I sent hundreds of records and open reel tapes out to be digitized last year-examples of "musical print," Talking Books, and early text-to-speech-collected from archives and people’s garages. An external drive with numbered WAV files came back. I’m working on a project, which I hesitate to call a "book," on the history of print access and inkprint alternatives for blind readers. Now I spend my evenings listening to one audio file after another, often not knowing what to expect when I click the play arrow. Some files correspond to unlabeled tapes. I have no way to take in a recording at a glance; each requires sequential listening. I’m in Berlin for the semester: I take German lessons in the evening, I come home to my laptop, and I fall asleep to beeping and speech-like sounds.

One recording puzzles me in its deliberate ambiguity. It is neither an audiobook nor an abstract aural code:

"Mills - Auditory Projective Clip 1" by continent on Soundcloud

"You can’t ever forget. You touch and a little comes off in your fingers..." Bicycle grease? Powdered sugar? An animal whose skin is harmed by my touch? Something freshly painted? Or perhaps this is science fiction, something I cannot describe because I cannot imagine it. "The chair was hard but you knew she didn’t care." Are these sentences meant to be connected? Some become non sequiturs as the speaker alters tone or pace at a conjunction, shifting from dramatic and punchy to a fast, low mumble. To me this is a genderless voice. A voice from mid-century radio: controlled volume, no drops at the ends of words or sentences; measured pauses; precise enunciation. It is not the American radio voice of today, but I don’t yet know the date of the recording.

Auditory Projective Test. I look up the title after listening. The album was produced in 1952 by Sydell Braverman, a clinical psychologist at the Institute of Living (in Hartford), and Hector Chevigny, a blind radio script-writer in New York, with support from the American Foundation for the Blind. It was planned as an aural analogue to the Thematic Apperception Test (TAT), which had been designed at Harvard in the 1930s by artist...
Christiana Morgan and psychologist Henry Murray as a means to plumb personality, creativity, needs, fantasies, feelings-and their disorders. (You will think I’m free associating if I try to summarize the lives of Morgan and Murray, or their love affair: a coital tower, Ted Kaczynski, the ex-wife of J.D. Salinger, a drowning in the Virgin Islands.) The TAT, a "picture interpretation technique," asks subjects to make up fictional stories about provocative scenes: a woman cries while her husband lies in a drug stupor; a girl wears a suit and an illegal surgery takes place behind her; a boy reads a book (but it's not a book, it is a violin, and he is not reading, he is "merely" looking). Or, something along those lines.

TAT Picture No. 10. These images have been restricted from public circulation to maintain their unfamiliarity in testing situations. I’ve selected this picture as an example that is in wide circulation on the web.

Morgan and Murray intended their images to be "evocative objects"-the earliest use of this phrase that I have encountered-"with whom the subject could easily empathize and identify." Evocative objects were things, most often persons, into which a subject "project[ed] his own circumstances, experiences or preoccupations." The ambiguity of the pictures allowed them to be filtered, in specific and telling ways, by all manner of viewer-stylisteller. Despite ongoing criticisms of its validity, the TAT was one of the most commonly applied projective tests throughout the twentieth century. According to a survey conducted in 1995, it was used by 82% of the members of the American Psychological Association. The phrase "evocative object" has recently been popularized by psychoanalyst Christopher Bollas and technology theorist Sherry Turkle. A Janus-like concept, it now refers to highly personal hooks or containers for subjecthood. Specific things, found or habitual: artifacts or music or people that catch on the screen of the individual.

For Morgan and Murray, the psychologist required “double hearing”: on the one hand, to register the story; on the other, to glean when the subject unknowingly "discloses certain inner tendencies and cathexes: wishes, fears, and traces of past experiences." Other experimenters believed that fathoming a set of individuals would allow them to diagnose the traits of a culture. After World War II, Rebecca Lemov writes, anthropologists carried TAT images "far and examined wide swathes of populations": "the Sioux, the Arawak, the Ilongat, and the Ifalukan." The images, adapted to be discernible in new settings, became "vehicles to study not just the personal tics and the deeply buried struggles of the test taker but were guides to a whole cultural configuration." Remarking on Margaret Mead’s similar employment of Rorschach tests in Papua New Guinea, Claude Lévi-Strauss explained that the collective scaffolds the personal unconscious. Or, the "social is projected on the individual," who projects it back-in fragments. In anthropology as in psychology, representative responses were distinguished from pathology by the simple and terrifying formula, "Reality is what most people perceive." How is the historian to approach the sounds and images of projective tests? A know-it-all, with triple hearing, the historian gathers the story and the diagnosis, and then frames them in time alongside the pictures.

