16	0.16	0.19
Sex Committed	-0.08	-0.04	0.89	-0.05	0.16	0.03	-0.05
Sex Homosexual	0.82	0.05	0.06	-0.05	0.10	0.03	-0.10
Dating Apps	-0.02	-0.05	0.19	0.15	0.02	-0.02	0.68

Table 6

Exploratory factor analysis for South Asian Normative Beliefs

Items	Homosexual Relationships	Sex & Apps	Inter-Religious	Parental Approval	Interethnic	Love & Casual
Casual Relationship	-0.02	0.31	0.15	0.18	0.15	0.38
Committed Rel	-0.02	0.36	0.05	0.01	0.13	0.38
Cohabitation	0.09	0.30	0.30	0.00	-0.02	0.37
Arranged Marriage	-0.34	0.13	0.31	-0.10	-0.05	-0.22
Love Marriage	-0.11	0.06	0.07	0.05	0.23	0.55
Interethnic Casual	0.03	0.18	0.24	0.16	0.43	0.09
Interethnic Committed	0.04	0.00	0.02	0.01	0.97	0.00
Interethnic Marriage	-0.02	-0.14	0.30	0.06	0.57	0.13
Interreligious Casual	0.01	0.26	0.62	0.10	0.15	-0.06
Interrel Committed	0.07	0.00	0.87	0.04	0.04	0.00
Interreligious Marriage	0.14	-0.01	0.73	-0.03	0.11	0.11
Homosexual Casual	0.91	0.01	0.04	0.01	-0.05	0.02
Homosexual Committed	0.92	-0.02	0.05	0.00	0.03	-0.05
Homosexual Marriage	0.78	0.05	-0.03	0.01	0.11	-0.09
PA Casual	-0.04	0.13	-0.02	0.91	0.03	-0.13
PA Committed	0.08	0.00	-0.05	0.86	0.06	0.07
PA Marriage	0.03	-0.15	0.13	0.74	-0.11	0.13
PI Homosexual	0.62	-0.11	0.03	0.02	-0.01	0.16
Sex Casual	0.06	0.90	0.07	0.05	0.01	-0.05
Sex Committed	0.01	0.88	0.05	0.08	-0.05	0.06
Sex Homosexual	0.70	0.19	0.03	0.03	-0.06	0.01
Dating Apps	0.16	0.59	-0.15	-0.02	0.19	0.18

Table 7

Exploratory factor analysis for South Asian Morality

Items	Homosexual Relationships	Inter-Religious	Love, Sex & Casual	Interethnic, Love Marriage	Parental Approval
Causal Relationship	0.04	0.19	0.63	0.33	-0.04
Committed Rel	-0.01	-0.01	0.65	0.19	0.03
Cohabitation	0.16	0.15	0.49	0.20	0.01
Arranged Marriage	-0.18	-0.05	0.09	0.01	-0.08
Love Marriage	0.00	0.16	-0.16	0.51	0.15
Interethnic Casual	0.07	0.17	0.25	0.64	0.04
Interethnic Committed	0.05	0.08	0.11	0.75	0.08
Interethnic Marriage	0.04	0.11	-0.22	0.59	0.25
Interreligious Casual	0.17	0.53	0.23	0.12	0.09
Interrel Committed	-0.01	0.98	0.04	0.03	-0.02
Interreligious Marriage	0.14	0.71	-0.08	0.06	0.14
Homosexual Casual	0.94	0.01	0.03	0.14	-0.12
Homosexual Committed	0.97	0.07	-0.04	-0.01	-0.04
Homosexual Marriage	0.99	0.01	-0.03	-0.04	0.04
PA Casual	0.34	-0.10	0.19	0.20	0.49
PA Committed	0.05	-0.04	0.08	0.16	0.82
PA Marriage	-0.05	0.25	-0.04	-0.04	0.78
PI Homosexual	0.77	-0.04	0.07	0.05	0.10
Sex Casual	0.31	0.19	0.55	-0.20	0.17
Sex Committed	0.20	0.13	0.62	-0.24	0.27
Sex Homosexual	0.90	0.02	0.04	-0.08	0.07
Dating Apps	0.05	0.15	0.22	0.24	0.17

