

Supplemental Table 2: Summary of findings ordered alphabetically by first author last name for salt, sour, bitter, umami, and fat taste preferences

Author	Children	Adolescents	Adults
SALT			
Beauchamp and Cowart, 1990[37]	Stimuli were vegetable soups with 0.01 (unsalted), 0.18, 0.34, 0.56 or 1.8 M NaCl (salt). Children (3-7 years old) preferred higher salt concentrations in soups than adults. Preference for salt (NaCl) in young children was examined in 2 experiments. In Experiment 1 children were given paired-comparison tests with salted soups ranging between 0 and 1.8M NaCl. Children tended to prefer higher salt concentrations. Experiment 2 directly compared children with their parents and again children preferred higher levels of salt than adults.		
Beauchamp and Moran [21]	Low sodium vegetable soup with 0.17 or 0.34 M NaCl (salt), carrots in water or 0.34 M NaCl (salt) were tested. Salty carrots were consumed in greater amounts than unsalted carrots.		
Deglaire et al., 2015[30]			Among younger adults and adults (18-34, 35-54, and 55 years and older) who answered a questionnaire, liking scores for salt slightly increased with age in men but not in women.
Desor et al., 1975[39]		Stimuli were 0.075, 0.15, 0.30 and 0.60 M sucrose, 0.10, 0.20, 0.30, and 0.40 M lactose, and 0.05, 0.10, 0.20, and 0.40 sodium chloride, Younger subjects (9-15 years old) who tasted samples without swallowing them preferred greater saltiness in the solution than adults. Younger African American participants selected significantly stronger concentrations of salt.	
Lanfer et al., 2013[14]	Stimuli were crackers with one of five concentrations of sodium chloride (salt). Sensory testing was performed among children 6-9 years old. Increasing age was associated with a significant increase in preference for salt in crackers.		
Mennella et al., 2014[20]	Compared to their mothers, children (5-10 years old) preferred higher concentrations of salt in broth. The most preferred level of saltiness in broth and crackers were correlated.		
Murphy et al., 1986[29]			Different concentrations of sucrose (sweet; 0.75, 0.15, 0.6 M), sodium chloride (salty; 0.05, 0.10, 0.20, 0.40 M), and citric acid (sour; 0.0006, 0.0012, 0.0024, 0.0048 M) were presented in both aqueous and beverage bases (vegetable juice with sodium chloride; lemon flavored beverage for sucrose and citric acid) to young adults (18-24 years old), middle-age adults (32-45 years old), and adults over 65 years old. All preferred sucrose to sodium chloride or citric acid.

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			There was a preference for higher sucrose concentrations among older adults.
Nu et al., 1996[22]		As determined with a questionnaire of foods habits and preferences, salty taste was the second most preferred taste among adolescents 10-20 years old. Preference for salt was not significantly different from preference for sweet.	
Schwartz et al., 2009[11]	Taste stimuli included sweet (0.20 M lactose), salty (0.085 M sodium chloride), bitter (0.18 M urea), sour (0.006 M citric acid), and umami (0.009 M monosodium glutamate) tastants. Among infants at 3, 6, and 12 months old who tasted solutions from mineral water and from food-grade or pharmacological-grade tastants, salty and sweet tastes were preferred over water (lactose for sweet taste and sodium chloride for salty taste). Acceptance of salty taste increased by the end of the first year.		
Verma et al., 2007[38]	Popcorn with 0, 1, 2, 3 or +3M sodium chloride (salt) solutions sprayed on it was used as stimuli. Children (7-12 years old) preferred saltier popcorn than young adults (18-21 years old). Among children, no differences by gender were observed.		
Zallen et al., 1990[40]			Food (mashed potatoes, chicken broth) with 0.3, 0.5, 0.7, and 0.9% salt were used as stimuli. Older adults (65 years and older) showed significantly higher preferences for four salt concentrations in both foods compared to younger adults (20-35 years old).
SOUR			
Capaldi et al., 2008[42]	Stimuli were various amounts of sucrose added to cherry kool aid (10.61% sucrose) or grapefruit juice (20% or 30% sucrose) Adding sucrose reduced the initial dislike for the sour taste of grapefruit among children 2-5 years old. The effect remained when the juice was subsequently unsweetened		

