

Investigating Cultural Variability in Nonverbal Behaviors Associated with Responding to Survey Questions

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What is behavior coding?

- The systematic coding of interviewer and respondent behavior
- It provides an objective and replicable technique for measuring what happens in a survey interview.
- Problems in comprehension and ability to provide answers can be identified from behaviors of both respondents and interviewers in consistent and interpretable ways.
- Traditionally has been based on analyses of audio recordings of interviewer-respondent interactions

Focus here: Nonverbal Behaviors

- Nonverbal communication is considered the “hidden dimension” of culture
- All cultural groups employ some forms of nonverbal communication
- Cross-cultural variability in nonverbal communication can lead to increased difficulties during survey interviews

What do we know about nonverbal behavior?

- Darwin (1872) The Expression of the Emotions in Men and Animals
 - First explored nonverbal behaviors
- Nonverbal behaviors believed to be more accessible to observers than to their producers
- Key question is the degree to which they are spontaneous vs. regulated:
 - Goffman (1959) The Presentation of Self in Everyday Life
- Hall (1959) The Silent Language
 - Nonverbal behaviors believed to be culturally patterned

Questions Being Explored

- Do nonverbal behaviors vary with types of survey questions being asked?
- Do nonverbal behaviors vary across cultural and language groups?
- Do nonverbal behaviors covary with verbal behaviors?

Data Collection

- Standardized laboratory interviews
- Questionnaire contents randomized
- Subjects recruited via RDD
- Interviews digitally audio & video recorded
- Response latencies recorded
- \$40 incentive

Race/Ethnic Groups Sampled

- African Americans (U.S.-born)
- Mexican Americans
 - Primarily English speaking
 - Primarily Spanish speaking
- Korean Americans
 - Primarily English speaking
 - Primarily Korean speaking
- Non-Hispanic whites (U.S.-born)

“Bad” Questions

Nonexistent policies or objects

Q117. *In the past 10 years, how frequently have you visited a serrerium?*

Q118. *Do you support or oppose a law to ban the import of fotams into the U.S.?*

Mismatch of question and response options

Q119. *How many times in the past 12 months have you walked to work? Much more frequently, somewhat more frequently, about the same amount, somewhat less frequently, or much less frequently?*

Q120. *Does it ever snow at the equator? Never, occasionally, sometimes, or frequently?*

“Good” Questions

Q178. How satisfied are you with your life in general? Would you say that you are pretty well satisfied, more or less satisfied, or not satisfied at all with your life in general?

Q179. Do you favor or oppose the use of the death penalty in general?

Q183. In general, how often do you pay cash for your purchases? Always, most of the time, sometimes, once in a while, or never?

Q184. How often do you pay cash when you purchase a meal at a restaurant? Always, most of the time, sometimes, once in a while, or never?

Verbal Behavior Codes Used to Identify Comprehension Problems

Clarification (unspecified): uncertainty about question, unclear if problem is related to construct or context.

Clarification (construct): request for repeat or clarification of question, or statement indicating uncertainty about question meaning

Clarification (context): uncertainty about question meaning within the context of the question as stated

Clarification (time frame): uncertainty regarding question time frame.

Clarification (rewording): rephrases question before answering.

Verbal Behavior Codes Used to Identify Mapping Problems

Clarification (response format): respondent indicates uncertainty about the format for responding.

Inadequate Answer (general): respondent gives answer that does not meet question objective.

Imprecise Response (general): respondent gives answer that only partially meets question objective (e.g. “well over 10 times,” “at least twice”).

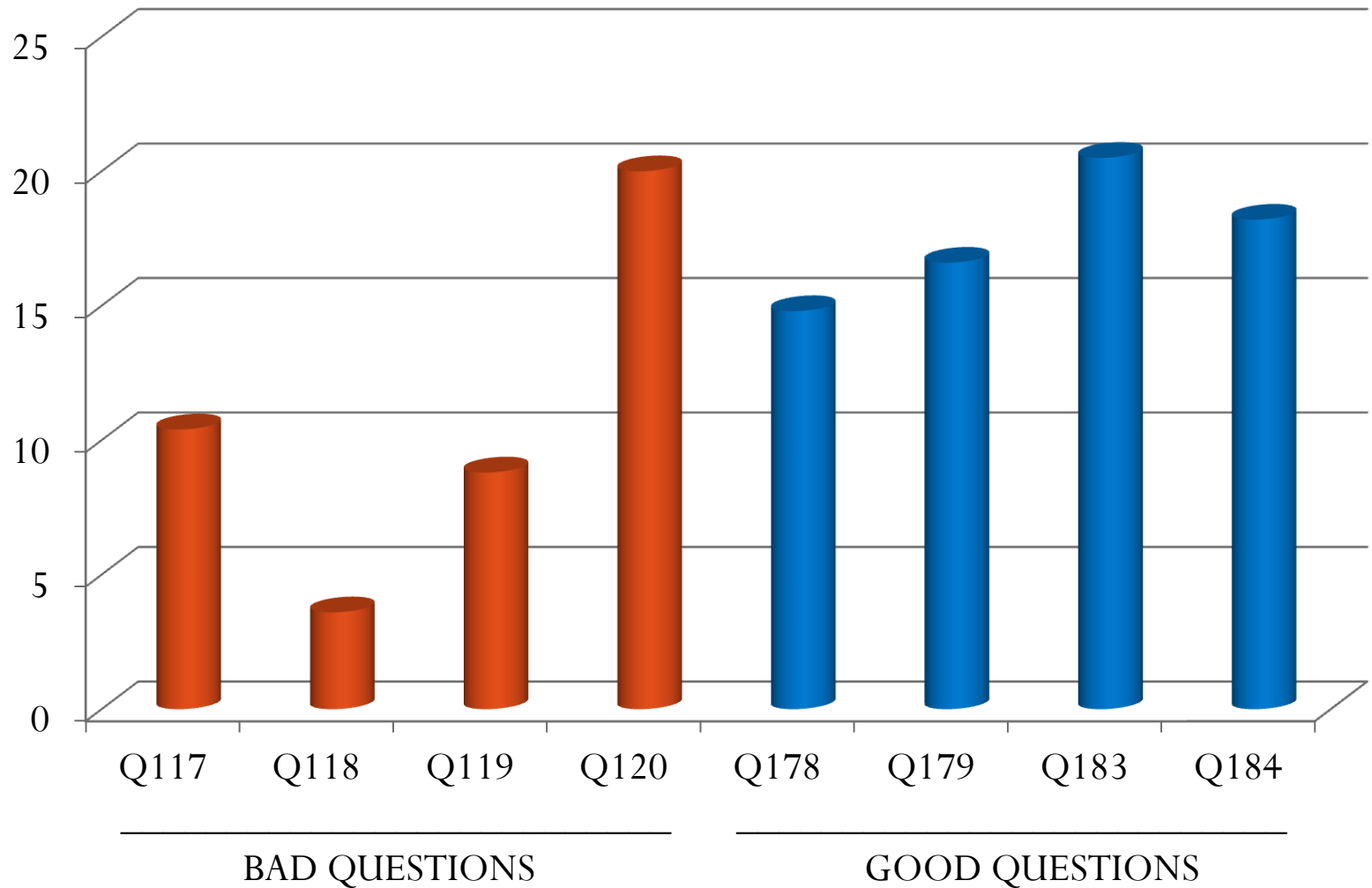
Imprecise Response (different response option): respondent gives answer that does not use the response options provided with the question (e.g. “not so good health” instead of excellent, very good, etc.)

