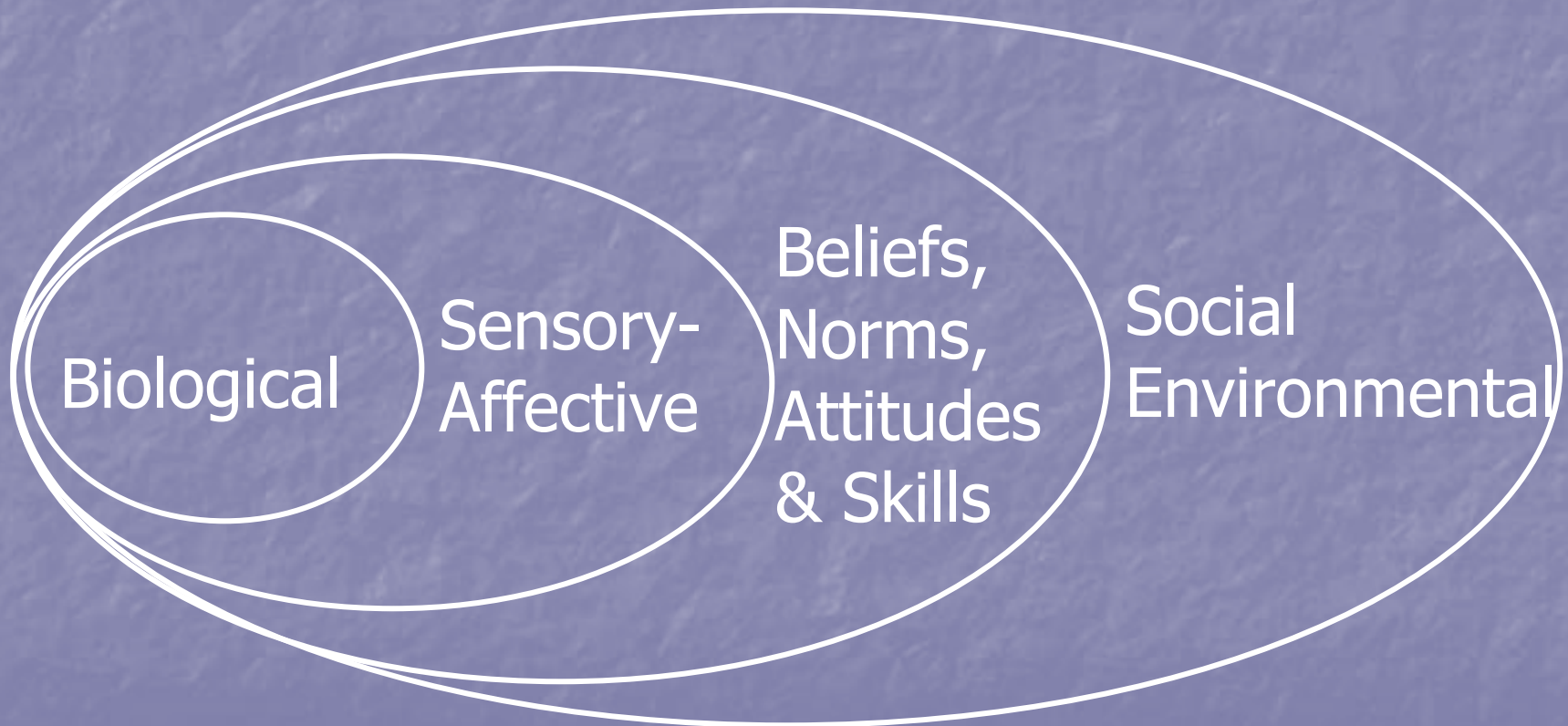


What Motivates Our Food Choices?

