CHAN, MICHELE. Ph.D. The Coalescing Contribution of Caregiver and Diverse Peer Ethnic-Racial Socialization Messages in Informing Ethnic-Racial Identity among College Students (2024)
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Ethnic-racial identity is a promotive and at times protective factor for ethnic-racial minoritized young adults when navigating experiences of discrimination and racism. Ethnic-racial socialization processes are instrumental in supporting the development of a strong ethnic-racial identity. This dissertation seeks to understand how caregiver and friend ethnic-racial socialization messages are linked with ethnic-racial identity processes and content through complementary analyses. Using a person-centered approach, caregiver and shared ethnic-racial heritage friend ethnic-racial socialization messages were concurrently associated with ethnic-racial identity content (e.g., centrality, private, and public regard). With a variable centered approach, minority and majority friends' ethnic-racial socialization messages were linked with ethnic-racial identity processes (e.g., exploration and commitment). A total sample of 422 ethnically and racially diverse college students participated. Latent profile analyses revealed five distinct profiles of caregivers' and shared ethnic-racial heritage friends' ethnic-racial socialization messages which demonstrated both congruency and incongruency as it pertained to type and frequency of ethnic-socialization messages. These profiles were differentially associated with ethnic-racial identity content. Moreover, path analyses revealed that cultural socialization messages and egalitarian messages are particularly important for ethnic-racial identity processes when delivered from different ethnic-racial peers. Findings underscore the importance of contextual factors in understanding peer and caregiver ethnic-racial socialization practices.

THE COALESCING CONTRIBUTION OF CAREGIVER AND DIVERSE

PEER ETHNIC-RACIAL SOCIALIZATION MESSAGES

IN INFORMINING ETHNIC-RACIAL IDENTITY

AMONG COLLEGE

STUDENTS

by

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CHAPTER I: INTRODUCTION

Within the context of the United States, racism and its system of ethnic-racial hierarchies result in systematic and interpersonal discrimination that has negatively impacted ethnic-racial minority individuals (Carter et al., 2017). Researchers have proposed several resiliency factors that can aid in buffering the negative consequences of discrimination on individual functioning (Neblett et al., 2012). Ethnic-racial socialization (ERS) and ethnic-racial identity (ERI) are two prominent factors (Seaton et al., 2018). Briefly, ERS includes verbal messages, practices, and behaviors that convey information about race and ethnicity to minoritized individuals provided by parents, teachers, and peers. ERI is an individual's feelings regarding their ethnic-racial heritage, which can include attitude, values, and beliefs. These two factors have been found to be promotive and protective, helping to mitigate the negative impacts of discrimination on psychological, academic, and social outcomes (Neblett et al., 2012). Understanding the interrelations between ERS and ERI can provide further insights into the necessary protective mechanisms for ethnically and racially minoritized youth.

The transactional/ecological framework (Hughes et al., 2016) emphasized that ERS and discrimination interactively shape the development of ERI for diverse minoritized individuals; as they are identity relevant experiences that help diverse minority youth make sense of the racialized world. An individual's level of ERI also affects the extent to which they notice and can cope with discrimination (Yip, 2018). These links have been found to be bidirectional. For example, higher levels of ERI public regard buffered the negative link between discrimination and maladaptive outcomes (Fuller-Rowell et al., 2012), however higher levels of ERI centrality are linked with discrimination experiences, in that adolescents were more likely to expect discrimination when race is more central to their self-concept (Umaña-Taylor & Guimond,

2010). Importantly, Hughes and colleagues (2016) argued that experiences across multiple

contexts, including schools and neighborhoods, where youth receive ERS messages from other

sources also inform their ERI. Yet, the ERS literature has primarily focused on caregiver ERS

messages and has not evaluated how ERS messages from different peers coalesce with caregiver

messages as predictors of ERI. A small body of work has started to investigate peers as an

additional important source of ERS (Nelson et al., 2018; Wang & Benner, 2016), and this

dissertation expands on this existing work, by focusing on both caregivers and peers as sources

of ERS and its subsequent impact on ERI process and content.

Clarification of Constructs

It is important to clarify the terminology used in this dissertation. Typically, ethnicity has

been used as a label for groups of people that share intergenerationally transmitted values,

languages, and traditions. Race has been defined as a socially constructed label that minimally

identifies presumed distinct groups based on phenotype and has societally enforced meaning in

the United States (U.S.), which results in shared racialized experiences (Hughes et al., 2016).

Despite these conceptual differences, ethnicity and race together inform how individuals classify

and understand themselves within the broader context of the U.S., and researchers now consider

identity development with both these lenses. Thus, in this dissertation, I use the term ethnic-

racial to connote both ethnic and racial heritages as one larger context of social labels that are

used together, consistent with recent theory that has defined ethnic-racial identity as a larger

construct (Hughes et al., 2006; Umaña-Taylor et al., 2014).

Turning to socialization processes, racial socialization refers to the messages that are

primarily meant to help youth understand the racial hierarchical systems in the U.S., foster a

sense of positive pride and racial identity, and cope with the realities of racism (Anderson et al.,

2019). Ethnic socialization refers to the messages that focus on the transmission of cultural

values and developing pride in one's cultural heritage (Hughes et al., 2006). Based on the

overlap between these terms and how the delivery of messages about race and ethnicity were

often intertwined, these constructs were also re-conceptualized as ethnic-racial socialization.

ERS messages are theorized to fall within four main domains: cultural socialization, preparation

for bias, promotion of mistrust, and egalitarian messages (Hughes et al., 2006). Cultural

socialization is defined as the practice of engaging in cultural practices, promoting cultural pride,

and the transmission of cultural values and traditions. Cultural socialization also involves

celebrating cultural holidays, consuming cultural foods, and emphasizing accomplishments of

others that share one's own ethnic-racial heritage. Preparation for bias is defined as the messages

that are given to warn youth about discrimination and prepare them for encounters with racism or

prejudice. Promotion of mistrust includes messages that warn youth to be wary of individuals

from different ethnic-racial or cultural backgrounds. These are often in relation to potential

experiences of discrimination that these youth might face from other ethnic-racial groups.

Promotion of mistrust can also include messages of caution and avoidance of other ethnic-racial

groups, such as limiting friendships and dating relationships. Egalitarian messages are those that

promote the values of equality among all ethnic-racial groups.

ERI has been defined as "a multidimensional, psychological construct that reflects the

beliefs and attitudes that individuals have about their ethnic-racial group memberships, as well as

the processes by which these beliefs and attitudes develop over time" (Umaña-Taylor et al.,

2014, p. 23). ERI can be understood as both *content* aspects of identity such as the attitude and

beliefs one and others have about one's group, and the *process* undertaken to develop these

beliefs. The content dimensions primarily originated from social identity theory (Tajfel &

Turner, 1986), and most often have included the following dimensions: centrality, public regard, and private regard. Centrality refers to the extent to which attitudes, behaviors, or physical appearances related to ethnicity-race are an essential part of one's self concept that is consistent across time and situations. Private regard refers to the extent to which a person feels positively about their ethnic-racial group, whereas public regard is how one perceives others feel about their ethnic-racial group. The process aspect of ERI originated from research bodies that focused more on identity development and often consists of two dimensions: exploration and commitment (Phinney, 1989). Exploration refers to the extent to which one has explored their identity by engaging in behaviors and activities that allow one to learn about one's ethnic-racial group, which can include engaging in cultural practices and learning cultural values. Commitment (sometimes referred to as resolution) is the extent to which one has made decisions regarding one's ethnic-racial heritage and come to an understanding about the importance of one's ethnic-racial identity in one's life. This dissertation focuses on both content and process domains of ERI.

In terms of promotive effects in ethnically and racially minoritized youth, ERI has the most robust research support as a central factor linked with positive development. In a meta-analysis of samples of youth and adolescents, Rivas-Drake and colleagues (2014) found positive associations between ERI content (positive ethnic-racial affect or private regard) and a multitude of positive outcomes such as self-esteem, well-being, and academic adjustment, as well as negative links with anxiety and depression. ERI processes (exploration and resolution) have also been positively associated with self-esteem in adolescents (Umaña-Taylor et al., 2008). Similarly, in another meta-analysis, the composite variable of ERI, primarily consisting of process dimensions, predicted higher self-esteem, lower depression, improved mental health, and

better academic outcomes (Smith & Silva, 2011). Not only is ERI central to promoting well-being in ethnically and racially minoritized youth; it is also an important outcome of ERS. Caregiver ERS messages, particularly cultural socialization, are theorized to support the development of ERI. However, despite the theoretical proposition of the transactional/ecological model (Hughes et al., 2016), which argued that caregiver messages likely work alongside peer ERS messages to shape ERI process and content in youth, this has not been empirically tested in the literature, especially considering the ethnic-racial make-up of the peers who deliver these messages. As such, I investigate how ERS messages from caregivers and shared ethnic-racial heritage and different ethnic-racial heritage peers are associated with ERI process and content.

College Emerging Adults

The focus of this dissertation is on caregiver and peer ERS messages received by emerging adults (age 18-25). Emerging adulthood is conceptualized to be a critical time for identity exploration as individuals are exposed to more heterogenous environments prompting additional ERI development through interactions with more diverse individuals and exposure to novel situations (e.g., classes, living with others) (Arnett, 2007; Syed & Azmitia, 2010; Williams et al., 2020), especially on college campuses. Consistent with this notion, both ERI commitment and exploration increased throughout the first year of college in ethnically diverse students (Zhou et al., 2018). Several studies have suggested that peer ERS messages are linked with ERI at this developmental stage. In pairs of college-aged friends, each peer's ERI exploration and commitment levels were consistent with the other's, and this link was stronger when they engaged in more ethnicity-related discussions with their friends and families (Syed & Juan, 2012). Highlighting the importance of peers, when college students were prompted to share a memory of a time when their ethnicity-race played a role in their academic or classroom

experience, students who had shared these stories previously were most likely to have done so with their friends and roommates (relative to parents) (Syed, 2012). These shared narratives described experiences that were consistent with ERS, such as learning about culture, sharing culture, disclosing experiences of prejudice, having difficult dialogues, and building awareness of diversity. Thus, in addition to the messages they received from caregivers, college students are engaging in peer ERS conversations that could be linked to their ERI development. In the only study that evaluated the joint impact of caregiver and peer ERS in college students, they found that different types of peer ERS messages (e.g., cultural socialization messages) compared to caregiver ERS were differentially associated with ERI exploration and commitment (Nelson et al., 2018). Together, these studies suggest that ERI continues to develop in emerging adulthood, and this may be a critical period in which ERS messages received by caregivers throughout childhood and adolescence may be reevaluated as ERS exchanges with peers occur in these more novel contexts.

Caregiver ERS and ERI

Reviews and meta-analyses have established the vital role of caregiver ERS in shaping ERI (Huguley et al., 2019; Priest et al., 2014; Umaña-Taylor & Hill, 2020). Across 68 studies, Huguley and colleagues (2019) concluded that most types of caregiver ERS were associated with greater overall ERI, and that cultural socialization had the strongest links with almost all dimensions of ERI (exploration, resolution, private regard, and centrality, but not public regard). Furthermore, this effect was strongest for high school aged young adults relative to younger adolescents. Although the strength of associations between caregiver ERS and ERI varied among different ethnic-racial groups, such that Hispanic/Latinx American individuals demonstrated the strongest links; all ethnic-racial groups investigated (e.g., African American, Asian Americans,

etc.) exhibited positive links between caregiver ERS and ERI generally. Given the established broad associations between caregiver ERS and ERI, more recent studies have focused more on the constellation of ERS messages that are most optimal. This is largely due to conflictual findings related to specific types of ERS messages (Umaña-Taylor & Hill, 2020). For example, preparation for bias messages have demonstrated both positive and negative associations with psychosocial outcomes (Daga & Raval, 2018; Kyere & Huguley, 2018). However, when person centered profile approaches were utilized, findings suggested that preparation for bias messages could be linked with positive outcomes, if delivered together with high frequencies of cultural socialization messages (Dunbar et al., 2015). By examining preparation for bias messages by itself, its joint effect with other messages is obscured. Using person centered approaches has provided more clarity than prior studies which predominately used variable based approaches.

Overall, studies that utilized a profile or clusters approach to investigating ERS messages typically have identified between three to five profiles (Ayón et al., 2019; Caughty et al., 2011; Cooper et al., 2015; Saleem et al., 2020; White-Johnson et al., 2010). Studies also focused mostly on how different constellation of messages are linked with a caregiver's own experiences of discrimination (Cooper et al., 2015; Saleem et al., 2020; White-Johnson et al., 2010) and caregiver's ERI content (Cooper et al., 2015; White-Johnson et al., 2010). Typically, profiles are distinguished either by the frequency of messages and/or by a distinct pattern in the types of messages. For example in a study focused solely on cultural socialization, preparation for bias, and promotion of mistrust messages, three profiles emerged in a sample of mothers of African/Black American adolescents: 1) balanced socializers who mistrust, 2) cultural socialization and preparation for bias emphasizers, and 3) low racial socializers (Saleem et al., 2020). Although a few studies have found profiles that just vary in frequency (e.g., low, average,

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and high socializers) (e.g., Ayón et al., 2019), the majority find some variation in types of messages with differences due to differing levels of preparation for bias or promotion of mistrust messages (e.g., Cooper et al., 2020; Saleem et al., 2020; White-Johnson et al., 2010). Of note, most of these studies focused on caregivers report of messages delivered to youth instead of youth reports and few focused on youth ERI process or content as an outcome (see Kiang et al., 2019; Richardson et al., 2015, for exceptions that also included discrimination experiences within the profiles).

Bringing the focus back to emerging adults and ERI, there is one person centered study that focused on a college population to examine how multiracial college students' own reports of caregivers ERS messages are associated with ERI process and content (Christophe et al., 2021). They found that caregivers ERS messages (e.g., cultural socialization, preparation for bias, and promotion of mistrust messages) resulted in four distinct profiles (typical messages, minority messages, high mistrust, and low frequency). The minority messages group, which was distinguished by high levels of both cultural socialization messages and preparation for bias messages, reported the highest levels of ERI exploration. Moreover, this profile group also reported higher levels of identity resolution and affirmation (e.g., ERI content, positive feelings related to one's ethnic-racial group) compared to the high mistrust group and the low frequency group. Additionally, the high mistrust group was distinguished by a high frequency of promotion of mistrust messages whereas the low frequency group had lower levels of all messages, consistent with prior work which found that negative messages tended to distinguish profiles (Neblett et al., 2008). These findings suggest that high levels of both cultural socialization and preparation for bias messages may support young adult ERI processes and content, but negative messages or limited messages may carry risk.