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Chauhan and Hawrysh, 1988[43]			0.003, 0.006, 0.012, 0.018, 0.024 and 0.036 M citric acid solutions were tested. Compared to young adults, those 70 years and older preferred significantly higher concentrations of citric acid in an aqueous solution and a drink.
Liem et al., 2003[41]	Plain gelatin or gelatin with 0.02, 0.08 and 0.25 M citric acid (sour) was used for testing. One third (35%) of children 5-9 years old preferred high levels of sour taste in gelatin, particularly those who were less food neophobic. Almost none of their mothers preferred high levels of sour taste.		
Murphy et al., 1986[29]			Different concentrations of sucrose (sweet; 0.75, 0.15, 0.6 M), sodium chloride (salty; 0.05, 0.10, 0.20, 0.40 M), and citric acid (sour; 0.0006, 0.0012, 0.0024, 0.0048 M) were presented in both aqueous and beverage bases (vegetable juice with sodium chloride; lemon flavored beverage for sucrose and citric acid) to young adults (18-24 years old), middle-age adults (32-45 years old), and adults over 65 years old. All preferred sucrose to sodium chloride or citric acid. There was a preference for higher sucrose concentrations among older adults.
Nu et al., 1996[22]		As determined with a questionnaire of food habits and preferences, liking for sour taste increased significantly after age 13 and clearly differentiated from liking for bitter taste. After age 18, differences between sweet and sour were not statistically significant.	
Schwartz et al., 2009[11]	Among infants at 3, 6, and 12 months old who tasted solutions from mineral water and from food-grade or pharmacological-grade tastants, sour taste (citric acid) was one of the less preferred tastes.		
Zandstra et al., 1998[35]	25 orange beverages with varying concentrations of sucrose (sweet; 8.24-23.53% w/w), citric acid (sour; 0.180-0.911% w/w), and orange flavor (40-320 ppm) were used as test stimuli. Children (6-12 years old) and the elderly (65+ years old) preferred a beverage with higher concentrations of citric acid compared to adolescents. Liking for citric acid increased with age.		
BITTER			
Capaldi et al., 2008[42]			Adding sucrose reduced the initial dislike for the bitter taste of broccoli and cauliflower

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			among adults 18-23 years old. The effect remained when they were subsequently unsweetened.
Drewnowski et al., 2001[44]			Adults (18-70 years old) tested for their response to 6- <i>n-propylthiouracil</i> (PROP) filter papers demonstrated a dislike of bitter tasting compounds that decreased with age and varied by gender (women perceived bitterness most) and race/ethnicity (non-Caucasians perceived bitterness most).
Engen, 1974[12]	Stimuli were fondant candies flavored with cherry, cinnamon, peppermint or horehound. Children 4-6 years old were neutral to the “bitter” taste of horehound and the “spicy” taste of cinnamon. Cherry was the most preferred flavor while peppermint was the least preferred flavor.		
Mennella et al., 2003[45]	Stimuli were 0.5 M urea, 0.08 M caffeine and 1.37×10^{-4} tetralone (commonly found in beer), Sodium gluconate (0.3 M) significantly suppressed the bitterness of urea solution in the majority of mothers (73%) and 66% of children 7-10 years old. A similar result was observed when the salt was added to caffeine: 77% of adult subjects and 68% of children indicated the solution combined with sodium gluconate tasted less bitter.		
Nu et al., 1996[22]		As determined with a questionnaire of food habits and preferences, other tastes (sweet, salt, and sour, in that order) are preferred over bitter taste among adolescents 10-20 years old. However, between 13 and 14 years old, liking for bitter taste increases.	
Schwartz et al., 2009[11]	Taste stimuli included sweet (0.20 M lactose), salty (0.085 M sodium chloride), bitter (0.18 M urea), sour (0.006 M citric acid), and umami (0.009 M monosodium glutamate) tastants. Among infants at 3, 6, and 12 months old who tasted solutions from mineral water and from food-grade or pharmacological-grade tastants, bitter taste (urea) was one of the less preferred tastes.		
UMAMI			
Lanfer et al., 2013[14]	Sensory testing was performed among children 6-9 years old from 8 European		

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	countries. Increasing age was significantly associated with a decrease in preference for umami.		
Schwartz et al., 2009[11]	Among infants at 3, 6, and 12 months old who tasted solutions from mineral water and from food-grade or pharmacological-grade tastants, reactions to umami taste (MSG) were, in general, neutral. However, by the end of the first year umami taste was as accepted as sweet taste.		
FAT			
Deglaire et al., 2015[30]			Among adults (18-34, 35-54, and 55 years and older) who answered a questionnaire, liking scores for fat and salt and fat and sweet decreased with age.
Lanfer et al., 2012[13]	The stimuli was a cracker with 8% or 18% fat. A significantly lower proportion (48.5%) of children 8-9 years old preferred the fatty cracker compared to children 6 years old (53.1) and 7 years old (58.5%).		
Mennella et al., 2012[21]	Test stimuli were vanilla pudding with 3.1, 6.9 and 15.6% fat wt/wt. Compared to their mothers, children (5-10 years old) preferred lower concentrations of fat in pudding, possibly because higher fat concentrations suppress the perception of sweetness.		