The Impact of Blood Quantum Enrollment Requirements on Perceived Tribal Belonging

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Abstract

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Blood quantum laws, which define Native American identity by an individual's "degree of Indian blood," are widespread in Native American tribes, yet little is known of their psychological effects. This project investigates the psychological and community impacts of Indian blood quantum enrollment requirements on Native Peoples' perceived tribal belonging, identity, and well-being. When defining tribal membership, blood quantum can determine access to land, cultural knowledge, education, and employment opportunities. Blood quantum requirements can also shape how people understand themselves and their tribal community. Despite its significance, research on the psychological effects of blood quantum enrollment requirements remains scarce; no work on blood quantum has been featured in major social psychology journals[1]. In this study, we are testing the hypotheses that (1) blood quantum enrollment criteria predicts feelings of tribal belonging and (2) enculturation, the extent to which one participates in Native culture, can moderate that relationship by producing feelings of belonging through community engagement. To test this hypothesis, we conducted a survey containing qualitative

[1] As of June 2025, searching the term "Indian blood quantum" on the APA PsycNet database when limiting to peer-reviewed journals yields two results, neither of which is published in a social psychology-specific journal.

and quantitative questions relating to enculturation, tribal enrollment status/blood quantum, and feelings of belonging. We recruited 304 Native American participants through the online platform Prolific and by advertising the study through listservs and recruitment flyers. Most participants were enrolled members of their tribe (n = 201), which made analyses difficult due to the unequal group sizes. However, we found significant effects of tribal enrollment on feelings of tribal belonging moderated by enculturation. The qualitative data we collected will begin to help us understand how Native people feel about blood quantum. Future studies will explore this further in focus groups and interviews.

The Impact of Blood Quantum Requirements on Tribal Belonging

Before settlers began to colonize the lands now known as the United States of America (USA), Native Peoples[2] did not have kinship systems based on blood quantum. While varying by tribe, identity and belonging were often defined through community engagement and acceptance. There was no pan-Indian system of tracing descent; many groups had systems of naturalization in which nonkin or admixed individuals would be accepted into the community through marriage or adoption (Schmidt, 2012). Many tribes were kinship societies in which a core tenet was reciprocity-reciprocal duty to one another and their tribal community ("Blood Quantum and Sovereignty," 2022). The use of "blood" to trace genealogy has a deep history in Anglo-Saxon tribal psychology and became synonymous with ancestry and lineage by 1200. It started being used in North America by Europeans, typically to classify individuals who were "mixed blood". In 1705, the Virginia government legally defined the term "mulatto" as individuals with at least ⅛ African blood or ½ Indian blood. Racial classifications such as "colored" or "mulatto" were defined by many states during that time, typically as an effort to limit or restrict access to land, property, and civil rights (Schmidt, 2012). For African Americans, the blood quantum would typically be low because the federal government benefited from a large African American population for the workforce (Wolfe, 2001). Additionally, the racial classifications of mixed individuals, including African Americans, typically followed the logic of hypodescent in which a multi-racial person would be categorized as a member of their lower status group (Young et al.,

[2] A note on terminology: To be consistent with other Indigenous scholars, this paper will use the term 'Native Peoples' to refer to all Indigenous peoples of the United States (Lopez et al., 2022). Legally, Native Peoples are still classified as "American Indian" and are more commonly referred to as Native Americans. However, we chose to use the term "Native Peoples" or "Natives" capitalized and plural to represent the hundreds of state and federally recognized tribes in the US.

2021). However, the opposite was true for Native Peoples. Blood quantum was typically higher because the federal government benefited from fewer Native people being able to legally claim land and other resources. During the treaty era (1817-1871), when negotiating treaties with tribal nations, the U.S. government often used the concept of blood to define individuals of mixed Native and non-Native ancestry, which determined who was awarded various land or natural resource rights or treaty obligations.

The first major use of Indian blood quantum in federal law occurred in 1887 with the General Allotment Act (also known as the Dawes Act), an attempt by the U.S. government to assimilate Native Peoples into individualistic Western culture (Schmidt, 2012). The Dawes Act divided communal tribal land into parcels that were owned by individual Native Peoples. The purpose of this act was to disband tribal entities and rid Native people of the responsibilities of being "protectors" of the land through individual family farming. Blood quantum was used to determine how land allotments were allocated and who could vote on land cession agreements (Spruhan, 2006). After land was allotted to eligible individuals, the remainder of the tribal land could be ceded through an agreement with the U.S. government so that non-Natives could settle on the land. The enforcement and application of blood quantum in these policies varied by state, tribe, and the time of implementation, as the federal government frequently modified them. However, there seemed to be a general trend of low requirements in determining who could vote in favor of ceding land, but higher requirements for obtaining an allotment of land. This trend of inconsistency in policy applications of blood quantum suggests that the use of these policies shifted in response to what would best achieve the settler colonial goals of erasure and dispossession at that particular moment in history (Schmidt, 2012). In this case, the goal was to decrease the land that tribes owned, and their efforts were effective; it is estimated that in the

forty-seven years the Dawes Act was in effect, nearly 90 million acres (an area larger than present-day Germany) of tribal land were lost (Nichols, 2020).

The Dawes Act is one of many examples in which a colonial government attempted to define who was "Indian" based on blood quantum. An increase in the Native American population has always been counterproductive to the goals of settler colonizers to obtain as much territory as possible (Wolfe, 2006). Placing restrictions on the legal classification of who is considered Native American or a tribal member helped to reduce the claims that Native people had to any land. Blood quantum restrictions and laws were used as a tool by colonizers to continue obtaining land by eliminating the native population, which is consistent with what scholar Patrick Wolfe (2006) has referred to as the logic of elimination.