Table 8

Exploratory factor analysis for South Asian Parental Approval

Items	Homosexual Relationships	Interreligious	Interethnic & Committed	Sex & Cohabitation	Casual & Apps
Casual Relationship	0.14	0.23	-0.03	0.04	0.73
Committed Rel	-0.14	-0.08	0.51	0.32	0.27
Cohabitation	0.07	0.29	-0.02	0.37	0.35
Arranged Marriage	-0.17	0.01	-0.17	0.13	-0.28
Love Marriage	-0.15	0.20	0.28	0.05	0.22
Interethnic Casual	0.12	0.21	0.53	-0.01	0.19
Interethnic Committed	0.10	0.12	0.89	0.02	-0.07
Interethnic Marriage	0.11	0.23	0.59	-0.15	0.00
Interreligious Casual	0.09	0.74	0.07	0.10	0.08
Interrel Committed	0.02	0.75	0.15	0.05	0.12
Interreligious Marriage	0.04	0.77	0.14	0.10	-0.05
Homosexual Casual	0.91	0.08	0.02	-0.03	-0.01
Homosexual Committed	0.99	-0.04	0.04	0.04	-0.06
Homosexual Marriage	0.98	0.02	0.00	0.02	-0.03
Sex Casual	0.24	0.26	-0.16	0.57	0.15
Sex Committed	0.05	0.06	0.03	0.92	-0.02
Sex Homosexual	0.83	-0.07	0.01	0.02	0.21
Dating Apps	0.04	-0.23	0.26	0.31	0.51

Table 9

Exploratory factor analysis for South Asian Behaviour

Items	Homosexual Relationships	Liberal Behaviours	Interreligious	Interethnic & Committed	Parental Approval
Casual Relationship	0.01	0.55	0.32	0.06	0.03
Committed Rel	-0.14	0.31	-0.26	0.52	0.10
Cohabitation	0.03	0.64	0.01	0.12	0.07
Arranged Marriage	-0.12	-0.07	-0.01	-0.36	-0.11
Love Marriage	-0.21	0.13	-0.14	0.49	0.14
Interethnic Casual	0.06	0.31	0.19	0.53	-0.01
Interethnic Committed	0.06	0.03	0.11	0.84	0.01
Interethnic Marriage	0.04	-0.12	0.13	0.84	0.02
Interreligious Casual	0.04	0.22	0.74	0.06	0.03
Interrel Committed	-0.01	0.01	0.92	0.08	0.04
Interreligious Marriage	0.00	0.01	0.90	0.06	0.05
Homosexual Casual	0.84	-0.01	0.10	-0.04	-0.03
Homosexual Committed	1.00	-0.01	-0.04	0.00	0.02
Homosexual Marriage	0.92	-0.08	-0.01	0.01	0.07
PA Casual	0.09	0.22	0.08	-0.03	0.70
PA Committed	-0.01	0.07	-0.04	-0.01	0.97
PA Marriage	0.01	-0.14	0.06	0.04	0.93
PI Homosexual	0.35	0.22	0.12	-0.07	-0.08
Sex Casual	0.08	0.74	0.22	-0.04	0.06
Sex Committed	0.00	0.78	0.11	-0.02	0.13
Sex Homosexual	0.90	0.11	-0.05	0.05	-0.04
Dating Apps	0.09	0.64	-0.12	0.20	0.02

Multilevel Models

To understand how normative beliefs, moral beliefs, and parental approval predict behaviour (B), we created two models (one for each cultural group) with random intercepts. We dropped the behaviour types that were not present across the scales so that they all had matching numbers and types of items (e.g., items about parental approval in the normative, and moral beliefs, and behaviour scales were dropped as they were not present in the parental approval scale). Our clustering variable is the behaviour type (e.g., casual dating, cohabitation, premarital sex in casual relationships, etc), as we try to understand the predictive relationship across the different types of behaviours. The formula we used for these two models is listed below. Type refers to the type of behaviour.

$$B = NB + MB + PA + (1|type)$$

Polish Model

In the Polish model, both normative beliefs (β = 0.16, 95% CI [0.10, 0.22]) and parental approval (β = 0.41, 95% CI [0.35, 0.47]) were significant predictors of behaviour, while moral beliefs was not significant (β = -0.03, 95% CI [-0.08, 0.03]). Fixed effects and random effects for all variables can be found in Table 10.

Table 10

Polish Model

			Behaviour	
Predictors	*Estimates*	*SE*	*CI*	*p*
(Intercept)	2.06	0.26	1.55 – 2.58	**<0.001**
Perceived Commonness	0.16	0.03	0.10 – 0.22	**<0.001**
Moral Beliefs	-0.03	0.03	-0.08 – 0.03	0.305
Parental Approval	0.41	0.03	0.35 – 0.47	**<0.001**
Random Effects				
σ^2	2.71			
$\tau_{00\ type2}$	0.52			
ICC	0.16			
$N_{\ type2}$	18			
Observations	1334			
Marginal R^2 / Conditional R^2	0.259 / 0.379			

South Asian Model

Similar to the Polish model, in the South Asian model, normative beliefs (β = 0.29, 95% CI [0.24, 0.34]) and parental approval (β = 0.40, 95% CI [0.36, 0.45] significantly predicted behaviour. Moral beliefs did not have significant effects (β = 0.03, 95% CI [-0.01, 0.07]). Fixed and random effects for all variables are listed in Table 11.

