

Chewing Gum
A Clean Performance Makes a Mess

Laura Noren
Objects: Spring 2006
New York University
Harvey Molotch and Barbara Kirshenblatt-Gimblett

Americans consume 1.8 pounds of gum per capita per year (Reference for Business, 2005) or about 160-180 pieces (Cadbury Schweppes, 2005). Chewing-but-not-swallowing is an old human habit—the Greeks chewed something similar to gum, so did the Wampanoag American Indians (Reference for Business, 2005) and the gum we chew now is a direct descendant of the chicle-based gum the Mayans chewed. While the masticatory urge may have long historical precedent, it remains unclear just why humans feel like chewing in the first place.

Why chew gum?

The people making the gum¹ have long touted gum as an enjoyable diversion, a fun snack, a mouthful of youthful pizzazz, but not *just* for kids. Juicy Fruit, primarily marketed to children, was the first flavor released by Wrigley, the longest extent gum manufacturer in the US. Wrigley's Doublemint followed about a decade later in 1914 and targeted slightly older consumers. These early introductions were not the first exposure Americans had to chewing gum. Those in the southwest were likely familiar with chicle-based gums being chewed in Mexico at the time. In the northeast, spruce flavored chewing gum made from tree resin was commercially available in Maine as early as 1848. Little evidence of marketing efforts (or commercial success) is available for either Maine's pine flavored gum or early Mexican-origin chicle based gums. Tree

¹ The US nonchocolate confectionary market has been duopolized by Wrigley and Cadbury Schweppes (Haymarket, 2006; Wrigley 2005 Stockholders Meeting; Cadbury Scweppes 2005 Annual Report) for decades. Their dominant industrial capacity in combination with their global expansion goals is quickly spreading their duopoly to countries like Russia, China, Mexico, and India as well.

resin remained one of the gumming agents of choice, but spruce proved to be an unpopular flavor among what was to become gum's primary consumer group: children. Wrigley's was not the only company experimenting with chew-but-not-swallow confections in the late 1800's. Franklin Channing invented Dentyne, the first dental gum in 1899 and bubble gum, that sugary pink blowable substance, serendipitously emerged in 1906 though the formula was not perfected and sold until 1928. The success of



This print ad appeared in 1939.

Wrigley's spearmint rather than the unbranded spruce gum in Maine is likely due to some combination of consumer preferences for sweetened gum and Wrigley's leadership in brand development. Initially, Wrigley paid premiums to merchants to offer financial incentives to inspire the active promotion of gum chewing amongst their customers at the micro level. Wrigley was also an early adherent to the power of the visual image in creating a recognizable brand: they promoted chewing gum in newspaper print ads and on billboards as early as 1910 and advertising continues to account for a large part of total expenditures for Wrigley and Cadbury Schweppes, the industry giants who currently account for roughly 62% of the chewing gum market in the US (Wrigley 2005 Stockholders Meeting; Cadbury Schweppes 2005 Annual Report). The branded images associated with their various sub-brands² have remained remarkably stable over time: the doublemint twins were introduced in 1921 to promote Wrigley's Doublemint gum and have been in use as a recognizable branded symbol in America over

² The Wrigley brand is represented in the US by Extra, Orbit, Doublemint, Wrigley's Spearmint, Winterfresh, Big Red, Orbit White, Airwaves, Juicy Fruit, Eclipse, Eclipse Flash, Freedent, and Alpine.

decades in print and televised campaigns. As recently as 2005 Wrigley reinvigorated the doublemint twins as a branding strategy by launching a “reality” advertising campaign and hosting general casting call in malls across America to select new Doublemint Twins. Perhaps unsurprisingly, the two new sets of Wrigley twins are similar in appearance to the twins of the 1980’s: both new twin sets are identical, both are women, one set is blond, and the other set is African American. They may be new people, but the Doublemint Twins as a branded image is incredibly stable over time.



The new Doublemint Twins for 2005. Like their most recent older siblings of the 1980’s, they are identical, female, and one set each of blondes and African-Americans.

While we may admit that Wrigley has created and maintained successful branding strategies over time, the branded image, even in combination with humanity’s demonstrated historical tendencies to chew-but-not-swallow, is not enough to explain the remarkable prevalence and stability of gum chewing behavior over time.