The elimination of the Native population can be carried out in many forms, from the direct violent and genocidal efforts to kill those who refused to leave their homelands to the more indirect assimilation policies that were put in place to kill the Indian while saving the man (Nichols, 2020). As the use of direct physical violence diminished toward the end of the 19th century, the US government switched to the more indirect forms of elimination through assimilation or the elimination of tribal cultures and languages, and a decrease in the number of tribal nation citizens. The forced assimilation of Native Peoples was carried out in a variety of ways, many of which still haunt Native communities to this day in the form of cultural loss and generational trauma (Brave Heart et al., 2011). The use of boarding schools to force Native children to assimilate into White culture was a prominent tactic the US government employed by taking Native children from their families and homelands and forcing them to attend boarding schools. At these schools, Native children were forced to cut their hair, abandon any culture-related clothing and items, practice European gender roles, speak English, and practice

Christianity. The children who attended boarding schools were often abused, and many never returned home, leaving their families to forever wonder what had happened to them. Many of the atrocities committed at Indian boarding schools have only come to light and received public attention in recent years with the discovery of thousands of Native children buried in unmarked graves at some of the schools. While most of the schools were eventually shut down, the assimilation policies continued because, as Patrick Wolfe (2006) has identified, settler colonialism is a structure, not an event; it is ongoing and evolves, but persists today.

Another method of assimilation was the removal of Native American children from their families because they were deemed unfit to care for their children, despite many of the reasons they were deemed unfit being due to the conditions that the US government imposed on Native communities. Placing Native Peoples on rural reservations often away from their traditional lands made survival difficult for a variety of reasons. Many tribal communities had to learn how to survive in entirely new terrain after moving to a reservation, which made living off the land more difficult. In addition, tribal nations were often placed on land that the US government had determined would have little use to them in terms of natural resources, making the prospect of farming for survival more difficult. The location of many reservations in rural areas also made obtaining jobs to support one's family difficult.

In addition to the lack of prospective jobs, Native people also faced discrimination and were often viewed as unclean and unintelligent. In 1968, President Lyndon Johnson described Native families as living in unsanitary, dilapidated dwellings with a nearly 40 percent unemployment rate, among the lowest literacy rates, and rates of sickness and poverty being among the highest (Palmiste, 2011). These factors led to Native children being viewed as forgotten children with incapable biological parents. Around the same time, the Native

population had increased drastically, thus increasing the federal funds that the US government needed to allocate to tribal nations (Palmiste, 2011). To reduce expenses, the federal government sought to decrease the number of tribal members, and reducing membership through adoption was one avenue of achieving this goal. In order for a Native child to be considered adoptable, they had to possess one-fourth or more of Indian blood, which was the current minimum blood quantum for tribal enrollment. The adoption of Native children into non-Native families was effective in decreasing the number of tribal members. The history of assimilation policies and the great lengths the federal government went through to diminish Native Peoples' culture, along with tribal enrollment restrictions, has made it difficult for many Native people today to connect with and practice their tribe's culture.

The concept of blood quantum as a determinant of Native identity and tribal membership became deeply embedded in Native communities and tribal law in the early twentieth century, as it was solidified in federal Indian policy when Congress sought to clearly define its relationship with tribal nations (Schmidt, 2012). The Indian Reorganization Act was passed in 1934 and was considered controversial when presented to Congress due to the major philosophical shift it would lead to in federal Indian policy (Spruhan, 2006). While the act defined Native Peoples as having ½ or more Indian blood, the way that the Bureau of Indian Affairs interpreted the act recognized the sovereignty of tribes. The act allowed tribes to draft and pass their own constitutions, with the definitions of tribal membership criteria and use of Indian blood quantum becoming the choice of tribes. However, when it came to federal programs and who was considered eligible, the decisions around who was considered Native and blood quantum were still in the hands of the federal government (Spruhan, 2006).

Today, many tribes use blood quantum to determine enrollment criteria, as a result, who has access to resources, such as land, hunting, and fishing rights, and money. The Spokane Tribe of Indians, for example, has a minimum requirement of ¼ Indian blood to enroll as a member (*Constitution of the Spokane Tribe*, 2023). However, not all tribal nations enforce blood quantum requirements and instead base enrollment on lineage. The Cherokee Nation, for example, requires an individual to be a descendant of an original Cherokee member who was listed on the Dawes Commission Rolls (*Constitution of the Cherokee Nation*, 1999). Even if an individual does satisfy the enrollment criteria, they will still need to go through the tribe's application process in order to become an official tribal member (which is a point we return to in the results and discussion)[3].

The fact that tribal nations determine their own enrollment criteria and application process often makes blood quantum a topic of conversation in Native communities and politics (Hamill, 2003). Enrollment can also determine a person's access to tribal resources such as land use/ownership, scholarships, job opportunities, voting in tribal elections, and cultural resources such as language programs and ceremonies. It is the protection of those physical resources that motivates some individuals to support blood quantum policies today. If enrollment requirements were to relax to lower or no longer include blood quantum, tribal resources, which could potentially already be limited, could become even more scarce due to an increase in the tribes

[3] The process to enroll in a tribal nation can also be complicated and place the burden of proof on individuals seeking enrollment or trying to enroll their children. Regardless of the enrollment requirements, the paperwork and acquiring proof of descent or blood quantum can be a barrier for many when attempting to enroll in a tribe. Additionally, many tribes do not have up-to-date information regarding the enrollment process or requirements available online. In those instances, applicants may need to call tribal offices or visit in person to access the necessary information and documents. Adding another potential barrier for individuals not living on or near their tribe's reservation. The steps and required documentation for enrollment applications can leave many individuals who are eligible for enrollment based on lineage or blood quantum unable to enroll because they cannot properly fulfill the requirements of the application.

population (“Blood Quantum and Sovereignty,” 2022). In contrast, others may be motivated to uphold such policies to preserve cultural resources, out of fear that if individuals who are not connected to a tribe’s culture become enrolled members, it will further erode their culture. There are, of course, also Native people who oppose the use of blood quantum policies. Often motivated by the survival of a tribe because, as we have outlined in this paper, these policies were put in place to decrease the Native population, so eliminating their use is seen as crucial to ensure survival (“Blood Quantum and Sovereignty,” 2022). The use of blood quantum as enrollment criteria, the conversations around the topic, and the distribution of rights and resources based on enrollment have the potential to significantly influence how individuals perceive their role and position within their tribal community. Since the ability to fully participate in one's tribal community hinges on one's enrollment status (voting, running for office, cultural resources, etc.), it may be more difficult for those who are not enrolled to feel as though they are an equal member of that community. If one does not feel like an equal to other members of their community due to a lack of legal status, it may lead them to believe that they do not truly belong to that community.