Table 11

South Asian Model

	Behaviour			
Predictors	*Estimates*	*SE*	*CI*	*p*
(Intercept)	1.31	0.23	0.85 – 1.77	**<0.001**
Normative Beliefs	0.29	0.02	0.24 – 0.34	**<0.001**
Moral Beliefs	0.03	0.02	-0.01 – 0.07	0.194
Parental Approval	0.40	0.02	0.36 – 0.45	**<0.001**
Random Effects				
σ^2	3.01			
$\tau_{00\ type2}$	0.53			
ICC	0.15			
$N_{\ type2}$	18			
Observations	2442			
Marginal R^2 / Conditional R^2	0.291 / 0.397			

Interaction Effect Model

In this analysis, we combined the Polish and South Asian samples. We used a similar formula as the previous two models, with the inclusion of cultural background (CB) to look at interaction effects of the latter on the relationship between our four variables. The formula used is:

$$B = NB * CB + MB * CB + PA * CB + (1|type)$$

Cultural background has significant interaction effects with normative beliefs only, and norms had a stronger effect on the South Asian group compared to the Polish sample (see Figure 5). This suggests that normative beliefs in the South Asian population have a larger influence on behaviours than Polish normative beliefs. Random and fixed effects on all variables can be found in Table 12, while Figure 1 displays a plot of the interaction effect.

Table 12

Interaction Effects Model

	Behaviour			
Predictors	*Estimates*	*SE*	*CI*	*p*
(Intercept)	0.62	0.41	-0.18 – 1.41	0.127
Normative Beliefs	0.41	0.06	0.30 – 0.52	**<0.001**
Cultural Background (SA)	0.71	0.25	0.22 – 1.21	**0.004**
Moral Beliefs	0.05	0.05	-0.05 – 0.15	0.292
Parental Approval	0.43	0.05	0.32 – 0.53	**<0.001**
NB*CB	-0.12	0.04	-0.19 – -0.04	**0.002**
MB*CB	-0.03	0.03	-0.10 – 0.03	0.344
PA*CB	-0.02	0.04	-0.09 – 0.06	0.677
Random Effects				
σ^2	2.92			
$\tau_{00\ type2}$	0.53			
ICC	0.15			
$N_{\ type2}$	18			
Observations	3776			
Marginal R^2 / Conditional R^2	0.311 / 0.416			