Overall, these studies highlight the advantages of using person centered approaches when investigating ERS messages, but the majority of these studies have largely not included egalitarian messages, nor have they investigated additional salient ERI content constructs as outcomes (e.g., centrality or public regard). This is important given that egalitarian messages, which are often reported at a high frequency, are the most understudied type of ERS messages (Hughes et al., 2016). Even when examining the few studies that included egalitarian messages (all of which focus on different outcomes with mixed findings), it is challenging to form any strong conclusion as to how such messages inform youth outcomes (Umaña-Taylor & Hill, 2020). Therefore, there is still need to understand how egalitarian messages, in conjunction with other ERS messages, are associated with emerging adult ERI content and process.

There is some emerging work considering multiple sources of ERS using profile approaches. Among diverse adolescents, caregiver ERS messages (e.g., cultural socialization, preparation for bias, promotion of mistrust, and cultural pluralism), school ERS, neighborhood and internet discriminatory experiences were examined together to generate three profiles that were subsequently associated with critical consciousness, wellbeing, and academic outcomes (Byrd & Anh, 2020). One profile was distinguished by moderate levels of both caregiver ERS and school ERS ("average"), another distinguished by high levels of caregiver ERS and school ERS, alongside high levels of both internet and school discrimination ("high discrimination"), and one distinguished by high levels of school ERS, low levels of caregiver ERS, and low levels of discrimination ("positive school"). Interestingly, youth in the high discrimination and average groups reported similar outcomes in terms of wellbeing and academics, but differed significantly in critical consciousness, such that youth in the high discrimination profile reported higher levels of critical action, reflection, and agency. Bryd and Anh (2020) hypothesized that the higher

levels of caregiver ERS received by youth in the discrimination group likely indicated that they were being taught coping strategies which could foster more critical consciousness, which in turn could be protective for their wellbeing and academics. Importantly, the school ERS measure developed by Bryd & Anh (2020) focused primarily on capturing ERS from school personnel and the overall ideologies of the school system and did not explicitly ask about messages from peers in the school context (Bryd, 2019; Bryd & Anh, 2020). Nonetheless, this study provided evidence that there is merit in examining multiple sources of ERS messages using a person centered approach.

Altogether, research on caregiver ERS has found associations between ERS messages and ERI process and content. Both variable centered and person centered approaches have provided important insights into the links between caregiver ERS and ERI. Variable centered work has established the association between ERS constructs and ERI outcomes, and person centered approaches have allowed for a more nuanced consideration of how these messages coalesce to predict distinct outcomes. Furthermore, initial work has begun to examine how ERS messages from multiple sources can uniquely inform outcomes (Byrd & Anh, 2020), which suggests that examining caregiver ERS messages jointly with peer ERS messages in person centered approaches has utility. However, egalitarian messages have received scant research attention in caregiver profile approaches (e.g., Christophe et al., 2021). Therefore, including egalitarian messages in a person centered analysis with peer ERS could potentially distinguish profiles and have unique links with ERI content and process. Furthermore, person centered approaches with the goal of clarifying the role of ERS in shaping ERI process and content among college students is also limited, especially as it has only been examined in a sample of multiracial college students and included only ERI process outcomes (Christophe et al., 2021).

Peer ERS and ERI

  The literature on peer ERS has emanated from the literature on caregiver ERS, and thus measures of peer ERS have been adapted from caregiver measures allowing for some comparisons across sources. Generally, studies have found that peer ERS is associated with ERI outcomes, although the literature is somewhat contradictory. In a sample of diverse adolescents, different peer processes, including ERS and discrimination experiences, were examined together in relation to ERI content (Wang, 2021). Peer processes loaded onto two overall dimensions: positive peer processes (cultural socialization and support against discrimination) and negative peer processes (ethnic/racial teasing, discrimination, victimization, and preparation for bias). Adolescents with higher overall levels of positive peer processes reported higher levels of centrality, private regard, and public regard. Moreover, on the days on which adolescents reported higher levels of positive peer processes, they also reported greater levels of private regard on that day. On the other hand, adolescents who reported higher levels of negative peer processes had lower levels of private regard. This study offered evidence that peer ERS is associated with private regard, centrality, and public regard, with preparation for bias potentially associated with less optimal ERI outcomes as these loaded alongside negative peer processes.

  Additional work examining peer ERS has mostly utilized variable centered approaches to investigate peer ERS alongside caregiver ERS (Hu et al., 2017; Nelson et al., 2018; Su et al., 2020). Overall, these studies have found that peer ERS and caregiver ERS are both linked with ERI process and content. In a study with adopted Korean American adolescents, caregiver ERS (ethnic socialization or cultural socialization) during childhood was associated with peer ERS (cultural socialization) during adolescence and that was subsequently associated with ERI exploration (Hu et al., 2017). In a diverse college sample, peer and caregiver ERS (i.e., cultural

socialization, preparation for bias, and promotion of mistrust) were both examined as predictors of ERI processes and subsequent adjustment (Nelson et al., 2018). Only caregiver cultural socialization (not peer cultural socialization) was positively associated with both ERI exploration and commitment. They also found that caregiver preparation for bias messages were negatively associated with both exploration and commitment, but in contrast, peer preparation for bias messages were positively associated with exploration. This finding points to the fact that there may be different direct effects of caregiver and peer ERS messages when both types of messages (cultural socialization and preparation for bias) are evaluated together.

Thus, across studies of peer ERS, the role of peer cultural socialization and peer preparation for bias messages in relation to ERI processes and content is contradictory. For example, Nelson et al., 2018 found that peer preparation for bias was associated with greater ERI exploration, while Wang (2021) found that negative peer processes (including preparation for bias) were associated with lower private regard. Moreover, Hu and colleagues' (2017) finding that peer cultural socialization was associated with greater ERI exploration differs from Nelson and colleagues' (2018) null finding regarding peer cultural socialization and ERI process. As Umaña-Taylor & Hill (2020) have argued, variable approaches to measuring ERS could obscure important nuances in how different types and frequency of messages coalesce, and this could be the case in these few studies of peer ERS messages. In which case, a person centered approach provides another avenue for understanding how caregiver and peer messages align to inform ERI process and content.

There is one prior study that used a person centered approach to investigate both caregiver and peer cultural socialization (Wang & Benner, 2016). In a sample of diverse adolescents, this study separated out mainstream and heritage culture socialization messages.

Focusing on just heritage cultural socialization, the study found three profiles, a congruently low profile, an incongruent profile, and a congruently high profile. Similarly, for mainstream cultural socialization, an identical three sets of profiles were generated. For both types, the congruently high profiles were associated with less socioemotional distress and better academic adjustment. Again, although this study focused solely on cultural socialization and does not include any ERI outcomes, it offers evidence that caregiver and peer ERS work together to inform outcomes. Moreover, it suggests that a person centered approach is an important complementary way of investigating the role of multiple sources of ERS messages which can provide needed clarity to the literature.

Despite the clarity that may be gained using person centered approaches, the conflictual findings in the peer ERS literature may also be a result of another significant methodological issue: the lack of attention to precisely who are the peers being reported on in these studies. In the studies reviewed above of peer ERS (Hu et al., 2017; Nelson et al., 2018; Wang, 2021), researchers asked participants to report on peer ERS generally for "peer or close friends" without specifying who the actual peers are and more importantly, if they shared any ethnic-racial backgrounds with these peers. Thus, participants are completing peer ERS measures based on general peer experiences. Conversations with peers and close friends are numerous and it is not clear what factors they are considering when completing such measures (e.g., most common message, message with closest friend, etc.). Typically when reporting on caregiver ERS in research, youth report on messages from a specific parent or both parents individually which allows for the messages to differ across caregivers. This limits the extent to which youth must make decisions on how to report on conflicting frequency or types of messages between multiple caregivers. Similarly, with regards to sharing ethnic-racial heritage, this is less of a concern for

caregiver ERS given the assumption that aside from the adoption context, and to some extent,

multiracial populations, parents are typically providing ERS messages within the context of a

shared ethnic-racial heritage between caregivers and youth. However, a peer can either share or

not share any ethnic-racial background, which might determine the frequency of messages, the

types of messages, and ultimately, how such messages are associated with ERI. In addition to the

goal of using a person centered approach to examine caregiver ERS and peer ERS, this

dissertation also addressees another methodological concern by having youth specify the peers

who are providing ERS messages and their ethnic-racial background.

Supporting the notion that the ethnic-racial background of friends is important, an

observational qualitative study on peer ERS among emerging adults found that the ethnic-racial

composition of peer dyads led to different types of conversations about race and ethnicity

(Moffitt & Syed, 2021). In this study, friend dyads were asked to freely converse on a race-

related topics. The ethnic-racial composition of the dyad differed: both ethnic-racial minority

peers (EM-EM), an ethnic-racial minority and a White peer (EM-W), or both White peers (W-

W). Within the EM-W dyads, EM youth discussed topics such as raising awareness of ethnic-

racial differences and underrepresentation. Furthermore, when White participants were paired

with an ethnic-minority friend, they talked more about having limited experiences with ethnicity-

race or valuing ethnicity-race related experiences than when they were paired with a White

friend. The White peer also had more conversations about issues of racism when speaking with

the EM peer, relative to the White peer. The EM-EM and EM-W dyads had more conversations

about racism/discrimination and positive connection to cultures compared to W-W dyads. Thus,

the ethnicity-race of the peer matters when it comes to the content of conversations about race

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and ethnicity, and this research suggests that the ethnic-racial heritage of the peer could impact both frequency and type of ERS messages that peers deliver to each other.

My own past work investigated differential links between peer ERS and ERI and found that associations with ERI are dependent on whether messages are exchanged with a peer that shares an ethnic-racial background and those that do not (Chan & Stein, 2022). In a diverse college sample population, I found that cultural socialization and preparation for bias peer ERS messages from shared ethnic-racial heritage peers were associated with more ERI exploration and commitment, whereas egalitarian messages from dissimilar peers were associated with more ERI exploration. This is compelling because egalitarian messages emphasize equality and treating everyone similarly, which are values that may be particularly important when interacting with different ethnic-racial friends. This qualitative research and my own initial study provided evidence that the ethnic-racial heritage of the peer with whom one is exchanging ERS messages will likely be a factor to consider when investigating peer ERS in relation to ERI.

Shared Ethnic-Racial Heritage Peers

There are several studies that have investigated how shared ethnic-racial heritage peers are associated with ERI outcomes in adolescence (Derlan & Umaña-Taylor, 2015; Douglass & Yip, 2015; Graham et al., 2014; Jugert et al., 2020; Santos et al., 2017), with one study using an emerging adult sample (Thelamour et al., 2019). Generally, research suggests that friendships with shared ethnic-racial heritage peers are significantly associated with ERI content, especially private regard or connection to one's group (i.e., attachment and belonging). For example, in an adolescent sample of African/Black American and Hispanic/Latinx American adolescents, a greater proportion of reciprocated shared ethnic-racial heritage friendships relative to different ethnic-racial heritage friendships was associated with higher levels of private regard (Graham et

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al., 2014). Similarly, among a sample of African American adolescents, the percentage of shared ethnic-racial heritage friends was positively associated with ERI affirmation (a construct similar to private regard) (Derlan & Umaña-Taylor, 2015). This is also evident in longitudinal work with diverse adolescents. Youth's ERI attachment levels became more similar to that of their shared ethnic-racial heritage peers over time, whereas the level of private regard levels changed in response to having both shared and different ethnic-racial heritage peers, albeit to a weaker degree (Jugert et al., 2020). Evidence also suggested day to day concurrent links between shared ethnic-racial heritage peer interactions and ERI, such that on days in which adolescents were surrounded by and interacted with shared ethnic-racial heritage peers, they reported more salience and awareness of their ERI (Jugert et al., 2020). Similar findings hold true for a college student sample, such that among African, Caribbean, and Black American college students, the degree of closeness to shared ethnic-racial heritage friends was positively associated with greater private regard (Thelamour et al., 2019). Of note, there is no work to my knowledge that examines the prediction of other ERI content dimensions (centrality and public regard) in relation to shared ethnic-racial heritage peers.

Research on the links between process dimensions of ERI and shared ethnic-racial heritage peers is sparser. In a longitudinal study of Black American adolescents, increased contact with another Black American peer was associated with an increased likelihood of reporting changes in their identity status (reflected through a combined degree of exploration and commitment of ERI) (Yip et al., 2010). This suggests that shared ethnic-racial heritage peers are associated with ERI processes as well, but the directionality of that association is less clear. Altogether, research that explicitly focused on shared ethnic-racial heritage peers appears to

strongly support links with ERI private regard, but also alludes to links with ERI process dimensions (exploration and resolution).

Different Ethnic-Racial Heritage Peers

There are only two studies that directly examined the impact of having different ethnic-racial heritage friends on ERI outcomes. One study focused on ERI processes (Rivas-Drake et al., 2017) while the other focused on prejudice beliefs, which most closely aligns with the construct of ERI public regard (White et al., 2009). Rivas-Drake and colleagues (2017) examined changes in adolescent ERI exploration and resolution over three years in a sample of diverse adolescents. Overall, they found that adolescents and their friends tended to have more similar levels of exploration and resolution over time, and that having diverse friendships at the beginning of the year was linked with greater ERI exploration at the end of a year. Furthermore, for male adolescents, higher levels of resolution were also associated with an increase in diverse friendships six months later. This suggests that having friends outside of one's own ethnic-racial group could be important in shaping ERI exploration. Similarly, among Australian adolescents and young adults, participants had lower levels of subtle and blatant prejudice towards Arab Australians and Asian Australians when they reported having Asian Australians as friends, compared to those who did not report having any Asian Australians friendships (White et al., 2009). These two studies suggest that possible ERS related conversations may be occurring between different ethnic-racial friendships that could over time impact how an individual engages in ERI development.

Different ethnic-racial heritage friendships can be more complex, given that shared ethnic-racial heritage friendships are often preferred, and only in the absence of such friendships, do adolescents seek out different ethnic-racial heritage friendships (Kao & Joyner, 2004).

Research on both shared and different ethnic-racial heritage friendships suggests that different ethnic-racial heritage friendships are less stable (Jugert et al., 2013), and tend to be lower in friendship quality (McGill et al., 2012). This is largely due to more limited opportunities outside of school to engage with different ethnic-racial heritage friends, which informed the quality of these relationships (Lessard et al., 2019). However, in college settings, there may be greater opportunities for different ethnic-racial heritage friendships and exchanges of peer ERS messages as college students have more opportunities to interact both inside and outside of classrooms. This is consistent with Moffitt & Syed's (2021) qualitative work which offered evidence that peer ERS is occurring among different ethnic-racial heritage friendships. Given that different ethnic-racial heritage peer relations may differ in quality, it will be important to consider friendship quality in understanding the links between peer ERS and ERI development.

In a sample of German adolescents, the links between friendship quality and peer socialization was examined, and they found that friendship characteristics were associated with intercultural socialization, a process akin to peer ERS (Schwarzenthal et al., 2019). Furthermore, older adolescents were more likely to engage in intercultural socialization, relative to younger adolescents. This aligns with prior research on peer ERS, which has alluded to such exchanges occurring among older adolescents and college students. They also found that, only among the adolescents who identified as belonging to a cultural minority group, friendship length and frequency of interactions with their intercultural friendship were positively associated with intercultural socialization. Therefore, friendship quality appears to be an important factor among different ethnic-racial friendships. It is possible that friendship closeness impacts willingness and comfortability to engage in peer ERS with a different ethnic-racial peer.