The TAT was a literary device, with literature imagined as the ultimate projection. "A great deal of written fiction," Morgan and Murray explained, "is the conscious or unconscious expression of the author’s experiences or fantasies." Similarly, the purpose of the TAT was to "stimulate literary creativity and thereby evoke fantasies that reveal covert and unconscious complexes...when a person
interprets an ambiguous social situation he is apt to expose his own personality as much as the phenomenon to which he is attending. Murray, a Herman Melville scholar and collector, came up with the idea for the TAT after reading the "doubloon passage" in Moby-Dick, in which the sailors take turns describing the image on a gold coin. Murray returned often to Moby-Dick; reading the novel was a TAT, it revealed his own "thematic tendencies." Reading, writing, drawing, telling, viewing these were central psychic experiences, at once sowing and eliciting "latent images, needs and sentiments." If psychologists lost and found themselves in literature and in ambiguous portraits, is the historian not tested?

La servitude de toute pensée fini

Rorschach's famous projective test was motivated by the poetry of Justinus Kerner. Rorschach tests are now among the classic "floating signifiers," like evocative objects in the first sense of the phrase, they enable symbolic thinking and manifold interpretation. Claude Lévi-Strauss, who coined the phrase "signifiant flottant," characterized it as "la servitude de toute pensée fini," translated into English by Felicity Baker as "the disability of all finite thought (but also the surety of all art, all poetry, every mythic and aesthetic invention)." As a method for investigating fantasies, inkblots and art and literature need not exhume the latent and fixed. Evocative objects in the second sense can come across seems more and more difficult to describe not in the least because these first steps of research transform it from a generic evocative object into a personal, Bollanian one.
Christiana Morgan was a muse to Carl Jung (and Lewis Mumford, and Alfred North Whitehead). Jung created what was perhaps the first aural projective test, the Association Method—a "formulary" of stimulus words, meant to be broadly affective but diversely interpreted. An experimenter reads the words aloud in the presence of a subject, who in turn is asked to "answer as quickly as possible the first word that occurs to your mind." In a 1910 article in the American Journal of Psychology, Jung described word association as a "pastime, a conversation between experimenter and test subject" that generated word couplets. But, he went on, "it is even still more than that":

"Words are really something like condensed actions, situations, and things. When I present a word to the test person which denotes an action it is the same as if I should present to him the action itself, and ask him, "How do you behave towards it? What do you think of it? What do you do in this situation?" If I were a magician I should cause the situation corresponding to the stimulus word to appear in reality and placing the test person in its midst, I should then study his manner of reaction. The result of my stimulus words would thus undoubtedly approach infinitely nearer perfection. But as we are not magicians we must be contented with the linguistic substitutes for reality; at the same time we must not forget that the stimulus word will as a rule always conjure up its corresponding situation."

I am slightly afraid to look at the list after reading this paragraph. A word as a condensed thing or situation, a stimulus with uncertain effects. I think of dense circuitry, compressed air, nuclear fusion, condensed milk. This approach to words seems distinct from theories of representation (with techniques like icon, index, symbol) or theories of performance (speech-acts). Jung hesitates, in the end, over the merit of "linguistic substitutes for reality"—but what if these words are not attenuations:


Other aural projective tests followed, largely forgotten by historians who have focused their attention on pictures and inkblots, perhaps because the aural versions entail obsolete recordings or vanished voices. At Harvard, B.F. Skinner began working on a "Verbal Summator" in 1934, as a projective test and also a means to
understand verbal behavior. The Summator consisted of a phonograph repeater and a recording of multiple sequences of vowel sounds. Frederick Packard, professor of public speaking and founder of the Harvard Vocarium, produced the record. When played back, it was meant to sound "like speech heard through a wall."[14] Skinner, who was a postdoctoral fellow at the time, tested the Summator in Murray's clinic, playing the recording and asking subjects to either free associate or guess what was being said. (To listen, click on the image of the "Test for Latent Speech" record on the website of the B.F. Skinner Foundation.) Alexandra Rutherford, a psychologist who has written a short history of this device, describes the origin of Skinner's invention as follows:

"He descended into his subterranean laboratory in the biology building, placed his rats into their boxes, and started his programming equipment as usual, whereupon the rhythmic pulsing of the machinery caught his attention-"di-dah-di-di-dah, di-dah-di-di-dah"-and he found himself repeating 'You'll never get out. You'll never get out,' over and over again in time to the pulse. In his words, 'An imitative response had joined forces with some latent behavior, which I could attribute to a rather obvious source: I was a prisoner in my laboratory on a lovely day.' Although he had already started to conceptualize the book that would eventually be published in 1957 as Verbal Behavior, and was thus thinking about language generation in behavioristic terms, one of Skinner's first impulses was to use the phenomenon he had observed in his own behavior to collect samples of speech that might be, as he put it: 'significant' in the Freudian sense. The patterns would be something like auditory inkblots, evoking strong latent verbal behavior."[15]

Skinner's colleague Saul Rosenzweig, along with David Shakow, used the records to obtain projections from patients with schizophrenia at Worcester State Hospital; they called their test the Tautophone. Skinner quickly abandoned this line of research, but he continued to press copies of his records at the request of other psychologists.

A string of similar tests ensued. Thomas Ball and Louis Bernardoni, working at the U.S. Disciplinary Barracks in Lompoc, asked subjects to "make up a dramatic story" after listening to Les Paul's "Walkin' and Whistlin' Blues."[16] At the Harvard Psychology Lab, Karl Kunze developed a Musical Reverie Test, during which a subject was seated "in an upholstered chair" and asked to let the mind drift while listening to compositions such as Claude Debussy's "Prelude to the Afternoon of a Faun." Subjects then described their feelings and mental imagery. "Afternoon of a Faun" seemed to facilitate philosophizing; I listen to it repeatedly while writing this article.[17] (The YouTube version performs its own sort of projective test in the registration of comments by listeners, trained and naive alike. The trained ear, beyond being "discerning," is provoked by myriad tiny features in the music.)

In 1955, Henry Murray produced his own aural version of a projective test, collaborating with his student Anthony Davids. This recording consisted of "a series of ambiguous or incoherent spoken passages constructed by intermingling, systematically, phrases and statements associated with the following dispositions of personality: optimism, trust, sociocentricity, pessimism, distrust, anxiety, resentment, and egocentricity." They named it the Azzageddi or Azz Test, after a devil who impaired the speech of another character in Melville's Mardi and a Voyage Thither.[18] Subjects listened to a recorded passage, such as the one transcribed below, and repeated back any phrases or ideas they could recall. Their impressions indicated their dispositions.

The Azz Test recorded stimulus for evaluating optimism in: Beneath of his own, late on a wist, remember of dirty line, and reason of character. Belling with rage. Opportunity for happiness are unlimited. I believe. It is not what we take up for ourselves, but what we give up for others that truly makes us rich. Truthfully men. Have confidence in yourself and in your future. Life is a great pot of glorious possibilities, brimming over with enough delight to make us giddy. Quality for all. Never have faith in your fellow man. Desire for power. Let neither sorrow nor disappointment bend you down to earth. Peru upon peril. People have themselves above all others (David & Murray, 1956, p. 65).


Inkblots and Blindness

While co-authoring the book The Adjustment of the Blind (1950), it occurred to Sydell Braverman and Hector Chevigny that blind people required their own aural projective test for personality evaluation. Chevigny, the radio script-writer, had lost his sight at age forty. His 1946 autobiography My Eyes Have a Cold Nose was widely influential; it
would play a central role in Erving Goffman's comparative theory of social stigma. Chevigny's writing pointed Goffman toward the supplementary "imperfections" of behavior and personality so often misattributed to disability. Chevigny also "reassessed the limitations of normals" and the design of their built environments.\(^1\) (Reality is not what most people think.) He described himself as a kind of Rorschach test for the attitudes of the sighted toward blind people. "It is a test of imagination. It has nothing to do with tact; that's something else. It has to do with the ability of the other person to put himself in my place and accordingly to judge what would be his needs in my circumstance."\(^2\) This situational empathy is unlike the identificatory projection required by the Szondi Test (1935), in which subjects looked at photographs of people with psychiatric disabilities (epilepsy, schizophrenia, homosexuality, hysteria), and selected the ones they found most sympathetic and unsympathetic. Following the principle of "like attracts like," the Szondi Test was used to diagnose pathologies and to sort people into professions.

