Anthropological Explanations of Foodways

Why do we eat what we eat?
- How do we determine which foods we will consume and which we will avoid?
- For humans, especially, this is not just a function of our biological requirements and what is available to eat.
- We need to examine the concept of food preference.

Food Preference
- Food Preference is the degree of like or dislike for a food, conditioned by many factors:
  - Characteristics of the food
  - Characteristics of the individual

Food Characteristics
- Organoleptic properties:
  - Taste
  - Smell
  - Texture
  - Appearance
- Ease of acquisition and preparation
- Digestibility

Organoletic properties
- Taste: like sweet/dislike bitter, fishy
  - Convert an aversion to a preference
    - Chilli peppers
  - Avoid bitter taste because many plants with toxic alkaloids have a bitter flavor, and our primate ancestors evolved an aversion
  - Similarly a sweet preference would provide us with ripe, healthy fruits

Tasting and eating
- Supertasters are more sensitive to fats in foods than normal or nontasters
- It was hypothesized that this might make for an association between supertasting and obesity
  - Linda Bartoshuk examined this question:
    - Over 2500 people (various races, both males and females) were asked to rate the bitterness of PROP paper to indicate their taster status
    - Also provide their weight and height
    - Divided people into two groups: those with a BMI $\geq 25$ and those with a BMI $> 25$ ("overweight")
Tasting and eating

- For people who had a BMI < 25, Mean BMI decreased slightly as PROP bitterness increased ($r=.13, p<.0001$).
- For people who had a BMI > 25, BMI increased slightly as PROP bitterness increased ($r=-.09, p<.01$).
- Supertasters perceive more intense sensations from tastes and fats in food.
  - Among thin people, supertasters tend to be the thinnest.
  - Among heavy people, supertasters tend to be the heaviest.
- Perhaps other, cultural, factors are predisposing their appetites with supertasters predisposed to thinness eating less, and being thinner, while supertasters predisposed to overweight eat more and become obese.

Other Organoleptic Properties

- Smell: avoid rotten smell: evidence of bacterial contamination that can make you sick like two-day old Palolo worms in Samoa.
  - Exceptions include roquefort and limburger cheese, where the bacterial culture is part of the flavor.
- Texture: crunchy, chewy, watery.
  - Slimy: I hate boiled okra, raw oysters.
- Appearance: avoid bruised fruit since it may be fermenting—or prefer it.

Food Characteristics

- Ease/Method of preparation: Convenience plays an important role in use of foods.
  - E.g., Adoption of trade salt for traditional salt by Maring.
  - McDonald's explosion generated by confluence of factors: two worker households and control of price of basic McMeal.
- Digestibility: Raw onions give me heartburn, but they didn't used to.
- Availability includes cost, seasonality, transportation.

Individual Characteristics

- Sex differences in preferences:
  - Culturally determined such as the prohibition on Masae women from drinking cow blood when they are pregnant or menstruating.
  - Biologically determined by hormonal alterations during pregnancy causing cravings and aversions.
  - Women are more likely to be supertasters.

- Age:
  - Taste buds burn out, flavors become less intense.
  - Lose ability to eat some foods as we age.
  - Coffee, beer, etc. considered for adults.
- Income: makes more foods available through purchase.
- Ethnic background (tradition): preference for gefilte fish or chitlins or sushi.
- Value orientation to health:
  - If health is important to the individual and health qualities of foods are known, foods may be chosen on the basis of their healthy properties.
    - Cholesterol or weight conscious individuals may choose foods that are low fat.
    - Individuals in the humoral system may choose foods for their "hot or cold" property.

Individual Characteristics
## Food Classification

- **Healthy Food**
  - Organic, vegetarian, low-fat
  - Four Food Groups
    - Eat daily servings from each of the groups for a healthy diet
    - Dairy, Meat/fish, Grains, Fruit and Vegetables
- **Junk Food**
  - Pleasurable, low nutrient density
- **Fast Food**
  - Quick, convenient, unhealthy?