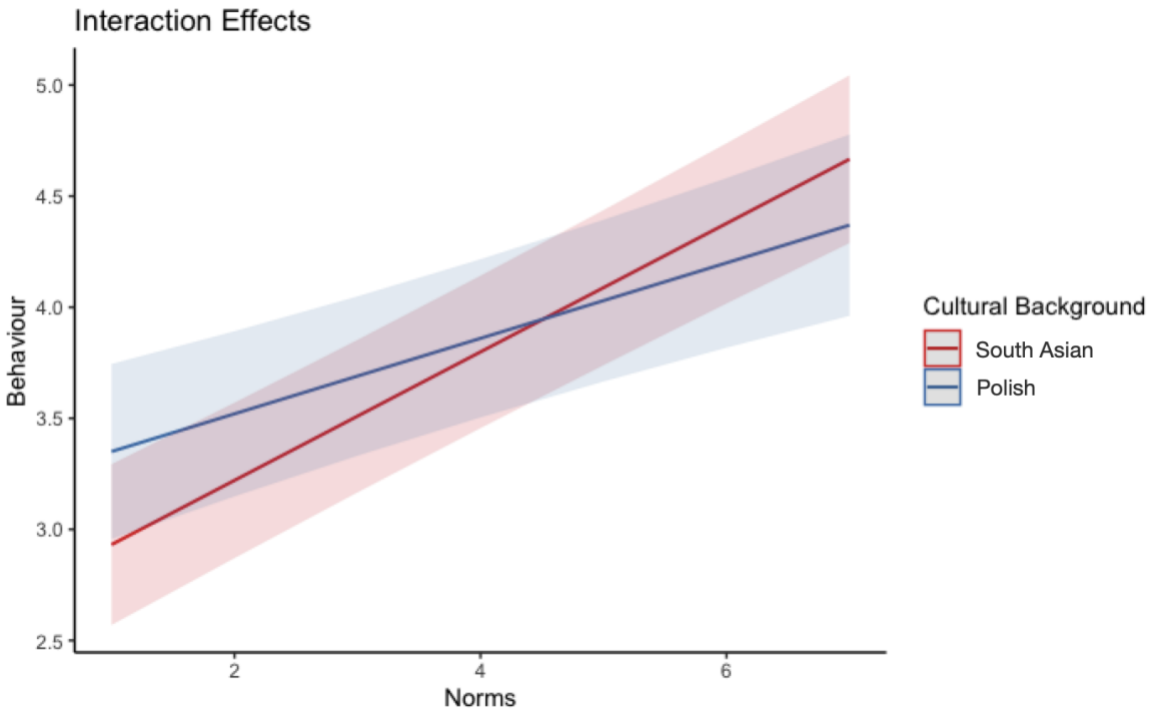

Figure 5: Interaction effects plot

Discussion

The exploratory factor analyses found differences in structures across all the scales, as well as between the Polish and South Asian groups. Despite these differences, some of the factors were often similar, even across the two groups. In the Polish sample, across the three scales where we found acceptable factor structures, we found two factors, with the same items pertaining to homosexual and interreligious relationships. The two items about premarital sex always loaded on the same factors, however, the overall factor containing these items varied across the three scales. In the normative beliefs scale, the factor also contained the item about casual relationships and dating apps. In the parental approval scale, the only other item was the dating application item. On the other hand, in the behavioural scale, the factor containing the premarital sex items also had loaded items about more serious, committed relationships (committed relationship and cohabitation). This behavioural structure suggests that in this domain, our participants view sex as a complimentary to committed relationships, as is suggested by the existing literature (Bacchus, 2017; Jarska & Ignaciuk, 2022). However, the differences in structure in the other two scales also suggests that participants do not perceive others as thinking the same way about sex.

In the South Asian sample, the factor structures vary across the four scales, but we still find similar factors across the scales pertaining to homosexual relationships, interreligious relationships, and parental approval (where present). The arranged marriage item varied across the scales, either not loading on any of the factors (in the moral beliefs and parental approval scales) or loading negatively (with the factor about homosexual relationships in the normative beliefs scale, and the factor with items about interethnic, and other committed relationships in the behavioural scale). This might be due to arranged marriages, despite being a custom in South Asian communities, being perceived as quite dissimilar to other mating behaviours we included: other items looked at behaviours that can be considered more liberal and westernised. The factors containing the premarital sex items varied across the scales. On the normative beliefs scale, the factor included the dating app item. On the moral beliefs scale, the factor contained casual and committed relationships, as well as cohabitation. For parental approval, premarital sex items loaded on the same factor as cohabitation only, while the behavioural scale loaded premarital sex, casual relationships, cohabitation, and dating apps on the same factor. This indicates varying conceptualisations across these four belief and behavioural structures.

As well as within our two sampled groups (i.e., variances in the structures of commonness, morality and parental approval), the factor structures of the scales vary across the two groups. This suggests that the various behaviours that form part of the mating domain are conceived differently in the two cultural groups. This emphasises the need to understand a concept within a specific culture before doing cross-cultural analyses. A portion of the behaviours we measured are largely shaped by the culture within which it is being practiced. This can be seen for example, in the case of arranged marriages and premarital sex, which as we previously described, are either culture-specific practices, or are somewhat 'policed' within both cultures.

In terms of predicting self-reported behaviours, in both samples, we find that only normative beliefs and parental approval are significant predictors. Contrary to our expectations, moral beliefs did not significantly predict behaviour in our model. This also is conflicting with a portion of research which describes moral beliefs significantly influencing behaviour (Lee et al., 2020). Since theoretically, there's an overlap between our three predictors, we suggest that any influence that moral beliefs have on behaviour may have been accounted for by the other predictors. Moral beliefs are acquired as part of social norms through various cultural learning pathways, but the horizontal parent to child pathway may be of particular importance here (Chudek & Henrich, 2011). Parents, as we found in the previous study, are one of the main sources of how people learn about their cultural heritage. Several researchers have also described the process of intergenerational transmission of moral values where children often internalised the values of their parents (Kuzynckski et al., 1997; Roest et al., 2011). Further analyses should be done to test this, for example by using a path analysis to look at the relationship between our predictors as well. On the other hand, both perceived commonness of behaviours, and parental approval having significant effects of self-reported behaviour is in line with our expectations. The broader literature also describes a significant influence of perceived norms on behaviour, with several interventions directed at changing beliefs around norms in an attempt to change behaviour (e.g., to encourage the use of latrines, Bicchieri, 2017), to stop female genital cutting, (Vogt et al., 2016). However, the social norms approach also highlights that social norms alone do not always sustain behaviours: other factors, such as religious beliefs, political factors, or other benefits believed to be associated with these behaviours may sometimes have larger influence than perceived norms (Efferson et al., 2015; Hoff, 2015).

In our interaction effects model, we find that cultural background has a significant effect on normative beliefs, indicating that perceived norms have a stronger influence on behaviour within the South Asian sample. We can relate this to the literature on cultural tightness-looseness: this describes how well defined, and strict norms are across different societies. This concept can also be domain specific, for example, Sweden is tighter in the domain of considerate public behaviour compared to the USA (Eriksson et al., 2022). Linking this to our study, India, one of the main migrant-origin countries making up our South Asian sample, scores higher on tightness than Poland (Gelfand et al., 2011). Other studies also describe Pakistan as a tight culture with clearly defined and imposed sexual norms (Jamshed et al., 2022). However, cultural tightness has also been linked to several ecological and historical factors (Gelfand et al., 2011; Norenzayan, 2011), and even though these factors change within migrant populations, there have been few studies looking into the effect of these changes in various domains of migrant populations.