The Role of Availability &
Accessibility in Food Choices

Determinants of Food Choice & Diet Related Behaviors



(Contento, 2011)

Biologically Determined Behavioral Predispositions

- Taste & pleasure
- Sweet, sour, salt, bitter & unami
- Hunger, satiety mechanisms
- Sensory-specific satiety

([Contento, 2011](#))

([Begley, 2010](#))

([Skinner & Guerrero-Bosagna, 2009](#))

Sensory-affective factors

- Experience with Food
- Physiological Conditioning
- Social Conditioning

([Contento, 2011](#))

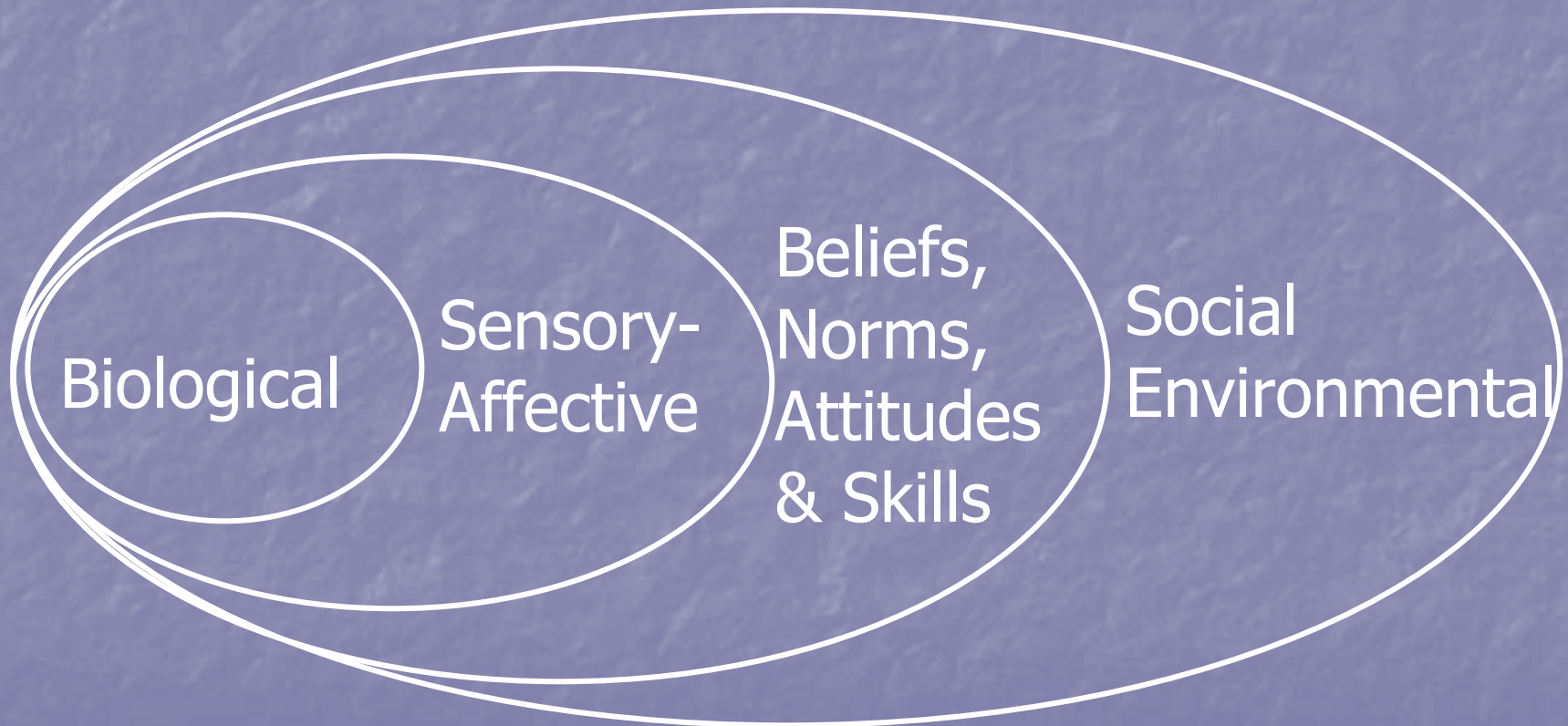
([Pearson, Biddle, & Gorely, 2008](#))