Pulling it altogether, research on peer ERS indicates that peer ERS is associated with ERI, both process and content (Hu et al., 2017; Nelson et al., 2018, Wang, 2021). However, the directionally of how peer cultural socialization and preparation for bias may be linked with both ERI process and content is yet unclear, given conflictual findings (Nelson et al., 2018; Wang, 2021). Similar to the caregiver literature, peer egalitarian messages have not been investigated at all aside from my own work (Chan & Stein, 2020), warranting additional attention towards how these specific types of messages are associated with ERI. Research generally indicates that having shared ethnic-racial heritage peers could be linked with levels of private regard, and possibly ERI processes. For different ethnic-racial heritage peers, the strongest evidence suggests that such peers likely contribute primarily to process aspects of ERI. This is even more complicated for different ethnic-racial heritage peers given potentially more limited opportunities for contact prior to college. Therefore, for different ethnic-racial heritage peers, the role of relationship variables such as closeness are worth evaluating. Given the current state of the literature, there are two key areas that warrant more attention 1) how ERS messages from same and different ethnic-racial heritage peers could be differentially associated with ERI process and content and 2) a closer examination of different types of peer ERS messages, moving beyond evaluating just the role of cultural socialization and preparation for bias messages.

Combining Variable and Person-Centered Approaches

To summarize, an important next step in ERS research is to utilize a person centered approach to examine caregiver and peer ERS jointly given established links between caregiver ERS and ERI (Christophe et al., 2021; Huguley et al., 2019) and peer ERS and ERI (Hu et al., 2017; Nelson et al., 2018; Wang, 2021). However, to understand the ways in which peer ERS could function in conjunction with caregiver ERS, it is necessary to parse out differences in peer

ERS messages exchanged with shared ethnic-racial heritage peers and different ethnic-racial heritage peers, given likely differences in type and frequency of messages (Moffitt & Syed, 2021). Existing research linking peer contact with ERI supports that contact with shared ethnic-racial heritage peers is associated with levels of ERI content (Derlan & Umaña-Taylor, 2015; Douglass & Yip, 2015; Graham et al., 2014; Jugert et al., 2020; Santos et al., 2017; Thelamour et al., 2019). Furthermore, there is a limited understanding of how different ethnic-racial heritage peer ERS could be linked with ERI, but drawing on Rivas and colleagues (2017), friendships with different ethnic-racial heritage peers likely shape ERI processes. Therefore, to understand how peer ERS is associated with ERI, I use a combined approach that includes both person centered analyses and variable centered analyses to understand how both shared and different ethnic-racial heritage peers engage in ERS and its subsequent links to identity.

Person centered and variable approaches are complementary and provide distinct types of information (Masyn, 2013). A variable centered approach tends to focus on mean level differences in outcomes, whereas a person-centered approach attempts to identify subgroups of individuals who share a pattern of characteristics based on mean levels on different variables (Masyn, 2013). The person centered approach has been very useful in understanding the associations of the joint delivery of specific message types with meaningful psychosocial outcomes. Such links would be obscured in variable centered studies when the effects of specific types of highly correlated ERS messages may not emerge when examining overall mean levels (Umaña-Taylor & Hill, 2020). Given the existing research on caregiver ERS profiles and larger work on peer ERS generally, a person centered evaluation of both caregiver and shared ethnic-racial heritage peer ERS is warranted, since the content of the delivered ERS messages are likely to be similar given the shared ethnicity and race.

However, due to limited research on peer ERS with different ethnic-racial heritage peers, utilizing a person centered approach may be premature, especially as research supporting links between different ethnic-racial peer ERS and ERI is limited. Therefore, while a person centered approach is appropriate to examine caregiver ERS and shared ethnic-racial heritage peer ERS jointly, a variable centered approach is the better choice to investigate peer ERS messages among friends that do not share an ethnic-racial heritage and how they may be linked with ERI processes. Therefore, the first set of analyses focuses on how profiles of caregiver ERS and shared ethnic-racial heritage peer ERS are linked to ERI content outcomes (i.e., private regard, public regard, and centrality). This builds off the work by Byrd and Ahn (2020) and Wang and Benner (2016) that have used person-centered analyses to test the joint associations of messages from different ERS sources but extends this work by evaluating their link to ERI outcomes. The second set of analyses focuses on how peer ERS messages from different ethnic-racial heritage peers are associated with ERI process outcomes (i.e., exploration and commitment). This builds off work by Moffit & Syed (2020) and Rivas-Drake and colleagues (2017), as well as my own pilot work that has suggested that different ethnic-racial heritage peers could shape ERI processes through ERS conversations.

Furthermore, ERS is often examined in relation to discriminatory experiences, given the functional role of ERS as a way of teaching coping skills and fostering ERI in response to discrimination (Neblett et al., 2012). Studies have found that caregiver ERS messages and discrimination experiences are jointly associated with ERI outcomes (Richardson et al., 2015; Kiang et al., 2019). In an Asian American sample of adolescents, experiences of discrimination and caregiver ERS messages resulted in profiles that were differentiated by levels of adolescent ERI belonging and adjustment (Kiang et al., 2019). Moreover, peer ERS has also been examined

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alongside discrimination experiences (Wang, 2021) which found that preparation for bias messages load onto the same latent variable as peer discrimination experiences. Therefore, consistent with the transactional/ecological model (Hughes et al., 2016), it is important to account for discriminatory experiences when investigating how both caregiver and peer ERS inform ERI content and process. Thus, discrimination experiences serve as an important contextual variable across both studies.

Goals and Hypotheses

The goal of this dissertation is to examine how proximal ERS messages (from a caregiver figure and friends) are linked with both ethnic-racial identity content and process. For the first set of analyses, I took a person centered approach to examine how caregiver ERS (cultural socialization, preparation for bias, and egalitarian messages) and a shared ethnic-racial heritage peer ERS messages (cultural socialization, preparation for bias, and egalitarian messages) are jointly associated with ERI content (i.e., private regard, public regard, and centrality). Although person centered approaches have not simultaneously considered both caregiver and peer ERS, I expected that approximately four profiles would emerge based on prior LPA analyses with caregiver ERS practices and those that have examined multiple sources of ERS. Based on the work by Bryd & Ahn (2020) and Wang & Benner (2016), I hypothesized that the four profiles would emerge as follows 1) those who receive very few ERS messages from both caregivers and peers, 2) those that receive high levels of ERS from both sources, 3) those that receive a higher level of caregiver ERS messages, but lower peer ERS messages, and 4) those that receive more peer ERS messages but lower levels of caregiver messages. Although some of the past research on caregiver profiles suggests that there may be profile differences based on frequency of preparation for bias messages, given the limited work with multiple sources and the lack of

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inclusion of egalitarian messages, I posited no firm hypotheses about the specific constellation of caregiver and peer ERS message types. However, I expected that there might be profiles that are higher on specific types of messages, such that parents and peers may both provide high levels of cultural socialization but be distinguished by frequency of preparation for bias or egalitarian messages. Overall, I generally expected that higher levels of caregiver and peer ERS would be associated with higher levels of centrality and private regard. Moreover, I also expected that high degree of peer ERS messages will be associated with higher levels of public regard. Covariates such as experiences of discrimination and ethnic-racial heritage and other demographic (age, gender) differences were included in the model.

The next set of analyses examined how ERS from different ethnic-racial peers (both White/European American peers and different ethnic-racial minority peers who do not share an ethnic-racial heritage with the participant) are linked with ERI process in a variable centered approach. I investigated how peer ERS messages (cultural socialization, preparation for bias, and egalitarian messages) from White/European American peers and different ethnic-racial minority peers are associated with ERI exploration and commitment. Furthermore, I also evaluated the moderating roles of relationship closeness, given that closeness may be linked with how messages are received by a different ethnic-racial friend and its subsequent associations to ERI. I controlled for overall levels of discrimination experiences (Figure 1). Based on prior work that found that different ethnic-racial peers were influential on ERI development (Rivas-Drake et al., 2017), I expected to find that cultural socialization messages and preparation for bias messages from different ethnic-racial minority peers would be associated with exploration and commitment. Moreover, considering qualitative work that found that emerging adults exchange different messages with White/European American peers (Moffitt & Syed, 2021), I expected to

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find that that egalitarian message from White peers would be associated with ERI exploration and commitment. Finally, I expected that links between peer ERS and ERI process outcomes will be stronger for those in which relationship closeness is higher.

CHAPTER II: METHODS

Procedures

Participants were recruited via the SONA research study pool during fall and spring semesters in 2022-2023 (*N*=447) and from GTCC psychology students during the fall semester of 2022 (*N*= 77; awarded course credit similar to SONA). Across both sites, a total of 524 college students participated in the study. Given that past work proposed that ERS and ERI may operate differently in White families (Loyd & Gaither, 2018), only ethnic-racial minority participants (including Multiracial) were eligible to participate in the study. Thus, 58 individuals who identified solely as White/European American were removed from the study. Additionally, participants who failed to progress to the end of the survey, those that spent less than 10 minutes on the survey, those who were above the target age range, or those who provided data that was not useable (e.g., provided multiple friends and reported on ERS messages from multiple friends in one measure, rather than a singular friend) were removed from the final sample (*N*=44), which resulted in a total sample size of 422 (UNCG *N*=376; GTCC, *N*=46).

All data was collected via Qualtrics survey software. Participants provided consent and completed a 30-minute series of online questionnaires. Participants were asked to indicate and to select one adult caregiver figure in their life who had the most influence in raising them and with whom they have discussed issues related to ethnicity-race the most. They were asked to identify the relationship with this adult figure (e.g., father, mother, grandparent, etc.). Participants were also tasked with selecting three friends. These friends consisted of one with whom they shared an ethnic-racial background, one who identified as White/European American, and one friend who is an ethnic-racial minority but did not share an ethnic-racial background with them. They reported on the frequency of peer ERS messages exchanged with each of these individuals. This

type of methodology has been used in past studies of friendship processes with ethnically and racially diverse adolescents, in which they were tasked with identifying their closest friends and completing friendship related questionnaires (Graham et al., 2014; Kao & Joyner, 2004). Participants who did not provide data for all three friends were excluded from analyses that require a friend of that specific ethnic-racial heritage; any differences in sample size are noted below for each friend.

Participants

For the total sample of 422 college attending emerging adults between the ages of 18 and 25 (*M*= 19.83, *SD*=3.27), 47.20% identified as African/Black American, 24.60% identified as Hispanic/Latinx American, 16.40% identified as Multiracial, 8.80% identified as Asian American, 2.10% identified as Middle Eastern, with <1% identifying as Native American or Hawaiian. 71.60% of the participants were female identifying, with 23.61% male identifying, and with the remaining 4.73% identifying as gender diverse (e.g., agender, nonbinary, genderfluid, gender nonconforming, or transgender). A total of 83.40% of the participants were U.S born. Among those who were foreign-born (16.42%), they spent an average of 10.83 years (*SD*= 6.80) in the United States. Considering socioeconomic status, 44.11% of the sample identified as middle class, 25.42% identified as lower middle class, 17.53% identified as working class, 9.70% identified as upper middle class, 3.12% identified as poor, with <1% (*N*=1) identifying as affluent.

Demographic Information about Caregivers and Peers

Participants reported on ERS messages from a primary caregiver, and three separate friends. The following demographic information was obtained about these individuals. Regarding participant's primary caregiver, 82.21% were mothers, 13.52% were fathers, 2.61%

were grandmothers, the remaining 1.60% were a mix of grandfathers, aunts, stepparents, foster parents, adoptive parents, and siblings. The average age of their primary caregiver was 47.83 (*SD*=7.39), with the youngest being 28 and a sibling of the participant.

Participants reported the age, gender, length of relationship, ethnic-racial background, and generational status of a friend that shared an ethnic-racial heritage with them (*N*=422). Among these friends, the average age was 19.34 (*SD*= 2.30). Of these friends, 76.71% were female identifying, 31.75% were male identifying, and with the remaining (1.89%) identifying as gender diverse (e.g., agender, nonbinary, genderfluid, gender nonconforming, or transgender). Regarding length of friendships, 65.61% of the friendships have lasted for three years of more, 18.20% of the friendships have lasted for one to three years, 9.51% of them have lasted for six months of less, and 6.40% have lasted for six months to a year. Most (90.51%) of the shared ethnic-racial heritage friends were U.S. born.

Participants also reported the age, gender, length of relationship, ethnic-racial background, and generational status of a friend that was also an ethnic-racial minority but did not share an ethnic-racial heritage with the participant (*N*=326). Several participants reported White American/European friends in this question and therefore were excluded from analyses focused on an ethnic-racial *minority* friend that did not share any heritage with the participant (*n*=96). Among these friends, the average age was 19.81 (*SD*= 3.68). Of these friends, 52.28% were primarily female identifying, 36.19% were male identifying, with the remaining 5.52% identifying as gender diverse (e.g., agender, nonbinary, genderfluid, gender nonconforming, or transgender). The length of friendship varied more for this friend, with 41.41% of the friendships have lasted for three years of more, 24.50 % of the friendships have lasted for one to three years,

21.81% of the friendships have lasted for six months of less, and 12.62% had known them for six months to a year.

Given that this friend does not share ethnic-racial heritage with the participant, their ethnic-racial heritage is described in relation to the participants' own ethnic racial heritage. Among the participants who identified as African/Black American, 36.41% of their friends were Hispanic/Latinx American, 26.50% identified as African/ Black American (albeit with different specific ethnicities than the participant), 15.93% were Multiracial, 3.92% as Middle Eastern, and 1.32% were Native American. Among participants who identified as Middle Eastern, 33.31% of their friends were African/Black American, 33.32% were Hispanic/Latinx American, 22.01% were Asian American, and 11.10% were Multiracial. Among those who identified as Asian American, 37.91% of their friends were also Asian American but a different ethnic heritage (e.g., Chinese American participant with a Vietnamese American friend), 27.61% were African/Black American, 20.73% were Hispanic/Latinx American, 10.34% were Multiracial, and 3.42% were Middle Eastern. Among those who identified as Hispanic/Latinx, 40.10% of their friends were African/Black American, 18.81% were Asian American, 17.64% were Hispanic/Latinx American but with different ethnic heritages, 9.43% were Multiracial, 8.22% were Middle Eastern, and 5.91% were Native American. All the friends among the Native American participants were Middle Eastern and all the Hawaiian identifying participants' friends were African/Black American. Among the Multiracial participants, 31.92% of the friends were Hispanic/Latinx American, 25.51% were African/Black American, 25.51% were Multiracial with differing ethnic-racial heritage than the participant, 12.81% were Asian American, 2.10% were Middle Eastern, with the final 2.11% identifying as Native American. Most (86.51%) of the different ethnic-racial heritage minority friends were U.S. born.

