



Acculturation in Sports Nutrition

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Introduction:

- Sports acculturation is a complex and dynamic process that can be influenced by the athletes' cultural background/upbringing, acculturative stress, and the dominant culture^[11]
- The intersectionality of social identity, as collegiate athletes, can also impact the way in which they assimilate^[21]
- Current literature shows minimal information about cultural diets for sports enhancement

Objective:

To understand the interplay between cultural, ethnic, and athletic identity, and how this may affect food choices in Mexican American collegiate athletes

Background:

California's Youth & Outdoor Activities^[3]

- Ethnic/Racial Makeup:
- Hispanic/Latinx (47%), White alone (31%), Black or African American alone (10%), and Asian alone (8%)

NCAA 2021-2022 School Year^[16]

- Ethnic/Racial Makeup:
- Strength and conditioning coaches (78%), registered dietitian nurse (80%)^[4], head coaches (84%), athletic directors (84%), and athletic trainers (89%) are non-Hispanic/Latinx White

- There will be more Hispanic/Latinx athletes at the youth, high school and college sports^[11]

Hypothesis: We hypothesize that Mexican American student-athletes will perceive a lack of representation of traditional and cultural foods in sports nutrition dietary disconnection from their heritage

Review of Literature:

Hispanic/Latinx Population

- Cultural values consist of Latinx such as *familismo* (familism)^[16], cooperation^[6], *respeto* (respect)^[12], *machismo* (strong, masculine pride)^[4]
- Expressions such as "*si Dios quiere*" (God willing)^[15], "*echale ganas*" (make your best efforts), and "*ponte las pilas*" (get to work) encourage tough mentality

Athletic Identity

- New athletic identity may be formed and may lead to a disconnect from their heritage and cultural identity^[17]
- Overly salient athletic identity is linked to burnout, stress, depression, isolation, disordered eating, and decreased performance^{[10][17][18]}
- "No pain, no gain" and silencing emotion are common strategies for coping with physical and emotional pain^[2]

Nutrition

- Should be sufficient to provide the demands of training and performance, aid in injury prevention, and support recovery and overall health.
- Common for athletes to find misleading information on sports enhancement diets on popular blogs and social media platforms
- Pressure to assimilate to an athletic culture may also result in a loss of traditional dietary practices, as athletes may prioritize the latest dietary trends over their cultural food practices

Figures

Figure 1. The conceptual framework of acculturation^[1]