Tribal Belonging: Belonging has been defined and described in many ways; as a personal and intimate feeling to a place, tied to power and social spaces or structures that can exclude or include, it can be intertwined with a sense of safety, while also existing as a fundamental human need and motivation (Covarrubias, 2024). Since the focus of this paper is on Native communities, we used the more context-specific concept of Racial-Ethnic-Cultural (REC) belonging. REC belonging is a context-dependent and deeply personal sense of “home” and the ability to return to the kinship and comfort of a person's REC group or, in this context, tribe (Lee & Neville, 2024). REC belonging has five interconnected factors: authenticity, connection,

home, REC thriving, and self-definition. Authenticity is when individuals feel they can unapologetically be themselves within their REC group and not hide parts of their identity (Lee & Neville, 2024). Connection assesses similarities between an individual and their REC group through worldviews, commonalities, connections through shared experiences, and successes. The home factor reflects how close and comfortable an individual feels with their group members, as well as having shared interests. REC thriving captures an individual's pride, joy, and value of their REC group membership and interest in learning the group history. Lastly, self-definition is an individual's ability to independently define what REC group membership is, means, and looks like to them, ignoring the need to "prove" their belonging (Lee & Neville, 2024). However, due to the complex nature of tribal enrollment and the unique existence of legal classifications determining who is officially a tribal member, we did not include the dimension of self-definition in our study, because a Native individual cannot always determine their status and group membership themselves (Schmidt, 2012). Prior research has identified certain competencies as central aspects in experiencing belonging (Allen et al., 2021). The first being social skills, which include being aware of oneself and others, emotion regulation, communication, and awareness of social norms. Cultural skills are also a crucial competency that include understanding one's heritage, acknowledgement of place, and alignment with relevant cultural values. These competencies can complement and reinforce one another while also contributing to and reinforcing feelings of belonging (Allen et al., 2021). The influence that belonging can have on emotions and cognition can also impact an individual's general well-being.

Enculturation: While a sense of belonging is critical, other facets of community life also profoundly influence the psychological well-being and life experiences of Native Peoples.

Enculturation is a Native person's connection to their tribal culture concerning their participation, experience, and identity (Winterowd et al., 2008). An individual's level of enculturation has a potentially large impact on their emotional well-being and physical health, as well as increasing their resilience to life circumstances (LaFromboise et al., 2006). However, individuals may face barriers to enculturation within their tribal culture and community. The deep history of assimilation policies and loss of cultural knowledge due to the significant loss of Native Peoples as a result of colonization has left many tribes with an incomplete understanding of their culture, language, and history. As previously discussed, the federal government spent many years restricting or banning Native Peoples' access to their culture or religion. Those policies were effective in decreasing cultural practices, with some generations of Native Peoples avoiding their culture out of fear of the consequences, either legally or socially. Today, some tribal nations restrict access to certain cultural resources or events, making traditional participation difficult for those who are not enrolled. Additionally, because many cultural events and ceremonies occur on reservations, individuals living away from their tribal nation may struggle to engage with their community. Thus, while enculturation benefits Native Peoples, achieving a high level of enculturation may be challenging for some. Since a major aspect of enculturation is participation in activities within a person's tribal community, individuals with higher levels of enculturation may also possess higher levels of belonging regardless of their enrollment status. Being actively involved in one's tribal community can lead to feeling comfortable in that environment, social connections, and meaningful relationships, which are all important factors of belonging.

Existential Isolation: To further explore how enrollment, enculturation, and tribal belonging may be related to well-being, we also added an exploratory variable of existential isolation (EI): the sense that others do not share one’s subjective experiences (Helm et al., 2024).

All humans must cope with our existential reality of being separated from others in such a way that it is difficult, if not impossible, to know whether our own phenomenological experiences match those of others. However, individuals can become mindful of this existential situation, leading to experiencing a subjective sense of existential isolation (Helm et al., 2024). Thus, people may feel existentially isolated when they feel that they are alone in their perceptions and experiences. Researchers have also identified that individuals with nonnormative group status in the US have displayed significantly higher levels of EI than normative group members (Pinel et al., 2022). Nonnormative group members are much less likely to see their experiences and perspectives reflected in the world around them and in US culture. Since Native Peoples are largely erased from modern society or represented in a way that leaves us "frozen in time," or portrayed only in historical contexts (Leavitt et al., 2015), it stands to reason that Native Peoples experience some levels of existential isolation. Additionally, Native Peoples who are not enrolled members of their tribe are potentially experiencing higher levels of existential isolation than enrolled tribal members. Not being an enrolled tribal member may lead to some feeling as though they are isolated from other members of their community due to the difference in legal status. That isolation could lead them to feel that others in their community do not share or understand their experiences within their shared community.

The history of Indian blood quantum and how it has been forced onto Native communities to determine tribal identity and who belongs to a tribe is the inspiration for our research questions. Is enrollment status negatively associated with feelings of belonging for not-enrolled Native Peoples? Is this relationship mitigated by enculturation?