## U.S. Food Guides

- **1894**: U.S. Department of Agriculture (USDA) created the first food composition tables and dietary standards for Americans
- **In 1916**, the first daily food guides appeared in USDA publications, consisting of five food groups
  - Milk and meat, cereals, vegetables and fruits, fats and fat foods, and sugars and sugary foods
  - In 1917, dietary recommendations using these food groups were released in a government publication called “How to Select Foods”

### U.S. Food Guides

- **1933**: Family Food Plans gave specific foods to be eaten each week at various cost levels, to meet nutrition needs
  - 12 major food groups were used
  - Milk; potatoes and sweet potatoes; dry beans, peas, and nuts; tomatoes and citrus fruits; leafy green and yellow vegetables; other vegetables and fruits; eggs; lean meat, poultry, and fish; flours and cereals; butter; other fats; and sugars

### U.S. Food Guides

- **1941**: First Recommended Dietary Allowances (RDA) released by the Food & Nutrition Board of the National Academy of Sciences
  - Included calories and 9 nutrients
- **1942**: The Basic Seven food guide was released by the USDA
  - green and yellow vegetables; oranges, tomatoes, and grapefruit; potatoes and other vegetables and fruit; milk and milk products; meat, poultry, fish, eggs, and dried peas and beans; bread, flour, and cereals; and butter and fortified margarine
  - Alternate choices were suggested for foods in event of wartime shortage

### U.S. Food Guides

- **1946**: The number of recommended daily servings was added to the Basic Seven
- **1956**: The Seven Food Groups were condensed to the Basic Four, in the publication, "Essentials of an Adequate Diet"
  - Dairy, Meat and Fish, Grains, Fruit and Vegetables
  - It recommended a minimum number of servings from these groups: two servings of milk and milk products; two servings of meat, fish, poultry, eggs, dry beans, and nuts; four servings of fruits and vegetables; and four servings of grain products

### U.S. Food Guides

- **1979**: The USDA issued the "Hassle-Free Guide to a Better Diet" which added a fifth group to the Basic Four
  - fats, sweets, and alcohol
  - recommended moderation in their use
U.S. Food Guides

- 1980: The first Dietary Guidelines for Americans were released
- Revised every five years since then
- 1992: The USDA issued the first Food Pyramid

2004 Proposed Revision

Then a new concept emerged

Other Food Pyramids

- We tend to think the USDA food guide pyramid is the only one
  - There are many different versions for other ethnic groups within the U.S...
  - ...and for other cultures and nations entirely
Dietary Rules from the Bible
Abominations of Leviticus
### Biblical Classification

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<td>Animal Classification</td>
<td>Animals are classified as clean or unclean.</td>
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<td>Clean are permitted as foods.</td>
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<td>Leviticus 11:1-47</td>
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### Deuteronomy 14:3-21

3. Thou shalt not eat any abominable thing.
4. These are the beasts which ye shall eat: the ox, the sheep, and the goat;
5. the deer, the gazelle, the roebuck, the wild goat, the ibex, the antelope and the mountain sheep.
6. And every beast that parts the hoof, and cleaves the cleft into two claws, and chews the cud among the beasts, that ye shall eat.
7. Nevertheless these ye shall not eat, of them that chew the cud, or of them that divide the cloven hoof; as the camel, and the rabbit, and the rock badger: for they chew the cud, but divide not the hoof; therefore they are unclean unto you.
8. The pig, because it divides the hoof but does not chew the cud, it is unclean for you. You shall not eat any of their flesh nor touch their carcases.
9. These ye shall eat, of all that are in the waters: all that have fins and scales shall ye eat:
10. and whatsoever hath not fins and scales ye may not eat; it is unclean unto you.
11. Of all clean birds ye shall eat.
12. But these these are the ones which you shall not eat: the eagle and the vulture and the buzzard,
13. and the red kite, the falcon, and the kite in their kinds,
14. and every raven after his kind,
15. and the ostrich, the owl, the sea gull, and the hawk in their kinds,
16. the little owl, and the great owl, and the swan,
17. and the pelican, and the carrion vulture, and the cormorant,
18. and the stork, and the heron in their kinds, and the hoopoe and the bat.
19. And every creeping thing that flies is unclean unto you: they shall not be eaten.
20. You may eat any clean bird.
21. You shall not eat anything which dies of itself You may give it to the alien who is in your town, so that he may eat it, or you may sell it to a foreigner, for you are a holy people to the LORD your God. You shall not boil a young goat in its mother’s milk.
Leviticus 11:5-9

5. And the rock badger, because he chews the cud, but divides not the hoof; he is unclean unto you.
6. And the rabbit, because he chews the cud, but divides not the hoof; he is unclean unto you.
7. And the pig, though he divide the hoof, and be cloven-footed, yet he chews not the cud; he is unclean to you.
8. Of their flesh shall ye not eat, and their carcass shall ye not touch; they are unclean to you.

