Where Bad Teeth Come From:  
Culture and Causal Force

W. Penn Handwerker and Stanton H. Wolfe

This study tests hypotheses about the origins of bad teeth and good teeth. In the process, we show how cultures exert “causal force” and produce what, following the lead of the dental professionals and dental patients who served as our research participants, we call “bad teeth.” We conducted a mixed method ethnography that integrated narratives from one set of diverse research participants (n=39) with structured interviews from a different set of diverse participants (n=288). The population studied shares a single cultural understanding organized around the assumption that oral health constitutes a cosmetic not a disease category. Quality of life standards, however, varied with work cultures and oral health prevention behaviors reflected cultural norms that bear on appearance. This variation produces the apparent paradox that the use of oral health services increases with access but may decrease with objective need. Improved oral health may require social marketing that stresses both the socially enhancing objective of healthy teeth and gums and that bad teeth add significantly to the risk of heart disease.

Key words: cultures, oral health culture, work cultures, quality of life
delivery, oral health norms rest on the assumptions that (1) individuals know best what’s right for them, so each person should exercise sovereignty over him or herself, and (2) oral health constitutes a cosmetic not a disease category. The culture, thus, explains an individual’s oral health problems as that individual’s failure to take care of his or her teeth. Individual success or failure to achieve and maintain good oral health depends on norms drawn from otherwise unrelated work cultures.

Methods

This study used a mixed method ethnography that integrated narratives collected from one set of diverse research participants ($n=39$) with structured interviews collected from a different set of diverse participants ($n=288$).

Sample Design and Size

Because cultures consist of shared things, ethnographic analysis answers the question of who shares what with whom and to what degree. To achieve reliable and valid findings about the content and boundaries of cultures, ethnographic studies employ a sample design that actively searches for cultural variation and the antecedent life experiences that may produce it (Handwerker 2005). The present study used a sampling frame stratified by age, gender, ethnicity, insurance coverage, status as dental provider (dentist or dental hygienist) or patient, self-defined status as having been raised in poverty or not, and history of significant oral health problems. We recruited some participants at dental offices and clinics. We recruited most participants in residential areas in diverse locales that tapped different social networks—in rural Eastern Connecticut, the Bridgeport-Stamford urbanized area (which includes the poorest and least educated as well as the wealthiest and most educated populations in the state), the Hartford urbanized area (which exhibits comparable diversity), and from the mid-state cities of Manchester and Willimantic.

Protocol (semi-structured) interviews with a diverse sample of providers and patients elicited a common pattern of responses that led us to cease protocol interviews at $n=39$. Similarities among research participants’ responses to the structured interviews ranged from 52 percent to 100 percent and averaged 73.4 percent ($sd=5.9\%$). For this degree of similarity, a sample of only 10 people yields validity and reliability coefficients over 0.99 (Weller and Romney 1987, 1998; Weller and Romney 1988). We ceased sampling at $n=288$ after having exhausted ourselves in sampling the socioeconomic extremes in Connecticut, just in case they exhibited important cultural variants.

Data Collection

We carried out protocol interviews face-to-face and in the preferred language of the respondent by the PI and a team of second- and third-year students in the University of Connecticut’s graduate program in applied medical anthropology. These interviews, which took 30 minutes to 1.5 hours to complete, began by asking individuals their views about important community health issues. Thereafter, we asked people to tell us about the symptoms of unhealthy teeth and gums, their personal experiences with each symptom, its origins, implications, distribution, prevention, and cure. The protocol incorporated free lists on issues like the different kinds of symptoms, treatments, and means of prevention that a research participant knew about. We used this information to create a structured interview with which to assess an individual’s knowledge about (1) oral health symptoms, (2) effective means of prevention, (3) implementation of those means, (4) childhood training and modeling of effective oral health practices, (5) the relative importance of a good appearance and having good teeth, (6) a history of serious oral health problems, (7) the relative importance of the components of visits to a dental provider, and (8) life history variables (e.g., age, gender, ethnicity) that might influence the answers. The structured interviews also included a set of triads to elicit similarity judgments about a range of disease categories (e.g., cancer, depression, flu).

Data Analysis

We analyzed narrative data with schema analysis (Ryan and Bernard 2003). We used a variant of consensus analysis to test for cultural agreements among our research participants (Handwerker 2002). We used correspondence analysis (Weller and Romney 1990) to analyze intracultural variation. Because measurements of cultural phenomena violate the independence assumption of classical statistical tests, Ordinary Least Squares regression tests for the effects of life history variables used permutation methods to generate probabilities.