Imprecise Response (range): respondent answers question with a range rather than a single number.

Nonverbal Behavior Codes

- <01> No changes in behavior or body/face movement
- <20> Change in body position
- <30> Body action
- <40> Self-Touching Action
- <50> Head Action
- <60> Facial Expression Change or Movement

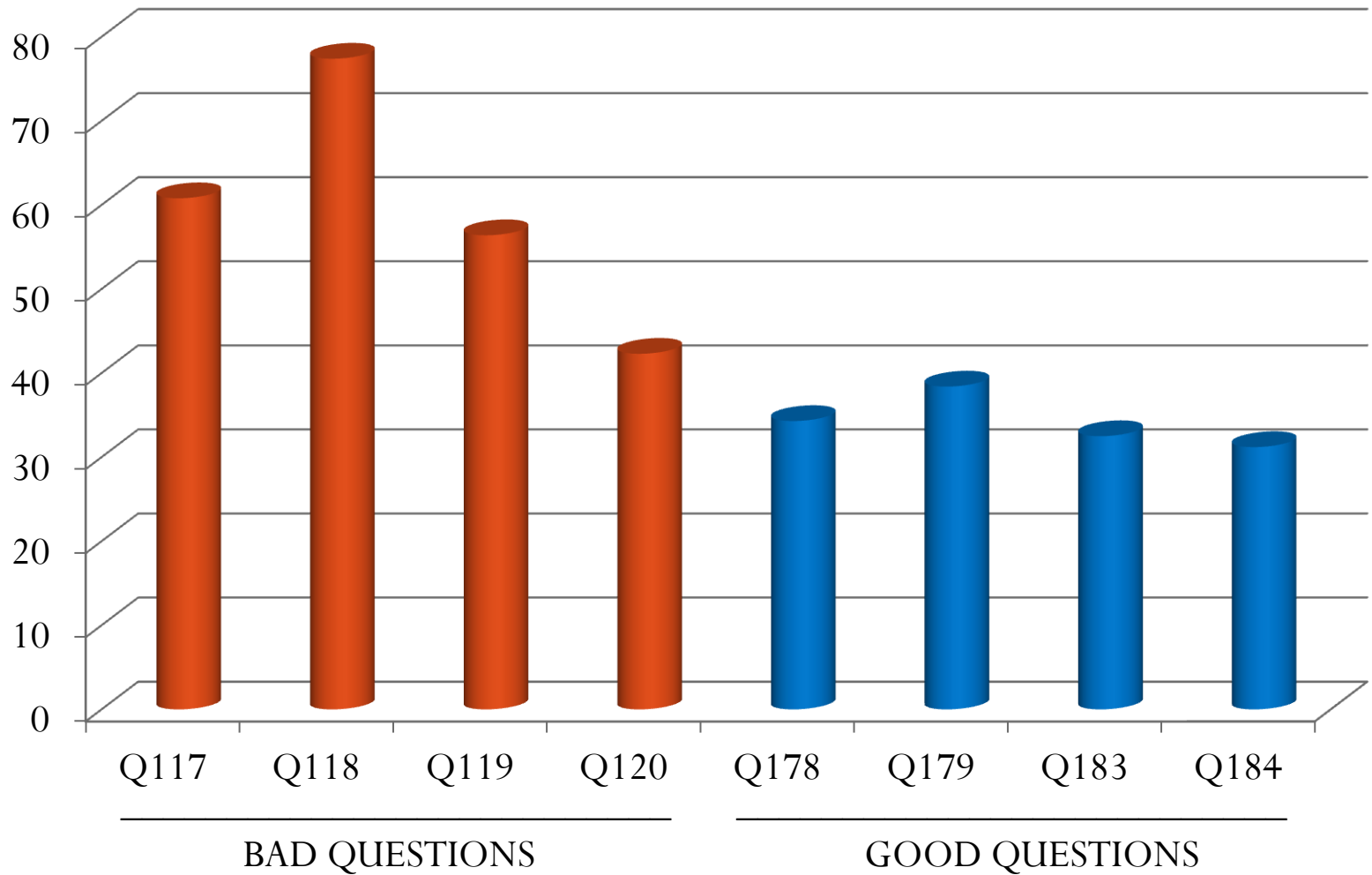
No Change in Behavior or Body/Face Movement