We may have reason to believe we know why we chew *Wrigley*, but why chew anything at all? Chewing gum for Americans of the 20th century and beyond is likely a different kind of behavior than it was for past gum chewers. Anthropologists have offered various explanations for chewing-but-not-swallowing ranging from pain relief to the staving off of hunger pains. While some recent research supports the chewing of gum as a substitute

for eating, it is in the context of weight loss (Levine, 1999), not to relieve scarcity-induced hunger pains. If chewing Wrigley is different than chewing spruce flavored or more or less unflavored chicle, what's the difference? Furthermore, is chewing Bubblicious the same thing as chewing Orbit?

Wrigley's first flavor, Juicy Fruit, is indicative of the company's original intentions for gum as a product: it was about sweet diversion, a candy-like snack. The amazing staying power of Juicy Fruit in more or less the same flavor, consistency, and packaging today as it was when it was introduced at the turn of the century, is testament to its wide acceptance among consumers. The candy-like usage strategy worked. For much of its history, chewing gum was a mild form of entertainment, engaged not for any medical, nutritive, or social reasons, but simply for sweet pleasure. Even Doublemint with its somewhat less candy-like flavor was intended to "Double Your Pleasure, Double Your Fun". Bubble gum, introduced some twenty years after Juicy Fruit and Doublemint, bolstered the image of gum as fun. Early merchants, themselves instructed by confectionary wholesalers, taught young customers how to blow bubbles and a new body praxis was born. Distributed with comics or in packs of baseball cards, bubble gum was clearly about youthful entertainment and informal enjoyment.

Children and teens have always consumed a disproportionate amount of the total gum chewed, though the chewing demographic has shifted over time. Bubble gum sales began to decline in the 1970's as the entire industry slumped. In the late 1980's overall gum sales began to increase, but bubble gum never recovered its previous market share,

though novel packaging and flavors have occasionally generated spikes in bubble gum consumption.³

The shift that occurred during these years, potentially saving the gum industry from a slow but steady decrease in overall sales, was one from fun-gum to functional-gum. The US Surgeon General's warnings about the dangers of cigarette smoking slowly became incorporated into strategies of oral satisfaction as smokers, under pressure from bans on smoking in public places and work places, began to substitute gum for smokes.

Additional research emerging in the early 1980's suggesting that exposure to secondhand smoke could increase the chances of developing serious health problems accelerated the move towards banning the smoking of cigarettes in much of the great indoors, putting more pressure on smokers to find satisfying alternatives.⁴ Furthermore, though sugarless gum was not particularly new in the early 1980's⁵, it was newly discovered that chewing gum might aid in the prevention of cavity formation. An early Scandinavian study of the effect of chewing gum on the suppression of dental caries found that chewing was only effective when the sweetener was xylitol compared to sucrose (Scheinin et al, 1975). A later study conducted from 1982-1985 confirmed that chewing xylitol sweetened gum

³ In the early 1990's sour gum was popular among elementary and junior high students but has since largely disappeared from the market. Special packaging for bubble gum, in the form of plastic cell phones, school lockers and baby bottles along with non-stick forms, like long strips or candy coated pellets remains an important marketing tool for the youth segment.

⁴ In 1984, Nicorette, the first nicotine-containing gum was available only as a prescribed drug. Over the counter sales were approved in 1996. (SmithKline Beecham Consumer Healthcare LP vs. Watson Pharmaceuticals, Inc.; Watson Laboratories; and Circa Pharmaceuticals, 2000)

⁵ Trident was released as a sugarless gum in 1964 as a gum that was "good for your teeth" later switching over to the "4 out of 5 dentists recommend..." slogan but it was meant *only* as an alternative to sugared gums. The dental community had yet to conduct research that would eventually support the chewing of xylitol sweetened gums in the promotion of oral health. Trident used saccharin, not xylitol, though it has now switched to xylitol (www.tridentoralcare.com, 2006).

was, in fact, better for dental health than chewing no gum at all (Makkinen, 2000). Gum was no longer fun, it was healthy.⁶

