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Procedural Rhetoric

In 1975, Owen Gaede created *Tenure*, a simulation of the first year of secondary school teaching, for the PLATO computer education system.[1] The program was intended to give new high school teachers an understanding of the impact of seemingly minor decisions on the teaching experience. The goal of the game is to complete the first year of teaching and earn a contract renewal for the next. During play, the player must make successive decisions, each of which affects different people in different ways. Some decisions may please the students but contradict the principal's educational philosophy. Others may provide a higher quality educational experience but put performance pressure on fellow teachers, causing workplace conflict. The player can monitor the state of affairs by listening to student reactions, requesting a conference with the principal, or overhearing gossip in the teacher's lounge.

The game is played primarily through responses to multiple-choice questions whose aggregate answers change principal, teacher, and student attitudes. For example, at the start of the game, the player must take a job interview with his prospective principal. The principal may ask about the player's educational philosophy or his willingness to advise student organizations. Later, the player must choose a grading methodology, classroom rules, student seating arrangements, and a curriculum plan. The simulation then presents the player with very specific quandaries, such as how to manage another teacher's students at a school assembly, whether or not to participate in the teacher's union, dealing with note-passing in class, contending with

parents angry about their children's grades, and even managing students' difficult personal issues, such as home abuse.

No decision is straightforward, and the interaction of multiple successive decisions produces complex social, educational, and professional situations. Situations are further influenced by the gender of the teacher, the influence of the principal, student learning styles, and other subtle, social factors. In one run of a recent PC port of *Tenure*, Jack, one of my best students, had been arriving late to class.[2] I could choose to ignore his tardiness, talk to him privately, or give him detention. I chose to talk with Jack about the problem, which earned me praise from the principal, whose progressive philosophy encouraged direct contact and student empathy. However, after speaking with the student, I learned that his tardiness was caused by Mr. Green, the math teacher, who had been holding class after the bell to complete the last problem on the board. Now I was faced with a new decision: confront Mr. Green, make Jack resolve the issue and accept the necessary discipline, or complain to the principal. Asking the student to take responsibility would avoid conflict with my colleague and principal on the one hand, but would put Jack in an uncomfortable situation on the other, perhaps changing his opinion of me as a teacher. Confronting Mr. Green might strain our relationship and, thanks to lounge gossip, my rapport with other teachers as well. Complaining to the principal might cause the same reaction, and might also run the risk of exposing me as indecisive. All of these factors might change given the outcome of other decisions and the personalities of my fellow teachers and principal.

Tenure makes claims about how high school education operates. Most notably, it argues that educational practice is deeply intertwined with personal and professional politics. Novice teachers and idealistic parents would like to think that their children's educations are motivated primarily, if not exclusively by pedagogical goals. *Tenure* argues that this ideal is significantly undermined by the realities of school politics, personal conflicts, and social hearsay. The game does not offer solutions to these problems; rather, it suggests that education takes place not in the classroom alone, but in ongoing affinities and disparities in educational, social, and professional goals. *Tenure* outlines the *process* by which high schools really run, and it makes a convincing argument that personal politics indelibly mark the learning experience.

I suggest the name *procedural rhetoric* for the new type of persuasive and expressive practice at work in artifacts like *Tenure*. *Procedurality* refers to a way

of creating, explaining, or understanding processes. And processes define the way things work: the methods, techniques, and logics that drive the operation of systems, from mechanical systems like engines to organizational systems like high schools to conceptual systems like religious faith. *Rhetoric* refers to effective and persuasive expression. Procedural rhetoric, then, is a practice of using processes persuasively. More specifically, procedural rhetoric is the practice of persuading through processes in general and computational processes in particular. Just as verbal rhetoric is useful for both the orator and the audience, and just as written rhetoric is useful for both the writer and the reader, so procedural rhetoric is useful for both the programmer and the user, the game designer and the player. Procedural rhetoric is a technique for making arguments with computational systems and for unpacking computational arguments others have created.

Procedural and *rhetoric* are both terms that can impose ambiguity and confusion. Before trying to use the two together in earnest, I want to discuss each in turn.