Finally, participants also reported the age, gender, length of relationship and ethnic-racial background and generational status of a friend that identified as White/European American (*N*=395). Not all were able to identify such a friend, which reduced the sample size by *n*=27. Among these friends, the average age was 19.75 (*SD*= 3.84). Of these friends, 57.62% were female identifying, 34.68% were male, with the remaining 7.85% identifying as gender diverse (e.g., agender, nonbinary, genderfluid, gender nonconforming, or transgender). The length of friendship varied more for this friend, with 34.91% of these friendships have lasted for three years of more, followed by 25.53% which have lasted for six months of less, 24.21% have known them for one to three years and 15.83% had known them for six months to a year. Almost all (97.49%) of the White/European American friends were U.S. born.

Measures

Demographics

Participants provided information on age, gender, race, ethnicity, and family's SES growing up. Participants also provided demographics of age, gender, relationship, and ethnic-racial background on their caregiver and nominated friends.

Ethnic-Racial Socialization

Parental Ethnic-Racial Socialization

Participants completed an adapted version of the 16-item Hughes & Johnson (2001) ethnic-racial socialization measure on behalf of their primary caregiver that they identified. This is a Likert style scale with responses ranging from 1 = Never to 5 = Very Often, with higher scores indicating greater frequency of ERS messages delivered. They completed measure for two subscales: cultural socialization and preparation for bias. Five items are included in the cultural socialization subscale (e.g., "Have encouraged you to read books about your ethnic-racial

heritage?"). Eight items are included in the preparation for bias subscale (e.g., "Talked to you about others who may try to limit you because of ethnicity/race?"). Prior work has found that there is strong validity and reliability for this measure among diverse minority adolescents and emerging adults (Hughes et al., 2006; Tran & Lee., 2010). Reliability was found to be acceptable for both subscales (cultural socialization α =0.88, preparation for bias α = 0.83).

Participants also completed the promotion of equality subscale of the Asian American Parental Racial-Ethnic Socialization Scale (Juang et al., 2016). This is a Likert style scale with responses ranging from 1= Never to 5= Very Often. Three items are included in this subscale (e.g., "Treated all of your friends in the same way regardless of their racial or ethnic background."). Although developed for use with Asian American populations, research has found that there is strong validity and reliability for this measure among other minoritized college samples (Christophe et al., 2021; Villegas-Gold & Tran, 2018). Reliability was found to be acceptable (α = 0.80).

Peer Ethnic-Racial Socialization

Participants reported on peer ERS using modified versions of the parental cultural socialization, preparation for bias, and promotion of equality subscales described above (Hughes & Johnson, 2001; Juang et al., 2016) that were adapted with a prompt for *each of their nominated three peers*. Prior work has demonstrated that peer cultural socialization and preparation for bias subscales when adapted for peers have acceptable reliability when used with a diverse sample (Nelson et al., 2018). Additional work has found that all three subscales have acceptable reliability and factor structure when used with diverse college students (Chan & Stein, 2020). Reliability was acceptable for the shared ethnic-racial heritage peer (cultural socialization α = 0.89, peer preparation for bias α = 0.84, peer egalitarian messages α = 0.82). Reliability was

also acceptable for the different ethnic-racial minority peer (peer cultural socialization α = 0.92, peer preparation for bias α = 0.90, and peer egalitarian messages α = 0.82). Reliability was also acceptable for the White American/European peer (peer cultural socialization α = 0.89, peer preparation for bias α = 0.89, and peer egalitarian messages α = 0.86).

Ethnic-Racial Identity

Ethnic-Racial Identity Content

Three dimensions of ethnic-racial identity were assessed: centrality, private regard, and public regard using modified subscales from the Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1998). The MIBI has been adapted to use with diverse adolescents and college students by allowing them to fill in their preferred ethnic-racial identity (Rivas-Drake et al., 2009; Rivas-Drake, 2011). This is a Likert style scale such that 1= Strongly Disagree and 5 = Strongly Agree, with greater values indicating a stronger endorsement of that identity dimension. The centrality subscale included four items (e.g., "In general, being a member of my ethnic-racial group is an important part of my self-image). Private regard included four items (e.g., "I have a lot of pride in my ethnic-racial group and its accomplishments"). Public regard also included four items (e.g., "Overall, my ethnic-racial group is considered good by others"). The MIBI is one of the most utilized measures for ERI content with well-established validity and reliability. In this sample, reliability was found to be acceptable (centrality α =0.89, for private regard, α = 0.91, and for public regard, α = 0.92).

Ethnic-Racial Identity Process

Two process dimensions of ERI were assessed: exploration and commitment using subscales of the Multigroup Ethnic Identity Measure-Revised (MEIM-R; Phinney & Ong, 2007), a 6-item version of the original 22-item MEIM (Phinney, 1992). This is a Likert type scale with

items on a 4-point scale, ranging from 1= Strongly Disagree to 4= Strongly Agree, with greater values indicating more exploration and stronger commitment. The exploration subscale included 3-items (e.g., "I have spent time trying to find out more about my ethnic-racial group, such as its history, traditions, and customs"). The commitment subscale consisted of 3-items (e.g., "I have a clear sense of my ethnic-racial background and what it means to me"). Prior work using this scale has demonstrated adequate reliability in ethnic and racially diverse samples (Phinney, 2010; Tran & Lee, 2010). In this sample, reliability was adequate (exploration α = 0.85, commitment α = 0.90).

Relationship Closeness

Participants completed measures of relationship closeness for *each of their identified friends*. Network of Relationships Inventory: relationship quality version (NRI:RQV; Furman & Burhmester, 2009) was used to assess relationship closeness, using the disclosure, emotional support, satisfaction, approval, and companionship subscales. This results in an 15-item scale that assessed the extent to which one discloses information to this person (e.g., "How often do you tell this person things that you don't want others to know?"), how supportive they are (e.g., "How much does this person show support for your activities?"), how satisfied they are with the relationship (e.g., "How happy are you with your relationship to this person?"), degree of approval with this person (e.g., " How often does this person seem proud of you?"), and the level of companionship (e.g., " How much do you and this person spend free time together?"). It is a Likert style scale, with responses ranging from 1= Little or None to 5 = The Most. Scores are averaged to create a closeness scale, with higher scores indicating greater closeness. Prior work using this scale has demonstrated sufficient reliability (alphas ranging from 0.82 to 0.95) in a diverse college student sample (Moilanen & Raffaelli, 2010). Reliability was high for all

reported friends (shared ethnic-racial heritage peer relationship closeness α = 0.95; different

ethnic-racial heritage minority peer relationship closeness α = 0.96; White American/European

peer α = 0.97).

Everyday Discrimination

Participants completed the 9-item everyday discrimination scale**,** which captured chronic

and routine unfair treatment in everyday life (Williams et al., 1997). Sample items included "you

are treated with less courtesy than other people are." This is a Likert type scale, with responses

ranging from 1=Never to 6= Almost Every Day, with higher scores indicating greater

discrimination. Prior work has found that this scale demonstrates adequate reliability and validity

across diverse ethnic-racial groups (Kim et al., 2014). For this sample, reliability was acceptable

(α = 0.92).

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Data Analysis Plan

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For the first set of analyses, to simultaneously evaluate the impact of both caregiver's

ERS and shared ethnic-racial heritage friend's ERS, a person centered analysis approach was

utilized. Prior to running an LPA, descriptives and bivariate correlations were run to examine

whether there are differences in ERI outcomes of interest based on the ethnic-racial heritage of

the participants.

A latent profile analysis in MPLUS (version 8.9) was utilized to identify the number of

profiles that best fit the data using six measures of caregiver and peer ERS. The following six

variables were included: caregiver cultural socialization, caregiver preparation for bias, caregiver

egalitarian messages, peer cultural socialization, peer preparation for bias, and peer egalitarian

messages. Fit was assessed by estimating models between 2 and 6 profiles based on prior work

on ERS profiles, which are groups that share characteristics with respect to socialization
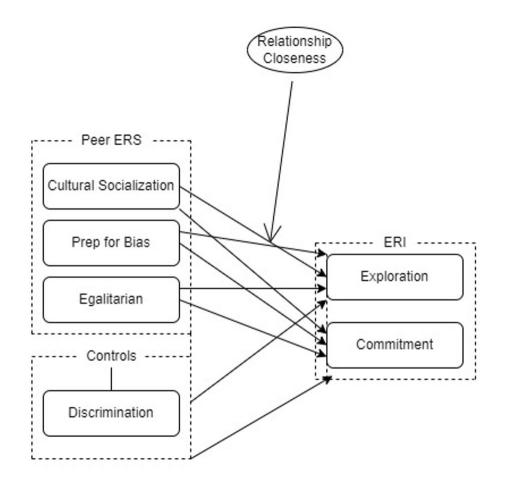
practices. Akaike Information Criteria (AIC), Bayesian Information Criteria (BIC), and Sample Size Adjusted BIC (SSABIC) were used to determine model fit. Model entropy with a classification quality above 0.80 which indicated that individuals are effective classified into different profiles (Muthén & Muthén, 2007) as well as *p* values of less than .05 on the Lo-Mendell-Rubin Likelihood Ratio (LRT) test were used as bench marked to determine model fit. A significant LRT indicated that a model with k classes fits the data better than a model with k-1 classes (Nylund, Asparouhov, & Muthén, 2007). Missing data was handled using full information maximum likelihood.

The second step was to consider potential profile covariates associated with the different profiles. The BCH approach (Bakk & Vermunt, 2016) was used to evaluate differences in profile-specific means or distributions of age, gender, and ethnicity-race of the participant. Differences are then expressed as pairwise differences between profiles. This is the recommended approach to use for predictor analyses (Asparouhov & Muthén, 2020). Although the most rigorous 2-step BCH approach was proposed originally, to control for covariates and hold them constant across profiles when examining if the profiles differ on any of the outcome variable, this approach was not tenable due to the properties of the latent classes that emerged. Because some profiles have a sample size of less than *n*=50, a 2-step BCH approach would have been significantly underpowered and would limit the ability to meaningfully detect any profile level differences. Therefore, to detect any profile mean-level differences in the outcome variables, the one step BCH method was also used to identify differences in profile-specific means.

For the second set of analyses, descriptives and correlations were run. Two separate path models were analyzed. The first included predictors of peer ERS from a different ethnic-racial

minority friend while the other contained only peer ERS messages from the White/European American friend (Figure 1). Discrimination was also included in both models as a control variable. Relationship closeness with each friend was also used as a predictor variable for peer ERS messages for both models and entered as an interaction variable with each type of peer ERS message. However, no interaction effects were found; therefore, interaction terms were removed from the final model for parsimony.

Figure 1. Regression Path Model

Note. Regression Path Model Illustrates Predictors, Control Variables, Outcomes

Variables, and Moderators

CHAPTER III: RESULTS

Given that there were three sets of data collection for this study, those from GTCC ($n=$ 46), and two separate semesters at UNCG ($n=260$, $n=116$), mean level differences were examined in key outcome variables based on the data sets. A one way Anova analysis was used to examine any difference in levels of centrality [F (2, 419) = 0.90, $p =.400$], private regard [F (2, 419) = 0.91, $p =.400$], public regard [F (2, 419) = 0.62, $p =.540$], exploration [F (2, 419) = 0.94, $p =.400$], commitment [F (2, 419) = 1.35, $p = .260$], and discrimination [F (2, 419) = 2.13, $p =.120$]. No significant differences among the three datasets were found in key outcome variables. Therefore, all three datasets were combined and used as one dataset with a total sample size of 422.

Initial Descriptives and Correlations

Demographic Differences

To examine the links between demographic variables and the outcomes of interests, bivariate correlations were conducted between ethnicity-race of the participants, generational status, age, and gender and all outcome variables (centrality, private regard, public regard, discrimination, exploration, and commitment). Means and correlations for demographic variables and outcomes are seen in Table 1 and Table 2.

The sample reported moderate levels of caregiver ERS messages (range 1-5, never to very often) with highest levels of egalitarian messages (egalitarian messages ($M=4.13$, $SD=0.94$); cultural socialization ($M=3.40$, $SD=0.98$); preparation for bias ($M=3.27$, $SD=1.05$)). Participants also reported a similar pattern of ERS messages from their shared ethnic-racial heritage friend, albeit with slightly lower levels compared to caregiver messages (shared ethnic-racial friend cultural socialization messages ($M=2.62$, $SD=1.03$), shared ethnic-racial friend preparation for

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bias messages (*M*=2.60, *SD*=1.04), shared ethnic-racial friend egalitarian messages (*M*=4.08, *SD*=0.96)). Descriptively, the mean levels of ERS messages varied between the two sources, but with similar patterns. Moderate levels of different ethnic-racial minority friend cultural socialization (*M*=2.25, *SD*=1.10) and preparation for bias (*M*=2.39, *SD*=1.08) were reported, with highest levels of egalitarian messages (*M*=4.11, *SD*=0.96); whereas the same pattern held for White/European friend ERS messages, levels of cultural socialization (*M*=1.77, *SD*=0.91) and preparation for bias messages (*M*=1.85, *SD*=0.91) were lower compared to their different ethnic-racial minority friend, but with similar levels of egalitarian messages (*M*=4.01, *SD*=1.15). Relationship closeness also differed descriptively, with different ethnic-racial minority friends reported as closer to participants (*M*=3.28, *SD*=1.01) than White/European friends (*M*=2.93, *SD*=1.11).

Examining mean levels descriptively for ERI variables (centrality, private regard, and public regard), the sample overall had moderate to high levels of centrality (*M*=4.14, *SD*=0.83), private regard *(M*=4.41, *SD*=0.83), exploration (*M*=3.90, *SD*=0.94) and commitment (*M*=4.10, *SD*=0.92). Levels of public regard were lower compared to other types of ERI (*M*=3.24, *SD*=1.12), but with more variation. This suggests that while this sample tended to feel good about their own ERI, they perceived that others viewed their group less positively than they themselves did. Levels of reported discrimination were also in the lower range, as the sample reported discrimination occurring between a few times a year to a few times a month (*M*=2.63, *SD*=1.09).