The growth pattern in the gum sector supports the theory that adults, not children, were chewing more gum and likely not for fun. The bubble gum sector shrank while sugarless gum began a growth trajectory in the 1980's that continues even today. Cadbury Schweppes reports that the global gum market grew 6.5% in 2004 and that, "In gum, consumers are switching from sugared to sugar-free products. 70% of our products are sugar free" (Cadbury Schweppes, 2005). And at Wrigley, "gum sales were up by 9% in 2005 fueled by the outstanding performance of our three largest global gum brands, Orbit, Extra, and Doublemint" two of which are sugar-free gums. Extra and Orbit, both sugar-free, lead the US market followed by Trident, which has always been sugar-free. As a candy-like confection, gum was waning in popularity throughout the 1970's, but as a part of a responsible, healthy lifestyle, chewing gum became a new kind of behavior altogether. Medicalizing (or dentalizing) the chewing of sugar free gum transformed the practice from a youthful diversion to an adult investment in proper body maintenance. Stemming from its relationship to proper dental health and oral freshness, chewing gum has been incorporated into routines of body maintenance, joining the panoply of daily enacted body work schemes. The potential for improper body presentation in relation to the oral cavity is a chronic concern. Breath is the one element whose excretion must be undertaken in public, in close proximity to others, all the time, with little or no mitigating barrier. Sweat can be absorbed by clothing and freshened with perfumes and deodorants. The bathroom is a semi-private space specifically carved out of the public sphere for the

⁶ Chewing naturally sweetened gum increases cavity formation and does *not* promote dental health. Reduction of dental caries (*mutans Streptococci*) has been substantiated with xylitol sweetened gum.

performance of private acts of excretia and body cleaning. But the mouth, too, is a site in which excretia is produced--odors must be covered up, redirected, and cleansed.

In the introduction to the inaugural issue of the journal *Body & Society*, Mike

Featherstone and Brian Turner write that:

the body is the raw material which culture forms and inscribes to create social differences...the body is the first object humans work on in transforming nature into culture, both as a species and in the life course of individuals...Nothing escapes significance, the various modes of walking, sitting, looking, etc. all convey cultural meaning. (Featherstone and Turner, 1995)

The acts of eating and talking are certainly body performances that are also cultural productions. The typical body proximity for one-on-one conversations, combined with the expectation of making frequent eye contact, means that Americans are within smelling distance of each other's breath during most in-person interactions. Eating, and thus the sully of the mouth with smelly, unsightly food products that could become lodged in the teeth, is a social activity that draws even more attention to the mouth as a site for the public performance of cleansing activities. Brushing, flossing, mouth washing, and visits to the dentist are routinely undertaken to ensure the presentation of a full set of clean, fresh smelling teeth, and the accompanying pink gums and tongue. But these activities are private, even brushing and flossing are usually considered too private for semi-private bathrooms in restaurants and work places.

While gum cannot be of much service during the meal, it has taken up residence as a post-meal palate cleanser, necessary for the maintenance of appropriate odor management. Though the practice of post-meal chewing may have flown to us on the wings of oral health, its current function has much more to do with obliging social etiquette and maintaining the presentation of bodily propriety. Maintenance of bodily

aroma is a fundamental, and therefore very important, body practice. We may not all be able to enact the performance of beauty, but at the very least we should not stink. In their book, *Aroma: The Cultural History of Smell*, Classen et al write that the desire to control odor is not new, that it has often been used as a divisor between inferior and superior groups, and that anxiety is heightened due to the rapid fatigue of the human sense of smell such that the act of smelling poorly may not be known to the offender (1994). They go on to note that, “whereas in previous centuries it was largely the well-to-do who were preoccupied with ‘smelling sweet’, this concern has now penetrated the consciousness of all social classes”. The expectation of maintaining a particular standard of cleanliness requires constant attention in order to prevent the body from reverting to a state of natural display, if even for a moment.

The mouth is a sight of such frequent action that it is no longer deemed appropriate to simply brush twice a day. Bad breath is likely to develop between brushings and while adding brushings to the daily schedule may be possible for some people some of the time, it simply is not always feasible or socially acceptable to brush one’s teeth in public. Yet every meal, every snack, and even the simple passage of time, can produce anxiety about the presence of offensive oral odors.