Leviticus 11:9-12

9. These shall ye eat of all that are in the waters: whatsoever hath fins and scales in the waters, in the seas, and in the rivers, shall ye eat.
10. And all that have not fins and scales in the seas, and in the rivers, of all that move in the waters, and of any living thing which is in the waters, shall be an abomination unto you:
11. they shall be even an abomination unto you; ye shall not eat of their flesh, but ye shall have their carcasses in abomination.
12. WHATSOEVER HATH NO FINS NOR SCALES IN THE WATERS, THAT SHALL BE AN ABOMINATION UNTO YOU.

Leviticus 11:13-19

13. And these are they which ye shall detest among the birds; they are abhorrent, not to be eaten: the eagle and the vulture and the buzzard,
14. and the kite and the falcon in its kind;
15. every raven after his kind;
16. and the ostrich and the owl and the sea gull and the hawk in its kind,
17. and the little owl, and the cormorant, and the great owl,
18. and the white owl and the pelican and the carrion vulture,
19. and the stork, the heron in its kinds, and the hoopoe, and the bat.

Leviticus 11:20-24

20. All fowls that creep, going upon all four, shall be an abomination unto you.
21. Yet these may ye eat of every flying creeping thing that goes upon all four, which have legs above their feet, to leap withal upon the earth;
22. even these of them ye may eat: the locust after his kind, and the bald locust after his kind, and the beetle after his kind, and the grasshopper after his kind.
23. But all other flying creeping things, which have four feet, shall be an abomination unto you.
24. And for these ye shall be unclean: whosoever touches the carcass of them shall be unclean until the even.

Leviticus 11:25-28

25. Whoever picks up any of their carcasses shall wash his clothes and be unclean until evening.
26. The carcasses of every beast which divides the hoof, and is not cloven-footed, nor chews the cud, are unclean unto you: every one that touches them shall be unclean.
27. And whatsoever goes upon his paws, among all manner of beasts that go on all four, those are unclean unto you: whose touches their carcass shall be unclean until the even.
28. And he that bears the carcass of them shall wash his clothes, and be unclean until the even: they are unclean unto you.

Leviticus 11:29-32

29. Now these are to you the unclean among the swarming things which swarm on the earth: the mole, and the mouse, and the great lizard in its kinds,
30. and the gecko, and the crocodile, and the lizard, and the sand reptile, and the chameleon.
31. These are unclean to you among all that creep: whosoever doth touch them, when they be dead, shall be unclean until the even.
32. Also anything on which one of them may fall when they are dead becomes unclean, including any wooden article, or clothing, or a skin, or a sack—any article of which use is made—it shall be put in the water and be unclean until evening, then it becomes clean.
Leviticus 11:33-36
33. And every earthen vessel, where into any of them falls, whatsoever is in it shall be unclean; and ye shall break it.
34. Of all meat which may be eaten, that on which such water comes shall be unclean: and all drink that may be drunk in every such vessel shall be unclean.
35. And every thing whereupon any part of their carcass falls shall be unclean; whether it be oven, or ranges for pots, they shall be broken down: for they are unclean, and shall be unclean unto you.
36. Nevertheless a fountain or pit, wherein there is plenty of water, shall be clean: but that which touches their carcass shall be unclean.

Leviticus 11:37-40
37. And if any part of their carcass fall upon any sowing seed which is to be sown, it shall be clean.
38. But if any water be put upon the seed, and any part of their carcass fall thereon, it shall be unclean unto you.
39. And if any beast, of which ye may eat, die; he that touches the carcass thereof shall be unclean until the even.
40. And he that eats of the carcass of it shall wash his clothes, and be unclean until the even: he also that bears the carcass of it shall wash his clothes, and be unclean until the even.