There were several bivariate correlations between the ERI variables as related to ethnic-racial heritage and demographic characteristics of the sample. The African/Black American identifying participants had lower levels of public regard (*r*= -0.17, *p*<.001) and greater levels of

discrimination ($r = 0.23$, $p<.001$) compared to the rest of the sample. Asian Americans had greater levels of public regard ($r= 0.14$, $p<.001$) but lower levels of exploration ($r= -0.11$, $p=.030$) and commitment ($r= -0.12$, $p=.010$). Participants with White/European American heritage had lower levels of centrality ($r= -0.10$, $p=.030$), private regard ($r= -0.10$, $p=.041$), exploration ($r= -0.11$, $p=.021$), and commitment ($r= -0.17$, $p<.001$). Native American participants had lower levels of centrality ($r= -0.17$, $p<.001$), private regard ($r= -0.11$, $p=.032$), and commitment ($r= -0.14$, $p<.001$). Finally, the Multiracial participants had lower levels of centrality ($r= -0.12$, $p=.010$) and public regard ($r= -0.10$, $p=.040$) compared to the rest of the sample. Regarding generational status, those who were U.S. born had higher levels of private regard ($r= 0.11$, $p=.033$). Female identifying individuals also had greater levels of centrality ($r= 0.16$, $p<.001$), private regard ($r= 0.17$, $p<.001$), exploration ($r= 0.23$, $p<.001$), and commitment ($r= 0.20$, $p<.001$) compared to male and gender diverse individuals.

Table 1. Bivariate Correlations among Demographic Variables and ERI Content Outcomes

	Mean (SD)	Centrality	Private Regard	Public Regard	Discrimination
African American	0.55 (0.49)	0.09	0.04	-0.17**	0.23**
Arab/Middle Eastern	0.03 (0.16)	0.10	-0.02	0.02	-0.03
Asian American	0.11 (0.31)	-0.07	-0.08	0.14**	-0.07
White/European	0.09 (0.29)	-0.10*	-0.10*	-0.00	-0.06
Hispanic/Latinx	0.30 (0.46)	0.04	0.09	0.07	-0.11*
Native American	0.04 (0.19)	-0.17**	-0.11*	0.07	-0.02
Hawaiian/Pacific Islander	0.00 (0.05)	0.03	0.00	0.03	-0.07
Multiracial	0.06 (0.24)	-0.12*	-0.06	-0.10*	-0.00
U.S. born	0.81 (0.61)	0.08	0.11*	-0.04	-0.05
Age	19.91 (0.61)	0.06	0.08	-0.04	-0.03
Female	0.72 (0.45)	0.16**	0.17**	-0.03	0.04
Male	0.24 (0.43)	-0.16**	-0.17**	0.04	-0.08
Outcomes Mean (SD)		4.14 (0.83)	4.41 (0.83)	3.24 (1.12)	2.63 (1.09)

Note. All demographic variables except for age are coded (0,1), 1 indicating ethnic-racial heritage or U.S. born. These are based on any endorsement of that ethnic-racial heritage and not absolute membership, in that a participant can be considered to have heritage as both African American and White/European, if they also identify as multiracial.

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

Table 2. Bivariate Correlations among Demographic Variables and ERI Process Outcomes

	Mean (SD)	Exploration	Commitment
African American	0.55 (0.49)	0.02	0.06
Arab/Middle Eastern	0.03 (0.16)	0.04	0.00
Asian American	0.11 (0.31)	-0.11*	-0.12*
White/European	0.09 (0.29)	-0.11*	-0.17**
Hispanic/Latinx	0.30 (0.46)	0.09	0.07
Native American	0.04 (0.19)	-0.06	-0.14**
Hawaiian/Pacific Islander	0.00 (0.05)	0.02	0.05
Multiracial	0.06 (0.24)	-0.02	0.12*
U.S. born	0.81 (0.61)	0.06	0.03
Age	19.91 (0.61)	0.08	0.06
Female	0.72 (0.45)	0.20**	0.23**
Male	0.24 (0.43)	-0.19**	-0.25**
Outcomes Mean (SD)		3.90 (0.94)	4.10 (0.92)

Note. All demographic variables except for age are coded (0,1), 1 indicating ethnic-racial heritage or U.S. born. These are based on any endorsement of that ethnic-racial heritage and not absolute membership, in that a participant can be considered to have heritage as both African American and White/European, if they also identify as multiracial.
 * $p<.05$, ** $p<.01$

Descriptives among ERS and ERI Outcomes

Descriptives and bivariate correlations were also examined among all variables used in the first set of analyses (Table 3) and the second set of analyses (Table 4) separately. For the first set of analyses, bivariate correlations were found in the expected direction such that caregiver ERS message types were generally positively associated with each other ($r = 0.18\text{-}0.52$), except for the non-significant association between preparation for bias messages and egalitarian messages (Table 3). The same pattern held for shared ethnic-racial heritage friend's ERS messages ($r=0.12\text{-}0.67$), with no association between preparation for bias messages and egalitarian messages. Caregiver ERS messages were also positively associated with participant's shared ethnic-racial heritage friend's ERS messages ($r=0.22\text{-}0.38$), with egalitarian messages having the strongest associations ($r=0.46$), and no links were found between preparation for bias and egalitarian messages.

Associations between ERI outcomes of centrality, private regard, and public regard were also in the expected direction. ERI outcomes were positively associated with each other ($r=0.32\text{-}0.84$) and with ERS messages from both sources ($r=0.12\text{-}0.28$). The only exceptions were with public regard. Preparation for bias messages from both caregiver and shared ethnic-racial heritage friend had no association with public regard; neither did the same ethnic-racial friend cultural socialization messages. Discrimination was positively associated with ERS messages ($r=0.12\text{-}0.38$), except for egalitarian messages from both sources. Discrimination levels were also negatively linked with public regard ($r=-0.13$), but positively linked with centrality ($r=0.12$).

For the second set of analyses, which focused on ERS from a different ethnic-racial minority friend and a White/European American friend, descriptive and bivariate correlations are reported in Table 4. Generally, the different ethnic-racial friend ERS messages were associated

with the delivery of other types of messages (r=0.20-0.73), except for egalitarian messages and preparation for bias messages. Same pattern held for White/European American friend ERS messages, with positive associations between all message types (r=0.17-0.73), except for egalitarian messages and preparation for bias messages. ERS messages from both friends were also positively associated among each other (r=0.20-0.53). Notable differences were found such that the different ethnic-racial minority friend's preparation for bias messages and White/European American friend egalitarian messages were not linked; neither were the White/European American friend egalitarian messages and the different ethnic-racial minority friend cultural socialization messages. Moreover, all types of ERS messages from both sources were positively associated with exploration (r=0.10-0.28), whereas for commitment, all but preparation for bias messages and the White/European American friend egalitarian messages were associated with commitment levels (r=0.14-0.17). As expected, relationship closeness was positively associated with each friend's respective ERS messages across all types (r=0.33-0.39). Similar to the links with caregiver and shared ethnic-racial heritage friend ERS messages, discrimination levels were associated with all types of messages except for egalitarian messages from both friends (r=0.20-0.38), supporting the decision to control for levels of discrimination.

Table 3. Bivariate Correlations among Caregiver and Shared Ethnic-Racial Heritage Friend ERS and Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Caregiver Cul Soc (1)	1									
Caregiver Prep for Bias (2)	0.52**	1								
Caregiver Egalitarian (3)	0.18**	0.05	1							
Friend Cul Soc (4)	0.38**	0.23**	0.06	1						
Friend Prep for Bias (5)	0.22**	0.35**	-0.02	0.67**	1					
Friend Egalitarian (6)	0.09	0.00	0.46**	0.12*	-0.03	1				
Centrality (7)	0.28**	0.31**	0.13**	0.23**	0.22**	0.14**	1			
Private Regard (8)	0.18*	0.24**	0.12*	0.16**	0.18**	0.16**	0.84**	1		
Public Regard (9)	0.13**	-0.04	0.14**	0.04	-0.06	0.21**	0.32**	0.30**	1	
Discrimination (10)	0.12*	0.38**	-0.06	0.28**	0.43**	-0.10	0.12*	0.06	-0.13**	1
Means	3.40	3.27	4.13	2.62	2.60	4.08	4.14	4.41	3.24	2.63
(SD)	0.98	1.05	0.94	1.03	1.04	0.96	0.93	0.84	1.12	1.09

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

Table 4. Bivariate Correlations among Minority Ethnic-Racial Friend and White American/European Friend Ethnic-racial Socialization Messages and Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
M Cul Soc (1)	1										
M Prep for Bias (2)	0.73**	1									
M Egalitarian (3)	0.20**	0.04	1								
W Cul Soc (4)	0.55**	0.45**	0.12*	1							
W Prep for Bias (5)	0.39**	0.53**	0.08	0.73**	1						
W Egalitarian (6)	0.10	0.51**	0.51**	0.17**	0.20**	1					
W Closeness (7)	0.03	0.08	0.18**	0.36**	0.39**	0.39**	1				
M Closeness (8)	0.36**	0.34**	0.33**	0.12*	0.04	0.18**	0.27**	1			
Exploration (9)	0.28**	0.20**	0.22**	0.22**	0.18**	0.10*	0.09	0.25**	1		
Commitment (10)	0.17**	0.09	0.14*	0.14**	0.09	0.10	0.03	0.19**	0.72**	1	
Discrimination (11)	0.24**	0.38**	-0.06	0.20**	0.34**	-0.06	0.01	0.06	0.12*	0.07	1
Means	2.25	2.39	4.11	1.77	1.85	4.01	2.93	3.28	3.90	4.10	2.63
(SD)	1.10	1.08	0.96	0.91	0.91	1.15	1.11	1.01	0.90	0.90	1.09

Note. M indicates messages from a different ethnic-racial minority friend that does not share any heritage with the participant; W indicated messages with a friend that identifies as White/European American.

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

Identifying Profiles

Based on the proposed model fit criteria and after evaluating fit for models with a profile solution between 2-6 profiles, a five-profile solution was determined to provide the best fit for the data (Table 5). The five-profile solution had the lowest AIC, BIC, and sample size Adjusted BIC. Five profiles also yielded a significant Lo-Mendel Rubin Likelihood Ratio Test and an entropy of at least 0.80. Profiles that emerged were generally aligned with my hypotheses, in that some were distinguished by frequency in message (overall low, moderate, and high across all message types), whereas others were more distinguished by the specific patterns in types of ERS messages.

As shown in Figure 2, the largest profile *Congruent Moderate* (41.69% of the sample; *n*=176) was characterized by a moderate frequency of all ERS messages, just above the sample's mean level, from both their caregiver and their shared ethnic-racial heritage friend. Thus, the pattern in types of messages were congruent across caregiver and their friend. Within this profile, these individuals received fewer preparation for bias messages, slightly more cultural socialization messages, and the most egalitarian messages (Table 6).

The next largest profile that was distinguished by frequency of messages was the *Low Socialization* profile (8.81% of the sample, *n*=37), which was characterized by below the sample mean levels of all ERS messages across both sources. Moreover, looking at patterns in the types of messages within this profile, they reported the lowest level of caregiver's egalitarian messages followed by still low, but similar levels of caregiver's cultural socialization and preparation for bias messages. ERS messages received from their shared ethnic-racial heritage friend were all reported at similarly low levels across the different types of ERS messages.

The final profile distinguished by frequency in messages is the smallest profile, *Congruent High* (5.91% of the sample, *n*=25), which was characterized by high levels of all ERS messages with similarly high levels of message frequency across caregiver and shared ethnic-racial heritage friend. In this profile, cultural socialization messages were reported at the highest level, followed by preparation for bias messages, and then egalitarian messages. Noteworthy, this profile also has the highest levels of cultural socialization and preparation for bias messages from the shared ethnic-racial heritage friend across the whole sample.

The next two profiles were distinguished by the specific constellation of ERS messages. The second largest profile, *Congruent Egalitarian* (28.20% of the sample; *n*=119), was characterized by an above the sample's mean levels of egalitarian messages from both their caregiver and their shared ethnic-racial heritage friend. They also reported below the sample mean levels of cultural socialization and preparation for bias messages from both sources (Table 6). Moreover, the pattern in the frequency of different types of messages was congruent across for both the caregiver and their friend. Within this profile, individuals reported the least amount of preparation for bias messages, followed by cultural socialization messages, and then the most egalitarian messages. Notably, the caregiver ERS messages overall were at higher levels compared to their friend egalitarian messages.

The final profile that was distinguished by pattern of ERS messages was *Peer Compensated* (15.41% of the sample; *n*=65), which was characterized by high levels of cultural socialization and preparation for bias from their shared ethnic-racial heritage friend, with low levels of these type of messages from their caregivers. Moreover, while egalitarian messages from both sources were below the sample mean; differences existed in reported cultural socialization and preparation for bias messages, such that caregiver preparation for bias
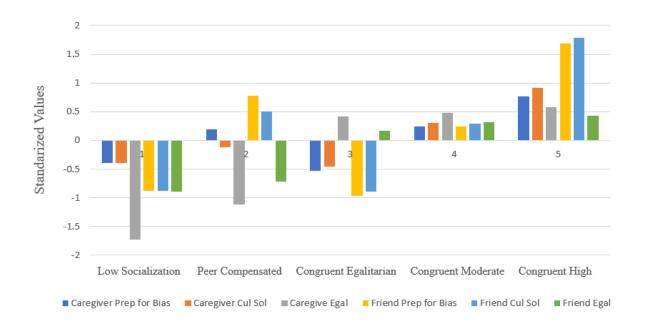
messages were above the sample's mean but caregiver cultural socialization messages were

below the sample mean. Within this profile, there are generally lower levels of ERS messages

from their caregivers, which is incongruent with the relatively higher levels of shared ethnic-

racial heritage friend cultural socialization messages and preparation for bias messages.

Table 5. Model Fit Indices for Competing Latent Profile Models

Profiles	AIC	BIC	Sample size Adjusted BIC	LRT (p)	Entropy
2	6937.77	7014.63	6954.34	269.40 (0.030)	0.70
3	6834.93	6940.10	6857.59	114.15 (0.137)	0.73
4	6755.24	6888.73	6784.10	91.51 (0.071)	0.79
5	**6693.06**	**6854.86**	**6727.93**	**74.42 (0.052)**	**0.80**

Note. Final profile solution is in bold. AIC=Akaike Information Criterion. BIC= Bayesian Information Criterion. LRT= Lo-Mendel Rubin Likelihood Ratio Test. Six profile solution was evaluated but was not a better fit and omitted for simplicity.