Chewing gum not only covers up bad oral effusions, but actually tends to decrease the presence of food particles and odor causing bacteria in the mouth by increasing the salivary flow rate. As an object, gum is much more successful as a breath freshener than are mints. Because it is held in the mouth for much longer than a mint and requires chewing action, gum is able to stimulate a kind of mini-mouthwash due to the churning action rinsing anti-bacterial saliva around the teeth over a long period of time. Mints do

not require chewing, therefore they limit the amount of washing action. In reality, mints are unlikely to freshen any region other than the tongue, since that is where they are likely to sit until they are dissolved or swallowed. Additionally, as the earlier dental studies suggest, the presence of xylitol sweetener in chewing gum alters the chemistry of the mouth such that bacterial growth is significantly inhibited. Mints are not usually sweetened with xylitol and most are unable to produce this effect. Because gum lasts, any effects that it has are sustained over a considerable period of time. Though the duration of chewing behavior varies greatly across the population, even the briefest deliberate encounter with a piece of gum is likely to last ten minutes, far longer than an encounter with a single mint. Lengthier chewing episodes may exhaust the mint flavor of the gum, but they are still useful as time wears on because the chewing activity stimulates saliva production which bathes the teeth in an anti-bacterial solution, thereby reducing odor causing bacteria.

But for all of the breath freshening benefits of its design, even Wrigley notes that eating a mint is more discrete than chewing gum (Wm. Wrigley Jr. Co, 2005). The etiquette of chewing, and not just chewing gum, is another area in which body performance is closely monitored. Chewing while talking or with an open mouth receives social sanction.

Those with whom one is conversing may catch a glimpse of half-chewed food, perhaps calling to mind visions of vomit. Any reference to excretia is to be avoided while eating, thus the institution of a no-talking-while-chewing rule. Applied even more stringently is the prohibition against allowing any food that has once entered the mouth to exit again through the mouth. If just catching sight of half chewed food is enough to recall images

of regurgitation, the act of spitting out a masticated wad is beyond the pale.⁷ What then for gum chewers? Is it acceptable to chew and talk? Since gum chewing is not intended to lead to gum swallowing, it is usually acceptable to hold the gum in the mouth while speaking. The smooth, colorful, strangely globular gum itself hardly resembles any other food product and is unlikely to inspire thoughts of human excretory processes.

Furthermore, the type of gum that is usually chewed following a meal makes a very small bolus that is not easily spotted. Bubblegum is much bulkier but is designed to transgress the oral boundary in bubble form in the first place. As a product intended for use by children, it usually contains sugar and is used in spaces where boundary transgressions are less stringently policed.

Chewing gum manufacturers have noticed and responded to the use of gum as a new practice of body maintenance. Wrigley and Cadbury Schweppes have both released new sugar-free products within the last three years and are continuing to pursue research and development of functional gums. Since 1998 (Wm. Wrigley Co., 2005, Cadbury Schweppes, 2005), packaging and the constitution of the pieces of gum themselves have also seen changes intended to increase the use of gum among adults as a tool in the construction of proper oral hygiene. Both Wrigley and Cadbury have introduced teeth



⁷ No wonder pitted olives, seedless grapes, and nearly seed-free watermelon are so popular.

whitening gums, though Cadbury makes a somewhat illogical claim that there will be no whitening effect unless two pieces of gum are chewed simultaneously.⁸ Additionally, new packaging designs have flattened and widened the packages so that many of the new brands and some of the old brands are now sold in shapes that are roughly the size of a wallet since they are intended to be ever-present.

Each pack contains more pieces and the packs themselves are often sold in multiples instead of one at a time. If fresh breath is the goal, near constant chewing the solution, the scale of gum procurement per capita must increase to suit. As far as the manufacturers are concerned, the increased stringency of odor control in the performance of the appropriately accultured body is fabulous. But if the product is like a wallet, does that mean it is for men? Women carry purses that can easily accommodate many different shapes and sizes, so they would be unlikely to need special packaging designs.

Who chews gum?

Market data on the breakdown of the consumer demographics of gum chewers is closely guarded. With two companies governing the majority of the world's gum production, competition is fierce and much of the research is generated internally. However, both companies mention the increase in sales of gum to adults (Wm. Wrigley Co, 2005; Cadbury Schweppes, 2005) and this is supported by the one publicly available market analysis of the nonchocolate confectionary industry (Reference for Business, 2005). Furthermore, one of Wrigley's long term employees made a statement as an audience member at the stockholders meeting indicating that women comprise just over 50% of

⁸ There is very little evidence for the efficacy of teeth whitening gums in the dental literature.

their consumer base. It was not refuted by the chairman (Wm. Wrigley Stockholders Meeting, 2005).