Leviticus 11:41-44
41. And every creeping thing that creeps upon the earth shall be an abomination: it shall not be eaten.
42. Whosoever goes upon the belly, and whosoever goes upon all four, or whatsoever hath more feet among all creeping things that creep upon the earth, them ye shall not eat; for they are an abomination.
43. Ye shall not make yourselves abominable with any creeping thing that creeps, neither shall ye make yourselves unclean with them, that ye should be defiled thereby.
44. For I am the LORD your God: ye shall therefore be holy, for I am holy.

Leviticus 11:45-47
45. For I am the LORD that brings you up out of the land of Egypt, to be your God: ye shall therefore be holy, for I am holy.
46. This is the law of the beasts, and of the fowl, and of every living creature that moves in the waters, and of every creature that creeps upon the earth:
47. to make a difference between the unclean and the clean, and between the beast that may be eaten and the beast that may not be eaten.

Repeal for Christians
Mark 7:18-19
18. And he saith unto them, Are ye so without understanding also? Do ye not perceive, that whatsoever thing from without entereth into the man, it cannot defile him;
19. because it entereth not into his heart, but into the belly, and goeth out into the draught, purging all meats?

Alternative explanations:
Religious Prohibition Against Pork
• A symbolic/interpretive perspective
  – Mary Douglas argues that for ancient Hebrews pigs are classificatory abominations because they have cloven hoofs but are not cud-chewers
• An adaptive, materialist perspective
  – Marvin Harris argues that the environment of the Middle East makes pig raising highly inefficient
    • Because pork is tasty to humans, it must be proscribed religiously where its husbandry is maladaptive
Mary Douglas on Pigs

Abominations of Leviticus

- Mary Douglas argues that prohibiting certain foods was a way of carving up the natural world into the pure and the impure, thereby creating a model for thinking about the purity of the Divine.
- Many Biblical prohibitions are of things that are partial, maimed, or blemished:
  - Animals being sacrificed must not have a blemish
  - No one who has a physical defect may become a priest
  - Even fields should be sown with only one kind of seed

Douglas on Leviticus

- So Douglas says prohibitions on food represent a means of creating order within the theology of the times.
- Certain animals served as models of the divine order:
  - Cattle and sheep were most familiar
  - The law stated that these animals represented orderliness
  - Beasts lacking the characteristics of these animals were considered disorderly
  - Thus, pigs, camels, and other animals were impure
- Other prohibitions also have to do with species that fall outside of three main categories of animals, animals who are not:
  - those that fly in the air with wings
  - those that swim in the water with fins and scales
  - those that walk or hop on the land with four legs

Douglas on Leviticus

- Douglas claims that the Biblical focus on order, makes the dietary rules "like signs which at every turn inspired meditation on the oneness, purity, and completeness of God".
- Religion is thus a means of figuring out man's place within nature.
- To understand pollution ideas and taboos is to comprehend the cultural notions of dirt:
  - Dirt is a "by-product of the systematic ordering and classification of matter"
- Douglas claims that taboos, "ideas about separating, purifying, demarcating, and punishing transgressions," have imposing order on an inherently untidy world as their primary function.
Harris: Raising pigs in some settings is too expensive from an adaptive point of view, therefore, they are proscribed for ecological reasons

- Pigs were domesticated in the Middle East, but the environment changed
- Pigs are best adapted to forests, glens, riverbanks
- Places with lots of shade, water and food
- To raise pigs in arid, open environments requires heavy expenditure of water and supplementary food
  - They eat what humans eat

The Jewish and Muslim bans on eating pork?

- Pigs compete for food with humans
- They are expensive to keep
  - Sheep, goats and cattle thrive on grass
    - They provide wool, milk and labor
- Harris claims that there are no world religions that have acted to decrease the potential for the nutritional well-being of their followers
  - Knows of no cases where as a result of religious precepts a population found itself enjoying less food than it would have if they didn’t follow their particular religion

How is this principle reflected in the proscription on eating pork?

- The usual reason given for the prohibition on the consumption of pork is that the pig is regarded as a dirty animal; it is impure and unclean, and therefore not to be eaten
  - That’s the same kind of circular explanation that can be evoked to explain the Hindu prohibition on the slaughter of cattle
  - It’s the religion that says pork is unclean

Why do Judaism and Islam and Hinduism follow the proscription, but Christianity accepts the consumption of pork?