Findings from an ethnographic sample with high reliability and validity coefficients such as the one reported here may be generalized to people in a particular region, at a particular time with the demographic characteristics of the sample studied (Handwerker 2005). The findings reported here apply specifically to people who currently live in Connecticut and who fall within the range of variation of the demographic characteristics reported in Table 1. Cultures change, however, and in only a few years our findings may not apply to Connecticut’s population. Furthermore, ethnographic studies in the American South, Midwest, Southwest, or Pacific Northwest may reveal significant cultural differences. Nonetheless, in the absence of barriers to communication and social interaction, cultures exhibit continuity over space and time. This suggests that our finding of a single cultural understanding organized around the assumption that oral health constitutes a cosmetic not a disease category may apply broadly across the United States.
Sample Characteristics

Table 1 summarizes characteristics of our research participants. Our search for cultural diversity led us to undersample Whites (79% of the Connecticut population in the 2000 census) and over-sample minority populations. Our participants include Whites (63%), Latinos (17%), Blacks (13%), Asians (5%), and Native Americans (2%). Sixty-three percent of our sample were dental patients and 37 percent dental providers. Seventy-four percent of the providers worked in private practices; 26 percent worked as public providers in community health center dental clinics. Fifty-seven percent of the dental patients had private dental insurance, 12 percent had State Medicaid dental insurance, and 31 percent had no

Table 1. Sample Characteristics (N=288)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistics</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Mean: 34 years</td>
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<tr>
<td></td>
<td>SD: 12</td>
</tr>
<tr>
<td></td>
<td>Min-Max: 18-77</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Men: 24.2%</td>
</tr>
<tr>
<td></td>
<td>Women: 75.8%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td>White: 63.4%</td>
</tr>
<tr>
<td></td>
<td>Latino: 16.7%</td>
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<tr>
<td></td>
<td>Black: 13.0%</td>
</tr>
<tr>
<td></td>
<td>Asian: 4.9%</td>
</tr>
<tr>
<td></td>
<td>Native American: 2.0%</td>
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<tr>
<td><strong>Service Status</strong></td>
<td>Patient: 63.2%</td>
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<tr>
<td></td>
<td>Provider (dentist or dental hygienist): 36.8%</td>
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<tr>
<td><strong>Provider Status</strong></td>
<td>Private Practice: 73.6%</td>
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<tr>
<td></td>
<td>Public Practice: 26.4%</td>
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<tr>
<td><strong>Completed Education</strong></td>
<td>Some secondary school: 3.9%</td>
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<tr>
<td></td>
<td>Secondary school: 17.3%</td>
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<td></td>
<td>Some college: 37.0%</td>
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<tr>
<td></td>
<td>College: 24.6%</td>
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<tr>
<td></td>
<td>Post-graduate schooling: 17.2%</td>
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<tr>
<td><strong>Grew up in Poverty</strong></td>
<td>Yes: 38.8%</td>
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<tr>
<td><strong>Current Income</strong></td>
<td>Low: 27.9%</td>
</tr>
<tr>
<td></td>
<td>Middle: 65.7%</td>
</tr>
<tr>
<td></td>
<td>High: 6.4%</td>
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<tr>
<td><strong>Dental Insurance</strong></td>
<td>None: 30.9%</td>
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<td></td>
<td>Public: 11.8%</td>
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<tr>
<td></td>
<td>Private: 57.3%</td>
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<tr>
<td><strong>Poor Oral Health</strong></td>
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<tr>
<td></td>
<td>Current poor oral health: 8.7%</td>
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<tr>
<td><strong>Importance of Good Appearance</strong></td>
<td>Not important: 1.7%</td>
</tr>
<tr>
<td></td>
<td>Important: 36.8%</td>
</tr>
<tr>
<td></td>
<td>Very Important: 61.5%</td>
</tr>
<tr>
<td><strong>Importance of Good Teeth</strong></td>
<td>Not important: 2.8%</td>
</tr>
<tr>
<td></td>
<td>Important: 35.8%</td>
</tr>
<tr>
<td></td>
<td>Very Important: 61.4%</td>
</tr>
<tr>
<td><strong>Childhood Training and Parental Modeling</strong></td>
<td>Parents Emphasized Importance of Good Teeth: 81.9%</td>
</tr>
</tbody>
</table>

