

# Culture and Achievement Motivation in Latino and Anglo American High School Students in the USA

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# Abstract

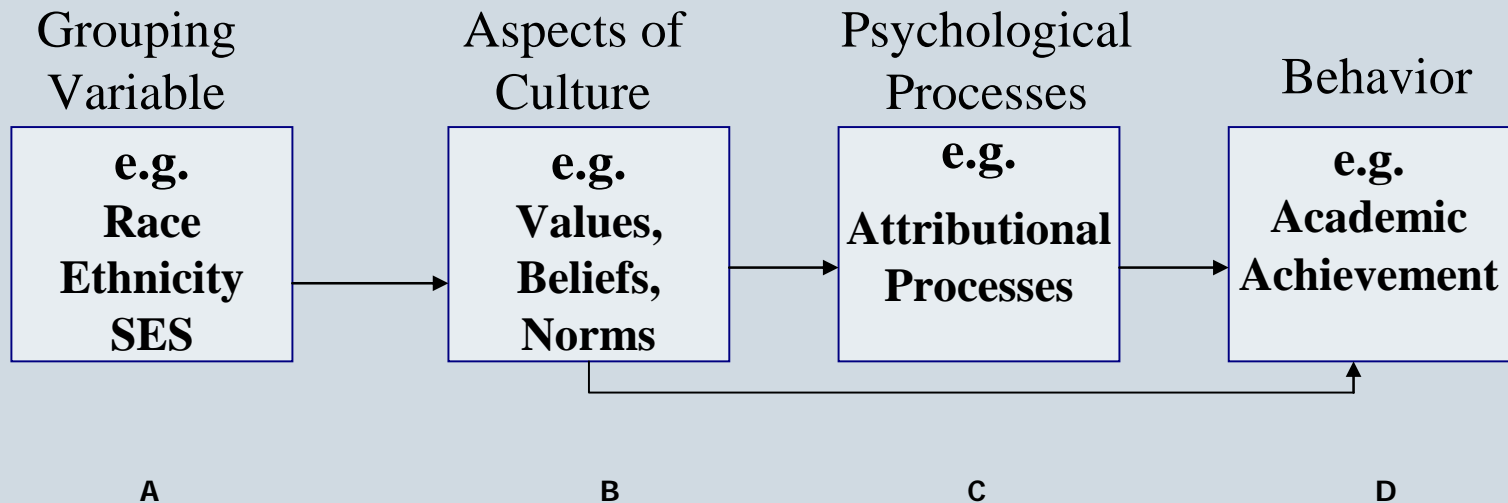
The purpose of this research was to investigate the role of socio-economic and cultural factors that may contribute to motivational factors and academic achievement in Latino American and Anglo American high school students in California, USA. A theoretical model for the study of culture was used to examine the proposed relations among socio-economic status and fatalistic cultural value orientations as determinants of stability of causal attributions for academic failure and student achievement. As hypothesized, findings supported the proposed effect of socio-economic status and fatalistic cultural value orientation on academic achievement through the mediating role of attributional processes. Results are discussed in terms of suggesting a viable place for intervention by demonstrating that aspects of socio-economic status, culture and attributions contribute to the academic achievement of Latino and Anglo American high school students in the USA.

# Rationale

- An academic achievement gap exists among Latino and Anglo American high school students in the U.S.
  - Latino students perform more poorly in high school than any other minority group in the U.S.<sup>1</sup>
  - They also have the highest high school dropout rate in the U.S.<sup>2</sup>
- The gap between Latino and Anglo American students in academic achievement is further complicated by the increase of Latinos in the U.S.
  - By 2015 Latinos will comprise 37% of the population in California<sup>3</sup>
- Research regarding ethnic differences in academic achievement often attributes these differences to broad grouping variables such as race or ethnicity<sup>4</sup>
  - This may lead to stereotyping, labeling, discrimination etc.
- When culture is defined in terms of psychologically relevant elements, such as roles and values, it becomes amenable to measurement and the relationship between cultural elements, psychological phenomenon, and behavior can be assessed<sup>4,5,6</sup>