Chewing gum, then, is still for children but increasingly also for adults across the gender spectrum. Classen et al examined the perfume industry and found that even in the early 1990's, "the sale of fragrances for men, while still far behind that for women, has grown dramatically over the last decades" (190). They also note that smells have a history with regard to social class that in some ways transcends gender while not quite escaping it altogether, "while groups in the centre – politician, businessmen – are characterized by a symbolic lack of scent, those on the periphery are classified as odorous. Women, for example, are either 'fragrant', or 'foul'. Ethnic groups exude 'foreign', 'undesirable' odours. The working classes, in turn, 'reek' of poverty and coarseness" (161). The markets for gum suggest that the performativity of enacting appropriate oral presentation is not a strongly gendered practice. Evidence from the history of cultural performance and production around smells suggests that men and women alike engage in cleanliness rituals to set them apart from other classes more so than other genders.

As noted, a Wrigley employee privy to both consumer demographic information and the pressure of 'keeping secrets' from the competition, was comfortable announcing that the consumer base is largely split between men and women indicating that it must be relatively common knowledge within the industry. So then, is gum chewing gendered? Evidence from the industry would suggest that it is not: the packaging is un-gendered, the flavors are not clearly gendered, and the buyers are roughly split between men and women. But evidence from the social literature, like Classen above, and an empirical social researcher, Nick Crossley, tends to suggest that body maintenance is likely to be

gendered as soon as one ventures beyond the most widely accepted practices like bathing. In a 2005 study on the frequency of engagement in certain body rituals Crossley found that men and women do exhibit small, but statistically significant differences in odor control practices similar to gum chewing such as using anti-perspirant/deodorant (M=89.2%, F=98.4%) and using aftershave/perfume (F=85.9, M=71.7). But there were no differences in bathing, toothbrushing, or flossing behaviors between the genders (Crossley, 2005). Is the continual maintenance of fresh breath a body practice more similar to bathing and toothbrushing or to spritzing with perfume? Falling on the side of the sales data, it seems that men and women are equally likely to be compelled to chewing action by social expectations surrounding bodily odor production and maintenance.

That still leaves one tricky problem; once the gum has freshened the breath, how can be made to go away discretely?

What to do when the gum is done?

The myth has long been broken--swallowed gum does not form a clot in the stomach and threaten to one day prevent the normal functioning of the gastro-intestinal system. Still, it is not meant to be swallowed. On the other hand, gum is not biodegradable and the anti-swallowing myth may be a boon to waste water treatment plants. But what ought to happen to a warm, sticky, rubbery, saliva coated tidbit once it no longer provides no service to its user? Anecdotal evidence suggests that many people simply spit it out to fall as it may where ever they happen to be when they tire of chewing. Others stick it to the bottom of a desk or a chair. The chemical make-up of gum, designed to withstand

hours of repeated compression and stretching in the warm wet environment of the mouth without breaking down, must be simultaneously sticky to maintain a singular mass and rubbery to provide for a satisfying chew. The rubbery bounce of chewing gum is made possible by a long list of synthetic ingredients, one of which is butyl rubber, more commonly used in the production of automobile tires. Tires are not biodegradable (Themelis, 2005) and neither is chewing gum⁹, so how long will those black gum spots on the sidewalk last?

In America, black gum spots are not particularly pressing concerns. Some luxury buildings instruct their maintenance staff to scrape gum off the sidewalk daily, before it is fully integrated into the sidewalk structure, and others enact a stand against gum on seats, but for the most part, we are content to let the gum become part of the urban landscape. Some municipalities own gum steamers, which heat the gum to reactivate the softeners so that it can be peeled off the sidewalk, but they are expensive and not in routine combat use on the streets and sidewalks. One creative reuse has been discovered by American artist Jamie Marraccini who has chosen to work solely in previously chewed gum (Heim, 2006). British artist Ben Wilson also works in gum, but his are not to be hung on the wall. He finds gum where it lays and turns the black spot into a miniature painting, which calls attention to the problem of street gum rather than celebrating the gum for its material properties (Stebbins, 2004).

⁹ In part due to pressure from the gum waste backlash and possible taxation in the UK, Canada, and Australia, Wrigley's research and design department is working on a biodegradable gum.