Figure 2. Standardized Caregiver and Shared Ethnic-Racial Heritage Friend Profiles

Table 6. Standardized Mean Values and Standard Errors of ERS Messages by Profile

Profile	Caregiver Cul Soc	Caregiver Prep for Bias	Caregiver Egalitarian	Friend Cul Soc	Friend Prep for Bias	Friend Egalitarian
			Profile Indicator			
Low Socialization (N=37)	-0.39 (0.18)	-0.39 (0.21)	-1.73 (0.23)	-0.88 (0.13)	-0.88 (0.10)	-0.89 (0.25)
Peer Compensated (N=65)	-0.12 (0.18)	0.19 (0.15)	-1.12 (0.15)	0.50 (0.11)	0.78 (0.11)	-0.72 (0.14)
Congruent Egalitarian (N=119)	-0.46 (0.15)	-0.53 (0.15)	0.42 (0.09)	-0.89 (0.11)	-0.97 (0.14)	0.17 (0.11)
Congruent Moderate (N=176)	0.30 (0.14)	0.24 (0.11)	0.48 (0.08)	0.30 (0.15)	0.25 (0.12)	0.32 (0.09)
Congruent High (N=25)	0.92 (0.14)	0.77 (0.19)	0.58 (0.16)	1.78 (0.21)	1.68 (0.27)	0.43 (0.16)
Total Mean (unstandardized)	3.40	3.27	4.13	2.62	2.60	4.08

Mean-Level Profile Differences

Differences in Demographics

With the five profiles identified and characterized, the next step was to explore whether the profiles differed with respect to any demographic variables. This is especially important given the diversity in the sample and that profiles may reflect unique differences in the racialized experiences of ethnic-racial minority college students. The BCH approach (Bakk & Vermunt, 2016) was leveraged to evaluate any significant differences in profile-specific means or distributions in age, gender, generational status, and ethnicity-race. The differences were then examined via pairwise Chi-squares between profiles. Significant profile differences in demographic variables are reported in Table 7. Overall, there were no significant profile level differences based on age or generational status. Nor were there any differences based on identifying as Multiracial or as Hispanic/Latinx American heritage, but there were differences based on belonging to other ethnic-racial heritages and gender-related differences.

There was greater representation of individuals with African/Black American heritage in three of the profiles compared to the *Congruent Egalitarian* profile. The *Congruent Moderate* profile (62.81%; $\chi^2 = 14.49$, $p < .001$), the *Peer Compensated* profile (68.39%; $\chi^2 = 17.24$, $p < .001$), and the *Congruent High* profile (68.30%; $\chi^2 = 9.05$, $p < .001$), all had more individuals who identified as African/Black American compared to the *Congruent Egalitarian* profile (33.82%). There were also differences based on having a Middle Eastern/Arab American heritage, which was more prevalent among individuals in the *Congruent Egalitarian* profile (5.70%) compared to both the *Low Socialization* (0.00%; $\chi^2 = 6.07$, $p = .012$), and the *Congruent High* profile (0.00%; $\chi^2 = 6.21$, $p = .010$) where no Middle Easter/Arab American students were represented.

The *Congruent High* profile had no individuals with Asian American heritage, as results indicated that more individuals with an Asian American heritage were in the *Low Socialization* profile (19.81%; $\chi^2 = 8.06$, $p < .001$), the *Congruent Egalitarian* profile (15.68%; $\chi^2 = 18.01$, $p < .001$), and the *Congruent Moderate* profile (9.80%; $\chi^2 = 13.59$, $p < .001$) compared to the *Congruent High* profile (0.00%). Individuals with Asian American heritage were also represented more in the *Congruent Egalitarian* profile (15.72%) compared to the *Peer Compensated* profile (5.60%; $\chi^2 = 3.93$, $p = .050$). Among the individuals with White/European American heritage, more were in the *Congruent Egalitarian* profile (16.42%) compared to the *Congruent High* profile (3.82%; $\chi^2 = 4.71$, $p = .032$). Similarly, individuals with Native American heritage were also more represented in the *Low Socialization* profile (11.57%; $\chi^2 = 4.22$, $p = .043$) and the *Congruent Egalitarian* profile (6.21%; $\chi^2 = 6.27$, $p = .011$) compared to the *Congruent High* profile (0.00%). In summary, while African/Black American individuals were represented in all profiles, more were in the *Congruent High* profile. Furthermore, among those with Asian American heritage, White/European heritage, and Native American heritage, most were in the *Low Socialization* and *Congruent Egalitarian* profiles.

Although the sample consisted of mostly female identifying individuals, there were still profile differences based on gender. More male identifying individuals were the *Congruent Egalitarian* profile (43.18%; $\chi^2 = 18.12$, $p < .001$), the *Peer Compensated* profile (15.10%; $\chi^2 = 14.89$, $p < .001$), the *Congruent High* profile (11.82%; $\chi^2 = 12.57$, $p < .001$) compared to the *Congruent Moderate* profile (13.91%). Furthermore, the *Low Socialization* profile (32.70%; $\chi^2 = 4.09$, $p = .040$), also had more males compared to the *Congruent Moderate* profile (13.91%).

More female identifying individuals were in the *Congruent Moderate* (82.17%; $\chi^2 = 16.96$, $p < .001$), *Peer Compensated* (83.33%; $\chi^2 = 17.26$, $p < .001$), and *Congruent High*

(75.43%; $\chi^2 = 4.41$, $p = .040$), compared to the *Congruent Egalitarian* profile (52.79%). There were more also more females in the *Peer Compensated* profile (83.81%; $\chi^2 = 6.82$, $p = .009$) and the *Congruent Moderate* profile (82.24%; $\chi^2 = 7.31$, $p = .007$) compared to the *Low Socialization* profile (55.51%). Altogether, there were more male identifying individuals in the *Congruent Egalitarian* and *Low Socialization* profiles, whereas more female identifying individuals were in the *Congruent Moderate*, *Congruent High,* and *Peer Compensated* profiles.

Table 7. Mean-level Profile Differences among Demographic Variables

Demographic Covariates	Low Socialized (LS) n=37 M (S.E)	Peer Compensated (PC) n=65 M (S.E)	Congruent Egalitarian (CE) n=119 M (S.E)	Congruent Moderate (CM) n=176 M (S.E)	Congruent High (CH) n=25 M (S.E)	Differences	$\chi^2(p)$
African American	54.7% (0.09)	68.4% (0.07)	33.8% (0.05)	62.8% (0.05)	68.3% (0.10)	CM>CE	14.49 (<.001)
						PC>CE	17.24 (<.001)
						CH>CE	9.05 (.003)
Middle Eastern/Arab	0% (0.00)	3.3% (0.02)	5.7% (0.02)	1.333% (0.01)	0% (0.00)	CE>LS	6.07 (.010)
						CE>CH	6.21 (.010)
Asian American	19.8% (0.07)	5.6% (0.03)	15.7% (0.04)	9.8% (0.03)	0% (0.00)	LS>CH	8.06 (<.001)
						CM>CH	13.59 (<.001)
						CE>PC	3.93 (.051)
						CE>CH	18.01 (<.001)
White/European	10.8% (0.06)	2.6% (0.02)	16.4% (0.04)	7.1% (0.02)	3.8% (0.04)	CE>CH	4.71 (.031)
Native American	11.6% (0.06)	1.3% (0.02)	6.2% (0.03)	2.1% (0.01)	0% (0.00)	LS >CH	4.22 (.042)
						CE>CH	6.27 (.010)
Male	32.7% (0.09)	15.1% (0.05)	43.2% (0.05)	13.9% (0.03)	11.8% (0.07)	CE>CM	18.12 (<.001)
						LS>CM	4.09 (.040)
						CE>PC	14.89 (<.001)
						CE>CH	12.57 (<.001)
Female	55.5% (0.09)	83.8% (0.05)	52.8% (0.05)	82.2% (0.04)	75.4% (0.09)	CM>CE	16.96 (<.001)
						PC>LS	6.82 (.009)
						CM>LS	7.31 (.007)
						PC>CE	17.26 (<.001)
						CH>CE	4.41 (.041)

Note. Only demographic variable with significant differences among the profiles are shown here. There were no significant differences based on identifying as Hispanic/Latinx or Multiracial. There were no significant mean differences based on age or generational status.

Differences in Outcome Variables

Significant profile differences in the outcome variables are reported in Table 8. Profile membership resulted in differences in levels of reported centrality. In line with hypotheses, more overall ERS messages was associated with more centrality as the *Congruent High* and *Congruent Moderate* had the overall highest levels of centrality. Those in the *Congruent High* profile (*M*=4.73) had greater levels of centrality compared to the *Low Socialization* profile (*M*=3.65; χ^2 = 15.92, *p* <.001), the *Peer Compensated* profile (*M*=4.05; χ^2 = 10.12, *p* =.001), and the *Congruent Egalitarian* profile (*M*=3.87; χ^2 = 16.64, *p* <.001). Moreover, those in the *Congruent Moderate* (*M*=4.39) profile had greater levels of centrality compared to the *Peer Compensated* (*M*=4.05; χ^2 = 5.56, *p* =.021), the *Congruent Egalitarian* profile (*M*=3.87; χ^2 = 12.37, *p* =.007) and the *Low Socialization* profile (*M*=3.65; χ^2 = 11.80, *p* =.001).

Profiles also differed on levels of private regard. Again, the *Congruent High* and *Congruent Moderate* profiles had the highest overall levels of private regard. Those in the *Congruent High* profile (*M*=4.72) also had higher levels of private regard compared to the *Low Socialization* profile (*M*=3.96; χ^2 = 7.86 *p* =.012) and the *Congruent Egalitarian* profile (*M*=4.25; χ^2 = 22.02, *p* <.001). Those in the *Congruent Moderate* profile (*M*=4.59) also endorsed higher levels of private regard compared to the *Low Socialization* profile (*M*=3.96; χ^2 = 8.90, *p* =.003) and the *Congruent Egalitarian* profile (*M*=4.25; χ^2 = 6.65, *p* =.010). There were no significant differences among profiles in levels of public regard. Examining these levels descriptively, *Congruent Moderate* and *Congruent High* profile had the highest levels of public regard, but most profiles had similar mean levels in a moderate range (Table 8).

While not an ERI variable, levels of discrimination were examined to further shed light on the context and experiences these young adults might be facing. Overall, the *Congruent High*

profile reported the highest levels of discrimination, followed by *Peer Compensated* profile and

then the *Congruent Moderate* profile and all three profiles reported significantly greater

discrimination than the remaining profiles. The *Congruent High* profile (M=3.84) had greater

levels of reported discrimination compared to the *Low Socialization* profile (M=2.25; χ^2 = 22.02,

p <.001), the *Congruent Moderate* profile (M=2.74; χ^2 = 13.23, p <.001), the *Peer Compensated*

profile (M=3.09; χ^2 = 5.61, p =.021), and the *Congruent Egalitarian* profile (M=1.99; χ^2 = 38.28,

p <.001). The *Peer Compensated* profile (M=3.09) also reported higher levels of discrimination

compared to the *Congruent Moderate* profile (M=2.74; χ^2 =3.88, p =.051), the *Low Socialization*

profile (M=2.25; χ^2 = 11.76, p <.001), and the *Congruent Egalitarian* profile (M=1.99; χ^2 =

37.87, p <.001). Finally, the *Congruent Moderate* profile (M=2.74) had higher levels of

discrimination compared to the *Congruent Egalitarian* profile (M=1.99; χ^2 = 24.35, p <.001) and

the *Low Socialization* profile (M=2.25; χ^2 = 5.56, p =.020).

Table 8. Mean-level Profile Differences among Outcome Variables

ERI & Discrimination	Low Socialization (LS) N=27	Peer Compensated (PC) N=65	Congruent Egalitarian (CE) N=119	Congruent Moderate (CM) N=176	Congruent High (CH) N=25	Differences	$\chi^2(p)$
	M (*S.E*)	*M* (*S.E*)	*M* (*S.E*)	*M* (*S.E*)	*M* (*S.E*)		
Centrality	3.65 (0.21)	4.05 (0.11)	3.87 (0.12)	4.39 (0.07)	4.72 (0.17)	CH>LS	15.92 (<.001)
						CM>PC	5.56 (.021)
						CM>CE	12.37 (<.001)
						CM>LS	11.80 (.001)
						CH>PC	10.12 (.001)
						CH>CE	16.64 (<.001)
Private Regard	3.96 (0.20)	4.36 (0.10)	4.25 (0.11)	4.59 (0.06)	4.72 (0.18)	CH>LS	7.86 (.005)
						CM>CE	6.65 (.010)
						CM>LS	8.90 (.003)
						CH>CE	5.19 (.021)
Public Regard	2.93 (0.22)	3.06 (0.15)	3.29 (0.12)	3.33 (0.10)	3.36 (0.31)	None	
Discrimination	2.25 (0.19)	3.09 (0.14)	1.99 (0.11)	2.74 (0.09)	3.84 (0.28)	CH>LS	22.02 (<.001)
						PC>CM	3.88 (.050)
						CM>CE	24.35 (<.001)
						CH>CM	13.23 (<.001)
						PC>LS	11.76 (.001)
						CM>LS	5.56 (.020)
						PC>CE	37.87 (<.001)
						CH>PC	5.61 (.022)
						CH>CE	38.28 (<.001)

Note. There were no significant mean level differences in levels of public regard.

Path Analysis with Different Ethnic-Racial Friends

Two separate path analyses were used to examine the association between ethnic-racial minority heritage friend ERS messages and White/European American friend ERS messages on ERI process outcomes (exploration and commitment). In both models, discrimination was entered as a control variable. The moderating role of relationship closeness with each friend was also included in the model, however, no significant interactions were found, therefore interaction terms were removed for model parsimony. All predictors (types of ERS messages, discrimination, and relationship closeness) were allowed to covary. Outcome variables of exploration and commitment were also allowed to covary. Path coefficients for both models are reported in Table 9.

For the model with a different ethnic-racial minority friend ERS messages as predictors, the following effects were found. Supporting hypotheses, the ethnic-racial minority heritage friend cultural socialization messages were positively associated with ethnic-racial identity exploration (B =0.18, p=.010) and commitment (B =0.18, p=.031). Although, not hypothesized, the different ethnic-racial minority heritage friend egalitarian messages were also positively associated with ethnic-racial identity exploration (B =0.11, p=.022). Novel findings related to relationship closeness with the ethnic-racial minority heritage friend were also found, such that relationship closeness was positively associated with both exploration (B =0.14, p=.020). and commitment (B =0.14, p=.031).

For the model using the White/European American friend ERS messages as predictors, the following associations were found. Partially supporting hypotheses, the White/European friend egalitarian messages were positively associated with commitment (B =0.11, p=.051). While not hypothesized, the White/European friend cultural socialization messages were also

found to be positively associated with levels of exploration ($B =0.19$, $p=.010$) and commitment ($B =0.18$, $p=.011$). In contrast to the ethnic-racial minority friend, no associations were found in relation to relationship closeness with their White/European American friend.

Table 9. Path Analysis Predicting ERI Process Outcomes

Predictors (Minority Friend)	Exploration (n=326)				Commitment (n=326)			
	b	SE	BBB	p	b	SE	B	p
M Cul Soc	**0.18**	**0.07**	**0.18**	**.010**	**0.15**	**0.07**	**0.18**	**.034**
M Prep for Bias	-0.01	0.07	-0.07	.896	-0.08	0.07	-0.10	.262
M Egalitarian	**0.14**	**0.06**	**0.11**	**.014**	0.06	0.06	0.07	.271
M Closeness	**0.13**	**0.05**	**0.14**	**.021**	**0.13**	**0.06**	**0.14**	**.026**
Discrimination	0.06	0.04	0.07	.187	0.04	0.05	0.05	.320

Predictors (White Friend)	Exploration (n=395)				Commitment (n=395)			
	b	SE	B	p	b	SE	B	p
W Cul Soc	**0.20**	**0.07**	**0.19**	**.007**	**0.18**	**0.07**	**0.18**	**.014**
W Prep for Bias	-0.02	0.08	-0.02	.831	-0.07	0.08	-0.07	.365
W Egalitarian	0.07	0.04	0.08	.124	**0.09**	**0.04**	**0.11**	**.048**
W Closeness	0.01	0.05	-0.01	.965	-0.04	0.05	-0.05	.421
Discrimination	0.08	0.04	0.09	.067	0.05	0.04	0.07	.214

Note. M indicates messages from a different ethnic-racial minority friend that does not share any heritage with the participant; W indicated messages with a friend that identifies as White /European American. Predictors were all allowed to covary as were outcomes. Bolded values indicate significant findings.