Hypothesis: Due to the access to material and cultural resources that tribal membership grants, we predicted that individuals who qualify for tribal enrollment will have higher overall

feelings of tribal belonging compared to individuals who do not qualify for enrollment. However, we hypothesize that this relationship will be attenuated by enculturation such that individuals who do not qualify for enrollment but are high in enculturation will also report higher feelings of belonging that could have been fostered through the community engagement that is required for a Native person to practice and foster a connection to their tribe's culture. Lastly, individuals who do not qualify for enrollment and are low in enculturation will report the lowest feelings of tribal belonging (see Figure 1 for the theoretically tested model).

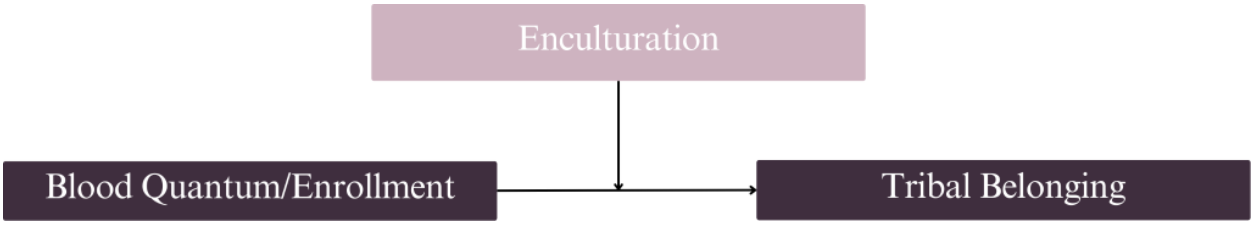

Figure 1. *Theoretical model*

Methods

We recruited 304 self-identified Native Peoples to participate in the study. Participants were recruited using a variety of methods. We started by taking advantage of the relatively small participant pool on the online platform Prolific. To widen our recruitment, we hired individuals to post recruitment flyers in various non-reservation cities (Seattle, WA, Tucson, AZ, La Grande, OR, etc.) and small border towns near reservations (Spokane Tribe Reservation and Navajo Nation Reservation). We focused on hanging flyers in locations that we knew would be more likely to attract Native Peoples, such as cultural centers and Native non-profit organizations. We also advertised the study through several Indigenous studies-focused email listservs such as the Society for Indian Psychologists. Snowball sampling was also used; the researchers also advertised the study on their personal social media accounts (Facebook and Instagram) to recruit participants through their personal social network. Participants recruited through Prolific (n =

250) were directly compensated for their time through the platform. Participants recruited through the other forms of advertising (n = 119) were entered into a drawing for the chance to win one of forty twenty-dollar gift cards that will be distributed through the service Tango. Participants completed a 15-minute survey through the online survey platform Qualtrics. The survey included questions on four measures: tribal belonging, enculturation, blood quantum, existential isolation, and demographic questions. All data analyses were conducted using SPSS.

Existential Isolation: To measure the extent to which participants felt like their experiences do not match the experiences of others, we used the Existential Isolation scale developed by Pinel and colleagues (2017). The scale includes 6 items (α = .83), such as "people do not share my perspective", and 4 items were reverse-scored so that higher scores indicated higher levels of existential isolation. Participants indicated how much they agreed with each item using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Tribal Belonging: To measure feelings of belonging in tribal communities, we used the iBelong scale developed by Lee and Neville (2024). The scale measures Racial/Ethnic/Cultural (REC) belonging operationalized as a deeply personal sense of "home" or return to kinship among one's REC group. We modified the scale to better fit this study by replacing the term "REC group" with "Tribe". As previously mentioned, we also removed the self-definition sub-scale due to the unique legal status of Native Peoples; an individual cannot always define what it means to be a tribal or community member. Our version of the scale consists of 20 items (α = .82), 5 items for each of the 4 dimensions of REC/Tribal belonging, authenticity (I am free to be myself with members of my Tribe) (α = .92), connection (I have similar experiences to others in my Tribe) (α = .84), home (I feel close to other members of my Tribe) (α = .90), and Tribal thriving (I am proud to be a member of my Tribe) (α = .89). Participants responded to the items

using a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items were presented in a random order.

Enculturation: To measure how connected participants are with their tribe's culture, we used the enculturation scale created by Winterowd and colleagues (2008). The enculturation scale consists of 16 items ($\alpha = .93$) that ask participants how often they participate in activities like making Native art, speaking a Native language, cooking Native food, and attending pow-wows or social dances. Respondents answered using a Likert scale ranging from 1 (*Not at all*) to 7 (*All of the time*). The items were presented in a randomized order.

	Table 1: *Blood Quantum Scale Items*
	Quantitative Items
1.	Does your tribe use blood quantum as enrollment criteria?
2.	What is the minimum blood quantum to enroll in your tribe? (for example 1/8, 1/4)
3.	Do you Qualify for enrollment based on that blood quantum criterion?
4.	Are you an enrolled member of your tribe?
5.	What is your Indian blood quantum? (for example 1/8, 1/4)
	Qualitative Items
6.	Do you think that blood quantum and enrollment is a common conversation in your Tribes politics and community?
7.	Does the concept of blood quantum directly influence your life and your rights within your tribe?
8.	Does your blood quantum have an impact on your identity as a Native American? Or how other people view your identity?

Blood Quantum: The blood quantum measure included five quantitative items and three qualitative open-ended items created by the researchers (see Table 1). The quantitative items provided us with the necessary information to group participants based on their enrollment status (enrolled, not enrolled, not enrolled but eligible). Participants were also asked if their tribe uses

blood quantum as an enrollment criterion so that we could filter out individuals from tribes that use other criteria (e.g., lineage) for certain analyses. The qualitative questions allowed participants to express their thoughts and feelings about blood quantum and enrollment in a more open manner without the restriction of having to select from pre-determined options. These will be used for qualitative analysis in future studies.