Beliefs, Norms, Attitudes, and Skills

- Intrapersonal Factors
 - Perceptions, Attitudes, Beliefs
 - Motivation & values
 - Personal Meanings
 - Knowledge & Skills
 - Social Norms
 - Cultural Norms
- Interpersonal Factors
 - Family & Social Networks

(Contento, 2011)

Determinants of Food Choice & Diet Related Behaviors



(Contento, 2011)

Social Environmental Influences

- **Social & Cultural Environment**
 - Social Relations & Structures, Cultural Practices
 - Public Policy

([Contento, 2011](#)) ([Enig, 2000](#))
([Schmid, 2003](#))

Social Environmental Influences

- Social & Cultural Environment
- **Economic Environment**
 - Resources
 - Price
 - Time

(Contento, 2011)

Social Environmental Influences

- Social & Cultural Environment
- Economic Environment
- **Informational Environment**
 - Advertising
 - Media

(Contento, 2011) (Nestle, 2006)

Social Environmental Influences

- Social & Cultural Environment
- Economic Environment
- Informational Environment
- **Physical / Built Environment**
 - Food Availability
 - Built Environment

(Contento, 2011)

The Impact of Availability & Accessibility on Food Choices

- Closed Environments
 - School
 - Work
 - Home (especially for young children)
- Review four studies on the impact of availability on food choices in home and school environments

Assessing the dietary environment: examples from school based nutrition interventions, Lytle & Fulkerson, 2002

- Review of three studies
 - Child & Adolescent Trial for Cardiovascular Health (CATCH)
 - Teens Eating for Energy & Nutrition at School (TEENS)
 - Trying Alternative Cafeteria Options in Schools (TACOS)

(Lytle & Fulkerson, 2002)

Assessing the dietary environment: examples from school based nutrition interventions, Lytle & Fulkerson, 2002

“The healthfulness of our ‘dietary environments’ may be more important in determining what people consume than their individual decision-making about food choice. ”

(Lytle & Fulkerson, 2002)

Associations between self-reported fruit & vegetable consumption and home availability of fruit & vegetables among Greek primary-school children, Kouli & Jago,, 2007

“Regression analysis showed that home availability of fruits and vegetables was a significant predictor of fruit and vegetable intake.”

([Kouli & Jago, 2008](#))

Family Correlates of fruit & vegetable consumption
in children & adolescents: a systemic review,
Pearson, Biddle & Gorely, 2008

“Parental modeling and parental intake were consistently and positively associated with children’s fruit, juice & vegetable consumption. There were also positive associations between home availability, family rules and parental encouragement...”

([Pearson, Biddle, & Gorely, 2008](#))

Evaluating the Impact of a Connecticut Program to Reduce Availability of Unhealthy Competitive Food in Schools, Long, Henderson & Schwartz, 2010

“On average, all CT districts reduced the availability of unhealthy competitive foods, with a significantly greater reduction among participating Healthy Food Certification districts.”

([Long, Henderson, & Schwartz, 2010](#))

Evaluating the Impact of a Connecticut Program to Reduce Availability of Unhealthy Competitive Food in Schools, Long, Henderson & Schwartz, 2010

- Improving nutritional quality of competitive foods had mixed results
- Most effective -limiting access to unhealthy competitive foods while increasing availability of healthy alternatives

([Long, Henderson, & Schwartz, 2010](#))

Impact of a Healthy Diet

- Health Measures
- Academic Performance

Intake of sugar-sweetened beverages and weight gain: a systematic review, 2006

■ School Aged Kids

“...strong evidence for the independent role of the intake of sugar-sweetened beverages, particularly soda, in the promotion of weight gain and obesity in children & adolescents”

■ Adults

“... also support a positive association between soda consumption, weight gain, obesity or both.”