# A Model for the Study of Culture

→ *From more distal to more proximal determinants of behavior* →



- Based on the model used in this research, grouping variables (A) are considered to be sources of variation in the aspects of culture (B) which in turn influence behavior (D) both directly and indirectly through psychological processes (C) <sup>7</sup>

- We need to examine how culture and what it is about culture that influences those processes as determinants of behavior

# Socio-Economic Status

- In addition to ethnicity, there are other factors such as SES, associated or overlapping with but not necessarily a part of ethnicity or race, which are a source of cultural variation and are likely to have an effect on motivation and achievement
- Socio-economic status (income, education and occupation) has been found to influence motivation and achievement
  - Some research suggests that SES is the most powerful contributor to student's educational outcomes<sup>8</sup>
  - Latinos are overrepresented in low SES
    - 21% of the Latino American population live in poverty<sup>1</sup>
    - 33% of Latinos in the U.S. have no health insurance<sup>1</sup>
- The overlap of ethnicity and SES may result in misattributing to ethnicity what is in fact a consequence of SES<sup>4</sup>

# Cultural Value Orientations

- Recent studies have demonstrated that variations in cultural value orientations affect many aspects of behavior
  - **Fatalism**: a value orientation described as being subjugated to nature and the belief that there is little one can do to alter fate<sup>9</sup>
    - Fatalism is a function of grouping categories such as socio-economic status and ethnicity
      - Research suggests that fatalism is a function of income, education, and occupation<sup>10</sup>
      - Latinos have been found to have higher levels of fatalism compared to Anglos<sup>11</sup>
    - Fatalism has been shown to influence medical treatment adherence and cancer screening behaviors among Anglo and Latino populations<sup>12,13</sup>
    - Fatalistic value orientation may be influencing achievement in Latinos

# Attribution Theory of Motivation

- Culture has been found to have an effect on the attributional process and behavior<sup>5,6,14</sup>
- **Attribution Theory of Motivation**- the success or failure of a task is determined by the expectancy of success. Expectancy of success is the subjective likelihood of attaining a goal and is largely dependent on the perceived causal reasons (or attributions) for past success or failures on similar tasks<sup>15</sup>
  - **Causal Stability**: the extent outcomes are attributed to stable or unstable causes
    - If students perceive the causes for failure to be stable, they are also more likely to have lower expectations for future success which is likely to impact their academic achievement
  - **Fatalism and Stability Attributions**:
    - Since fatalism has to do with the perception that life events are inevitable, it is likely that a fatalistic cultural value orientation will be associated with perceptions of stability for the causes of failure
      - In fact, more fatalistic Anglo and Latino women were found to endorse higher levels of stability attributions regarding the causes for not adhering to recommended breast cancer screening behaviors

# Aim and Hypothesis

## ■ Aim:

- The aim of this research was to examine the role of culture and socio-economic factors in academic performance among Anglo and Latino students, both directly and through their effect on motivation

## ■ Hypothesis:

- Fatalistic cultural value orientation and family SES would influence achievement directly and/or through their effects on attributions of stability for academic failure among Anglo and Latino high school students in the US

# Participants and Procedures

- 149 Anglo and Latino high school students from a school district in California, US
- Provided assent and parental consent
- Incentive: choice of two candy bars and snacks

	Sample Anglos & Latinos N= 149	Sample Latinos N= 93	Sample Anglos N= 56
Gender			
Male	36%	33%	39%
Female	64%	67%	61%
Year in School			
Freshman	28%	30%	23%
Sophomore	22%	18%	29%
Junior	18%	23%	11%
Senior	32%	29%	38%
Income			
<\$14,999	11%	16%	2%
\$15-24,999	13%	15%	9%
\$25-39,999	21%	29%	7%
\$40-59,999	18%	18%	18%
>\$60,000	36%	20%	60%
No Response	2%	1%	4%
Place of Birth			
US Born	86%	77%	
Foreign Born	14%	23%	
Parental Education			
No High School	32%	47%	7%
High School	25%	37%	30%
College Degree	43%	16%	63%