Facial Expression Change or Movement

- Smiling
- Frowning
- Rapid eye movement or blinking
- Rolling eyes
- Exhaling audibly after question completely read
- Inhaling audibly after question completely read
- Lip biting
- Raising eyebrows
- Furrowed brow
- Squinting or wrinkling nose
- Yawning
- Scrunches lips, or moves mouth from side to side, or to one side
- Mouthing words but not speaking

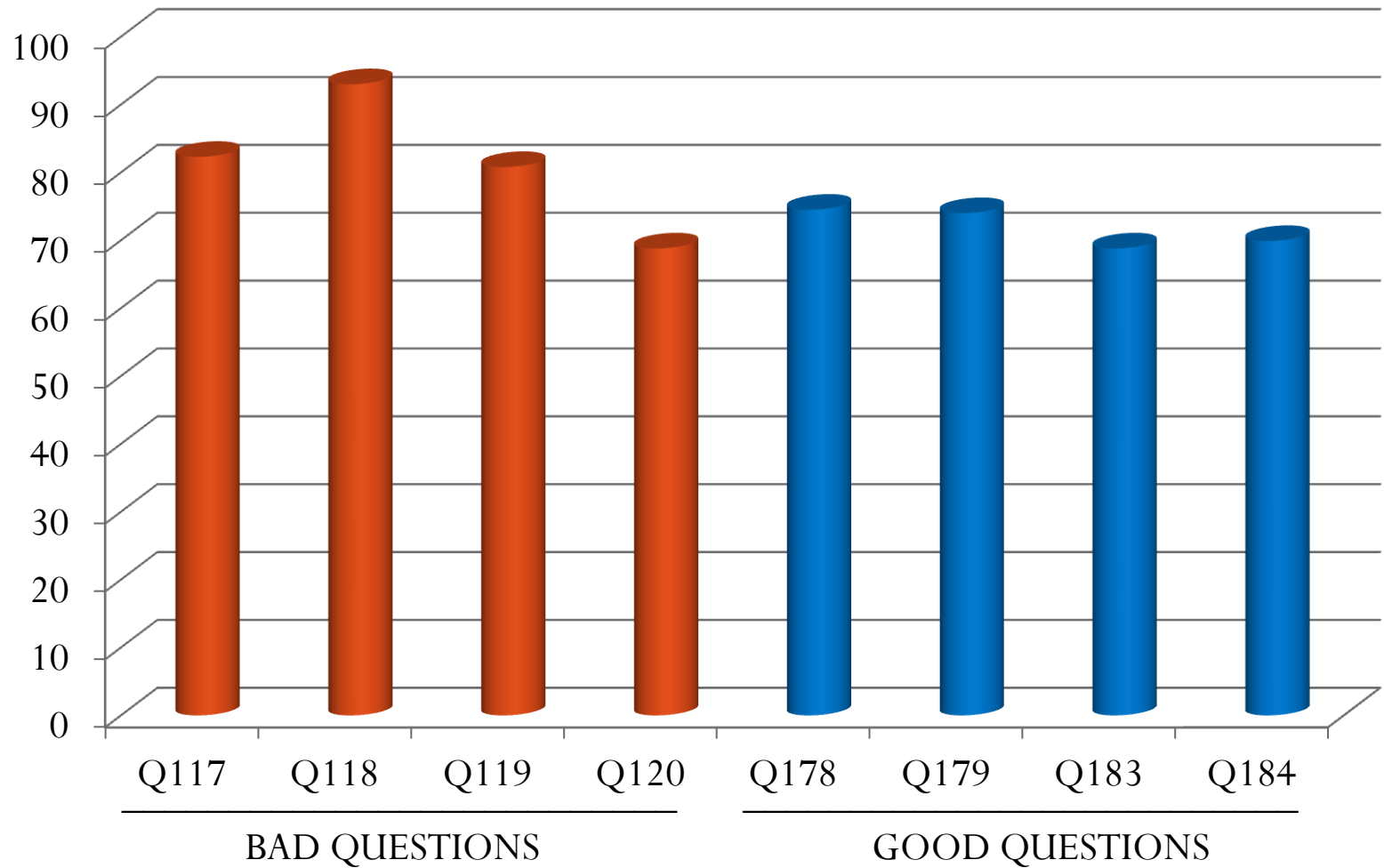
Facial Expression Change or Movement



Head Action

- Looking off to the side
- Looking down or at the floor
- Looking up
- Shaking head horizontally
- Nodding head vertically
- Tilting head
- Looking down
- Dip (chin drawn toward the chest without subsequent lift upward as a nod)
- Cocking ear, jutting chin toward, or leaning head in to interviewer while question is being read
- Combination of head movements (shaking, nodding, tilting from side to side)
- Toss (chin raise upward without subsequent dip downward like a shake)