- Look at the material conditions of production in specific habitats and the first thing that emerges with respect to the pig in the Middle East is that it is the last kind of domesticated animal that you would want to rear in that habitat
  - Although pigs were originally domesticated in the Middle East, and they were raised and consumed for five to six thousand years before the writing of the prohibitions, they nonetheless were adapted to ecological situations which were rather rare in the Middle East and which became rarer as time went on

Pig Ecology

- The pig is a creature of woodland and glens and riverbanks
  - It does best when it forages on the forest floor, rooting up everything that has fallen off trees—acorns, different mushrooms, things of that sort
  - It does not do well in arid habitats because the pig doesn’t sweat, despite the common saying that someone is “sweating like a pig”
    - Pigs don’t have any sweat glands and consequently they have to be wetted down
    - In order to control their body temperature they have to have external sources of moisture
    - That’s why they wallow in mud
    - Pigs prefer to wallow in clean mud, but if nothing else is available, they will frequently wallow in their own urine, giving rise to the notion that they are dirty animals.

Pig Ecology in the Middle East

- The Middle East, especially the desert areas, is the last place to raise pigs
  - There are many other domestic, longhaired animals like cattle, sheep, and goats that are much better suited to arid, sunny, desert conditions
    - The pig has another disadvantage: unlike sheep, goats, and cattle, it is not a ruminant
      - That is, the pig has a digestive system that does not permit it to consume and gain weight on grass
      - Pigs eat grass if they are very hungry, but they can’t use it as a regular source of food
      - Ruminants that can live and thrive on grass, whose whole digestive physiology is centered on their ability to consume plants that are high in cellulose, are much preferable to the pig in and habitats
Pigs in Europe

- In Europe, in the areas that were the heartland of Christianity at the turn of the Christian era, you are confronted with a totally different ecological situation
  - Here you do have forests, where pigs could be raised by letting them root about in the forests for a good part of the year
  - Therefore, you have a different attitude toward them compared with what continues to exist in the Middle East

Why is there a religious proscription on pork if pig-raising is so entirely unsuited to the climate and the plant life of the area?

- Since it was possible, to a small extent, to raise pigs as a luxury food, it is important to have a taboo or prohibition that says, under no circumstances are you to experiment with this animal, because over the passage of centuries it is the collective wisdom that to do so is to waste resources
  - The temptation will always exist for some people to try, but God says, “Thou shalt not raise pigs.”
    - This is a sacred rule which fits into a general class of prohibition termed “total prohibitions.”
    - Such prohibitions are digital; that is, they are on-off things

Digital Prohibitions

- For example, the commandment “Thou shalt not kill” does not say it’s O.K. to kill some people and not others
  - Such a total taboo is necessary in a situation where the short-term benefits for raising pigs might be quite good, but the long-term benefits would be quite disastrous for the larger community
  - The taboo is “on track” in terms of ecological wisdom
  - It reflects long-standing, accumulated knowledge about the consequences of raising nonruminants in that habitat

Harris’ "Cultural Materialism"

- Marvin Harris: Cows, Pigs, Wars, and Witches
- Thesis: no element of culture persists without reasons
- These reasons usually have to do with class, economic and ecological structures
- Food (pigs, dogs, cows, people) provides exceptionally clear examples.
The "sacred cow" of India

• The cow has been sacred for 2,000 years
• Only "untouchables" butcher or eat cows
  – Cow-killing can produce an even more powerful reaction than murder
• Milk from the cows provides the staple butter-fat in which most Indian food is cooked
• Nearly 100,000,000 foraging cows roam everywhere throughout India

The Rockefeller (NGO) View

• Millions of people starve while millions of cows are protected by religious superstition.
• Avoiding cow-killing is:
  • Inefficient
  • Wasteful
  • Superstitious
  • Traditionalism
• India needs capitalist agriculture like the US

Problems with that explanation, according to Harris

• Millions of Indian villages have destroyed their livelihood
• A sustainable economy must preserve the land and the population
  – Unlike the commercial farming that created the dust bowl in the U.S.
• Killing a cow creates one feast for one family in the short run, and disaster for the community in the not very long run
• Even when a cow is too old to calf and is past milking, it is crucial to the ecology
Harris' explanation:

- 700,000,000 tons of cow manure per year are crucial to preventing ecological disaster
  - Cow dung is used and is treated as pure
- The non-owners have a particularly strong motive for saving even an old cow (the dung)
- Unless we look at the social and ecological long run dynamics, we cannot understand present arrangements or suggest reasonable changes.
- Mixture of functionalism and conflict theory

But why make the cow sacred?