([Malik, Schulze, & Hu, 2006](#))

Intake of sugar-sweetened beverages and weight gain: a systematic review, 2006

- “Further research recommended – large prospective cohort studies with long follow-up & repeated measures of both diet & weight.”
- “Consumption of sugar sweetened beverages should be discouraged & efforts to promote the consumption of other beverages such as water, low-fat milk & small quantities of fruit juice should be made a priority.”

([Malik, Schulze, & Hu, 2006](#))

Dietary patterns associated with metabolic syndrome, socio-demographic and lifestyle factors in young adults: the Bogalusa Heart Study

- Metabolic Syndrome
 - High Blood Pressure
 - High Waist Circumference
 - High Blood Sugar
 - Low HDL Cholesterol
 - High Triglycerides
- MetS Correlated with Increased Risk Factors
 - Cardiovascular Heart Disease (2x)
 - Diabetes Type 2 (5x)

Dietary patterns associated with metabolic syndrome, socio-demographic and lifestyle factors in young adults: the Bogalusa Heart Study

Western Dietary Pattern

- Refined Grains
- French Fries
- High-Fat Dairy Foods
- Cheese Dishes
- Red Meats
- Processed Meats
- Eggs
- Snacks
- Sweets
- Desserts
- Sweetened Beverages
- Condiments

([Deshmukh-Taskar et al., 2009](#))

([Enig, 2000](#))

Dietary patterns associated with metabolic syndrome, socio-demographic and lifestyle factors in young adults: the Bogalusa Heart Study

Prudent Dietary Pattern

- Whole Grains
- Legumes
- Vegetables
- Fruits
- 100% fruit juices
- Low-fat Dairy
- Poultry
- Clear Soups
- Low-fat Salad Dressings

([Deshmukh-Taskar et al., 2009](#))

([Enig, 2000](#))

Dietary patterns associated with metabolic syndrome, socio-demographic and lifestyle factors in young adults: the Bogalusa Heart Study

- Western Dietary Pattern – Inverse Association

- Serum HDL Cholesterol

- Prudent Dietary Pattern – Inverse Association

- Waist Circumference
- Triceps Skin Fold
- Plasma Insulin
- Serum Triglycerides
- Occurrence of MetS

([Deshmukh-Taskar et al., 2009](#))

Academic performance of Korean children is associated with dietary behaviors and physical status., Kim 2003

“The academic performance of students was strongly associated with dietary behaviors, especially with regularity of three meals even after control for parent's education level. Regular breakfast and lunch were more important in grades 5 and 8, while regular dinner was more related with academic performance in grade 11.”

([Kim et al., 2003](#))

Diet quality and academic performance., Florence & Asbridge, 2008

“Students with decreased overall diet quality were significantly more likely to perform poorly on the assessment.”

([Florence, Asbridge, & Veugelers, 2008](#))

Diet quality and academic performance., Florence & Asbridge, 2008

- Three groups of diet quality.
- Measure academic performance using two pass/fail literary tests.
- After adjustments, best and moderate diet quality groups were 30% and 18% less likely to fail one of the tests than the lowest diet quality group.

(Florence, Asbridge, & Veugelers, 2008)

Barriers ... Funding for Upstream Interventions



(Lytle & Fulkerson, 2002)

Barriers ... The Processed Food Industry

- Obesity is a matter of personal responsibility (not marketing)
- Obesity is a result of physical inactivity (not overeating)
- Marketing does not make people overeat (personal choice does)

([Nestle, 2006](#))

Barriers ... The Processed Food Industry

- Advertising is good for children (it teaches personal choice)
- The science of nutrition is uncertain and complicated (obesity is not caused by overeating)
- We are making healthier products (isn't that enough for you?)