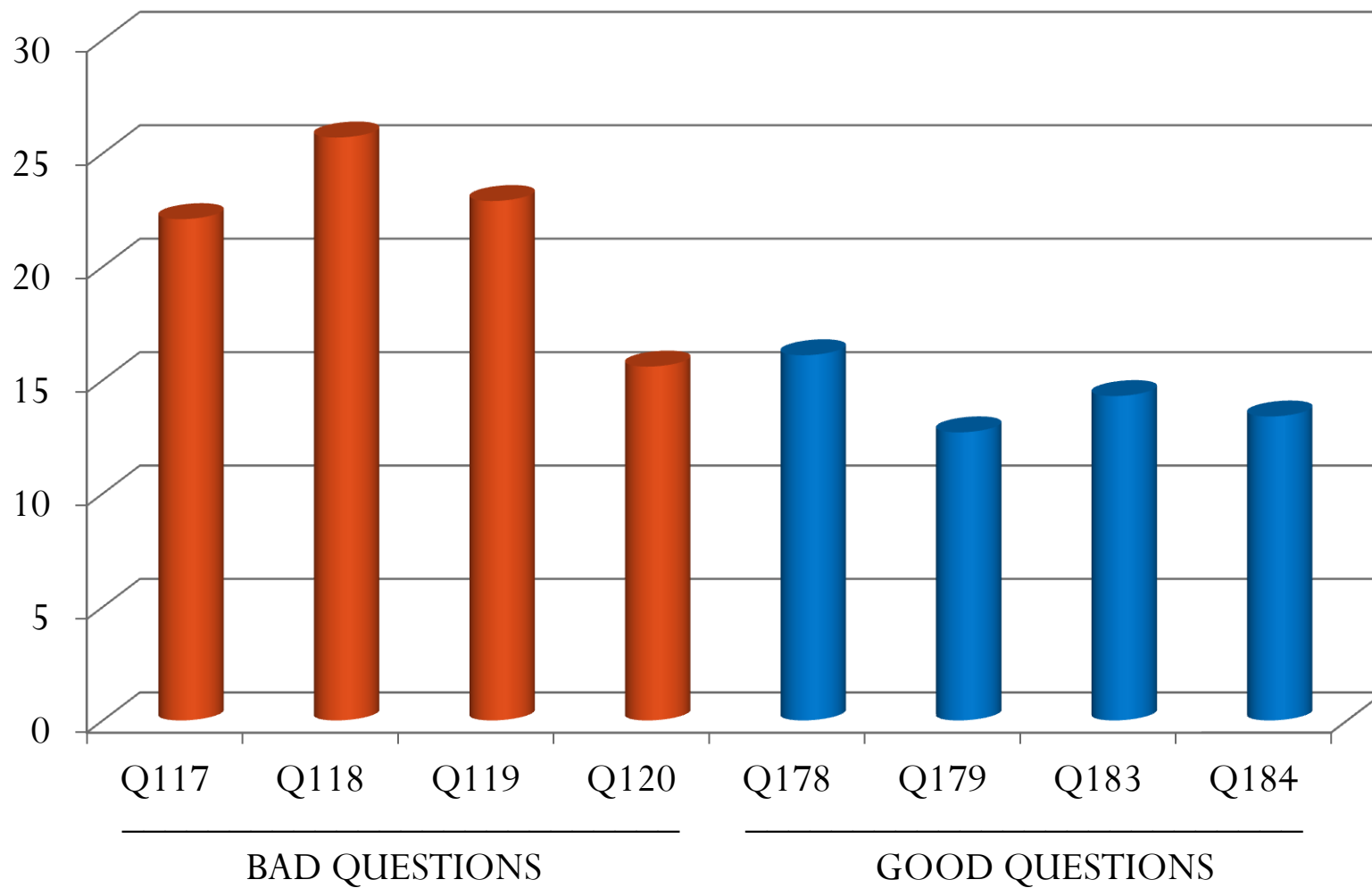
Head Action



Self-Touching Action

- Scratch, rub, tap or touch any part of head, neck, or face
- Adjusting or tugging on hair
- Adjusting or tugging on clothing; includes pushing up or adjusting glasses; taking off/putting on glasses
- Moving hand to cover mouth; includes moving hand to intentionally cover mouth (for yawn, laugh, smile, cough, sneeze, etc)
- Other self-touching behavior (e.g., scratching or rubbing leg, arm, rubbing hands together, etc)