- The cultural rules that preserve the society as a whole – particularly those that require that people act in the public interest – usually take this form
- Bargaining over when to kill which cows could never preserve the society
- For all cows to be sacred for all Hindus can and did preserve the society
- Back to Harris' digital rules

Food Classification Systems

Humoral Classification

- Hippocrates examined blood and noted
  - Red portion of fresh blood is the blood humor
  - White material mixed with blood is the phlegm
  - Yellow-colored froth on top is the yellow bile
  - Heavy part that settles down is the black bile
- Refined by Galen
  - All diseases the result of irregular or improper distribution of the four humors
  - Each person has unique balance of humors
    - Health is maintained by staying in balance
      - For hot condition, use cold substances, etc.
Humoral Classification

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Hot</th>
<th>Cold</th>
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<tbody>
<tr>
<td>Wet</td>
<td>Blood</td>
<td>Phlegm</td>
</tr>
<tr>
<td>Dry</td>
<td>Yellow Bile</td>
<td>Black Bile</td>
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</tbody>
</table>

Humoral Classification

- System spread from Middle East and Mediterranean to Latin America and Muslim South and Southeast Asia
- Classification varies from one informant to another and may be shaped by both enculturation and personal experience with the food
  - E.g., someone gets hot and sweaty after working outside
  - Consumes cucumbers and becomes sick
    - Cucumbers, usually considered cold, could become hot for that person
    - The illness could be construed as coming from combining a hot state (from work) with consumption of hot food, creating a hot imbalance

Hot and Cold Classification of Foods in Puerto Rico

<table>
<thead>
<tr>
<th>Frio (cold)</th>
<th>Fresco (cool)</th>
<th>Caliente (hot)</th>
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<tbody>
<tr>
<td>Avocado</td>
<td>Barley water</td>
<td>Alcohol</td>
</tr>
<tr>
<td>Bananas</td>
<td>Bottled milk</td>
<td>Chili peppers</td>
</tr>
<tr>
<td>Coconut</td>
<td>Chicken</td>
<td>Chocolate</td>
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<tr>
<td>Lima beans</td>
<td>Fruits</td>
<td>Coffee</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>Honey</td>
<td>Corn meal</td>
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<tr>
<td>White beans</td>
<td>Raisins</td>
<td>Peas</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>Salt-cod</td>
<td>Kidney beans</td>
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</tbody>
</table>

Yin – Yang Classification of Foods

- **YIN**
  - Expansive
    - Cold/Cooling
    - less heat
    - less salt
    - Potassium
    - grow above soil
  - Whole grains, vegetables, temperate fruits
  - Extreme: tropical fruit, sugars and chemicals
  - Fresh and raw foods
- **YANG**
  - Contractive
    - Hot/Warming
    - more heat
    - more salt
    - Sodium
    - grow below soil
  - Most fish, sea vegetables
  - Extreme: salts and meats
  - Stews/baking/pressure cooking

Malaysian Humoral System

- Animal foods, spicy foods are hot
  - Hot foods warm the body, provide calories
- Many plants like okra, plantains are cold
  - Cold foods cool the body
- Itchy foods may cause allergic reaction (prawns)
- Windy foods cause gas or breathing problems
- Sharp foods have strong flavors, can cause problems
- Poison foods, *bisa*, can just be bad for a person or can actually be poisonous

Bisa and Pantang

- **Bisa**
  - A person who has a cold disease (e.g., diarrhea) would avoid cold foods—such as okra because it would be *bisa* for him
- **Pantang**
  - Food restrictions in Malay, frequently translated as taboo
  - *Pantang* carries no supernatural strictures or extranatural penalties
Bisa and Pantang