# Measures

## ■ Grouping Factors

- Ethnicity: students self-identified themselves as Anglo or Latino American
- Family Socioeconomic status
  - Income
  - Education
  - Occupation

## ■ Aspects of Culture

- Cultural Value Orientation: Cultural Value Orientations Scale (CVOS; Betancourt & McMillin, manuscript in preparation).
  - Fatalism
    - 12 items, 7 point Likert Scale
    - Represents a general outlook on life characterized by a belief that life events are inevitable
    - Sample item: "If something is going to happen it usually does, no matter what."
    - $\alpha = .79$

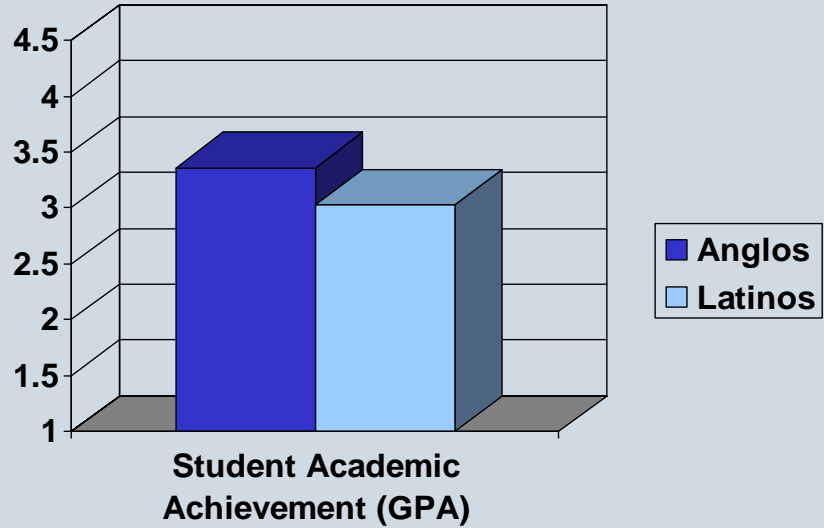
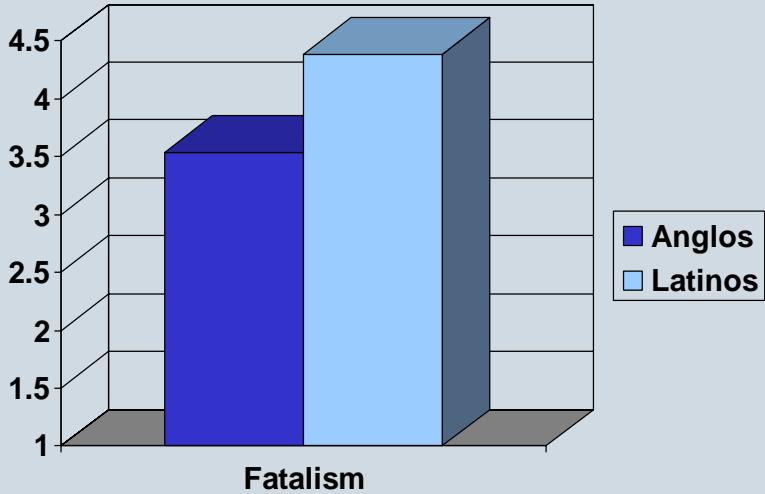
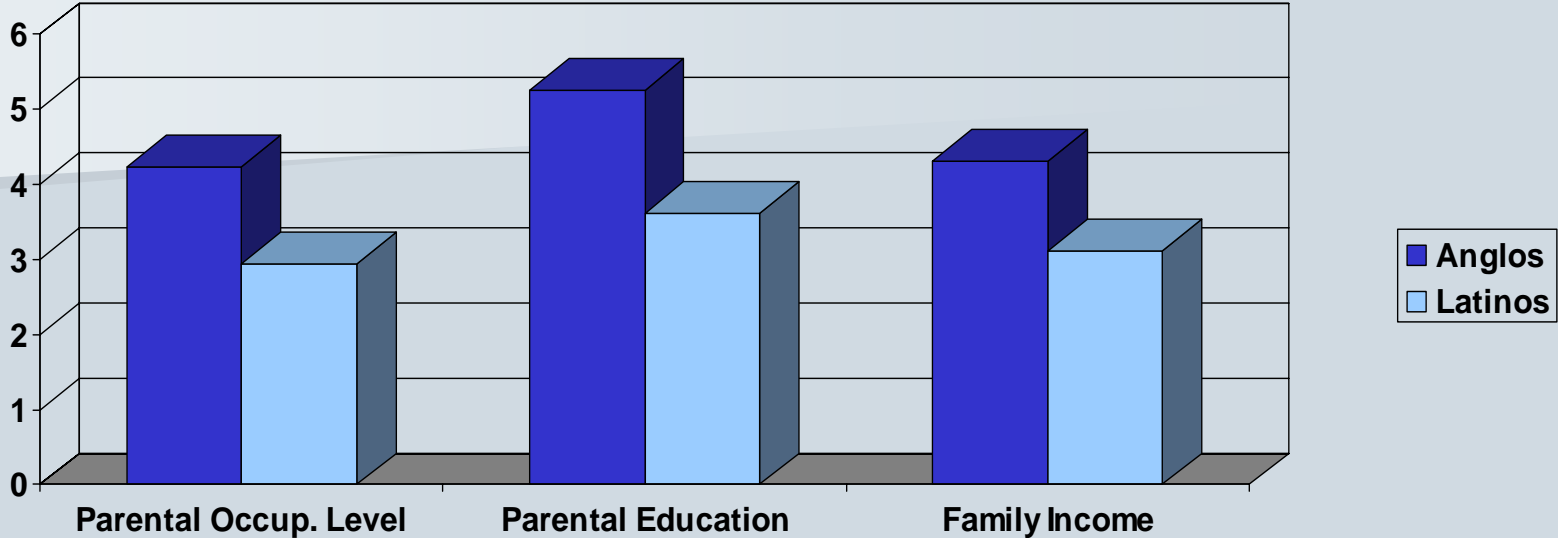
## ■ Psychological Processes