CHAPTER IV: DISCUSSION

Scholars have continued to emphasize the need for research that focuses on peer groups as a central ethnic-racial socialization context for young adults (Wang & Lin, 2023). Specifically, they argue that peer ERS messages should be examined while considering the contexts in which ERS messages are received (e.g., parents, school) and that research needs to identify the types of peers with whom they are exchanging ERS messages. Towards that end, this dissertation sought to shed light on the associations between peer ERS messages and the ethnic-racial identity processes of a diverse set of young adults. Across two sets of analyses, the complexity of peer ERS and its links with ERI were unpacked by concurrently examining caregiver's ERS messages alongside peer ERS messages and evaluating the differential impact of peer ERS in relation to the ethnicity-race of the peer. This dissertation examined how proximal ERS messages from a caregiver and a shared ethnic-racial heritage friend coalesced into distinctive profiles with implications for ERI. This work further investigated the ways in which ERS from friends that do not share an ethnic-racial heritage with an emerging adult are linked with their ERI development, and whether effects varied based on the friend's ethnic-racial heritage. Findings suggested that there are unique ways in which caregiver and shared heritage friends ERS messages are jointly associated with the levels of ERI content, which may be linked with context. Furthermore, different ethnic-racial heritage minority friends and White/European American friends ERS messages varied in frequency and in their links with ERI exploration and commitment.

Caregiver and Shared Ethnic-Racial Friends ERS and ERI Content

Overall, the sample reported relatively high levels of ERS messages across both sources and reported high levels of ERI content. Therefore, it is worth noting that the identified profiles

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are unique to this sample, which consisted of college students who have received high levels of ERS messages and have strong ERI. Moreover, given that this dissertation utilized survey methods completed at one time point, it is possible that shared method variance, (e.g., reported levels of ERS and ERI could be systematically biased by time of day, mood, or other factors) could confound any identified associations between ERS and ERI found across analyses. Nonetheless, the identification of five profiles of caregiver and shared ethnic-racial heritage peer ERS were consistent with hypotheses in several ways. Although four profiles were expected, the five that emerged were consistent with the hypotheses that profiles would be distinguished by frequency and by type of messages (e.g., specifically cultural socialization messages and preparation for bias messages). The *Low Socialization* profile, *Congruent Moderate*, and *Congruent High* were consistent with prior literature that have found profiles primarily distinguished by overall frequency on all types of messages (Ayón et al., 2019). These profiles are consistent with Ayón and colleagues' (2019) work which also identified a low ERS, moderate ERS and high ERS profile, when examining caregiver ERS messages among Latinx parents. In line with hypotheses, levels of ERI content were consistent with levels of overall ERS messages, in that emerging adults in the the *Congruent High* and *Congruent Moderate* profiles reported greater centrality and private regard levels compared to the *Low Socialization* profile. The finding that lower frequencies of ERS messages are linked with lower ERI are consistent with past work in diverse college student populations students (Christophe et al., 2021), offering further evidence of the strong associations between ERS messages and ERI content among college students.

The *Congruent Egalitarian* and *Peer Compensated* profiles were more so distinguished by types of messages, which again has also been documented in the caregiver ERS literature

(e.g., Cooper et al., 2020; Saleem et al., 2020; White-Johnson et al., 2010). The *Congruent Egalitarian* profile was distinguished by higher frequency of egalitarian messages relative to the sample's mean from both sources and lower levels than the sample's mean on all other types of messages. Moreover, this finding is novel in that prior studies have not considered the role of egalitarian messages when evaluating constellations of ERS messages from caregivers along with other sources. Furthermore, the few studies that have investigated such messages in a variable centered approach have found negative associations with psychoeducational outcomes for ethnic-racial minority youth (Huguley et al., 2019). Aside from the *Low Socialization* profile, those in the *Congruent Egalitarian* profile reported the next lowest levels of centrality and private regard, compared to the other profiles, suggesting that such egalitarian messages may not be as strongly linked to ERI content as other types of ERS messages.

Another profile, which was characterized by the specific constellations of ERS messages, was the *Peer Compensated* profile. As hypothesized, a profile emerged with lower overall levels of caregiver messages compared to friend ERS messages. Furthermore, this profile reported relatively higher levels of friend cultural socialization and preparation for bias messages compared to their caregiver messages. The *Peer Compensated* profile also reported significantly lower levels of centrality compared to the *Congruent Moderate* and *Congruent High* profiles and descriptively lower levels of private regard. While having higher shared ethnic-racial heritage friend ERS messages compared to caregiver messages did not result in ERI outcomes as high as the *Congruent Moderate* and *High* profiles, it suggests that friend ERS message may potentially compensate for a lack of caregiver messages, given that this profile did have higher ERI levels compared to the *Low Socialization* profile.

Building off the caregiver ERS literature, a strength of this study was the focus on both caregiver and a shared ethnic-racial heritage friend ERS messages. The largest portion of youth were in profiles that demonstrated congruence between peer and caregiver ERS messages at differing levels of frequency (75.80%), but there were profiles characterized by a lack of congruency. Prior work that has examined peer and caregiver ERS with profile centered analyses has also found differences in profiles regarding congruency between sources (albeit only examining cultural socialization messages, Wang & Benner, 2016). In this past work, which focused on socioemotional well-being and academics as outcomes, they found that the profile with high congruency in cultural socialization messages was most optimal in terms of academic and socioemotional benefits and that receiving high cultural socialization from only one source still resulted in well-being similar to the congruently low group (Wang & Benner, 2016). To an extent, the findings from this study were consistent with their work, in that the two profiles with the highest levels of ERI content were the *Congruent Moderate* and *Congruent High* profiles. However, this phenomenon may be even more complex, as congruency in message types alone is likely insufficient to promote optimal ERI given that the *Congruent Egalitarian* profile did not have higher levels of ERI compared to the *Peer Compensated* profile. The specific types of messages and frequency as it intersects with the racialized context that the young adults are navigating sheds additional insight and contextualizes such findings.

Hughes and colleagues (2016) emphasized that understanding ethnic-racial dynamics necessitates considering the complex interplay of ERI, ERS, and discrimination experiences, which are closely intertwined in the different microsystems that young adults reside in, including families and peers. Moreover, ethnic-racial heritage, gender, and racialized contexts also inform the types of messages young adults receive and the way such messages are linked with their ERI.

Prior work has found that types of ERS messages from caregivers vary based on gender (Brown et al., 2010) and that ethnic-racial heritage has a role in understanding the links between ERS and ERI (Huguely et al., 2019; Simon, 2021). In support of the transactional model, the profile level differences in ethnic-racial heritage, gender, and reported levels of discrimination suggest that indeed messages may be tailored to the contextual experiences of young adults.

There were several profile differences based on ethnic-racial heritage and gender of the participants as well as reported levels of discrimination. The *Congruent High* profile had the greatest representation of African/Black American individuals as well as the highest reported levels of discrimination. This is important given that an extensive review examining the role of race and ethnicity in caregiver delivered ERS concluded that African/Black American families prioritized having extensive ERS conversations across the lifespan, with a greater tendency towards giving preparation for bias messages and engaging in high levels of cultural socialization to instill racial pride (Simon, 2021). Therefore, it is possible higher frequency of ERS messages may reflect family socialization practices. However, it is also noteworthy that this profile reported the highest levels of discrimination, which could indicate that the higher frequency in ERS messages may have been provided reactively in the face of negative racial experiences (Hughes et al., 2006). Furthermore this profile reported the highest levels of ERI content. One interpretation may be that high levels of ERI are due to having received greater degree of ERS messages. However, centrality has been investigated as a predictor of discrimination, in that the more central race is to one's identity, it may sensitize youth to detect discrimination more readily (Yip, 2018). In considering all these factors together, it is overly simplistic to deem congruent ERS messages as more optimal, as the specific contexts and

interplay among ERS, ERI, and discrimination matter. Nevertheless, the results underscore that these processes are intertwined not only for caregiver ERS but also for peer ERS messages.

Ethnic-racial heritage and gender were also linked with the messages reported by youth in the *Congruent Egalitarian* and *Low Socialization* profiles. More individuals with Asian American heritage, White/European American heritage, and Native American heritage were in the *Low Socialization* and *Congruent Egalitarian* profiles. Furthermore, these two profiles had greater representation of male identifying individuals, and research has found that specific types of caregiver messages given can vary both by ethnicity-race and by gender of the youth (Osborne et al., 2023). Noteworthy, the levels of reported discrimination were also lower for these profiles compared to the rest of the profiles. Again, the specific frequency of messages could be in response to having experienced fewer negative racialized experiences necessitating less ERS messages, or it may be due to the unique ways in which different ethnic-racial heritage families provide ERS messages. Research has suggested that White/European families are more likely provide egalitarian messages (Loyd & Gaither, 2018) and Asian American families have been found to provide moderate levels of egalitarian messages among other types of ERS messages (Juang et al., 2016).

Additionally, when evaluating how both caregiver and friends ERS messages are linked with ERI, it is worth considering how caregiver messages or the lack of such messages may prompt young adults to seek out other sources of ERS. This can be deduced when examining the *Peer Compensated* profile, in which there was a moderately high level of discrimination reported, but limited caregiver ERS messages. Those in this profile reported higher levels of friend cultural socialization messages and preparation for bias message relative to caregiver messages. This profile also endorsed moderate levels of centrality and private regard that was

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higher compared to the *Low Socialization* profile, which suggests that the shared ethnic-racial heritage friend ERS may have compensated and bolstered ERI to be higher than might be expected if they only received caregiver messages. Although this hypothesis cannot explicitly be evaluated in this dissertation, other studies have suggested that this may hold true. Causey and colleagues (2022) examined the latent profiles of ethnic-racial coping and its associations with ERI and caregiver ERS messages among Black female college students and found that ERI and ERS were linked with which coping profile they were more likely to belong in. Among the three profiles, avoidant (limited involvement in campus activities and isolation), intragroup (seeks on-campus support from members of their own ethnic-racial group) and intergroup (seeks support from within and across groups), those in the intragroup were more likely to have received more cultural pride messages, to be engaged in ERI exploration, and received more ERS messages alerting them to discrimination. Additionally, this link between higher level of ERI exploration and being in the intragroup profile was greater when they received cultural pride messages. Altogether, this suggests that ERI, ERS process and discriminatory experience all interact transactionally. In other words, young adults' ERI and prior ERS messages from caregivers may inform the ways in which they seek out friendship and shared ethnic-racial heritage peers to cope with discrimination.

Different Ethnic-Racial Friends ERS and ERI Process

In addition to understanding how shared ethnic-racial heritage friends ERS messages coalesced with caregiver messages, the second goal was to clarify the role of different ethnic-racial heritage friends ERS messages in its links with shaping ERI development. Prior quantitative research on peer ERS has not differentiated between types of ERS messages or ethnic-racial heritage of peers (Hu et al., 2017; Nelson et al., 2018; Su et al., 2020). Therefore, I

sought to address the core question of whether the types of messages provided by different ethnic-racial heritage friends had implications for ERI processes. Given the limited work in this area, the goal was to examine ERI process outcomes instead of content to understand whether such messages are linked with ERI development, rather than ERI content (e.g., private regard and centrality).

Overall, participants reported that both different ethnic-racial heritage friends and White/European American friends delivered all types of ERS messages. Different ethnic-racial heritage friends delivered these messages at higher frequencies compared to White/European American friends. The hypotheses for different ethnic-racial minority friends ERS messages were partially supported in that cultural socialization messages were positively associated with both exploration and commitment. This indicates that when different ethnic-racial heritage friends share cultural traditions or engage in cultural practices with each other, it may allow for further exploration and learning of new aspects of each of their cultural heritages. Furthermore, having others demonstrate interest in one's cultural heritage likely has an impact in affirming how one feels about their own ethnic-racial heritage. Some initial intervention work with adolescents suggested that when youth are given opportunities to discuss and share cultural heritage, positive increases in both exploration and resolution are possible (Umaña-Taylor et al., 2018). Therefore, similar mechanisms are likely at play in that having the opportunity to share culture with a friend is linked with ERI development or that the process of developing ERI may prompt youth to seek out friends with whom to share their culture with. Furthermore, although not hypothesized, White/European American friends cultural socialization messages were also found to be positively associated with both exploration and commitment supporting the explanation that having such conversations, regardless of the ethnic-racial heritage of the friend,

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may be useful in supporting ERI processes. Prior studies with adolescents have found that having

cross ethnic-racial friendships increased youth's willingness to engage in social activities with

peers of different ethnic-racial heritage as themselves (Chen & Graham, 2015). Therefore,

having positive cultural exchange with a different ethnic-racial heritage friend may also increase

the receptivity to continuing to engage in these types of ERS messages with additional different

ethnic-racial heritage friends, leading to associations to ERI processes with both types of

different ethnic-racial peers.

Aligned with hypotheses, White/European American friends egalitarian messages were

positively associated with ERI commitment. To understand this finding, it is important to

consider that, although the reporting of egalitarian messages was asked from the perspective of

an ethnic-racial minority young adult being the recipient of such messages in this study; these

exchanges are likely dynamic and reciprocal. Among qualitative research with college students,

race related conversations that were exchanged between an ethnic-racial minority individual and

a White/European friends differed in content and focused on issues of White privilege and

education about racial hierarchies (Moffitt & Syed, 2021). Therefore, one interpretation may be

that a White/European friends delivery of egalitarian message reflect their own commitment and

values related to promotion of equality. This could be in response to broader conversations that

participants are having with their White/European American friends around issues of White

privilege and allyship. Therefore, having White/European American friends that share values

that support the promotion of equality may be useful in affirming the one's commitment to their

own ERI.

Although not hypothesized, unique findings relative to the different ethnic-racial heritage

minority friend ERS messages were found. The different ethnic-racial heritage minority friend

egalitarian messages were positively associated with exploration, which is a novel finding. One interpretation is that messages about the promotion of equality, when received from a different ethnic-racial heritage minority peer, may prompt young adults to explore more the meaning of their ethnic-racial heritage and the larger racial hierarchy that exists in the U.S., given such messages may be in direct contrast due to discriminatory experiences these participants reported on. Indeed, recent theoretical work has argued that experiences of discrimination, ERS, ERI and critical consciousness development are intricately linked (Mathews et al., 2020). It could also be that when young adults are actively exploring their ERI, they may be more likely to seek out and have conversations that focus on equality and the complex ways that ethnicity and race may confer privilege. Furthermore, it is worth noting that the ethnic-racial heritage of the participants' different ethnic-racial minority friends were quite diverse, therefore whether such messages have differential effects could be dependent on the ethnic-racial heritage of the friend.