Results

Participant Demographics: 369 total participants were recruited for this study; however, 12 had to be removed for completing the survey in less than one minute (a rough estimate of the minimum amount of time it would take to complete the study while paying attention), 16 were removed for completing less than 50% of the survey, 2 were removed for indicating that they were below the age of 18, and lastly 35 participants were removed for not selecting Native American/American Indian when asked for their race, leaving 304 participants for analyses. Out of the remaining 304 Native participants, when asked to indicate what race(s) they consider themselves to be, 182 also identified as White or Caucasian, 10 identified as Black or African American, 4 identified as Asian, 5 identified as Native Hawaiian or other Pacific Islander, and 18 also selected other. When asked to describe their gender, 92 participants selected man, 189 selected woman, 9 selected non-binary/third-gender, 8 selected two-spirit, 6 chose to self-describe, and 7 participants are missing data. Participants' ages ranged from 18 to 71, with a mean of 35.29. When asked where they currently live, 24 participants indicated they live on a tribal reservation, 166 indicated they live in a city, 47 lived in a small town not next to a

reservation, 30 lived in a small town that is next to a reservation, and 37 lived in a rural area.

Tribe and Blood Quantum: Participants were asked what tribe they most identify with or descend from. Approximately 132 total tribal nations and identities were represented. When participants were asked if their tribe uses blood quantum, 177 selected yes, 70 selected no, and 57 selected unsure. When asked if participants qualify for enrollment based on blood quantum, 227 selected yes, 39 selected no, and 36 selected unsure. Participants were asked if they were enrolled members of their tribe, 201 indicated yes, 48 indicating no, and 54 indicating that they were not enrolled but eligible to enroll.

Preliminary Analyses: Data were examined for outliers by standardizing the main study variables (tribal belonging, enculturation, existential isolation), flagging any with $|z| > 3$. For tribal belonging, one case reached $z = -3.68$; inspection affirmed the value was accurate. We

Table 2. *Correlation Matrix of all Continuous Study Variables*

		Liberalism-Conservatism	Enculturation	Tribal Belonging	Existential Isolation
Liberalism-Conservatism	Pearson Correlation	1	.122	.026	-.040
	Sig. (2-tailed)		.074	.662	.496
	N	303	216	291	297
Enculturation	Pearson Correlation	.122	1	.570**	-.282**
	Sig. (2-tailed)	.074		<.001	<.001
	N	216	216	214	216
Tribal Belonging	Pearson Correlation	.026	.570**	1	-.423**
	Sig. (2-tailed)	.662	<.001		<.001
	N	291	214	292	289
Existential Isolation	Pearson Correlation	-.040	-.282**	-.423**	1
	Sig. (2-tailed)	.496	<.001	<.001	
	N	297	216	289	298

**. Correlation is significant at the 0.01 level (2-tailed).

then re-ran the primary analyses both with and without this case. The results were substantively unchanged; regression coefficients, p-values, and R^2 remained stable, so the original value was retained. For all other analyses in this paper, we used non-standardized variables to better reflect the variable scales and raw participant scores. We conducted several analyses to determine if there were any differences in the results when using standardized vs non-standardized variables and found no significant differences.

Correlations: An exploratory bivariate correlation was conducted using all continuous study variables: Liberalism-Conservatism, Enculturation, Tribal Belonging, and Existential Isolation (see Table 2 for the Correlation Matrix). Liberalism-Conservatism was not significantly correlated with any other variables. Enculturation was significantly positively correlated with tribal belonging, $r(212) = .57$, $p < .001$, indicating that as enculturation increases, so do feelings of tribal belonging. Enculturation was also negatively significantly correlated with existential isolation $r(214) = -.28$, $p < .001$, indicating that as enculturation increased, feelings of existential isolation decreased. Lastly, existential isolation was also negatively significantly correlated with tribal belonging $r(287) = -.42$, $p <.001$, indicating that as feelings of tribal belonging increase feelings of existential isolation decrease.

Main Analyses: Using Model 1 in the PROCESS macro in SPSS, we conducted a moderation analysis to test the main hypothesis that not being an enrolled tribal member has a negative association with tribal belonging, with enculturation moderating that relationship. Specifically, we tested a model in which enculturation ($M = 2.6$, $SD = .87$) was entered as the moderator W variable, enrollment status as the X variable, and tribal belonging ($M = 5.31$, $SD = .90$) as the Y variable (see figure 2). Enculturation was positively significantly associated with tribal belonging ($F(5, 208) = 22.58$, $p < .001$), and the strength of this association was

significantly stronger for participants who are not enrolled than enrolled participants (β = 0.38, SE = 0.15, t(208) = 2.50, p = .013). However, there was no significant interaction between enrolled participants and not enrolled but eligible participants (β = 0.22, SE = 0.16, t(208) = 1.35, p = .18).

Although the main analysis was consistent with the hypothesis, in which higher enculturation scores predicted higher levels of tribal belonging, however, only one interaction was significant with the relationship being significantly stronger for not enrolled participants than enrolled participants. There was no significant difference between enrolled participants and eligible but not enrolled participants. To investigate this further, we conducted additional analyses to attempt to better understand the complex relationships between enrollment status, enculturation, and belonging. Participants who did not fit cleanly into either category of being enrolled or not, but rather indicated that they were eligible for enrollment, but not enrolled, could have a more complicated and nuanced relationship with their tribal community. There are many