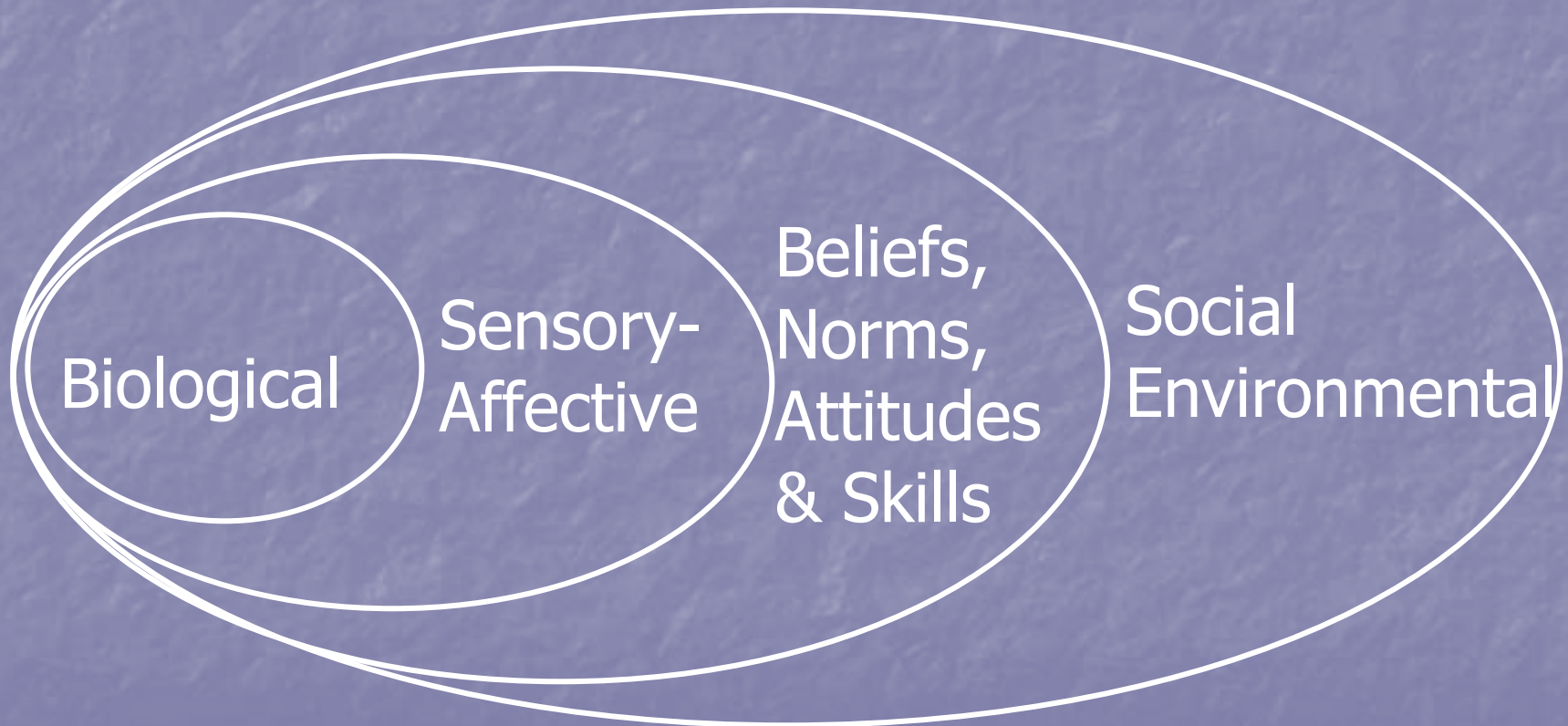
([Nestle, 2006](#))

Barriers ... financial considerations

“Despite the potential success of policy changes limiting the availability of unhealthy competitive foods, these changes have *faced some resistance* due to calls for local control of school policy and concern that *improving the nutritional quality* of competitive foods *could lead to a reduction in food service revenue*”

([Long, Henderson, & Schwartz, 2010](#))

Determinants of Food Choice & Diet Related Behaviors



(Contento, 2011)

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