Procedurality

The word *procedure* does not usually give rise to positive sentiments. We typically understand *procedures* as established, entrenched ways of doing things. In common parlance, *procedure* invokes notions of officialdom, even bureaucracy: a procedure is a static course of action, perhaps an old, tired one in need of revision. We often talk about procedures only when they go wrong: *after several complaints, we decided to review our procedures for creating new accounts.* But in fact, procedures in this sense of the word structure behavior; we tend to "see" a process only when we challenge it.[3] Likewise, procedure and the law are often closely tied. Courts and law enforcement agencies abide by *procedures* that dictate how actions can and cannot be carried out. Thanks to these common senses of the term, we tend to think of procedures as fixed and unquestionable. They are tied to authority, crafted from the top down, and put in place to structure behavior and identify infringement. Procedures are sometimes related to ideology; they can cloud our ability to see other ways of thinking; consider the police officer or army private who carries out a clearly unethical action but later offers the defense, "I was following procedure." This very problem arose in the aftermath of American brutalization of Iraqi war prisoners at Abu Ghraib in 2004. Field soldiers claimed they followed orders,

for the practice of authoring arguments through processes. Following the classical model, procedural rhetoric entails persuasion—to change opinion or action. Following the contemporary model, procedural rhetoric entails expression—to convey ideas effectively. Procedural rhetoric is a subdomain of procedural authorship; its arguments are made not through the construction of words or images, but through the authorship of rules of behavior, the construction of dynamic models. In computation, those rules are authored in code, through the practice of programming.

My rationale for suggesting a new rhetorical domain is the same one that motivates visual rhetoricians. Just as photography, motion graphics, moving images, and illustrations have become pervasive in contemporary society, so have computer hardware, software, and videogames. Just as visual rhetoricians argue that verbal and written rhetorics inadequately account for the unique properties of visual expression, so I argue that verbal, written, and visual rhetorics inadequately account for the unique properties of procedural expression. A theory of procedural rhetoric is needed to make commensurate judgments about the software systems we encounter every day and to allow a more sophisticated procedural authorship with both persuasion and expression as its goal.

Procedural rhetorics afford a new and promising way to make claims about *how things work*. Consider a particularly sophisticated example of a procedural rhetoric at work in a game. *The McDonald's Videogame* is a critique of McDonald's business practices by Italian social critic collective Molleindustria. The game is an example of a genre I call the anti-advergame, a game created to censure or disparage a company rather than support it.[74] The player controls four separate aspects of the McDonald's production environment, each of which he has to manage simultaneously: the third-world pasture where cattle are raised as cheaply as possible; the slaughterhouse where cattle are fattened for slaughter; the restaurant where burgers are sold; and the corporate offices where lobbying, public relations, and marketing are managed. In each sector, the player must make difficult business choices, but more importantly he must make difficult moral choices. In the pasture, the player must create enough cattle-grazing land and soy crops to produce the meat required to run the business. But only a limited number of fields are available; to acquire more land, the player must bribe the local governor for rights to convert his people's crops into corporate ones. More extreme tactics are also available: the player can bulldoze rainforest or dismantle indigenous settlements to clear space for

Figure 1.1 In Molleindustria's *The McDonald's Game*, players must use questionable business practices to increase profits.

grazing (see figure 1.1). These tactics correspond with the questionable business practices the developers want to critique. To enforce the corrupt nature of these tactics, public interest groups can censure or sue the player for violations. For example, bulldozing indigenous rainforest settlements yields complaints from antiglobalization groups. Overusing fields reduces their effectiveness as soil or pasture; creating dead earth also angers environmentalists. However, those groups can be managed through PR and lobbying in the corporate sector. Corrupting a climatologist may dig into profits, but it ensures fewer complaints in the future. Regular subornation of this kind is required to maintain allegiance. Likewise, in the slaughterhouse players can use growth hormones to fatten cows faster, and they can choose whether to kill diseased cows or let them go through the slaughter process. Removing cattle from the production process reduces material product, thereby reducing supply and thereby again reducing profit. Growth hormones offend health critics, but they also allow the rapid production necessary to meet demand in the restaurant sector. Feeding cattle animal by-products cheapens the fattening process, but is more likely to cause disease. Allowing diseased meat to be made into burgers may spawn complaints and fines from health officers, but those groups too can be bribed through lobbying. The restaurant sector

demands similar trade-offs, including balancing a need to fire incorrigible employees with local politicians' complaints about labor practices.