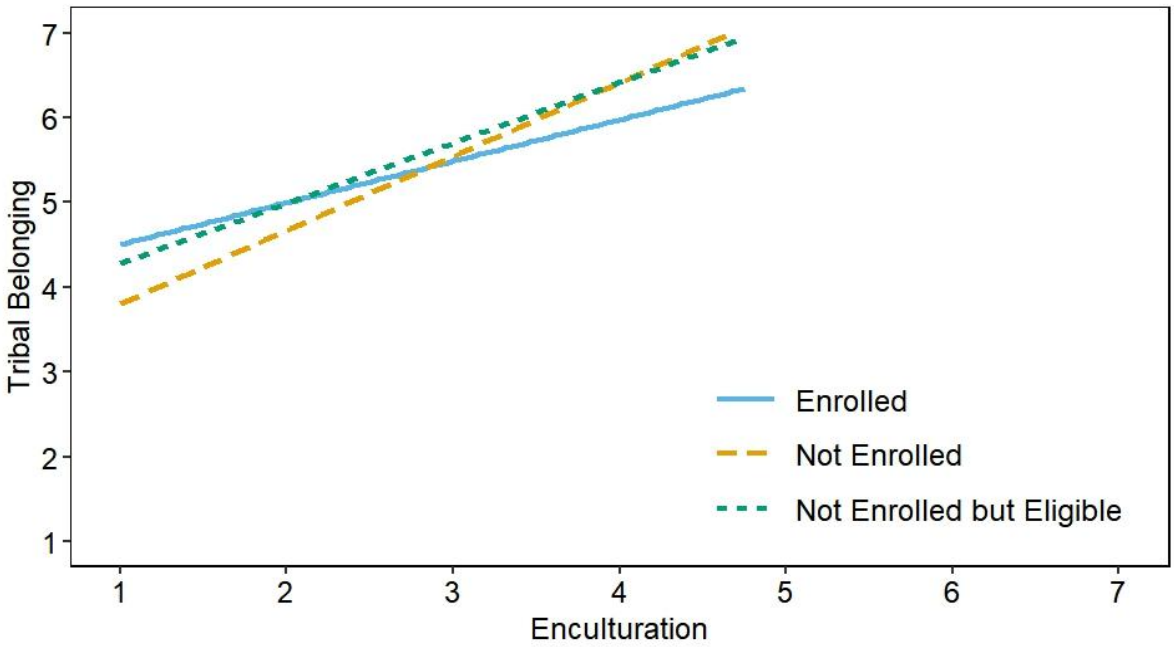

Figure 2. *Moderation analyses testing the influence of enculturation on the relationship between enrollment status and tribal belonging.*

potential reasons why an individual might be eligible to enroll in their tribe but have never completed the process. As previously discussed, there are structural barriers that can prevent an individual from enrolling in their tribe, even if they do meet the basic requirements. Experiencing those barriers may lead individuals in this position to have a more complicated relationship with their tribe than individuals who have a more clearly defined status (enrolled vs. not enrolled). However, not enrolling despite one's eligibility could indicate that one's Native identity is not a strong aspect of their self-concept. For these reasons, we see it as likely that this group (eligible but not enrolled) is more heterogeneous than the other two groups and thus less readily interpretable. Due to the complicated nature of those in the not-enrolled but eligible category, we ran several analyses excluding that group in order to directly compare those who are enrolled to those who are not enrolled and not eligible. We conducted the same moderation analyses to test the hypothesis that enrollment status will have a significant association with tribal belonging, with the relationship being moderated by enculturation. After simplifying the analysis to compare only the two groups (enrolled vs not enrolled), we found another significant positive relationship between tribal belonging and enculturation; however, this relationship was moderated by enrollment status ($F(3, 169) = 28.75$, $p = .015$). As seen in Figure 3, as enculturation scores increase, so do feelings of tribal belonging; however, consistent with the previous model, enculturation plays a significantly stronger role for not enrolled members' feelings of belonging ($\beta = 0.38$, $SE = 0.15$, $t(165) = 2.46$, $p = .015$).

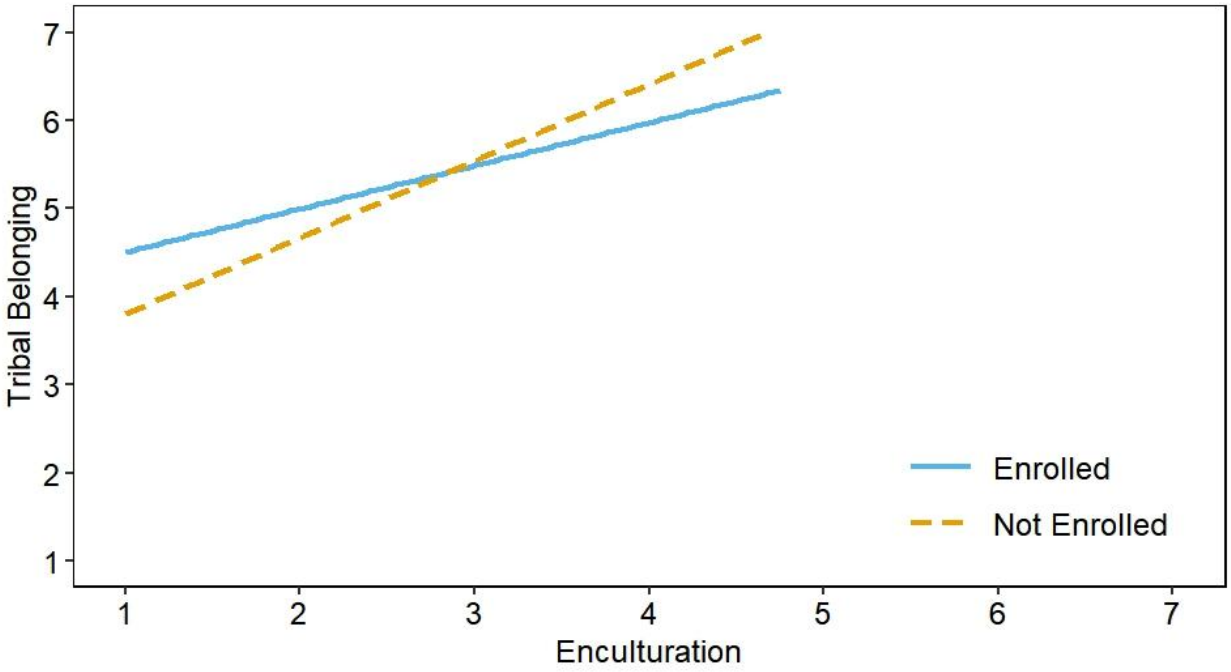

Figure 3. *Moderation analyses testing the influence of enculturation on the relationship between enrollment status (enrolled vs not enrolled) and tribal belonging.*