**Results**

Sample Characteristics

Table 1 summarizes characteristics of our research participants. Our search for cultural diversity led us to undersample Whites (79% of the Connecticut population in the 2000 census) and over-sample minority populations. Our participants include Whites (63%), Latinos (17%), Blacks (13%), Asians (5%), and Native Americans (2%). Sixty-three percent of our sample were dental patients and 37 percent dental providers. Seventy-four percent of the providers worked in private practices; 26 percent worked as public providers in community health center dental clinics. Fifty-seven percent of the dental patients had private dental insurance, 12 percent had State Medicaid dental insurance, and 31 percent had no
dental insurance. Thirty-one percent reported having bad teeth some time in the past; 9 percent reported having bad teeth at the time of interview. Our participants overwhelmingly assigned importance to a good appearance and good teeth; 2-3 percent reported that neither was important.

An American Culture of Oral Health

Principal components analysis confirmed a single shared cultural understanding that encompassed the symptoms of oral health problems, means of prevention, implementation of those means, and the good and bad aspects of a dental office visit: 76 percent of the variance among research participants was accounted for by factor 1 (the eigenvalue of factor 1 was 20 times greater than the eigenvalue of factor 2) and an inconsequential amount of variance was explained by factor 2. The cultural model of and for oral health behavior employed by our participants consisted of the following:

- Symptoms of oral health problems include sensitive teeth, tooth pain, receding gums, bleeding gums, and cavities.
- Means of prevention include brushing teeth, flossing teeth, use of an antibiotic mouthwash, and regular dental visits.
- Of these acknowledged means of prevention, people brushed regularly and made regular dental visits, but few flossed or used an antibiotic mouthwash.
- Bad aspects of a dental office visit, which function as barriers to care (e.g., Cohen et al. 2003; Doty and Weech-Maldonado 2003; Manski et al. 2004; Mofidi, Rosier, and King 2002), included encountering an unfriendly staff, long waits, discomfort, cost, pain, anxiety, and fear.
- Good aspects of a dental office visit included encountering a friendly staff, knowing the staff, short waits, receiving an explanation of the procedures, and clean teeth.

Participants’ background did not predict the degree to which they shared this cultural pattern. The average size of the shared intersection (factor loading) among our research participants was 88 percent. We looked for potential effects of the following antecedent conditions (see Table 1): childhood training and modeling variables, the importance of appearance and good teeth, kind and presence of dental insurance, ethnicity, age, gender, educational level, current income, and whether or not the individual reported having been raised in poverty. The combined effect of all potential predictors (adjusted $R^2$) was only .069 ($F=2.870, p=.094$).

The norms that guide oral health behavior rest partially on the assumption that individuals know best what’s right for them, so each person should exercise sovereignty over himself or herself. The prevailing cultural model, thus, holds that oral health problems reflect an individual failure to take care of one’s teeth. The prevailing cultural understanding holds that maintaining good oral hygiene means brushing teeth twice daily, flossing, using an antibiotic mouthwash, and visiting a dentist twice a year. Good supplements to these activities include a diet low in sugar, high in calcium, and rich in vitamins and minerals. Although a pattern of regular brushing in adulthood was assumed to come out of good parental training that produced responsible individuals who took care of themselves, a pattern of regular dental office visits was assumed to reflect a balance of specific constraints and opportunities that focused on the pain and stresses of dental work and its cost in time and money.

A dental office visit constitutes a choice based on criteria that reflect important forms of cultural variation. The prevailing cultural understanding of problems with teeth and gums is that untreated, they might mean increasing pain, tooth deterioration and loss, infection, gum disease, and the need for a root canal operation. But this culture holds that oral health problems do not kill, and many go away on their own or respond well to self-treatment. Moreover, they progress so slowly that they rarely require immediate attention and an eventual dental visit (maybe several follow-up visits) eliminate the problem. Because dental problems rarely affect daily social functioning, they remain (in the words of some respondents) “non-obvious” and “hidden.” Consequently, according to the prevailing culture, ordinary symptoms call only for self-diagnosis and self-treatment (as found also by Bedos et al. 2003). A young woman explained how she made dental care decisions:

For my teeth hurting, it depends how bad it is. If it was not that bad, I would make the decision of what to do. If it was really bad, then I would tell my mom and she would hook me up with a good doctor. For bleeding gums, I would say the same thing that I just said about the teeth hurting. It would have to be really bad though for me to do something about it. Usually my gums bleed because I am not used to flossing or because my gums are sensitive.