Tulips by Jamie Marraccini



Untitled by Ben Wilson

Unlike America's nonchalant stance to the gum disposal situation, other countries have received the gum problem with much greater vigilance. In Singapore, where proposals to eliminate the importation of gum¹⁰ had been offered and then blocked in part due to lobbying pressure by the US on behalf of Wrigley, the opening of a new public transit system in 1987 indirectly provided the final impetus to pass the measure. The door mechanisms on the new trains were occasionally being jammed with gum causing massive delays and the country moved decisively to ban the importation of all gum in 1992.¹¹ Those caught smuggling gum into the country are faced with a US\$5,500 fine and up to a year in prison. Getting caught chewing now is unlikely to result in arrest since the ban was partially lifted in 2004 to permit the "therapeutic" chewing of nicotine and sugarless gum. Littering is still a punishable offense, and fines for spitting gum on the street have increased to around S\$1,000.

The sentiment behind the initial ban, if not the specific reaction, has been echoed recently in the United Kingdom. One estimate suggests that 92% of the city paving stones in London have gum stuck to them (Adams, 2005) and the cost of removing a piece of gum

¹⁰ Singapore has no domestic gum production.

¹¹ Some Singaporeans misunderstood the new rule and thought that they could safely own and chew gum as long as they did not sell it. The ban did not provide for any personal consumption allowance.

from the sidewalk has been estimated to cost three times more than buying the gum in the first place (Knopinski, 2006) for a total of 150 million pounds per year across the UK (Beard, 2005). The Chewing Gum Action Group, a coalition between Wrigley, the Biscuit, Cake, Chocolate and Confectionary Association, chaired by the Department for Environment, Food and Rural Affairs, was established to grant money to municipalities for education and advertising campaigns in hopes of getting consumers to stop littering (Department for Environment, Food, and Rural Affairs, 2005). In Liverpool, the Liberal-Democratic party offered legislation that would impose a 1p tax on each pack of gum sold to the 28 million gum consumers in Britain (Beard, 2005). Wrigley, the country's largest gum wholesaler, opposes the tax.

Brits are not the only ones concerned about gum litter defacing their public areas¹². In Canada, gum on the sidewalks has been cast as a litter problem that is particularly serious because it threatens to deface personal property (shoes) in addition to public spaces. In a 2004 Litter Audit, the city of Toronto found that:

Over half of all small litter was chewing gum (~ 26,000 items). Several sites had over 2,000 gum deposits in the 350 ft² site area. Over 5,700 cigarette butts were also counted at the 47 sites...The results suggest the need for some form of specialized litter receptacles that are safe and convenient for citizens to use for proper disposal of tobacco debris and chewing gum. (City of Toronto, 2004)

¹² There have also been public opinion articles about the problem of gum litter in Australia.

Unlike the UK, Canadians are not proposing special taxes, rather they have come up with a less costly solution to the gum problem: the purchase of special disposal devices.

Thinking that chewers will be more likely to dispose of their gum properly if their



particular habits are attended to with the placement of special receptacles near high-chewing areas, Toronto began installation of the Envyrobubble. Akin to aluminum canisters and other street-sturdy ashtrays, the Envyrobubble was invented as a receptacle for only one waste item: gum. They have been manufactured on poles along with aluminum ashtray cannisters or as stand alone receptacles. Because installation has occurred very recently, their effect on the chewing gum disposal problem has yet to be evaluated.

As discussed earlier, the problem of disposal likely stems from our understanding of body display, not the lack of receptacles, specialized or otherwise. Excreting is not a public performance, it is a demonstration of the grotesque that ideally ought not to happen at all. By creating a specialized receptacle Toronto may have created a zone of relaxed body boundaries, one in which it is acceptable for something to come out of someone's mouth

in public. However, linking gum chewing to cigarette smoking and adhering their disposal receptacles to the same pole may weaken this strategy because cigarettes were never ingested and therefore do not have to be excreted. Very little boundary transgression is involved in smoking. A mixed use zone, one in which the attempt is being made to permit a moment of boundary lapse amidst a public milieu of boundary maintenance, may not yet be quite enough to encourage proper disposal. Why, then, are people comfortable spitting their gum onto the street? Perhaps it is to them little more than saliva, or at least the act of ejecting gum is like the act of ejecting saliva, appropriate for certain men in public. However, so far as is evident, no empirical research has been conducted into the justifications chewers (and smokers) make regarding their littering behavior when we can assume they would not otherwise litter. Furthermore, there is no evidence describing the population of spitters versus disposers of chewing gum. Rituals of body performance would suggest that women are unlikely to feel comfortable spitting their gum onto the street because spitting is generally considered a masculine trait. On the other hand, anecdotal evidence suggests that gum disposal is a discrete act, not an elaborate performance like stubbing out a cigarette. Though there is gum coating the sidewalks and subway platforms of New York, I have only witnessed one public episode of gum ejection. It may be that gum littering is, in fact, rather infrequent, the problem is that the gum lasts so long. On the other hand, it is likely that many people are unwilling to be caught making a sticky mess and are discrete in their public ejections. Perhaps frustrated citizen groups everywhere should invest in the creation of more discreet disposal opportunities that will lash up with current body performance expectations and allow a spot of privacy at the moment of disposal.