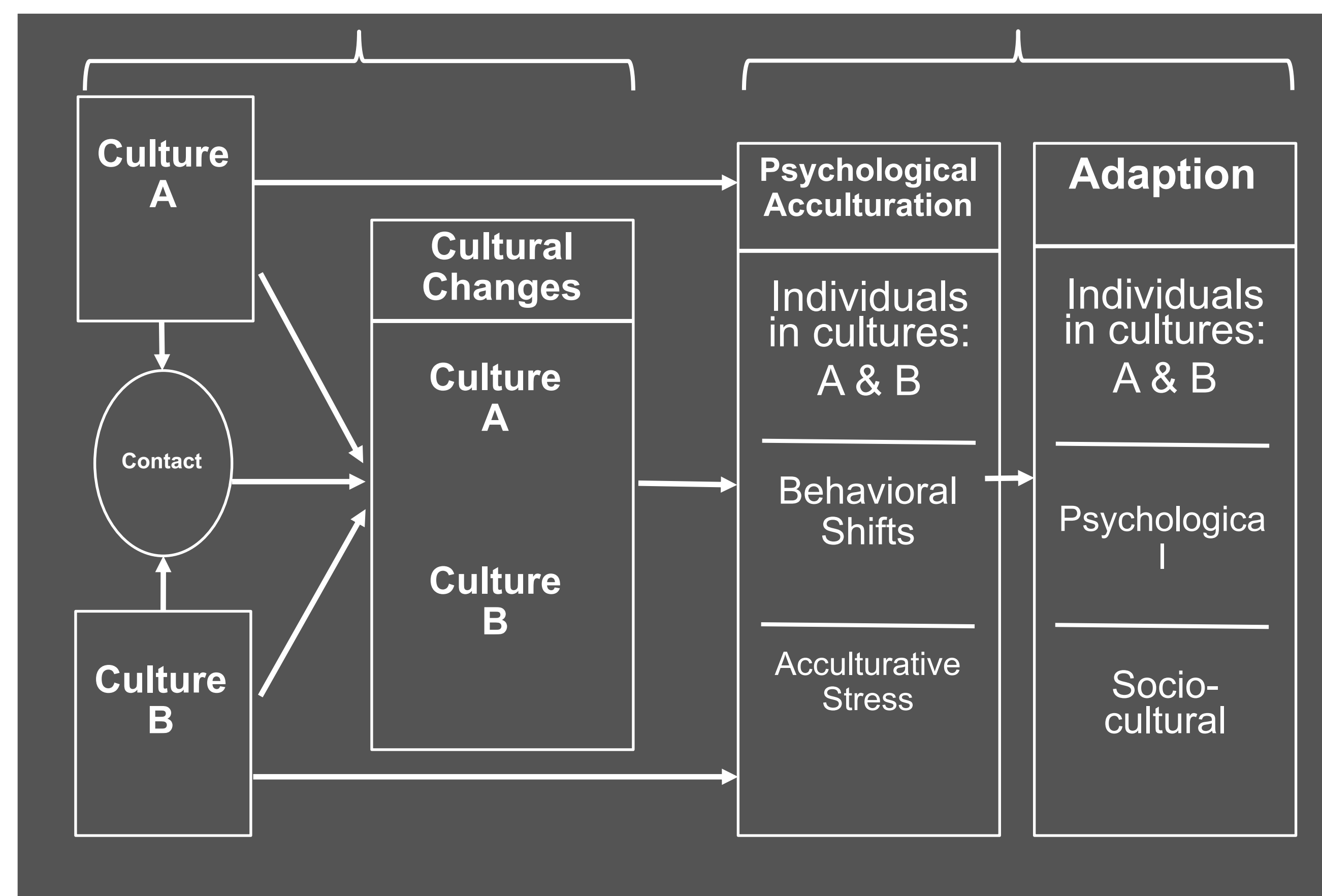
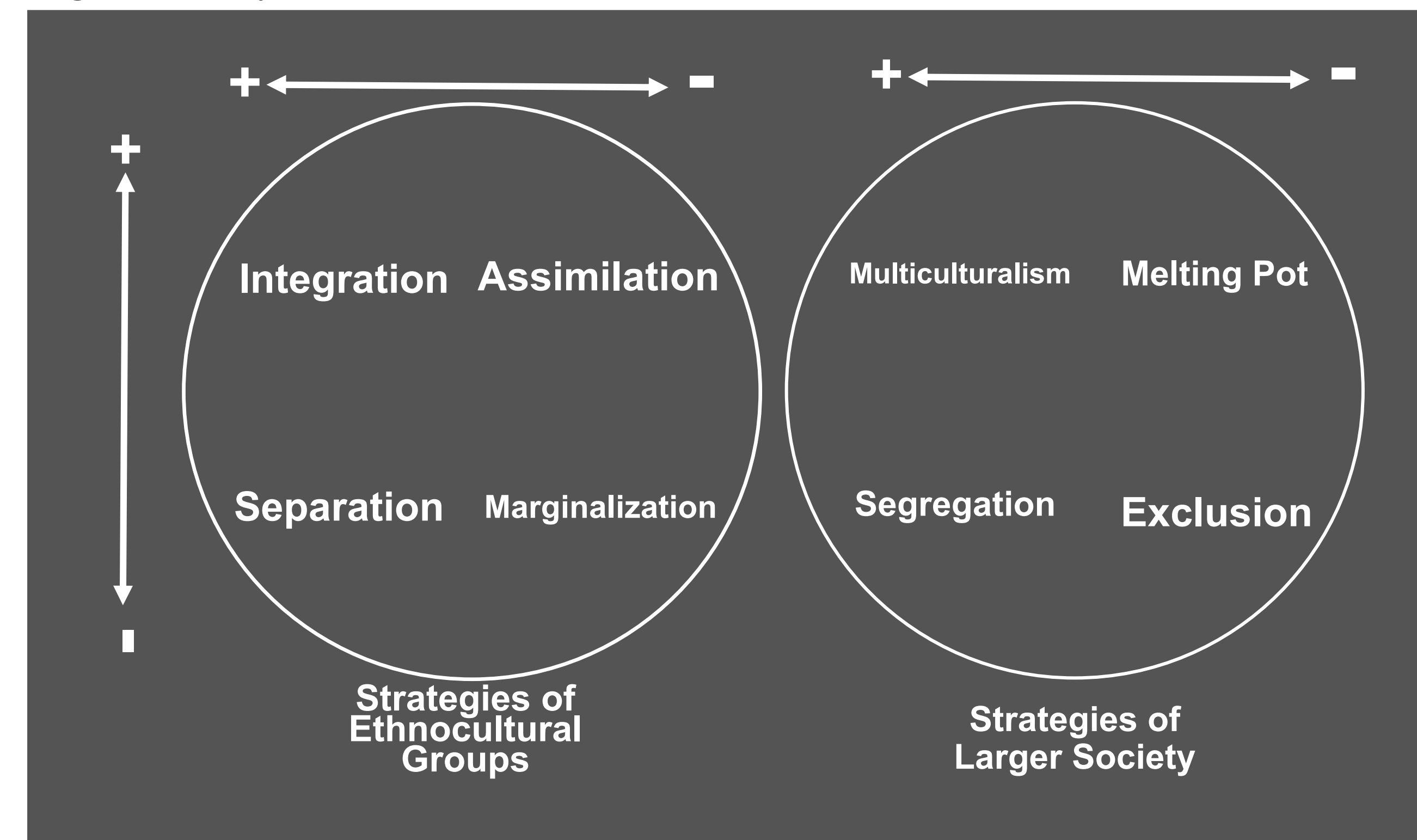