The McDonald's Videogame mounts a procedural rhetoric about the necessity of corruption in the global fast food business, and the overwhelming temptation of greed, which leads to more corruption. In order to succeed in the long-term, the player must use growth hormones, he must coerce banana republics, and he must mount PR and lobbying campaigns. Furthermore, the temptation to destroy indigenous villages, launch bribery campaigns, recycle animal parts, and cover up health risks is tremendous, although the financial benefit from doing so is only marginal. As Patrick Dugan explains, the game imposes "constraints simulating necessary evils on one hand, and on the other hand . . . business practices that are self-defeating and, really just stupid."[75] The game makes a procedural argument about the inherent problems in the fast food industry, particularly the necessity of overstepping environmental and health-related boundaries.

Verbal rhetoric certainly supports this type of claim; one can explain the persuasive function of processes with language: consider my earlier explanation of the rhetoric of retail store return policies, or Eric Schlosser's popular book and film *Fast Food Nation*, which addresses many of the issues represented in *The McDonald's Videogame*.[76] But these written media do not express their arguments procedurally; instead, they describe the processes at work in such systems with speech, writing, or images. Likewise, it is possible to characterize processes with visual images. Consider a public service campaign called *G!rlpower Retouch*, commissioned by the Swedish Ministry of Health and Social Affairs. The goal of the campaign was to reduce the fixation on physical appearance caused partly by unrealistic body images in magazines and media. Forsman & Bodenfors, the agency hired to execute the campaign, created a click-through demo that explains how photo retouchers make significant changes to the bodies of their already striking models, hoping to render them even more perfect.[77] The demonstration depicts an attractive, young blonde on the cover of a fictional magazine. The user is then given the opportunity to undo all the photo retouches and individually reapply them. A textual explanation of the technique is also provided.

G!rlpower Retouch unpacks a process, the process of retouching photos for maximum beauty. It uses sequences of images combined with written text to explain each step. The artifact makes claims about images, so it makes reasonable use of images as propositions in the argument. *Retouch* even deploys

ity. And that authority can occlude the ideological frames that such commercial games operationalize, rendering them implicit and in need of critique.

In *Grand Theft Auto: San Andreas*, players enact the life of an early '90s Los Angeles gangbanger.[37] Whereas previous iterations of the series favored stylized representations of historico-fictional times and places, San Andreas takes on a cultural moment steeped deeply in racial and economic politics.[38] Rather than taking on the role of an organized criminal, the player is cast as CJ, an inner-city gangster. GTA's use of large navigable spaces and open-ended gameplay have been widely cited and praised, but in *San Andreas* open gameplay, expansive virtual spaces, and the inner-city collide to underscore opportunity biases.

San Andreas added a new dynamic to the core GTA gameplay: the player-character must eat to maintain his stamina and strength. However, the only nourishment in the game comes from fast food restaurants (chicken, burgers, or pizza, as shown in figure 3.4). Eating moderately maintains energy, but eating high-fat-content foods increases CJ's weight, and fat gangsters can't run or fight very effectively. Each food item in the game comes at a cost, and

Figure 3.4 The player must eat in *Grand Theft Auto: San Andreas* to maintain stamina and strength, but only fast food is available.

the player's funds are limited. Mirroring real fast food restaurants, less fattening foods like salad cost more than high-calorie super-meals.