The performance of chewing gum as a ritual of body maintenance is likely to continue to increase over time. Medical and psychological applications for therapeutic gum chewing are being discovered and bolstered by additional research with surprising frequency. Patients undergoing abdominal surgery often experience a painful temporary post-operative paralysis of the bowel—as it turns out, chewing gum three times a day immediately following arousal from the anesthesia decreases hospital stays by an average of two and a half days (Schuster, 2006). Other studies have also shown that chewing gum may aid in weight loss (Squires, 2005), memory (Collegiate Press Wire, 2006), and relaxation. Some researchers are pursuing gum as a delivery mechanism for a variety of drugs as well since the mucousal membranes in the mouth have rapid uptake potential. As gum solidifies its position as a therapeutic, medicalized product that has been proven to provide a wide variety of benefits, its sales are likely to continue capturing larger portions of the adult market. Like brushing your teeth, chewing gum could become an assumed activity whose lack may incite social sanction. Unfortunately, this means an increase in gum disposal problems as there is no ritual performance available for discrete, or at least acceptable, ejection.

List of Works Cited

- Adams, Tim. This Is A Stick Up. *The Observer*. Pg. 2. 3 July 2005
- Annual Stockholders Meeting Wm. Wrigley Jr. Company (2005). [Transcript] Retrieved 24 April 2006 from Lexis-Nexis.
- Beard, Matthew. Tax is Liverpool's Solution to Sticky Problem. *The Independent*. First Ed. Pg. 9.
- Cadbury Schweppes. *Cadbury Schweppes Report and Accounts 2005*. 2005.
- City of Toronto. *Litter Audit 2004*.
- Classen, Constance, David Howes, and Anthony Synott. *Aroma: A Cultural History of Smell*. Routledge 1994.
- Collegiate Press Wire. Tips for Test Time: Preparing for Final Exams. Accessed on Lexis-Nexis. 17 April 2006.
- Crossley, Nick. Mapping Reflexive Body Techniques: On Body Modification and Maintenance. *Body & Society*. Vol. 11(1): 1-35, 2005.
- Department for the Environment, Food, and Rural Affairs. *Coming To An Area Near You: Campaign To Reduce Gum Litter*. 14 December 2005.
- Featherstone, Mike and Bryan Turner. Body & Society: An Introduction. *Body & Society*. Vol. 1, Issue 1, p. 1-12 March 1995.
- Heim, Joseph. Gum Artist. M05 *Washington Post*. 16 April 2006.
- Knopinski, Amy. Council declares war on the chewing gum louts. *Daily Post* (Liverpool) 17 January 2006.
- Levine, James and Paulette Baukol. *The Energy Expended in Chewing Gum* N Engl J Med 1999; Vol. 341, Iss. 27; pg. 2093, Dec 30, 1999.
- Mäkinen KK (2000). The rocky road of xylitol to its clinical application. *J Dent Res* 79;6:1352-1355
- Scheinin, A., Makinen, Tammissalo, and Rekola. Turku sugar studies XVIII. Incidence of dental caries in relation to 1-year consumption of xylitol chewing gum. *Acta Odontol Scand*. 1975; 33(5):269-78.
- Schuster, R., Grewal, G. Greaney, and K. Waxman. Gum Chewing Reduces Ileus After Elective Open Sigmoid Colectomy. *Arch Surg* 2006; 141: 174-176.

Smithkline Beecham Consumer Healthcare, L.P. v. Watson Pharmaceuticals, Inc., et al,
211 F.3d 21 (2nd Cir. 2000)

Squires, Sally. Give This Gift Early: Lean Plate Club. *The Washington Post*. F01. 13
December 2005.

Stebbins, Peter. Painting a Gum Trail. *This is Local London website*. 23 December
2004.

Themelis, N.J. *Urban Ecology Studio*. [Powerpoint Presentation] Columbia University.
Fall 2005.