Limitations

Although we adopt a culture-focused approach, in this study, similarly to the previous study, we lump together individuals from various cultural backgrounds that make up the overall South Asian migrant sample. By grouping these smaller groups, we overlook nuances in norms and how they affect behaviour within these smaller cultural groups. It is also important to consider that our four variables may

substantially vary between these smaller groups, partly as a result of religious differences, which is another grouping we overlook, and is often interlinked with country of origin: the majority of the Pakistani-origin migrants are Muslim, while Indian migrants are mostly Hindu or Sikh. These three religions set different expectations in terms of how mating and romantic relationships should occur. For example, in Islam, casual dating and premarital sex are frowned upon, while in Hindus would often want to take caste into consideration. On the other hand, Muslims in India may also have different perspectives due to being a religious minority in the heritage country. These nuances to the participants' cultural backgrounds have been overlooked here, and in future research should be taken into consideration.

Due to the sample size, we also did not take into consideration any gender differences. A portion of the existing literature describes different experiences across the genders, where women often have more social expectations or more consequences for deviating from norms, especially when it comes to mating (Pande, 2014b). This may in part be attributed to women being seen as gatekeepers of their cultures, where they are expected to ensure the maintenance and transmission of their heritage cultural practices (Samuel, 2010). Within South Asian cultures, this has been partly attributed to the idea of 'purity culture', which encompasses beliefs around keeping the bloodlines, maintaining social status, or caste. Research also describes differences in parental influence across genders, with daughters being more controlled than sons when it comes to sexual behaviours, and parents, especially fathers, tend to control mate choice more (Apostolou, 2009; Perilloux et al., 2008).

Other important aspects we did not look into in this study are identification with the heritage, and receiving culture. As we previously describe, norms are often culturally bound. This indicates that individuals need to feel a sense of belongingness, or identification with the culture in order to follow the norms of the cultural group. Various researchers have also emphasised the importance of this link (Bar-On & Lamm, 2021; Bicchieri et al., 2020) While we ask participants about their normative beliefs of their cultural groups, we do not measure their level of identification with this cultural group, nor with the majority British culture. This social group identification may influence the relationship between our variables in terms of how much they have retained their heritage culture's norms or adopted British norms. This should be taken account in future studies looking at norms and norm change, especially within migrant populations that may identify with two conflicting cultures.

Conclusion

This study looks at normative beliefs, moral beliefs, and parental approval as predictors of various types of mating and relationship behaviour, a cultural domain that is undergoing change among South Asian and Polish migrants in the UK. We look at the structure of our four variables to understand how they are conceptualised in our two migrant groups. While we find some similarities across the structures both within, and across the cultural groups, the overall structures of these beliefs vary. This indicates that these behaviours are differently conceptualised depending on the type of belief associated to them (e.g., normative vs moral), as well as cross-culturally. The difference in structure between the

Polish and South Asian group emphasises the need for culture-focused approaches and analyses to capture specificities of the group before moving onto broader comparisons. This ensures that we are comparing the same concepts across groups and informs further interpretations of our results.

In our regression models, we find that only normative beliefs and parental approval are significant predictors of behaviours across the various types of mating behaviours we looked into. In both the South Asian and Polish groups, moral beliefs were not significant, however we suggest that further analyses and research to look into whether the effects of this variable have been accounted for by normative beliefs and perceived parental approval, which are both theoretically interlinked with this concept. The interaction effects model also indicated that normative beliefs have a stronger influence on the South Asian culture, which we linked to cultural tightness-looseness. Future studies should also look into the role of gender, religious background, and group identifications as influential factors.

Discussion

The purpose of this set of studies was 1) to contribute to our understanding of cultural change and 2) to highlight the need for accurate cultural approaches in psychological research. Across our three studies, we contribute to these two goals by looking at various processes underlying the broader process of cultural change, and by approaching our sample using bottom-up methodologies to identify culture specific dimensions of individuals' lived experiences.

In Study 1, we looked at cultural change through the lived identity experiences of Mauritians. Mauritius provides us with an interesting society for both of our goals. The rapid societal changes happening in the country in the form of increased education levels, a more diversified economy, and increased access to various technologies, also influence the cultural layout of the society. These broader changes also influence individual experiences, which is how we approach cultural change in this study. With Mauritius also being underrepresented in research, or mainly approached from WEIRD perspectives, we also contributed to our second goal of capturing aspects of human lived experiences within this social context that are often overlooked. While the majority of research with this population focuses on ethno-religious and national identities (e.g., Jungers et al., 2009; van der Werf et al., 2019; 2020), or just religion (e.g., (Couacaud, 2016; Mano & Xygalatas, 2018), our approach allowed us to identify other group identities that already existed or are emerging on the island. These emerging groups often come from internet interactions with individuals from cultures outside of Mauritius. With regards to ethno-religious and national identities, we found various aspects of these group identities and how they relate to other structures due to the multiculturality of the society. For example, both Juliette and Ali from Study 1 described identification with ethno-religious groups that is intricately linked to power hierarchies, stereotypes, and minority-majority status. These hierarchies and stereotypes are often also entrenched in the country's history: Creoles often find themselves at the bottom of all power hierarchies due to slavery and the lack of repatriation after the abolition. Broadly, these results indicate the importance of taking into consideration past, as well as ongoing occurrences, and how they may be shaping current psychological processes at both the individual and group level.