Surprisingly, greater relationship closeness with a different ethnic-racial minority heritage friend was positively associated with exploration and commitment, which was not found for White/European American friendships. This is compelling in that it suggests that among ethnic-racial minority friends, there may be unique aspects of ERS that are not captured by adapting existing caregiver measures. Prior qualitative research with Black college students found that in addition to the traditionally conceptualized cultural socialization, preparation for bias, and cultural mistrust messages, college students engaged in ERS through more salient day to day conversations that did not fit clearly within the parental ERS categorizations (Golden, 2019). For example, peers shared cultural music, language, and processed media related to race relations; this often provided a supportive space for them to understand their racialized experiences through a dynamic reciprocal exchange as opposed to the more vertical delivery of

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messages from caregivers that are meant to teach values or instill racial pride (Golden et al., 2022). The measure of relationship closeness chosen, contained subscales that measured the willingness to confide in that individual, rely on them for emotional support and the degree to which they spent time together. Therefore, it is possible that support, willingness to disclose, and companionship factors may also reflect additional aspects of peer ERS exchanges and as such are linked with ERI processes.

Integration Across Analyses: The Interplay of ERS and ERI

The overarching purpose of focusing on ERS across multiple sources is to understand the ways through which young adults can obtain social and contextual support to foster strong ERI. Given the more limited understandings of the role of different ethnic-racial heritage peer ERS and that ethnic-racial heritage is linked to the delivery of ERS messages, it was necessary to examine the role of each friend's ERS messages separately. However, these young adults are receiving all these messages concurrently and therefore must integrate across these different messages and sources to make meaning of their ERI. Qualitative work with youth has demonstrated that the ways in which youth understand family, peer, and school ERS are intricately connected (Sladek et al., 2022). This is evident in this dissertation by the positive correlational associations between caregiver messages and shared ethnic-racial heritage friend messages and the positive associations between both types of different ethnic-racial heritage peers delivered messages. This suggests that there may also be congruency in the frequency and types of messages delivered among different friends, in that young adults may be seeking friendships that allow them to continue discussion about race and ethnicity that originated in the family system. Therefore, there is merit in further examining how shared and different ethnic-racial heritage peer messages also coalesce in person centered approaches. This is even more

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complex when considering the ethnic-racial dynamics that may exist with different friendship dyads. African/Black American college students described challenges discussing political differences as it pertained to race with White/European peers and that their other-race peers often lacked an understanding of their own racial experiences, which lead to decisions to abstain in race-related conversations (Golden, 2019). The descriptive differences in reported levels of ERS for different friends supports the idea that young adult may be selective in who they choose to have such conversations with.

Furthermore, within the two analyses, both content and process dimensions of ERI were examined. While these are distinctive components of ERI, both are highly correlated in that exploration of one's ethnic-racial identity and commitment has implications for levels of ERI content (Yip, 2018). It was surprising that none of the profiles differed in levels of public regard, which was hypothesized to be linked with the frequency of preparation for bias and cultural socialization messages from a shared ethnic-racial heritage peer. However, given that public regard levels reflect the extent to which one thinks others view their ethnic-racial group positively, it may be that this specific dimension of ERI content is more impacted by messages from different ethnic-racial heritage peers rather than positive views from a shared ethnic-racial heritage friend. Subsequent work will need to examine how different ethnic-racial peers ERS messages could be linked with ERI content, having established that such messages affect their ERI process.

Across both sets of results, there are several considerations that need to be examined when trying to fully understand peer ERS processes. Unlike other sources of ERS messages, peers are unique in that one can select friends (Graham et al., 2014; Kao & Joyner, 2004) and whether to engage in ERS conversations with these friends (Golden, 2019). Importantly, in the

current analyses, as well in past research on profiles of peer and caregiver ERS (Wang & Benner, 2016), most participants were in congruent profiles such that they received similar frequency of messages across both sources. Furthermore, although hypothesized, there were no profiles in which caregiver ERS messages frequency was high with low frequency of peer ERS messages. Given overall high frequency of ERS messages reported and ERI of this sample, it is possible that this may be due to sample characteristics, in that this sample was more receptive to peer ERS messages, given the high frequency of caregiver messages and strong ERI. However, another possibility is that it may be the case that caregiver messages are linked to the types of friends that young adult select, and therefore the subsequent messages young adults receive from these friends. Recent work has examined the changes in frequency of caregiver delivered ERS messages (i.e., cultural socialization and preparation for bias) and noted that these messages steadily increase across early childhood and are given as early as kindergarten (Contreras et al., 2022), suggesting that caregiver ERS messages are delivered early in development and are likely influencing friendship selection and what friends talk about together. Therefore, it is possible that the types of messages one receives from close friends are reflective of both selection effects and the desire to continue having similar types of conversations about ethnicity and race that they are already familiar with from prior conversations with their caregivers. In this sense, caregiver ERS messages may set the precedent and prepare young adults to be able to continue conversations about race with their peers. Therefore, efforts to untangle the extent to which caregiver messages inform peer selection is an important next step in research. Additionally, while the focus on ERS messages within this dissertation were primarily cultural socialization, preparation for bias messages and egalitarian messages, cultural mistrust messages which warn youth to stay away from other ethnic-racial groups are also a prominent type of ERS messages

(Hughes et al., 2006; Thelamour & Mwangi, 2021). The ways in which cultural mistrust messages are linked with the selection of peers and subsequent ERS exchanges warrant research focus when untangling peer selection effects.

Furthermore, it is also worth noting that in addition to young adults potentially choosing friendships that reflect the same values they were taught by their families, other larger systematic factors may be at play. Within the U.S., there are structural factors such as housing discrimination and inequitable delegation of resources which can result in highly segregated schools and neighborhoods (Cohen, 2010; Flanagan, 2013). This impacts the availability of choices for friendships in more segregated schools and neighborhoods, in that there may not be many options of different ethnic-racial heritage peers to befriend. Even in more diverse settings with more varied peers, there are still systematic effects. For example, Witherspoon and colleagues (2022) found that among Latinx and African/Black American parents in urban cities, the perception of neighborhood problems were associated with more frequent ERS messages, both cultural socialization and preparation for bias messages. Moreover, this is especially prevalent within school systems, in that ethnic-racial minority students often have much more limited access to culturally relevant learning materials and are educated from Eurocentric perspectives (Nieto & Bode, 2008). This occurred at all levels of schooling (Davis et al., 2022; Hazelbaker & Mistry, 2021). Qualitative interviews with teachers demonstrated that at a diverse high school, teachers endorsed colorblind ideology and often rejected or ignored racial inequalities (Davis et al., 2022). Even at more diverse rural elementary schools, interviews with teachers indicated that while they appreciated having ethnic-racial diversity within the student population, many also endorsed colorblind ideology (Hazelbaker & Mistry, 2021), which is likely transmitted to the students attending these schools. While prior schooling history was not

collected from participants, many of the young adults had more challenges with identifying

different ethnic-racial minority friends that they were close to and even among those that did,

many choose friends that were different ethnically but shared similar racial backgrounds, which

could be reflective of these larger systematic effects.

Therefore, attending college can be an important developmental transition for young

adults to facilitate ERI development and to broaden their understanding of different racialized

contexts (Mathews et al., 2022; Sladek et al., 2023). Although this sample was of emerging

adults, most were younger and in their first year of college. Prior research supports that youth

tend to seek out shared ethnic-racial heritage friendships and will select different ethnic-racial

heritage friendships only when those are not available (Kao & Joyner, 2004). This is reflective in

the length of friendships that were reported for shared ethnic-racial heritage friends which were

descriptively longer relationships compared to different ethnic-racial minority friends and

White/European American friends. Often college transitions expose youth to more diverse

contexts of peers than were previously possible, creating new contexts for ongoing peer ERS

processes. Indeed, during college, young adults are often further away physically from their

caregivers, which may allow more opportunities for them to rely on peers for support and

strategies on how to cope with discrimination. Qualitative work with college students reveal that

they seek out shared ethnic-racial contexts, such as social groups and clubs that allow them

opportunities to process and share racialized experiences (Golden, 2019).

Limitations and Future Directions

With the goal of comprehensively understanding how peer ERS alongside caregiver ERS are associated with ERI among emerging adults, this dissertation had limitations. Although sampling occurred across two separate college contexts, most of the participants attended a minority serving institution in the southeastern region of the U.S.; as such there could be unique racialized experiences for this sample. Prior work that has examined peer ERS processes among college students have done so with participants at predominantly White institutions (Golden, 2019; Golden et al., 2022), therefore, the types and frequency of racialized experiences they face may be different compared to this sample. Given how intricately ERI, ERS, and racial experiences are intertwined, efforts to understand whether similar effects hold true in other contexts are needed. Furthermore, schools on their own are also important socialization agents and have implications on the type of cultural activities and interactions that are available for college students to engage in peer ERS (Byrd, 2019). Therefore, future work should evaluate how different types of school ERS messages (e.g., critical consciousness, colorblind and cultural socialization; Byrd & Ahn, 2020) contribute to school's support for interracial interaction and whether that is linked with the types of peer ERS messages that are exchanged.

While a strength of this research is the substantial diversity in the ethnic-racial heritage of the recruited participants; this presented some methodological challenges. Many participants were Multiracial, belonging to multiple ethnic-racial groups, therefore identifying friends with whom they did not share ethnic-racial heritages was challenging. Furthermore, when identifying profile level differences based on ethnic-racial heritage, it was based on any endorsement of that racial heritage, capturing both those that are multiracial and those that are monoracial, which can limit the interpretation of such findings. Measuring and categorizing individuals of multiple

ethnic-racial heritages continues to be a challenge in the field. As such, it is a balancing act of trying to be authentic to how these individuals identify and representative of their ethnic-racial heritages (Gabriel et al., 2023; Roth 2018). Furthermore, there was also significant diversity in the friends they choose to report on, with many friends being Multiracial or belonging to the same racial group but of a different ethnic background. This limited the ability to understand if the types of ERS messages and the ethnic-racial heritage of the friend delivering the messages are linked. For example, to what extent do messages of egalitarian values differ when delivered from a friend that is higher on the racial hierarchy compared to one that is lower cannot be addressed with the current sample. Therefore, research using within group samples is also needed.

For this study, participants were asked to choose friends who they were close with and with whom they had conversations about race and ethnicity with. As such, it may be the case that the reported levels of peer ERS may be higher, relative to other (close) peers, as participants deliberately selected friends with whom they exchanged the most ERS messages. It is possible that the overall levels of peer ERS conversations they are having would be lower if asked about the frequency of these conversations with all their friends. Furthermore, it is uncertain if these conversations were taking place dyadically or as part of a larger group. These larger peer networks and group based conversations are important features of peer ERS conversations and this could have different impacts on the frequency and type of message being exchanged. Additionally, peer ERS messages were analyzed individually for each peer provided without considering potential overlap and covariation with caregiver messages or other friends messages. Therefore, it is possible that differences in levels of ERI exploration and commitment may be due to messages from other sources, rather than just with the specific peer in question.

To fully respond to Wang and Lin (2023) call to action, which emphasized the need to understand how peer ERS processes change across development, more sophisticated longitudinal designs are required. This dissertation consisted of nonexperimental cross-sectional data and a smaller sample size, which precluded the ability to conduct more sophisticated analyses that may shed additional insight on potential causal links and further detangle the transactional interaction between ERS, ERI, and the contextual factors that are at play. Moreover, given that this sample consisted of younger emerging adults with different ethnic-racial friends that were mostly newer friendships, it will be important to also utilize longitudinal methods to examine whether different ethnic-racial peer ERS message frequency and type change over time and its associations with ERI. This will further help elucidate and clarify any potential bidirectional associations between discriminatory contexts, ERI, and peer ERS exchanges. While generally ERS is understood to contribute to ERI development, it is possible that ERI is a strong factor in whether young adults are having ERS conversations and the extent to which they can notice and seek out such conversations. Therefore, parsing out the directionality of these links is an important future step.

Finally, there is a paucity of measures that are developed specifically for peer ERS. Although reliability for the peer ERS messages were sufficient in this dissertation study and in prior studies (e.g., Nelson et al., 2018), the existing measures that are used for peer ERS are all adapted from measures of parental ERS messages, which focus heavily on the teaching element of ERS. As such, these messages may not fully encapsulate the myriad ways in which friends are having such conversations. While qualitative work has revealed that peer ERS consists of similar dimensions as parental ERS, (e.g., cultural socialization, preparation for bias messages, and egalitarian messages), the content of these types of messages likely varies (Golden, 2019). For example, among peers, preparation for bias messages may be conversations that focus more on

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problem solving, sharing, and coping with experiences of discrimination, rather than receiving messages warning of such incidences or broader teachings about discrimination. Similarly, rather than messages that teach one about cultural values, peer cultural socialization conversations may consist of equal exchanges around shared culture, such as sharing media, experiencing culture together, or discussing rituals like hair care among each other (Golden, 2019). Efforts to build off existing measures that include the more nuance ways that peers are having such conversations is needed. Without better measurement, it will be difficult to ascertain the unique ways in which peer ERS functions to support ERI development in youth of color.

Conclusion

The goal of this dissertation was to elucidate how caregiver and peer ERS are linked with ERI, which considering the nuance of the specific ethnic-racial heritage of different friendships. Therefore, latent profile analyses were used to examine how caregiver and a shared ethnic-racial friend ERS messages converged into specific patterns and its associations with ERI content. Additionally, using path analyses, the ways in which different types of ERS messages from an ethnic-racial minority friend and a White/European American majority group member friend independently informed ERI processes was examined. Findings highlighted the ways in which caregiver and a shared ethnic-racial heritage friend ERS messages are mostly congruent, but when they are divergent, it suggests that peer ERS messages can at times have a compensatory role when caregiver messages are less frequent. Moreover, a novel profile relative to egalitarian messages was also identified, which altogether offers insight as to how ERS processes unfold in response to the racialized contexts that young adults navigate. Findings also revealed the importance of peer cultural socialization messages for ERI development regardless of the ethnic-racial heritage of the friend as well as the utility of exchanging egalitarian messages with friends

of different ethnic-racial heritages. Additional work is needed to fully understand the role of peer

ERS, however, this was the first work to concurrently examine both caregiver and peer ERS

messages, particularly egalitarian messages. It is also the first to begin to decipher the nuance

with respect to ethnicity and race, in how young adults cross-ethnic-racial friendships inform

ERI, which is a meaningful contribution to this emergent body of research.

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