Exploratory Analyses: *Residence*: Theoretically, it would be easier for a Native person to enculturate themselves in their Native community if they lived on or near the reservation in which their community is based. To explore this potential association, we conducted several analyses to investigate how a Native Person's current area of residence and proximity to a tribal reservation are associated with enculturation and tribal belonging. Participant residence (reservation, city, small town not next to a reservation, small town next to a reservation, or rural area) had a significant association with enculturation ($F(4, 211) = 3.66$, $p = .007$) (see figure 4). Specifically, Tukey's HSD test for multiple comparisons found that enculturation scores were significantly higher for those living on a reservation than for individuals living in a city ($p = .02$, 95% C.I. = .07, 1.32) and participants living in a small town not next to a reservation ($p = .02$, 95% C.I. = .08, 1.49).

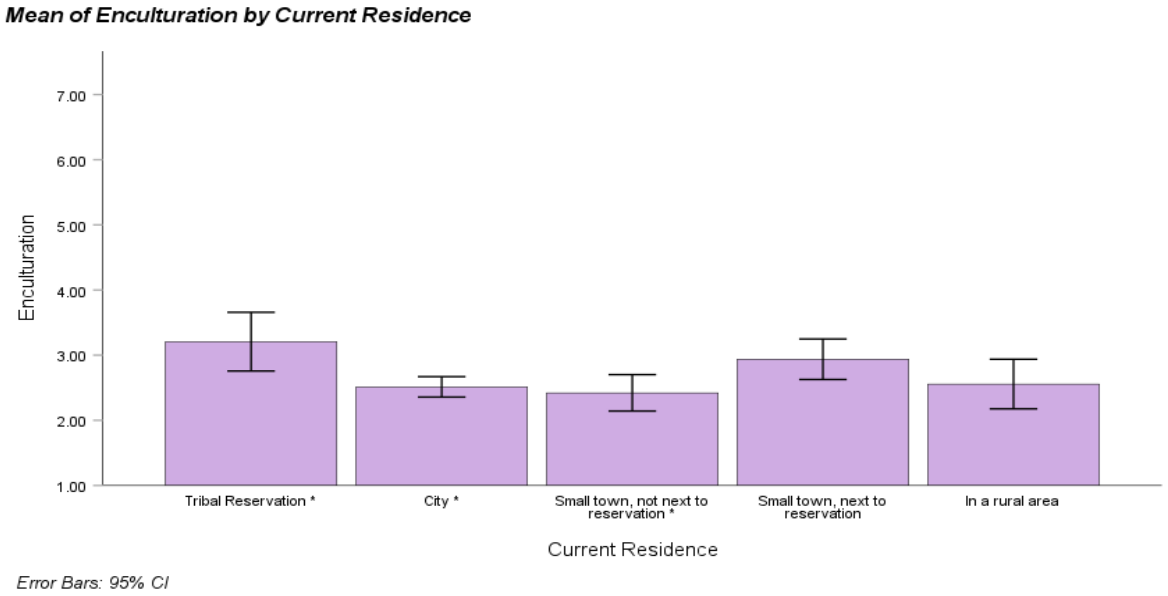

Figure 4. *Mean enculturation scores by participants' current residence*

Participant residence was also significantly associated with tribal belonging ($F(4, 287) = 2.96$, $p = .02$) (Figure 5). Specifically, participants living on a reservation had significantly higher tribal belonging scores than those living in a city ($p = .03$, 95% C.I. = .04, 1.11).

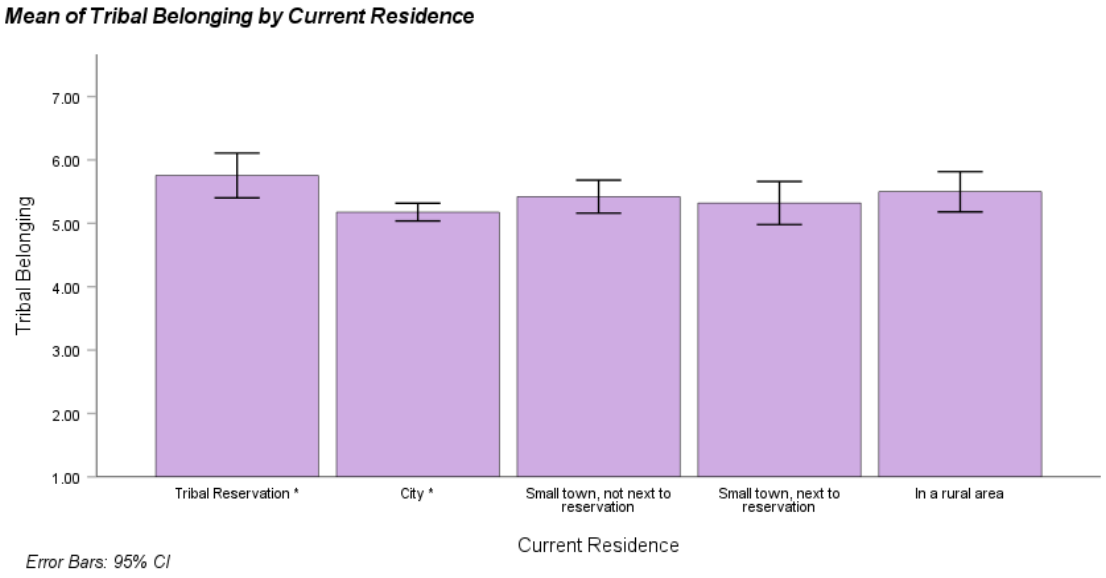

Figure 5. *Mean tribal belonging scores by participants' current residence*

Existential Isolation: A simple linear regression was conducted to examine the relationship between existential isolation and enculturation. We found a significant negative relationship between existential isolation and enculturation scores such that as participants' enculturation increases, levels of existential isolation decrease ($F(1, 214) = 18.48$, $p < .001$).