In studies 2 and 3, we moved to populations within the UK. Study 2 directly targeted our first goal by focusing on the process of cultural change, and the components of culture that are actively changing as part of migration. This study aimed to reunite the social and cross-cultural psychology literature with cultural evolution perspectives. We suggest that cultural learning mechanisms described in cultural evolution research underlie acculturation processes which has been extensively studied in social and cross-cultural psychology. We adopted a bottom-up approach using freelists to identity cultural learning paths involved in acculturation processes between migrants and their hosts, and vice versa. We also identified cultural domains that both migrants and the host population think are important to retain from their own cultures or adopt from other cultures. This contributes evidence to the specificity

principle (described in study 2) and brings to light new domains that should be attended to within acculturation research (e.g., food). Broadly, this study stemmed directly from our first goal by focusing on cultural change. It contributes to our second goal by highlighting the importance of bottom-up, and exploratory research even within WEIRD populations. These societies are constantly changing, and it is important to update existing knowledge and theories of these places. This study satisfies both our aims and serves as a foundation to build up from by identifying important cultural domains for future studies.

Study 3 directly built on Study 2 as we focused on mating and romantic relationships, one of the domains that Polish and South Asian participants described wanting to adopt from the majority British culture. In this study, we looked at the structures of three types of beliefs about this cultural domain: normative beliefs, moral beliefs, perceived parental approval, as well as self-reported behaviours. Using an exploratory factor analysis, we illustrated the need for culture-specific research, and content validity as we found different structures for these beliefs across our two cultural groups. We looked at how normative and moral beliefs, and parental approval influence behaviour among our two migrant groups in a changing cultural setting. We used concepts of norm, and more organic norm change in natural settings to justify our model. Our results indicate that in both groups, only normative beliefs and parental approval are significant predictors of behaviour within the mating and romantic relationship domain. We suggest that further analyses should be done to understand whether the influence of moral beliefs has been accounted for by our other variables (normative beliefs and perceived parental approval), which are theoretically interlinked with morality. We also found that normative beliefs had more influence in the South Asian sample, which is aligned with the literature describing tight and loose norms within these two cultures.

As this thesis addresses various aspects of culture-appropriate research, we designed a reflexive exercise to contribute towards addressing various components of the research process when sampling a population. These steps are based in ideas from indigenous psychology and cultural evolution, two approaches that framed how we addressed our research questions. The purpose of this exercise is to improve how we form a research protocol, taking into consideration how there is often limited research on the cultures we are studying.

1) First, consider your interest and why you would like to work with this population specifically. This first step is directed towards your intentions and should be a reflexive exercise to create an awareness of exoticisation and power dynamics.
2) a) In this second step, we want to shift reflexivity towards characteristics of the community. In line with indigenous approaches, we want you to first think about how research can contribute to the population. The indigenous movement places large emphasis on community engaged research, and this is a stance that we would like to encourage, especially when power dynamics between the researcher and participants are unequal.

   b) Secondly, consider how studying this population can contribute to our understanding of

humans and their behaviours. Populations always have something unique that they can add to our current knowledge of the human species. For instance, psychological processes, such as identity development, differ across cultures (in numerous ways). Finding out how these processes happen and what factors influence them will contribute to shaping a larger understanding of human universals and variations. This question should be addressed not in terms of concepts that you personally find interesting, but more objectively in terms of population characteristics, broad contributions to the population of interest, and to research.

c) Based on this, list some concepts you believe should be studied. What makes these concepts interesting?

d) How are these concepts different from what you would personally be interested in? Suggest ways to link both.

3) How will studying these concepts impact the population: what are the ethical issues? Is there any possibility of contributing to the community, and how?
4) a) After settling on some concepts or variables, think about what would be the best methodology to adopt in this study?

   b) What type of design would be most appropriate for these variables?

   c) How can community members be involved in the research process, and at which levels?

   d) How do you expect their involvement to influence the research process and design?
5) What are some issues (e.g., around power dynamics) that go beyond the realm of traditional ethics boards that you should take into consideration? This also includes considerations during the data collection process (e.g., is there a need for participant compensation, will participants be willing to sign consent forms and ways around this issue: in some areas, such as Mauritius and Fiji, participants may be reluctant to provide a signature due to various cultural norms, and similarly some are reluctant to be recorded in interviews).
6) What type of analysis would be tailored to your design and how will you maintain cultural sensitivity at this stage?
7) It is important to explicitly tie results to the population. How can you ensure these findings are written in a way that conveys how they are bounded by the environment in which they have occurred?
8) How can these findings compare to those from other cultures? Both questions 8 and 9 aim to encourage reflexivity about cultural influences and how this influences the generalisability of findings.
9) How can your findings be used for theory development (of both new and existing theories)?