The dietary features of *San Andreas* are rudimentary, but the fact that the player must feed his character to continue playing does draw attention to the limited material conditions the game provides for satisfying that need, subtly exposing the fact that problems of obesity and malnutrition in poor communities can partly be attributed to the relative ease and affordability of fast food. Evidence suggests that citizens on fixed incomes like students and the working poor have easiest access to fast food, and as a result of this convenience they eat more of it. Fast food has even penetrated our healthcare infrastructure itself; more than a third of top U.S. hospitals have a fast food outlet on premises.[39] Nutritionist Marion Nestle has devoted much of her career to identifying the relationship between nutrition, food policy, and food industry marketing. Obesity, argues Nestle, replaced dietary insufficiency as the major nutritional problem in the United States in the hundred years since the turn of the nineteenth century.[40] Nestle traces the connections between obesity and a food industry intent on increasing food consumption to drive up profits. One major contributor to the problem is portion size. According to Nestle, Americans consume relatively large portions of over one third of all foods, including bread, french fries, and soft drinks.[41] The familiar "super size" fast food option is one example, immortalized in Morgan Spurlock's Oscar-nominated documentary *Super Size Me*.[42] At the time when *San Andreas* reached the peak of its popularity, Americans simultaneously bit their nails about avian flu, contemplated chemical weapons attacks at marine ports, and stuffed themselves with high-sugar Krispy Kreme donuts, cholesterol-raising hydrogenated oils, and high-fat, low-nutrient foods. Fad diets like the Atkins plan focus on quick results at the cost of long-term health. Nestle's and Spurlock's work underscores the same basic principle: obesity and other threats to public health are at best encouraged, at worst directly caused by the food market itself.

The tension between personal responsibility and social forces is related to another of Lakoff's metaphors for political thought, what he calls "moral strength."[43] Moral strength entails the courage to stand up to both internal and external evils, and it is fundamentally related to will. In Lakoff's model, moral strength comes from self-discipline and self-denial. The disciplined man is strong, and therefore moral, whereas the man who cannot stand up to temptation is weak, and therefore immoral. Lakoff explicitly links moral strength

with asceticism. Self-indulgence and "moral flabbiness" are domains of the morally weak.[44] Lakoff argues that moral strength is a fundamentally conservative political frame that stands in contrast to the liberal equivalent, empathy and nurturance.[45]

It is no accident that flabbiness would come up in a discussion of moral strength. In the conservative frame, obesity and poor health are tied to self-control: the ability to assess and resist the internal temptation to eat the wrong food, or to overeat. In such a worldview, a problem like obesity has nothing to do with the food industry Nestle, Spurlock, and others renounce. The executives at fast food corporations and the proprietors of their franchises are simply fulfilling another aspect of conservative moral strength. Businesspeople are morally strong agents with enough self-discipline to work hard and earn material success.[46] The apparent differences between the morally strong entrepreneur and the morally weak overeater are not contradictory for conservatives; the latter are conceived as lesser citizens by the morally strong conservative, and gaining material advantage at their expense only further underscores both the moral and material superiority of the former. In Lakoff's own words, the conservative frame of moral strength "rules out any explanations in terms of social forces or social class."[47]

That fast food restaurants represent the only path to sustenance in *Grand Theft Auto: San Andreas*, and that such sustenance is required to progress and achieve goals in the game suggests two possible interpretations. For one part, the fact that food comes only from fast food joints implies a social condition inherent to the fast food and packaged food industries, one that recalls Nestle's critique: for the less fortunate in particular, the cheap, factory-style, high-fat, low-nutrient food of the burger joint or taco hut offers the easiest and most viable way to fill a grumbling stomach. When these establishments try to provide more healthful meals (like salads) they come at a cost premium: as I write this in late 2005, a McDonalds "premium salad" costs $4.99, whereas a Big Mac costs $2.59, nearly half as much.[48] Under this interpretation, *San Andreas*'s enforcement of fast food eating serves to expose the social forces that drive the poor and working-class residents of the inner city to consume fast food habitually. The game even allows the player to reap the health detriments of a fast food diet in the form of lost stamina and diminished respect (see below for more on the latter).

Even if the player does not play enough (or eat enough) to make CJ turn from a lithe youth into a portly one, the game's insistence that the player eat

only at fast food restaurants draws attention to the social reality of poverty and its related health effects. Players of *San Andreas* might leave the game and make new observations about the world around them, and about how social opportunity and disclosure often overshadow the issue of self-restraint.