In addition to the ambiguous descriptions of objects and scenes that open the Auditory Projective Test record (and this essay) Braverman and Chevigny scripted several emotionally-charged conversations, which they translated into an invented language. These dialogues were performed by actors trained in "doubletalk" - the use of nonsense words for humorous or intriguing effect. Modeled on the visual TAT, listeners were asked to make up a story about each episode. "Tell what happened, what led up to it, and what the outcome will be."

Other segments of the Auditory Projective Test gave the impression of doublespeak, defined by the Oxford English Dictionary as "deliberately euphemistic, ambiguous, or obscure language." Common to advertising and politics, the ambiguity of doublespeak serves the purpose of deception, minimization, and indoctrination rather than incitement to creativity or confession.

\*Mills - Auditory Projective Clip 3* by continent on Soundcloud

Courtesy American Foundation for the Blind and Mills NSF Award #1354297

The final section of the record consists of nonverbal sounds, contributed by the sound effects department of the American Broadcasting Company (ABC). "Now you will hear only sounds. It won't matter if you aren't sure what they all are. Make up a story."\(^3\)

\*Mills - Auditory Projective Clip 4* by continent on Soundcloud

The Braverman-Chevigny Auditory Projective Test (APT), a by-and-for-the-blind invention, was soon applied to sighted subjects. For a group of 25 people with schizophrenia, Leonard S. Abramson compared the results of the APT and the TAT, finding aural and visual responses to be equivalent. "Since vision tends to provide more continuing cues, or reality checks, than does audition," he further concluded, "it seems logical that an auditory technique might give rise to less stimulus bound response and provide more opportunity for the expression of personalized material."\(^4\) Along the same lines, Chevigny felt that radio was "the greatest medium ever designed for the setting forth of fantasy."\(^5\) Voices and sounds evoked affect; inner depictions of space and scene; and "fixed notions" of race, culture, sex. The media historian writes about these fantasies, manifest and latent.

The Auditory Projective Test has taught me that fantasy can spur investigation; it can be a way to get closer to an object, rather than the truth of the self or the fundamentals of a culture. Anything can
be an evocative object, through ambiguity, through habit, or through personal affinity. My historical artifact, designed to be ambiguous—a first order evocative object—tunes my interests and becomes a Bollasian one, its particularities drawing my intimate attention.

In the end, I train myself about this object, and it impairs what I once might have thought. To evoke is to recall but also to induce. A stimulus as a reagent, not a revealer of the underlying. So to write a work of history that invites deliberation, to produce a stimulus that is neither habit-forming nor habituated. To train in order to protract a query, to generalize an evocation, to refine perception.

I have taken a condensed thing, and turned it into a condensed situation. I have told you what happened, and what led up to it. Perhaps I have not fictionalized—nor is empiricism finite thought.

REFERENCES


[3] In similar terms, Lawrence Frank described the Rorschach Test as an X-Ray in which "the subject...is made to bend, deflect, distort, organize, or otherwise pattern part or all of the field in which it is placed." Quoted in Peter Galison, "Image of Self," in Things That Talk: Object Lessons from Art and Science, ed. Lorraine Daston (New York: Zone Books, 2004), 289.


[7] "The psychological formulation is only a translation, on to the level of individual psychical structure, of what is strictly speaking a sociological structure. That is, moreover, something that Margaret Mead most opportunistically emphasises in a recent publication, where she shows that Rorschach tests, when applied to indigenous people, teach the ethnologist nothing he had not already learned by strictly ethnological methods of investigation." Claude Lévi-Strauss, Introduction to the Work of Marcel Mauss, trans. Felicity Baker (London: Routledge, 1984), 4.


[11] It is an odd translation for an odd phrase; servitude here perhaps refers to encumbrance rather than subjugation or enslavement. Lévi-Strauss, 63.

[13] The original words were chosen in German. Carl G. Jung, "The Association Method," The American Journal of Psychology 21, 2 (1910): 220, 223. Employing a concept from Freud, these kinds of exercises were later grouped together as "projective tests." Nonetheless, purposes and underlying theories of mind often differed widely across projective tests.


[22] Quoted in Braverman and Chevigny, 3.

[23] Chevigny, My Eyes Have a Cold Nose, 191.