Figure 2. Berry's Acculturation Model^[1]



Standard American^[9]

Red meat,
Ultra-processed, pre-packed
Fried foods,
Sugar,
High in fat
Extremely low:
whole grains,
vegetables,
legumes, & healthy fats

Traditional Mexican Diet^[8]

Beans,
Meat, Lard,
Citrus fruit,
Corn-based w/chilies,
Higher in: fiber,
Whole grains,
Fruits,
Vegetables
Dietary/soluble/insoluble fiber

Sports Enhancement^[5]

Egg whites,
Fruit smoothies,
Protein smoothie,
Low-fat chocolate milk,
Chicken, rice, & broccoli,
Vegetarian burrito,
Vanilla yogurts with fruit & honey,
Pasta with marinara sauce

Figure 3. Differences between Traditional Mexican Diet, Standard American Diet, and Sports enhancement recommendations

Methods:

Population and Sampling

- **Inclusion Requirements:** NCAA Division II athletes, aged 18 to 30 years old
- Self-administered by the participants in their own environment without any time using the Qualtrics software^[23]
- Intended sample size of 132^[7] participants will be used to assess the relationships between acculturation, ethnic identity, athletic identity, and food choices

Research Design/Collection Data

- **Procedures:** Survey questions will be drawn from Stephenson Multigroup Acculturation Scale (SMAS)^[20],
- Multigroup Ethnic Identity Measurement (MEIM)^[14],
- Athletic Identity Measurement Scale (AIMS)^[2],
- The Athlete Food Choice Questionnaire (AFCQ)^[22]
- Supplementary data collection on demographic and source of nutritional advice

Statistical Analysis

- **It depends!** Since data has not yet been collected, a regression linear model or a general linear model: mixed model ANOVA

Citations:

- Berry, J. W. (2009). A critique of critical acculturation. *International Journal of Intercultural Relations*, 33(5), 361-371.
- Brewer, B. W., Van Raate, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International journal of sport psychology*.
- California's Youth and Outdoor Activities. Public Policy Institute of California. Retrieved April 18, 2023, from https://www.ppic.org/wp-content/uploads/content/pubs/PU17F_YouthActivities17F.pdf
- Cañas, J. M., & Pylak, S. D. (1995). Hispanic identity development: Implications for research and practice.
- Demographics. Commission on Dietetic Registration. Retrieved April 24, 2023 from <https://www.ednet.org/academy-commission-on-dietetic-registration-demographics>
- Dunford, M., Doyle, J. A., & Kilian, L. (2022). *Nutrition for sport and exercise*. Cengage.
- Durán, R. P. (1992). Clinical assessment of instructional performance in cooperative learning.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Gwynn, E. R., & Gwynn, D. (1993). Food and Dietary Adaptation among Hispanics in the. *Handbook of Hispanic cultures in the United States: anthropology*, 339.
- Halton, T. L., Willett, W. C., Liu, S., Manson, J. E., Stampfer, M. J., & Hu, F. B., (2006). "Potato and french fry consumption and risk of type 2 diabetes in women". *The American Journal of Clinical Nutrition*, 83 (2): 284-90.
- Jones, N., Marks, R., Ramirez, R., & Rios-Vargas, M. (2022, June 10). 2020 census illuminates racial and ethnic composition of the country. *Census.gov*. Retrieved November 18, 2022, from <https://www.census.gov/library/stories/2022/06/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial.html>
- Kontos, A. P., & Breland-Noble, A. M. (2002). Racial/ethnic diversity in applied sport psychology: A multicultural introduction to working with athletes of color. *The Sport Psychologist*, 16(3), 298-315.
- Marrin, G. (1992). Issues in the measurement of acculturation among Hispanics.
- NCAA Demographics Database. NCAA.org. Retrieved January 28, 2023, from <https://www.ncaa.org/sports/2019/12/13/ncaa-demographics-database.aspx>
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of adolescent research*, 7(2), 156-176.
- Rosales, R., & Calvo, R. (2017). "Si Dios Quiere": Fatalismo and use of mental health services among Latinos with a history of depression. *Social work in health care*, 56(8), 748-764.
- Sabogal, F., Marin, G., Otero-Sabogal, R., Marin, B. V., & Perez-Stable, E. J. (1987). Hispanic familism and acculturation: What changes and what doesn't? *Hispanic journal of behavioral sciences*, 9(4), 397-412.
- Schinke, R. J., McGannon, K. R., Betscho, R. C., & Wells, G. D. (2013). Acculturation in elite sport: A thematic analysis of immigrant athletes and coaches. *Journal of sports sciences*, 31(15), 1676-1686.
- Schinke, R. J., Blodgett, A. T., McGannon, K. R., & Ge, Y. (2016). Finding one's footing on foreign soil: A composite vignette of elite athletes acculturation. *Psychology of Sport and Exercise*, 25, 36-43.
- Steinfeldt, J. A., Reed, C., & Cline Steinfeldt, M. (2010). Racial and athletic identity of African American football players at historically black colleges and universities and predominantly white institutions. *Journal of Black Psychology*, 36(1), 3-24.
- Stephenson, M. (2000). Development and validation of the Stephenson Multigroup Acculturation Scale (SMAS). *Psychological assessment*, 12(1), 77.
- Tibbert, S. J., Andersen, M. B., & Morris, T. (2015). What a difference a "Mentally Toughening" year makes: The acculturation of a rookie. *Psychology of Sport and Exercise*, 17, 68-76.
- Thurecht, R. L., & Pelly, F. E. (2019). Development of a new tool for managing performance nutrition: The Athlete Food Choice Questionnaire. *International journal of sport nutrition and exercise metabolism*, 29(6), 620-627.
- Qualtrics. (2020). Qualtrics.com. (Version April 2023). Qualtrics. <https://qualtrics.com>