The prevailing cultural understanding also holds that the poor may suffer from greater dental problems because of the lack of insurance coverage and the costs of dental care. Without question, some people with little income or uncertain income streams delay dental office visits. Clients of widely varying occupations and income levels pointed out, however, that dental office visits entail significant costs in time. A 40-year-old man complained:

I waited 40 minutes to get my teeth cleaned. I can’t tell you how mad I was. They wasted so much time getting me into the room. I even told the dentist not to do the x-rays. The dental hygienist was wonderful. She did a great job. I liked her very much. But for that first 35 minutes in the office, I almost killed someone!

Another man, slightly older, elaborated:

Getting to the dentist for people without a car isn’t always easy. You have to schedule the appointment so you can use public transportation or older people who retire in the suburbs without a car have to take the little buses. Transportation isn’t always available. A lot of people...
would say that they don’t have enough time to go [to the dentist]. People work a lot like 50-60 hours a week and they want to spend time with their kids in the evenings. My doctor changed his blood taking policy so that people had to go to a lab in another building. People stopped getting blood work done. He said that it was because of the transportation, especially for the older people without public transportation so he switched back to taking it at the office.

Moreover, many dental clients with low incomes do not claim that income or lack of insurance deters them from dental office visits. For them, terror lies at the heart of the issue. A young man replied to the question of why he did not visit the dentist regularly, for example, by saying: “Because…well, I would say money. But I had Medicaid for years and never went to the dentist. I hate the dentist. It sucks. I was scared to go.” A young woman thought out loud: “I went to the dentist. I hate the dentist. It sucks. I was scared to go.” A young woman thought out loud:

It hurts and I had a root canal when I was seven and it hurt and was horrible. I had braces when I was young but that wasn’t too bad. They didn’t have to drill. I don’t think I could deal with the drilling. I think it’s the irrational fear of going, but it’s not really that bad. Definitely money, too. I had just gotten my fat check from the lawsuit, so I could afford it when I went over Christmas. I guess I could have borrowed money from my mom if I really wanted to go before. I had Medicaid for seven years and still didn’t go. When my Medicaid got cut I was like, “Well, now I can’t go.”

Eventually, each visited a dentist, one driven by pain, the other driven by both embarrassment and pain.

Fear, not financial considerations, constituted the most pervasive theme of our protocol interviews. A 28-year-old woman provided graphic details of her visit to a dentist the previous Christmas Eve (2002)—her first in 15 years. She explained:

[I went] because my tooth was rotting out of my head and I was in agonizing pain for like two weeks. Doubled over crying and I thought I was going to get an infection in my brain and they were two rotting stumps and I refused to go to the dentist because I was scared. I had all of the herbal remedies, I was on Anbesol and I was downing bottles of Ibuprofen. It went on for years but it was recurring for years and I’d take Motrin and I’d plan on going to the dentist but then the pain would go away. But this time the pain was so horrible and I just wouldn’t go to the dentist because I was scared. Of what? I don’t know. I don’t know what I was afraid of, I was just scared.

The interviewer added the following to the fieldnotes:

(i think this informant’s reaction to the pain of a toothache is important here. I had imagined that being an I.V. drug user who lived on the streets for almost 10 years would make her rather resistant to pain, or perhaps increase her pain tolerance. She has explained painful experiences to me that sounded absolutely unbearable with far less emotion and attention to the pain aspect than she did when she described her tooth pain. Also, she supports the running theme that just the idea of going to the dentist can be overwhelmingly scary.

The interviewer next asked: So, what happened? The woman replied: “I bargained with god. I said if you let me go to sleep tonight I swear I’ll go to the dentist. And I went to sleep that night so I figured I should go. I was pleading and crying it hurt so bad. The pain got better but I figured I should go to the dentist.”

Bad Teeth Is a Cosmetic, Not a Disease Category

Excepting a few oral health providers, study participants consistently failed to list problems with teeth or gums as either a common or a serious health problem. Our initial question confused one respondent, who pointed out that bad teeth does not comprise a “disease” category.