Going back to theory, as well as addressing issues of cultural validity and appropriateness, our theoretical contributions bridge together concepts from various fields of research such as cultural evolution, and indigenous, social, and cross-cultural psychology. These three studies address cultural change through a cultural evolution lens, with methodological insight from indigenous psychology, and

concepts and theories from social and cross-cultural psychology. For example, Study 2 reunites cultural learning from the cultural evolution framework together with theories and models of acculturation. In line with indigenous psychology methodologies, we also attend to cultural specificities, for example by describing and taking into consideration power differentials (especially in Studies 1 and 2), or culture specific practices (e.g., arranged marriages in South Asian cultures). To contribute to forming more rigorous and theoretically grounded research designs, we consider how some limitations present across all three studies, may influence our results, and their generalisability. Across the first two studies, one of the main findings emphasise the importance of the internet in cultural change through processes of cultural learning, and other psychological processes such as identity formation (through exposure to other cultures that are geographically remote, or that exist online). Since data collection for both studies was done online, this may have resulted in a bias that favours online media in these processes. In future studies, we should adopt other sampling strategies to test how prominent the internet is as a platform for learning and cultures to emerge. Our first study has a very small sample size, and despite the apparent ongoing changes in the Mauritian ecology, we cannot make generalisations to the larger population from the individual experiences we collected. As a follow-up to this study, we have collected freelist data among Mauritians to explore the diversity of their social identities, and how they are learnt.

Overall, this thesis addresses the various issues in psychological research (i.e., the theory and sampling problems) by bringing to light how we have been overlooking aspects of individual experiences, in both understudied populations outside of the global north, and in the UK, a population that is often researched. We describe how groups, and the norms, beliefs, and other artifacts associated with them are transmitted and change, as a result of both the transmission process itself, and the changing ecologies around them. Our perceptions of cultures and their norms can be strong determinants of our behaviour; however, we also highlight how the individual's physical and cultural environment play a large part in shaping these perceptions and norms. It is important that we understand this influence, as this helps us form a more accurate understanding of humans, and how they behave, across a variety of contexts.

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Appendix A

Study 1 Material

Qualtrics Questionnaire:

1. Age:
2. Gender:
3. Level of Education:
4. Employment Status:
5. Relationship Status:

Identity Content:

Culture is an important part of people's lives. Every culture has its own values, traditions, ways of thinking and doing things that are associated with them. While some cultures may be very similar, others are worlds apart.

This interview is about how your identity and what groups you belong to or identify with. This refers to the ethnic, national, and religious groups or communities that you were born and raised into, cultures in your family background as well as any other culture or group that you feel a sense of belonging to. This may include, but is not limited to, gender, ethnicity, race, religion and nationality. You may feel that you belong to only one or to several groups.

1. Please list and describe all the cultural groups that you feel you belong to.
2. How long have you been a member of each group?

Cultural Narrative Procedure:

Instructions: In this study, you will have to play the role of a storyteller about your own life with your cultures. I would like you to construct the story of your own past and present in relation to your cultures.

Begin by thinking about your cultural identifications as a story. In telling us about your multicultural story you do not need to tell us everything that has ever happened to you. A story is selective. You may focus on a few key events or key themes that you believe to be important and you may classify them into at least 2-3 chapters and at most 7. Think about things in your own life which say something significant about your cultural identifications and how your cultural identifications have developed up to this point in the present. You may need time to think about what the chapters in your story would be. You can write them down over a span of up to one month. You will be given a weekly reminder by the researcher and you may discuss any issues you may be having with the tasks at any time during this one month period. After completing this part of the study, you will be sent a password protected document in the form of an invoice where you will be able to enter your payment details. Afterwards, we will go through each of your main chapters over a skype/phone interview so that you can tell me a little bit more about them.

Your story should indicate:

- how you have been taught about and socialized into your different cultural groups

- how growing up around and being exposed to multiple cultures has affected who you are in terms of your behaviours and identity
- what parts of the Mauritian diversity you identity with
- how you are similar to other people as well as how you are unique in terms of cultural identifications.
- about a time/incident where you felt excluded or rejected by others (both your cultural group members and individuals from other cultural groups) in a social or cultural context
- How your identification with multiple cultures affects your social network

(The titles and description provided are only suggestions. Please feel free to modify them to better suit your narrative in line with the above provided instructions.)