Another simple linear regression identified the same pattern between existential isolation and tribal belonging. We found another significant negative relationship such that as participants' rates of tribal belonging increased, rates of existential isolation decreased ($F(1, 287) = 62.567$, $p < .001$).

We conducted another moderation analysis using Model 1 in the PROCESS macro in SPSS. To test if enrollment status has an association with existential isolation, with enculturation moderating that relationship. Specifically, we tested a model in which enculturation ($M = 2.6$, $SD = .87$) was entered as the moderator W variable, enrollment status as the X variable, and tribal belonging ($M = 5.31$, $SD = .90$) as the Y variable. Enculturation was again positively significantly associated with tribal belonging ($F(5, 210) = 4.33$, $p < .001$). However, there was no significant interaction between enrolled and not enrolled participants ($\beta = -.30$, $SE = .20$, $t(204) = -1.51$, $p = .13$) or between enrolled and not enrolled but eligible participants ($\beta = .09$, $SE = .22$, $t(204) = .40$, $p = .69$). Indicating that enrollment status does not have a significant influence on the tested model.

Discussion

The present study sought to test the hypothesis that Indian blood quantum and tribal enrollment status are negatively linked to feelings of tribal belonging for Native Peoples, with enculturation levels moderating that association. To investigate, we recruited 304 Native Peoples using a variety of methods to complete a survey measuring tribal belonging, enculturation, tribal

enrollment status, blood quantum, and existential isolation as an exploratory measure. Initial analyses revealed that enculturation has a significant positive association with tribal belonging. There was a significant difference between participants based on enrollment status when including all three enrollment status groups (enrolled, not enrolled, and not enrolled but eligible) and when limiting analyses to compare only those who are enrolled or not enrolled and not eligible. In both models, enculturation plays a more significant role in developing feelings of tribal belonging for not enrolled participants than enrolled participants. This indicates that, as predicted, enculturation plays a critical role in fostering feelings of belonging for Native Peoples who are not enrolled members of their tribe. These findings contribute to the existing body of research demonstrating the positive impact of enculturation on Native Peoples' emotional well-being, specifically, through fostering feelings of belonging. While more research still needs to be done, these findings have the potential to help create interventions to improve Native Peoples' well-being. Enculturation and belonging have separately demonstrated to have a positive influence on general emotional well-being (Allen et al., 2021; LaFromboise et al., 2006). The present study has now demonstrated the link between enculturation and belonging; that link can be utilized in interventions meant to improve Native Peoples' well-being by creating inclusive environments to give all Native Peoples an opportunity to enculturate themselves and develop feelings of belonging in a Native community.

This study also revealed novel findings on how tribal enrollment and membership psychologically influence Native Peoples and how they feel amongst their tribal communities. This initial study showed significant differences in the belonging and enculturation scores of participants who were enrolled vs not enrolled. Not-enrolled participants appeared to rely more on enculturation to foster feelings of belonging than enrolled participants. These findings

demonstrate one negative side effect of enrollment status in Native communities. However, there could be other ways that a lack of tribal membership affects a Native person psychologically, such as identity, self-concept, or self-esteem. This relationship should be further explored in future studies.

Analyses also revealed that a participant's current area of residence has a significant correlation with tribal belonging and enculturation, such that those living on a reservation have significantly higher tribal belonging and enculturation scores than participants living in a city. This is likely due to the proximity that these participants have to a Native community and cultural events that take place on reservations. These findings indicate that creating Native communities and spaces in urban areas could be beneficial for the emotional well-being and feelings of belonging of Native Peoples living in cities. In addition to the potential value and positive effects of clubs, organizations, and events for Native People attending college and living in cities.

These findings also indicate that participants' current area of residence may have a larger impact on tribal belonging than we had anticipated when recruiting participants. A majority of participants were living in a city (n = 113) at the time they completed the survey. This variable and the uneven distribution of participants' residences could be affecting the results of other analyses examining tribal belonging. Future research should further investigate the connection between proximity to a reservation and an individual's ability to enculturate.

Next Steps

Due to the uneven distribution of participants by enrollment status and current residence, we are continuing recruitment to achieve a more balanced sample of the target population. After the survey recruitment is complete, we will conduct the same analyses of the quantitative data

that were discussed in this paper and analyze the qualitative data to better understand participant views of blood quantum, tribal enrollment, belonging, and enculturation that we were unable to capture through quantitative survey items. The qualitative data will help us create interview questions so that we can conduct interviews and focus groups with Native participants. Individual interviews will provide us with valuable insights into how Native people think, feel, and are affected by blood quantum requirements. These are insights that we would not be able to capture through survey questions or quantitative data. Results and themes identified in these interviews will provide us with a framework on how to conduct focus groups. Focus groups will allow us to analyze how blood quantum and enrollment are discussed in a community-type setting, providing insights into how people are having these conversations amongst peers. Building on insights from the initial studies, future research will explore the potential relationship between blood quantum, tribal enrollment, and Native Peoples' identity.

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