He was right. Principal components analysis confirmed a single shared cultural model of similarities among a set of health and cosmetic categories and revealed that both dental clients and dental providers classify bad teeth as a cosmetic, not as a disease category: 84 percent percent of the variance in similarity judgments made by research participants was accounted for by factor 1 (the eigenvalue of factor 1 was 10 times greater than the eigenvalue of factor 2), and an in consequential amount of variance was explained by factor 2. Like the cultural model of symptoms, preventative measures, and dental office visits, participants’ background did not predict the degree to which they shared this cultural pattern. The average size of the shared intersection (factor loading) among our research participants was 71 percent. The combined effect of all potential predictors (adjusted $R^2$-squared) was only .013 ($F=1.393$, $p=.338$).

Figure 1 shows a cluster analysis of our study participants’ consensus. Cancer and heart disease, the major killers in our society, fit most closely together, but HIV/AIDS runs a close third. Measles and flu are potentially serious but rarely fatal physical ailments. Headaches are also potentially serious physical ailments. Depression, our culture holds, is a serious illness but people classify it as a mental not a physical disease. Together, cancer, heart disease, HIV/AIDS, measles, flu, headaches, and depression comprise a major cluster of disease categories. By contrast, study participants—including the dental providers who listed problems with teeth as an important health problem—place bad teeth, along with pimples and bad hair, in a major cluster of cosmetic deficiency categories.

Protocol interviews yielded pointed comments about the importance of social cosmetics. For example, a 25-year-old woman who had had dental problems since childhood, including caps on her teeth at age 6 and veneers at age 14, commented that the process was not too painful, and it was totally worth whatever the pain to have “nice teeth.” She said that having brown teeth makes people think “you don’t take care of yourself.” There is no cause for embarrassment without an audience attuned to cosmetics.
A 26 year-old-man reported:

I had horrible oral hygiene and I ended up needing… because of lack of care of my teeth for only 4 or 5 years I ended up having to have extensive dental work done. Fourteen to 15 root canals, 9 crowns, a bridge, I’ve had numerous drillings and fillings, I had gum surgery done where I had to have portions of my gums removed. It was very expensive and extremely painful when I didn’t take care of my teeth and when I was getting them fixed. It was embarrassing. You could see the decay just by talking to me. It was visible and some of the cavities were so big and so deep in front that you could see them when I smiled. “J” said that it looked like I had popcorn kernels stuck in my teeth.

The interviewer added the following to her fieldnotes:

(Throughout this interview, the informant expresses shame and embarrassment about the former condition of his teeth. Although not described exactly how, it seems he came to a point where he could not take the embarrassment or physical pain in his teeth anymore, and, thus, had very extensive, painful, and costly work done to correct his problems. I think that his case is rather unusual in several aspects: the amount of damage his teeth had sustained at such a young age, the amount of work he had done, and the amount of time, effort, and money invested in this work, as well as the subsequent change in his oral hygiene habits. He finds his case unusual as well. He was worried that he would not be a good person to interview because of his unique oral health history and (what he considers) a borderline obsession with his teeth.)

Without exception, people who reported having had bad teeth earlier in life but good teeth now explained their change in oral health status by reference to a change in life circumstances. Earlier in their lives, appearance did not matter. Because of the jobs they held and their unconcern with social and economic mobility, even grossly unaesthetic decayed and missing teeth produced no effect worthy of notice. Later, it did, but only because they anticipated that a pleasing personal appearance would be necessary to achieve their new social and economic mobility goals.

A person’s embarrassment at having bad teeth not only provides an incentive to override one’s fear of a dental visit, embarrassment at not regularly visiting the dentist, or not flossing regularly makes clients defensive. Although pain, lost time, and financial expenditure were the most commonly named items when we asked respondents about the worst thing about visiting a dentist, induced embarrassment occurs often. As one young woman noted, “I always know they’ll give me a hard time about flossing and I have no excuse so I feel stupid.” Another felt her recent dental office visit went well, and explained: “I wasn’t yelled at for supposedly not flossing.”

**Intracultural Variation in Oral Health Practices and Outcomes**

Figure 2 explores graphically some implications of this finding. A correspondence analysis plot shows each individual’s relationship to a set of variables. As the degree of correspondence grows, spatial proximity grows. Symbols
for individuals reflect whether (an 'x') or not (a sphere) the person reported currently having bad teeth.