Template:

Chapter 1: Title [e.g.: Learning about my cultural identities]

Summary: [e.g.: How old you were, who taught you about your different identities, was it the same person or did you learn from multiple sources, how did your relationship with the cultural groups you belong to evolve, are there any specific event that you feel had a strong impact on you]

Chapter 2: Title [e.g.: Being exposed to multiple cultures]

Summary:

Chapter 3: Title [e.g.: Living in the Mauritian cultural climate, feeling similar and/or different from others]

Summary:

Chapter 4: Title [e.g.: Dealing with exclusion]

Summary:

Chapter 5: Title [e.g.: Friendship and romance in multicultural Mauritius]

Summary:

Appendix B

Study 3 Material

Demographics

1. List five cultural identities that you feel are most relevant to who you are in order of most to least important (1 most important and 5 less important). This may include, but is not limited to, gender, ethnicity, race, religion, nationality, professions, fan-clubs and hobbies. You may feel that you belong to only one or to several groups.

2. Age

3. Gender (Male, Female, Non-binary, Other (text entry)

4. Ethnic background (Indian, Pakistani, Polish, Bangladeshi, Sri Lankan, Other (text entry))

5. Religious background (Christian, Hindu, Muslim, Sikh, Atheist/Agnostic, Other (text entry))

6. Education (Primary school, Secondary School, Diploma, Undergraduate, Postgraduate)

7. Sexual Orientation (Heterosexual, Gay, Lesbian, Bisexual, Pansexual, Asexual, other (text entry)

8. Relationship status (single, in a relationship, married, divorced/separated, cohabitating, widowed)

Normative Beliefs/Perceived Commonness

The following questions will be asking you about what someone from your ethnic and religious background, who lives in the UK, considers to be the norm when it comes to dating and romantic relationships.

9. Within your ethnic and religious community in the UK, how common do you think it is for individuals to (7pt likert scale)

a. Date casually
b. Be in committed relationships
c. Cohabitate before marriage
d. Have arranged marriages
e. Have love marriages
f. Casually date individuals from a different ethnic background
g. Be in committed relationships with individuals from a different ethnic background
h. Marry individuals from a different ethnic background
i. Casually date individuals from a different religious background
j. Be in committed relationships with individuals from a different religious background
k. Marry individuals from a different religious background
l. Casually date individuals of the same gender
m. Be in committed relationships with individuals of the same gender
n. Marry individuals of the same gender
o. Casually date someone their parents don't approve of
p. Be in a committed relationship with someone their parents don't approve of
q. Marry someone their parents don't approve of
r. Inform their parents about same-sex partners
s. Have premarital sex in a casual relationship
t. Have premarital sex in a committed relationship
u. Have sex with someone of the same gender
v. Use dating apps

Moral Beliefs

10. Within your ethnic and religious community in the UK, how immoral is it for individuals to

a. Date casually
b. Be in committed relationships
c. Cohabitate before marriage
d. Have arranged marriages
e. Have love marriages
f. Casually date individuals from a different ethnic background
g. Be in committed relationships with individuals from a different ethnic background
h. Marry individuals from a different ethnic background
i. Casually date individuals from a different religious background
j. Be in committed relationships with individuals from a different religious background
k. Marry individuals from a different religious background
l. Casually date individuals of the same gender
m. Be in committed relationships with individuals of the same gender
n. Marry individuals of the same gender
o. Casually date someone their parents don't approve of
p. Be in a committed relationship with someone their parents don't approve of
q. Marry someone their parents don't approve of
r. Inform their parents about same sex partners
s. Have premarital sex in a casual relationship
t. Have premarital sex in a committed relationship
u. Have sex with someone of the same gender
v. Use dating apps

Self-Reported Behaviour

11. How likely would **you** be to

a. Date casually
b. Be in committed relationships
c. Cohabitate before marriage
d. Have arranged marriages
e. Have love marriages
f. Casually date individuals from a different ethnic background
g. Be in committed relationships with individuals from a different ethnic background
h. Marry individuals from a different ethnic background
i. Casually date individuals from a different religious background
j. Be in committed relationships with individuals from a different religious background
k. Marry individuals from a different religious background
l. Casually date individuals of the same gender
m. Be in committed relationships with individuals of the same gender
n. Marry individuals of the same gender
o. Casually date someone your parents don't approve of
p. Be in a committed relationship with someone your parents don't approve of
q. Marry someone your parents don't approve of
r. Inform your parents about same sex partners
s. Have premarital sex in a casual relationship
t. Have premarital sex in a committed relationship
u. Have sex with someone of the same gender
v. Use dating apps

Parental Approval

12. How likely are your parents to approve of

a. Causal dating
b. Committed relationships
c. Cohabitation before marriage
d. Arranged marriages
e. Love marriages
f. Casually dating individuals from a different ethnic background
g. Being in committed relationships with individuals from a different ethnic background
h. Marrying individuals from a different ethnic background
i. Casually dating individuals from a different religious background
j. Being in committed relationships with individuals from a different religious background
k. Marrying individuals from a different religious background
l. Casually dating individuals of the same gender
m. Being in committed relationships with individuals of the same gender
n. Marrying individuals of the same gender
o. Having same-sex partners
p. Having premarital sex in a casual relationship
q. Having premarital sex in a committed relationship
r. Having sex with someone of the same gender
s. Using dating apps