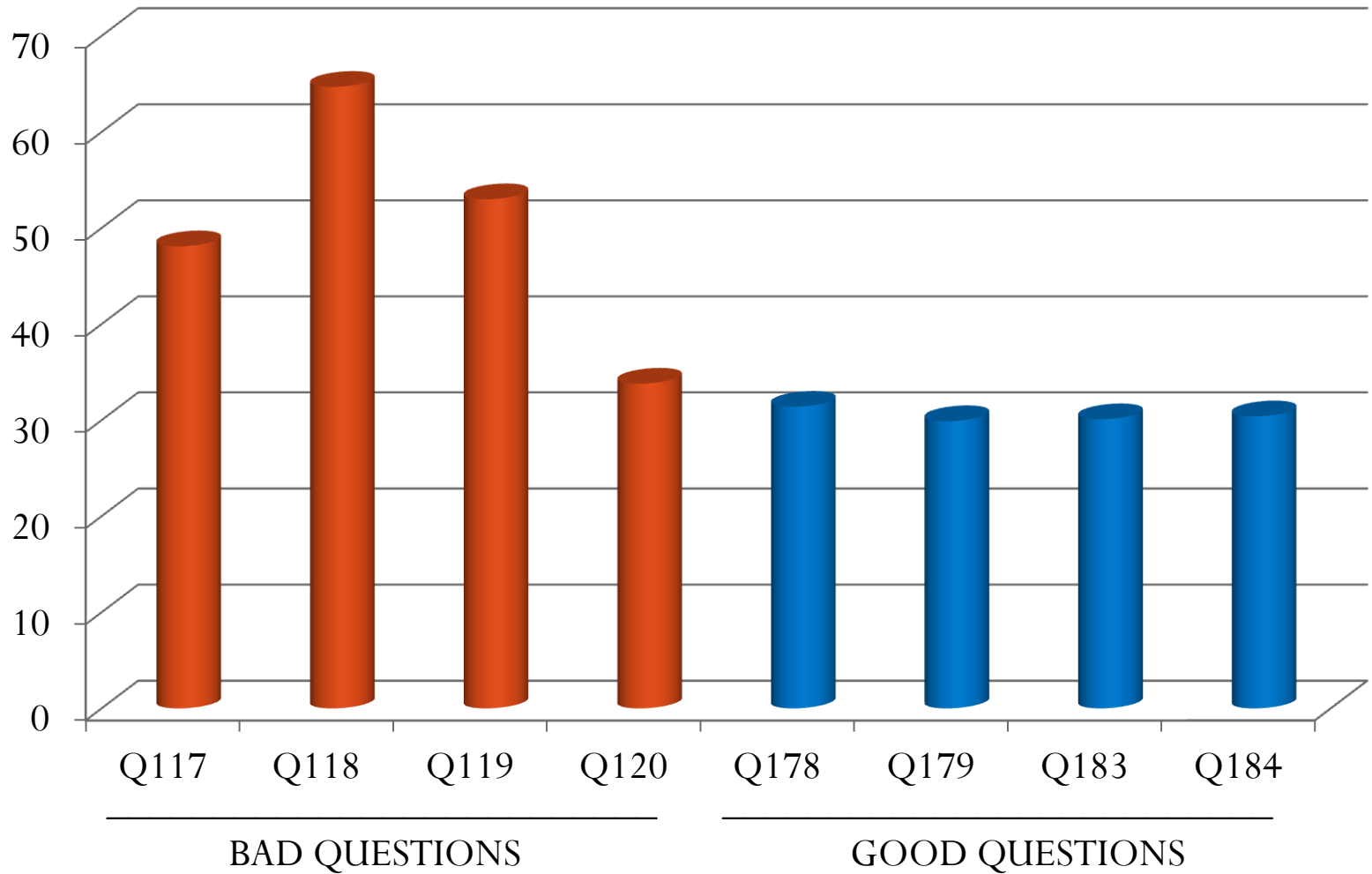
Self-Touching Action



Body Action

- Twiddling thumbs or other hand fidgeting
- Shoulder shrugging
- Thumbs-up sign
- OK sign
- Counting on fingers or other gesture that communicates nonverbal reasoning
- Throwing hands in the air
- Standing up or getting out of chair
- Object adaptors (manipulating objects that are neither part of the self nor task oriented: manipulating paper clips, taking a drink, playing with/tapping eye glasses)
- Hand motions to depict an answer (speech illustrative gestures)
- Shifting in seat (crossing/uncrossing legs)