- Attributional Processes: Attribution-Emotion Scale–Individual Subscale (AES-I, Betancourt & Associates, manuscript in preparation).
  - Stability
    - 3 items, 7pt Likert Scale
    - Students were asked to think about a "real" or "hypothetical" reason for failing a test and make causal attributions of stability for their failure.
    - Sample item: "Was the cause or reason you failed the test something that changes over time?"
    - $\alpha = .69$

## ■ Behavior

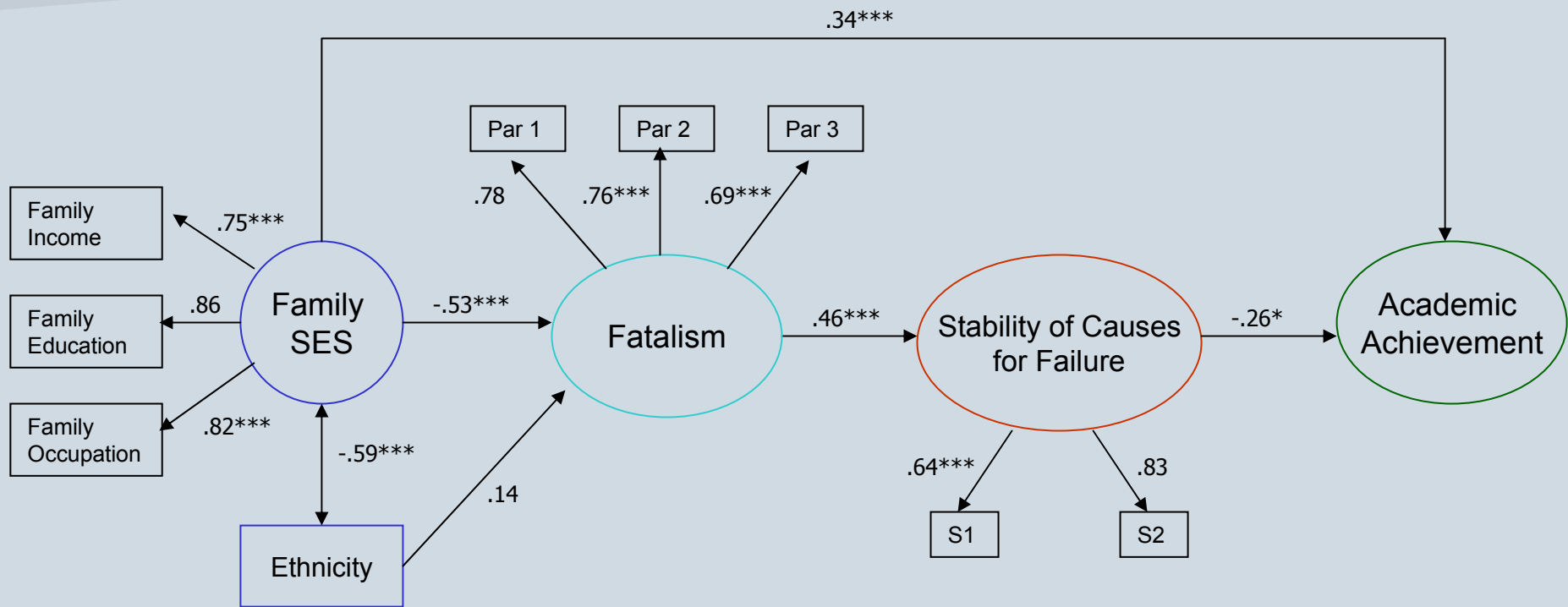
- Academic Achievement: Grade point average measured from 1.0-4.0

# Mean Scores Based on Ethnicity



# Model for the Study of Culture and Achievement among Anglo and Latino High School Students in the US

Grouping variables (A) → Aspects of Culture (B) → Psychological Processes (C) → Behavior (D)



\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

CFI = .99;  $\chi^2 (31, N = 132) = 37.39, p = .20$ ;  $\chi^2/df = 1.21$ ; RMSEA = .04; GFI = .95

# Discussion

- The most important source of variation in cultural value orientation (fatalism) which was found to influence attributions and achievement was SES and not ethnicity
  - Supports the notion that differences often attributed to ethnicity are in fact a function of SES.
- Fatalism was indirectly associated with academic achievement through mediating attributional processes (stability)
  - More fatalistic individuals were more likely to perceive the causes for failure to be stable
    - Considering that fatalism implies a sense of passivity, subjugation, or feeling that one's destiny is beyond one's control its conceptual relation to stability is clearly illustrated by the model.
- Causal stability in turn was associated with lower academic achievement
  - Causal stability for failing a test implies that the causes for failing may not be altered, which according to attribution theory is the main causal determinant of expectancy change.
    - If students believe the causes for failing a test are due to something stable (e.g. ability) then there is nothing they can do to change the cause.
    - They are more likely to stop trying and develop a sense of learned helplessness which is more likely to lead to failure in the future.

# Conclusions

## ■ Model for the Study of Culture

- This research provides empirical evidence that the study of culture is a useful framework for understanding achievement disparities among Latino and Anglo American high school students in the US.
- According to the model, culture and not ethnicity, was associated with fatalism and psychological processes of attributional thinking as determinants of academic achievement.

## ■ Intervention Efforts

- When developing intervention or educational programs for Latino high school students, it is more important to understand a student's cultural values as well as factors associated with SES (e.g. role models in the family, resources, social and economic expectations etc.) and motivational processes than it is to know their ethnicity.

## ■ Future Research

- Future research could benefit from exploring the types of role models that Anglo and Latino students associate with as these individuals may positively influence academic achievement and professional aspirations
- Future research could also explore the role of emotions and achievement aspirations in relation to the model variables as emotions have been found to be motivational in terms of behavior

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