- **Pantang** are guideposts for behavior, leaving the possibility of experimentation
  - A new mother who eats food considered *bisa* and experiences no harmful consequences may be complimented on her "cast-iron" stomach
  - A new mother who experiences post partum bleeding or a stomach ache after eating *bisa* food is not a sinner, but a bit of a fool

- Many fish are considered *bisa*, for physical reasons
  - Inconsistent body features: abnormally large scales such as wrasses and parrotfishes
  - Empirical: Wrasses’ flesh spoils easily causing cholera-like symptoms

Bisa

- Threatening body features: Spiny fish like puffers, small sharp bones red color like blood
  - Empirical: Puffers carry tetraodontotoxin that causes fatalities among sushi-eaters in Japan
  - Danger of choking while eating spines or bones
  - Sympathetic magic: eating blood-colored fish may cause hemorrhage or prevent healing of a wound

- Disturbing eating habits: Bottom feeders
  - Bottom feeders tend to concentrate ciguatera toxin (coming from blue green algae eaten by smaller fish) which causes weakness, vomiting, diarrhea, and abdominal cramps
  - Mortality up to 60%

Bisa and Pantang

- Cold humor: Fish with slimy skin
  - Moray eel
  - Fish slime is an irritant and source of infection to preexisting wounds

- Safe fish are most common and abundant species
  - Easy to catch
  - Inexpensive
  - Available for sale on an almost daily basis

- One third of *bisa* fish are implicated in some kind of toxic reaction
  - Two thirds are symbolically bad
Real or super food

- Wamirans in coastal New Guinea consider taro to be "real food" and say it is a time of scarcity (gomara) when there is too little taro, even if other food is abundant
- Fijians
  - kakana dina real food: taro, yams, banana, breadfruit, tapioca, cassava (root and tree starches)
  - i coi: accompanying food from a piece of coconut, fish, shellfish, pork, chicken, eggs, leafy vegetables
  - Meal consists of both kakana dina and i coi, but there are also non-meal categories such as light foods or refreshments (sugar cane, boiled taro leaves)

Real or super food

- Samoans
  - mea a’ano: starchy foods such as taro, bananas, breadfruit, yam
  - i: accompaniment such as meat, fish or shellfish
  - A true meal requires the serving of taro
    - It would be an insult to serve a respected guest a meal without taro

Real or super food

- In many Southeast and East Asian societies rice takes the place of taro as the superfood
  - Without rice a proper meal cannot be constructed
- By contrast the Hadza emphasize meat as the proper foods for people
  - They treat plant foods as so unsatisfactory that they describe themselves as suffering from hunger when they have adequate food, but less meat than they would like
  - In fact, the Hadza never have a general shortage of food, even in time of drought

Wik-Mungkan Symbolism

- Eggs resemble a man’s testicles, and hence there are many restrictions on who can give and who can receive eggs
  - When a man gives geese or turtle eggs it is as if he is giving a part of himself
  - If a boy gathers eggs his father may not eat them, so he will call to his father to gather them and then both may eat them

Wik-Mungkan Symbolism

- Mudshells (bivalves): resemble a vagina and partners in a joking relationship such as a classificatory mother’s elder brother and younger sister’s son may play with the word for mudshells—but not in polite conversation
  - Opening a mudshell is likened to intercourse so open versus closed shells are distinguished
  - Children may not give mudshells to parents (or classificatory parents such father=father’s brother) of the opposite sex
  - If when digging the yam, a women lets the dirt fall on her lap, the yam is extremely taboo, especially to her father
  - If she breaks off the head of the yam she can make it taboo to her father (Ouch!)
Reasons for Eating

- Cognitive analysis
  - Study created four scales to rate 35 menu meals and snacks: pleasure, health, tradition, and convenience
  - Sample: 104 males and 144 females from 17 to 72 years
  - Results show differences for age, sex, and nutrition knowledge
    - Demonstrates it is possible to identify salient common-sense meaning of foods that combine to determine their status as items of dietary choice
      - Fast foods are convenient and pleasurable, but unhealthy

1995 Survey

- Nutritional Anthropology Class
  - 11 students ranked 20 foods or menu items on three dimensions
    - Pleasure
    - Health
    - Convenience
  - They also indicated the frequency with which they habitually consumed the items
Sources

Sources