At the same time, the game seems to allow the player to overcome the social conditions of poverty and poor nutrition through hard work—a textbook example of moral strength. No matter what the player eats in the pizza place or the chicken hut, he can always build a ripped chest and six-pack for CJ by working out consistently in the game's gym. Furthermore, the more "healthful" salad meals at the restaurants cost more money, and the player earns money primarily through the "work" of playing the game. To be fair, that work is almost exclusively limited to violent crime, a topic I will return to shortly. Despite its apparent support for nutrition as a condition of social station, *San Andreas* allows the player to overcome that condition through relatively simple, if sometimes tedious, work and exercise. Such rules might tilt the game toward a more conservative frame, one in which discipline and hard work can overcome material conditions.

The game's use of unbounded virtual space presents a less ambiguous frame for social class, race, and criminality. *San Andreas* intricately recreates representations of three huge cities (the equivalents of Los Angeles, San Francisco, and Las Vegas) along with rural spaces in between. CJ has recently returned to his hometown neighborhood (the San Andreas equivalent of L.A.'s Compton). The player can customize CJ's clothes to some extent and, invoking the game's title, steal nice cars for him, but he remains a black youth from Compton. Thanks to the immense simulated space of the city, the player can travel from neighborhood to neighborhood; the buildings, scenery, vehicles, and people adjust accordingly, and appropriately.[49] But something remains the same everywhere in San Andreas, from its Compton to its Beverly Hills: no matter the location, the game's nonplayer characters (NPCs) respond to the player's semiautomatic-toting, do-rag wearing black gangsta character in roughly the same way. In fact, they respond the same even if the player dons absurd clothes, underpants on the outside.[50]

While major technology challenges impede the development of credible character interactions in an environment as large scale as San Andreas and its surrounds, the game makes no effort to alter character behavior based on race, social standing, or location.[51] Bumping into a leggy blonde on the equivalent of Beverly Hills' Rodeo Drive elicits the same anonymous outcry as would

jostling a drug dealer on Compton's Atlantic Drive. When mediated by the game's inner-city context, its procedural interaction of space and character creates a frame in which the player's street gang persona does not participate in any historical, economic, racial, or social disadvantage. The aggregate procedural effects in *San Andreas* thus expose another ideological frame, and perhaps a surprising one.

Lakoff argues that the conservative frame for crime is an extension of the "strict father" model of seeing the world. The strict father disciplines his children and acts as a moral authority. Through this example, he instills discipline and self-reliance. Self-reliant, morally disciplined adults make the right decisions and prosper. Morally depraved adults do not deserve to prosper and may even be dangerous. Lakoff contrasts the conservative strict father with the progressive "nurturing parent." Unlike the strict father, the nurturing parent believes that support and assistance help people thrive, and that people who need help deserve to be helped. Nurturing parents reject self-discipline as the sole justification of prosperity and allow for economic, cultural, or social disadvantages that might suggest some people deserve even more assistance.

By avoiding interactions across the socioeconomic boundaries of the game's virtual space, *San Andreas* is implicated in a logic similar to the conservative frame on crime. If the game's NPC logic were to admit that cultural and economic disadvantages are factors that mediate interaction between characters, it would also have to admit that such factors are external to CJ (the player's character) and thus attributable to something outside CJ's character and self-discipline. As in the case of nutrition, from a frame of moral strength CJ's criminal behavior can be explained only by a lack of self-control and self-discipline. Any morally upstanding young man would find a legitimate job and earn his way off the street without resorting to criminality. But interestingly, the game turns this frame in on itself. To succeed in the mission-based story of *San Andreas*, the player effectively builds a sizable, if illegitimate, business of thug activities—based on a staple of drive-by shootings and armed robbery.