In Figure 2, research participants fall into three groups that correspond with insurance coverage categories. Individuals within each group exhibit varying distances from the set of highly interdependent proximate and distal predictors of good teeth identified in the cultural model. As indicated earlier, these include regular visits to a dentist, regular teeth brushing, whether or not the person brushed regularly as a teenager, and the importance of a good appearance and good teeth. Individuals closest to the cultural model predictors brushed and made dental visits frequently, reported that a good appearance and good teeth were very important, and brushed regularly as a teen. Individuals farthest from the cultural model predictors brushed and made dental visits infrequently if at all, reported that a good appearance and good teeth were not important, and did not brush regularly as a teen. Individuals who lay between these extremes reported mid-level frequencies of brushing and dental visits, reported that a good appearance and good teeth were important, and mostly brushed regularly as a teen. The likelihood that a participant reported bad teeth at the time of interview rises as distance from the predictors grows.

If bad teeth originated in any form of dental service access constraint, as current literature claims, we should find that variation in oral health corresponds with some measure of constraint, whether ethnicity, insurance coverage, gender, socioeconomic status, or something else. We don’t. Regression of these variables on the presence of bad teeth produces an adjusted $R^2$ of .007 ($F=1.500, p=.602$). If we test only for the effects of private, public, or the absence of dental insurance, we find an adjusted $R^2$ of .008 ($F=2.639, p=.194$). Bad teeth originate in failure to follow widely understood practices that produce good teeth. You’re unlikely to have bad teeth if you brush regularly, irrespective of your insurance status, ethnicity, gender, or socioeconomic status. As reported earlier, knowledge of how to achieve and maintain good oral health shows no variation by insurance status, ethnicity, gender, or socioeconomic status. We infer that something else accounts for bad teeth. We implicate the culture without norms that override the fear (sometimes terror) of going to a dentist.

Discussion

The prevailing cultural understanding holds that, for both patients and dental providers, oral health constitutes a cosmetic not a disease category. Indeed, dental providers have made cosmetic dentistry a major growth field. Individuals act to achieve and maintain good oral health, consequently, based on cultural norms that reflect the importance of appearance for their quality of life. Going to a dentist costs money and may entail even more costly expenditures of time and anxiety. Even basic procedures, patients say, require confinement, impair their ability to communicate, invade private spaces, and hurt. Going to a dentist, thus, strongly evokes our body’s stress response. It terrifies many of us.

Tooth pain gives us one incentive to go to a dentist, but our research participants told us that tooth pain, like other physical ailments, can be self-diagnosed, self-treated, and usually goes away by itself. If it doesn’t, they continued, intensifying pain will eventually drive a person to the dentist or the emergency room, contingent on the person’s relative tolerance for pain, lost time and money, and stress.

Cultural norms provide a second incentive. The relative importance of appearance and having good teeth is a function of the cultural norms imposed on people who aspire to career tracks and increasingly responsible work or social positions in the global market economy (Alkhatib, Holt, and Bedi 2004). Good teeth reflect self-respect and discipline. The commercial advertising of popular culture and print and broadcast media have it right that looking good improves a person’s ability to both enhance their material well-being and attract a mate. We not only know how to prevent dental disease, we regularly brush our teeth and visit a dental provider and make sure our children do, too. If we get a poor start, we catch up. Whereas 83 percent of our respondents reported that their parents enforced regular brushing as children, for example, 88 percent reported regular brushing as a teen and, at the time of interview, 96 percent reported that they brushed their teeth at least once daily. We reiterate: without exception, people who reported having had bad teeth earlier in life but good teeth now explained their change in oral health status by reference to a change in perspective on their future, which depended on achieving and maintaining a good appearance, including good teeth.

Looking good by standards set in the global, competitive market economy, on which we now base measurements of quality of life (Chavers, Gilbert, and Shelton 2004; McGrath,
Broder, and Wilson-Genderson 2004; Needleman et al. 2004), does not hold for everyone. Some people define quality of life in ways that do not ascribe importance to appearance and having good teeth, despite sharing the cultural model of oral health outlined earlier. These people participate in another work culture in which they see no prospective career tracks. “Looking good” does not affect the material well-being of men and women who move from job to job working at an all-night record store, in food delivery, as a factory or farm worker, or as a fast food cook, and who finds a mate among others who do likewise. This culture provides the clients who show up at hospital ERs for emergency care and whose oral health practices dental providers find troublesome. They brush irregularly if at all and avoid dental visits until the pain gets too great. In the process, they may make dental appointments, but cancel them if the pain abates or something more pressing comes up. The delay in addressing the problem makes their pain and the complexity of the health issue that much worse. The cost of the dental procedures goes up in both time and money. An initial visit typically aims to reduce or eliminate the pain. Because these clients value no pain but do not value good teeth, the dental providers who do and who schedule follow-up procedures find themselves with further cancellations. Cultural variation like this calls for adjustment to quality of life instruments.