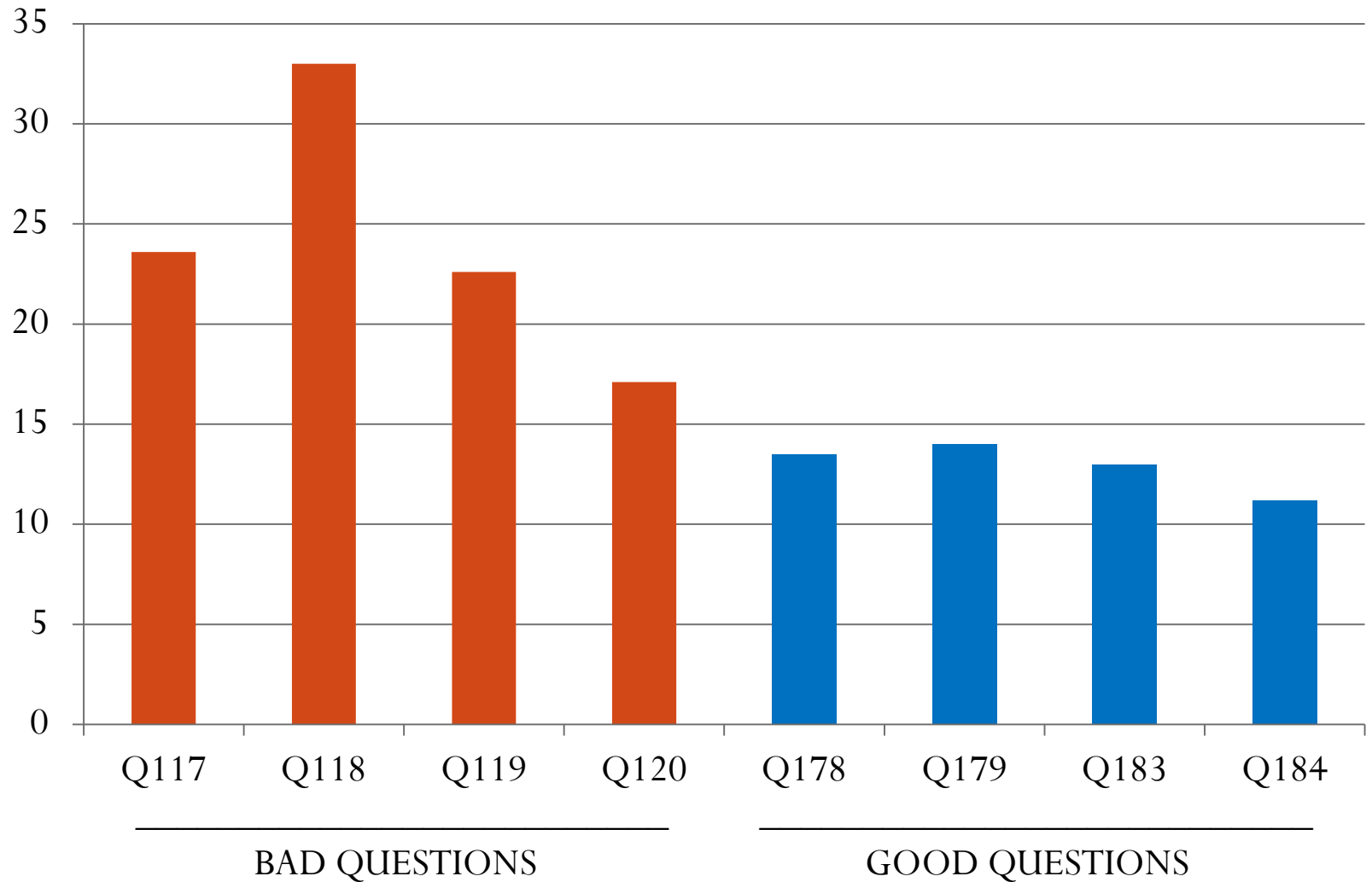
Body Action



Change in Body Position

- Head resting on one or both hands/taking hand down
- Arms folded over chest/uncrossing arms
- Arms on table
- Hands folded
- Sitting or leaning forward/back in chair

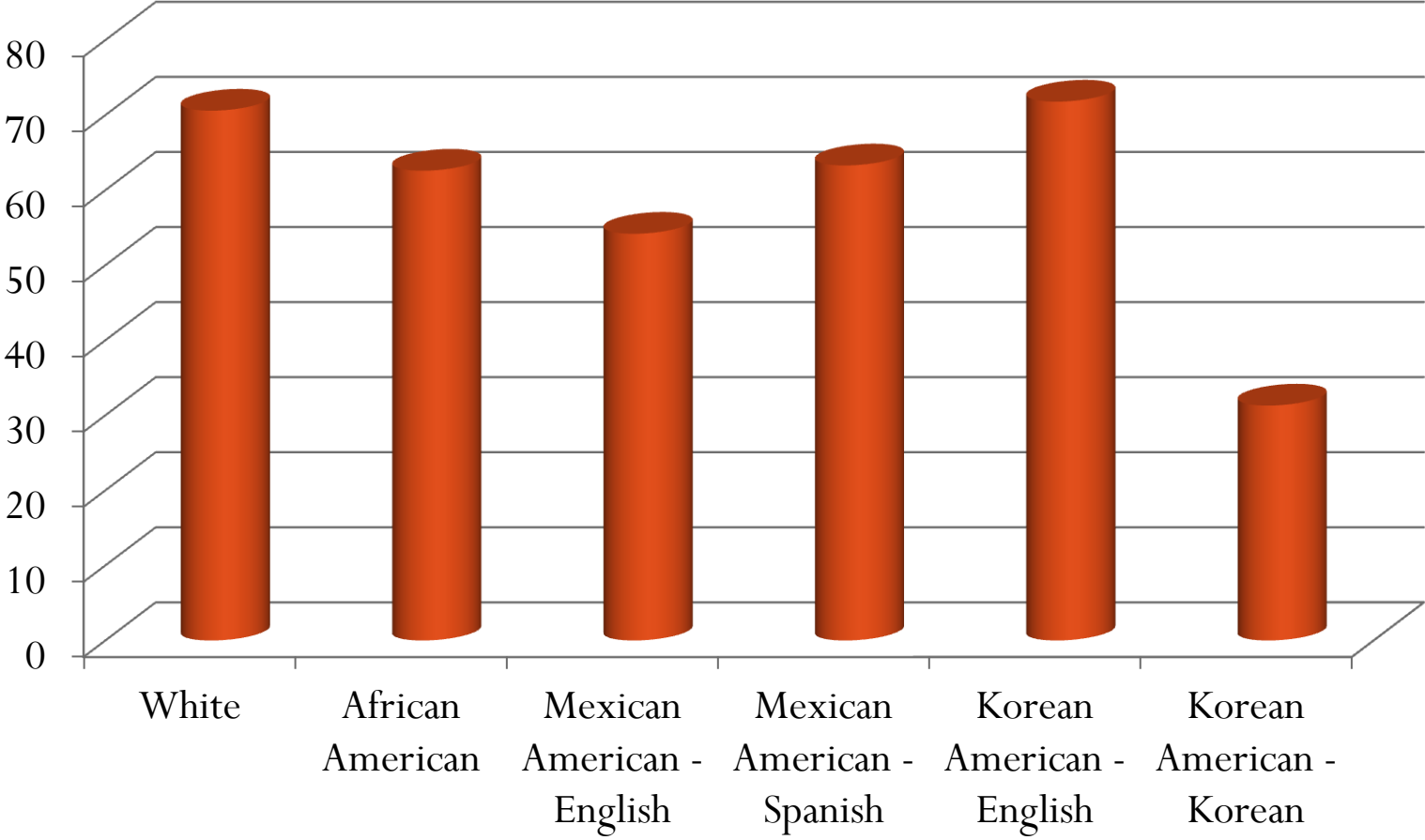
Change in Body Position



What about cultural differences?