Yet, the game is a veritable rags-to-riches story. As the game starts, CJ is returning to Los Santos from Liberty City (the home city of *GTA III*), where he had fled the gang-ridden streets of his youth, presumably as a reformed man. He returns only to bury his mother, another victim of gang violence, and gets caught up in reclaiming his old neighborhood from the rival gangs who are dismantling it. As CJ, the player must build "respect" between both

his own and rival gang members, eventually earning their trust and constructing an ever-larger gang of followers.

The addition of respect signals an unusual perversion of the traditional, conservative concept of moral authority. On the one hand, CJ's life on the street bears a striking resemblance to that of the political conservative: he takes responsibility for his family and takes it upon himself to build a new life of material wealth and personal safety. His authority demands respect from others, and those whose respect he demands stand subordinate to him. His own personal self-discipline even contributes to this respect: a well-padded CJ who eats too many burgers and doesn't work out earns less respect than a muscle-ripped CJ. On the other hand, CJ earns such respect through felonious behavior. He acts with a similar underlying value structure as the ideal conservative, but uses lawless rather than lawful material production as his medium. This inversion of the typical conservative frame could be read as a satire—the very same rules of behavior can produce a very different outcome from the one they are taken to bring about.

But outside of the game's tightly woven mission-based storyline, *Grand Theft Auto: San Andreas* also implies support for the metaphor of crime as decadence. Despite its purported open-endedness, *San Andreas* offers incentives to fulfill its missions, and thus incentives to engage in simulated criminal behavior. Although the game's premise does question whether gang members have legitimate moral options—at the start of the game CJ is set up by a corrupt cop and sent on the run—once outside of the mission architecture the game has no procedure in place to mediate character interactions. Notably, the open-ended gameplay reorients the player back toward the missions; the game will not unlock areas beyond Los Santos unless the player reaches key waypoints in the missions. Despite its narrative gestures toward subverting the gang as a possible social adaptation, the game situates its missions as small accidents in the broader urban logic. As the player exits the open urban environment and reenters the missions, he does so willingly, not under the duress of a complex socio-historical precondition. This rhetoric implicitly affirms the metaphor of criminal behavior as moral depravity.

Whether or not *San Andreas*'s creators intended the game to support or critique contemporary conservative ideological structures in the United States is an open question. But the fact that the game has been so universally reviled, not only by the "values-oriented" conservative right but also by centrists like Senators Hillary Clinton and Joseph Lieberman, suggests that neither side has

actually played the game. How surprised the conservatives would be to find that a group of Scottish game developers may have placed tens of millions of copies of conservative political rhetoric in the waiting hands of contemporary American youth, including many inner-city youth who would normally be predisposed to oppose Republicans' pro-business, anti–social program stances. And how surprised the liberals might be to find that they have the perfect object lesson for counteracting conservative frames about poverty, class, race, and crime already installed on the nation's PlayStations.

Designing Procedural Frames

Politicians are already familiar with Lakoff's and Luntz's strategies on framing political speech, especially public speech. Those who wish to create videogames as endorsed or disruptive political speech will undoubtedly need to pay more attention to the use of context in such games. A shift away from verbal and toward procedural contextualization in such games will likely take longer. Lakoff argues that the central role in contemporary politics (and he has progressive politics in mind in particular) is to breathe new life into an otherwise bankrupt political discourse.[52] This restructuring is necessary because citizens tend to assume that language and its carriers—from politicians to news media—are neutral. The public has little purchase on the "moral conceptual systems" that underwrite verbal and written political utterances themselves.

Understanding a political position, argues Lakoff, "requires fitting it into an unconscious matrix of family-based morality." It is worth noting the urgent and somewhat desperate note on which Lakoff ends *Moral Politics*:

> In short, public discourse as it currently exists is not very congenial to the discussion of the findings of this study. Analysis of metaphor and the idea of alternative conceptual systems are not part of public discourse. Most people don't even know that they have conceptual systems, much less how they are structured. This does not mean that the characterizations of conservatism and liberalism in this book cannot be discussed publicly. They can and should be. What requires special effort is discussing the unconscious conceptual framework behind the discussion.[53]

Lakoff has called this process "shifting the frame."[54] Perhaps the most promising future political role of videogames will be to help citizens take on