Conclusion

The population vulnerability explanation for poor oral health may not support the weight given it by policymakers. Improving health care access is a worthy goal but fails to address the cultural roots of bad teeth that produce Gilbert’s Paradox. Overwhelmingly, bad teeth may disappear due to the causal force of a culture.

Elsewhere, Handwerker (2009) outlines how this happens despite pervasive cognitive biases that yield faulty perceptions and bad choices. Early in the 20th century Alfred Kroeber (1917) pointed out that cultures form the environments into which we arrive as infants, change independently of how we might want them to change, and require our attention however much we may detest it. You can’t wish cultures away, any more than you can wish away the rising and setting of the sun and the phases of the moon. Because cultures possess qualities that go beyond the organisms that create, bear, and change it, Kroeber called these things superorganic phenomena. Cultures exhibit these qualities because, as John Searle (1995) observes, it consists of an agreement among people about a set of assumptions in which certain things exist and that certain things count as other things in specific contexts. Cultural assumptions generate a cultural syllogism that produces cultural norms (things we “should” do or not). Cultural assumptions and the cultural norms that they yield provide the foundation by which cultural participants emotionally and behaviorally respond to events. Cultures, thus, structure the consequences of our choice alternatives. Significant consequences coerce people into making one choice or another, into pursing one set of activities rather than another.

Career tracks, thus, open to people with good teeth and other qualities of a good appearance as a behavioral consequence of cultural norms. They don’t to people who do not make a good appearance. If a person exercises sovereignty over him or her self, and if he or she wants good teeth, he or she should brush regularly and floss even if they cannot visit a dentist once or twice a year. Significant cultural change, thus, entails a change in assumptions. If we want to change, we have to switch cultures or create a new one. If you want to induce cultural change, either focus educational efforts on the consequences of existing behavior, or provide people firsthand experience with those consequences, or both. As reported earlier, the people who reported that they replaced bad teeth earlier in their life with good teeth now did so because they changed the culture in which they participated.

This conclusion suggests that policy and program interventions target the cultural assumptions that channel behavior in undesirable ways, whether to impede antiretroviral therapy (Murray et al. 2009) or to produce bad teeth. Dozier et al. (2006), for example, describes a culture of smoking and a culture of non-smoking but points out that the absence of a culture of quitting may unduly aggravate the process of shifting from one culture to another. Improved oral health may require social marketing that stresses both the socially enhancing objective of healthy teeth and gums and that bad teeth add significantly to the risk of heart disease.

References

Alkhatib M. N., R. Holt, and R. Bedi

Allukian, M.

Bedos, C., J. M. Brodeur, M. Benigeri, and M. Olivier

Chavers L. S., G. H. Gilbert, and B. J. Shelton


D’Andrade, R. G.

Doty, H. E., and R. Weech-Maldonado

Frazier, P. J., J. Jenny, R. A. Bagramian, E. Robinson, and J. M. Prosheck  

Gilbert, G. H., B. J. Shelton, L. S. Chavers, and E. H. Bradford  

Handwerker, W. Penn  


2009 The Origin of Cultures. Walnut Creek, Calif.: Left Coast Press.

Kroeber, A. L.  

Leake, J. L., S. Birch  

Manski, R. J., H. S. Goodman, B. C. Reid, and M. D. Macek  


Maserejian, N. N., F. Trachtenberg, C. Link, and M. Tavares  

McGrath, C., H. Broder, and M. Wilson-Genderson  

Mofidi, M., R. G. Rosier, and R. S. King  


Needleman, I., C. McGrath, P. Floyd, and A. Biddle  


Quinonez, C., D. Gibson, A. Jokovic, and D. Locker  

Ryan, G. W., and H. R. Bernard  

Searle, John R.  

Strauss, R. P.  

Weller, C. S.  


Weller, S. C., and A. K. Romney  


Zabos, Georgina P., Mary E. Northridge, Marguerite J. Ro, Chau Trinh, Roger Vaughan, Joyce Moon Howard, Ira Lamster, Mary T. Bassett, and Alwyn T. Cohall  