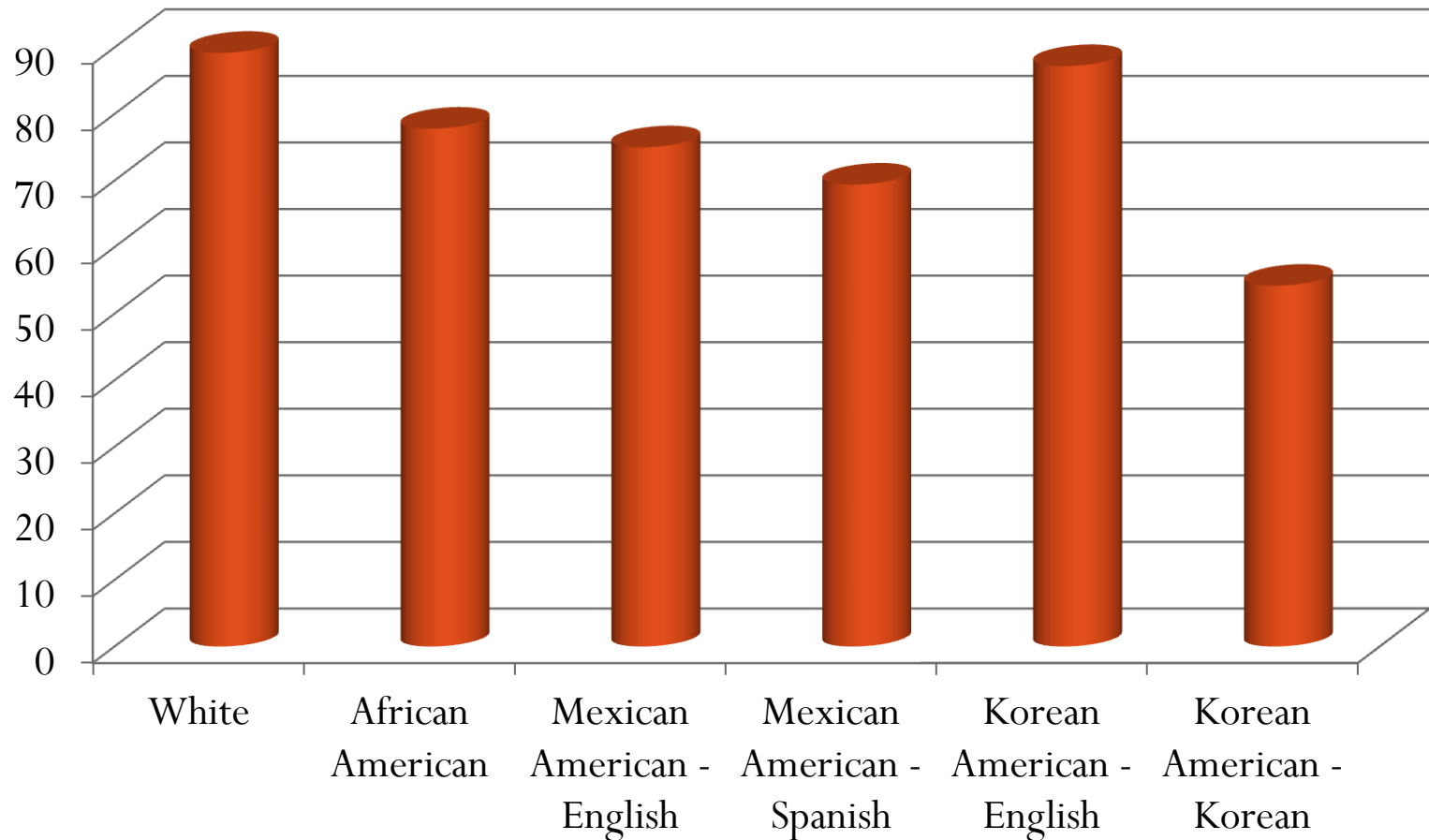
Facial Expression Change or Movement

Q117. *In the past 10 years, how frequently have you visited a serrerium?*



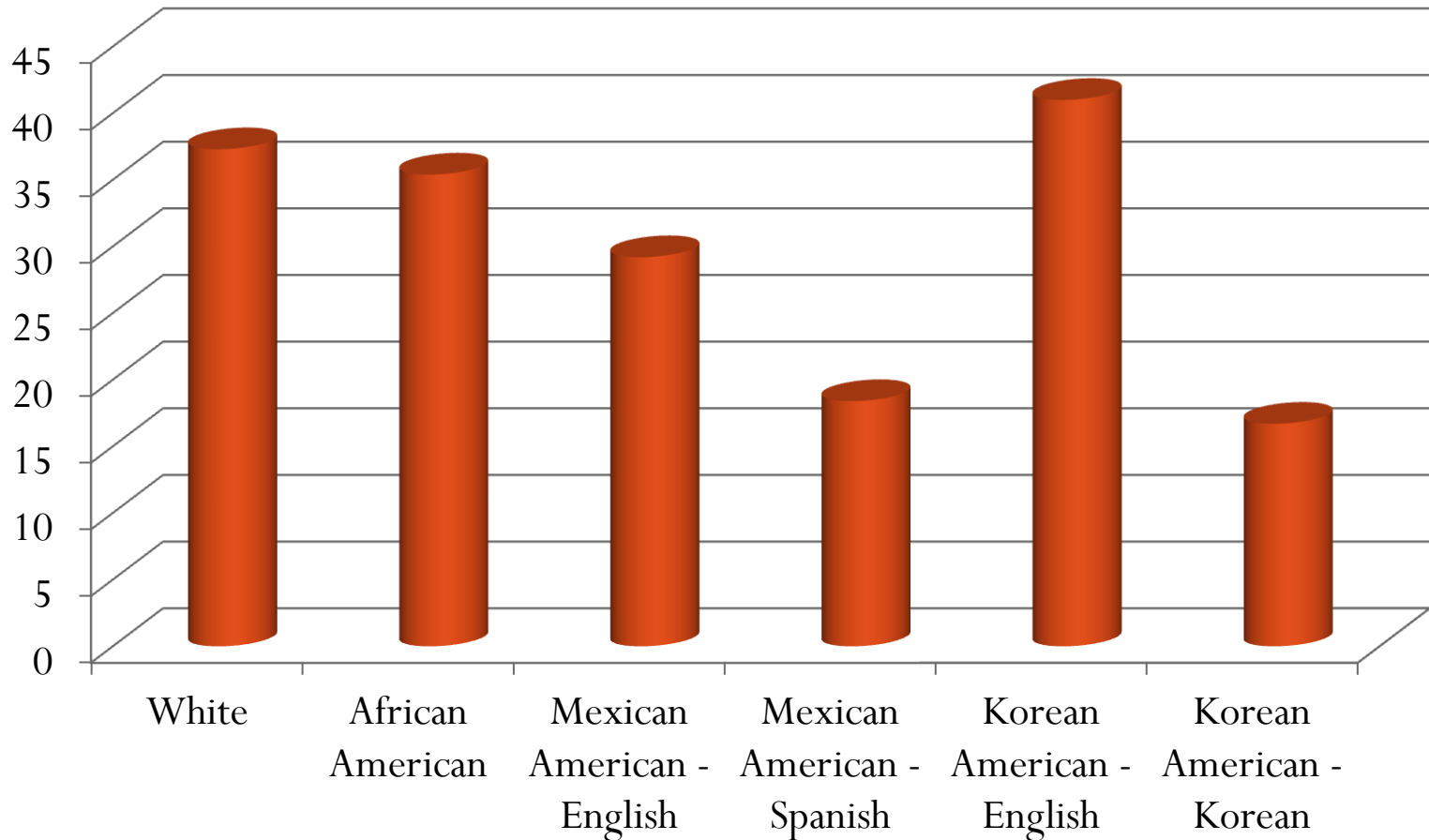
Facial Expression Change or Movement

Q118. Do you support or oppose a law to ban the import of fotams into the U.S.?



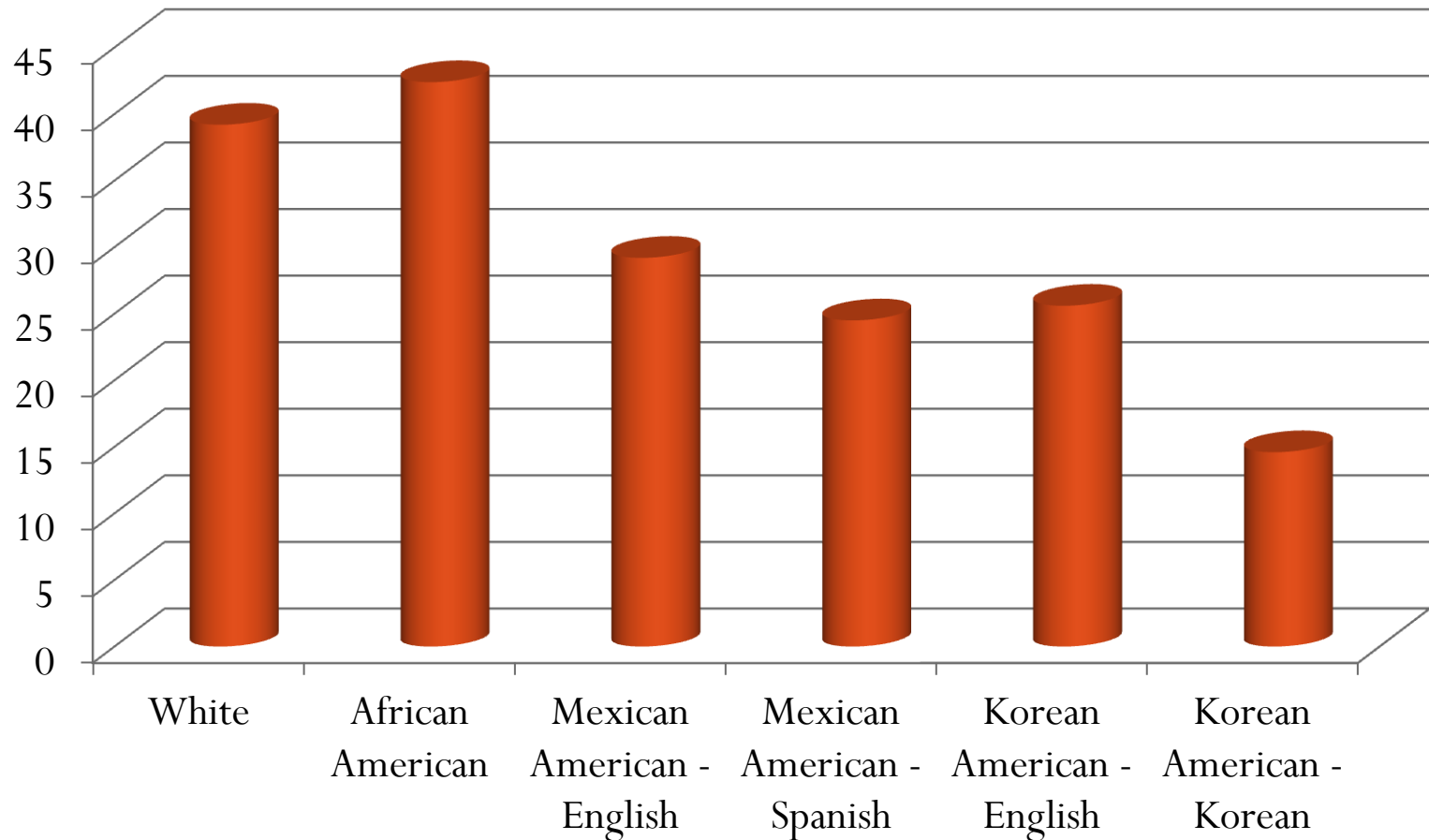
Facial Expression Change or Movement

Q184. How often do you pay cash when you purchase a meal at a restaurant? Always, most of the time, sometimes, once in a while, or never?



Facial Expression Change or Movement

*Q183. In general, how often do you pay cash for your purchases?
Always, most of the time, sometimes, once in a while, or never?*



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verbal behaviors?

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Yes, but no consistent pattern identified yet.



We're still working on it.
Thoughts welcome.