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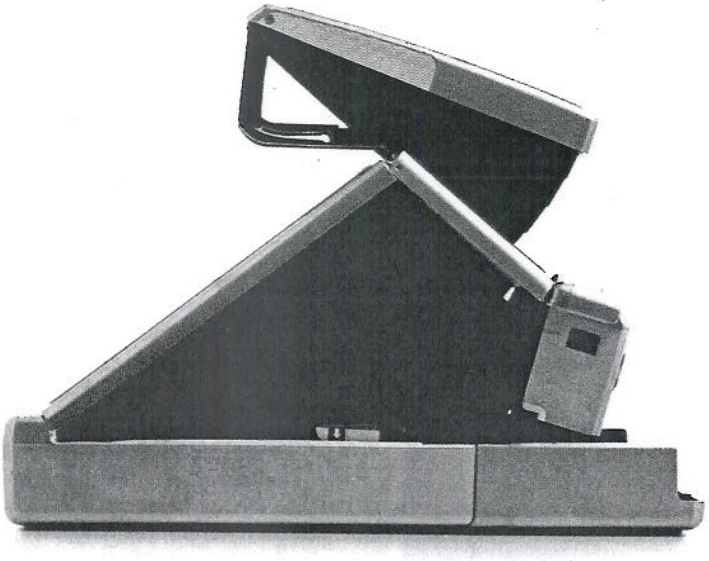
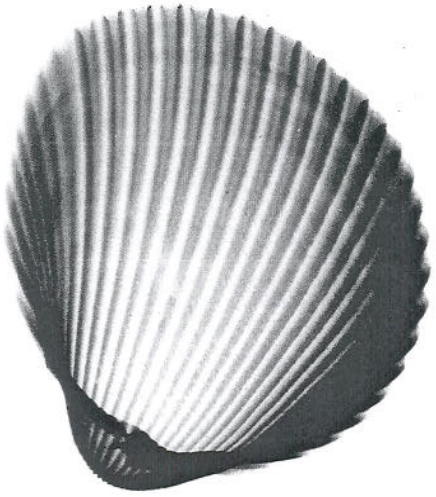




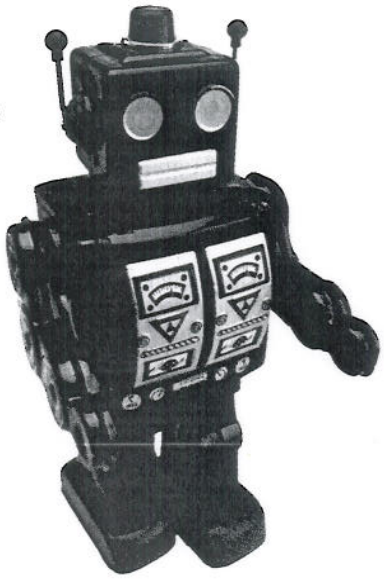
The secret power of things we hold dear

What is the power of objects to move us, to forge important new ideas or to link us to other people? How does an instant camera become a poignant symbol of memory and mourning to the grandson of its inventor? Or slime mould come to represent the political ideology of the 1960s to a now famous biologist? **Sherry Turkle** has made this territory her own. Here, in an essay based on her new book, *Evocative Objects*, she explains how she learned to use objects to explore mysteries, to discover how "things" become more than necessities or indulgences, and to wonder how soon we may literally become one with our objects

As a child, I spent many weekends at my grandparents' apartment in Brooklyn. Space was limited, and the family keepsakes were stored in a kitchen closet high up. I could reach this cache only by standing on a table. With permission, from the ages of 6 to 13, weekend after weekend, I took down every book, every box. The closet seemed to me of infinite dimensions, infinite depth. Every key chain, postcard, unpaired earring, textbook with its marginalia by my mother or my aunt, signalled a new understanding of who they were. Every photograph of my mother on a date or at a dance became a clue to my identity. My biological father had been an absent figure: my mother left him when I was 2. It was taboo to raise the subject; I did not even feel permitted to think about him.

My aunt shared the apartment with my grandparents, and sometimes one of them would watch me at my investigations. I didn't know what I was looking for, but I think they did. I was looking for the one who was missing, for a trace of my father. But they had been there before me and had removed any bits and pieces he might have left: an address book, a business card, a random note.

Once I found a photograph of a man standing on a boardwalk, his face cut out of the picture. I never asked whose face it was: I knew. And I knew enough never to mention the precious photograph for fear it, too, would disappear. The image may have been cut, but it still contained missing pieces of the puzzle: what his hands looked like, that he wore lace-up shoes, that his trousers were tweed.



LEFT TO RIGHT: JOE TREELAWAY, BOTANICALSPHERE, PUNCHSTOCK, PUNCHSTOCK

If there is a sense of vocation to becoming attentive to the detail of people's narratives, mine was born in the smell and feel of that closet, amid the musty books, photographs, corsages and gloves that made me feel connected. That is where I determined I would solve mysteries and I would use objects as my clues. As I studied, I learned about intellectual traditions that took thinking with objects as their central premise. In Paris, I came across the anthropologist Claude Lévi-Strauss, who took the idea of bricolage – a do-it-yourself art that uses any objects that come to hand – to describe objects as "goods-to-think-with". I realised that during my hours with the memory closet I had done more than daydream about old photographs.

Ideas about bricolage were presented in the cool light of French intellectual life, but for me the objects I tried to combine and recombine as a child had been pieces in a puzzle; to find a lost father, they had a high emotional intensity. So I came to see this bricolage as a passionate practice where, sometimes, we fall in love with ideas because we fall in love with objects that put us in touch with these ideas. We think with the objects we love, we love the objects we think with.

Profile

Sherry Turkle is Abby Rockefeller Mauzé Professor of the Social Studies of Science and Technology at the Massachusetts Institute of Technology. *Evocative Objects: Things we think with* is published this month by MIT Press.

This is true for artists, doctors, lawyers, engineers, technologists and scientists. In 2001, when I set up the Initiative on Technology and Self at the Massachusetts Institute of Technology, I organised a seminar called Evocative Objects where people from many fields could explore objects not only as tools for thinking, but in their full power as passionate life companions. My book of the same name emerged from the conversations, and naturally, since we were at MIT, objects from science and technology were central.

Take the Polaroid SX-70 instant camera, remembered by Stefan Helmreich, an anthropologist of science and grandson of one of its inventors. For him, the camera is so woven into family life that its technical details give his family a language for the expression of love. As his grandfather lies dying, the old man's reveries turn to the inner life of the molecules within the film's dyes: the SX-70 is transformed into an object of mourning and memory. Helmreich writes: "I see my grandfather's reveries as an attempt to reverse engineer – with the aid of the oxygen tank that he, after all, controlled – the feeling of intoxication he associated with invention..."

For Mitchel Resnick, inventor of the programming language StarLogo, and most recently, Scratch, a simple animation control program, objects that illustrate paradox took on particular meaning as a child. Puzzles he couldn't answer provoked him to build and tinker. His first "object" was stars, or rather, "the space between, around and beyond them. At an early age (maybe 7 or 8), I had started to

Who knows what strong ideas even the most unremarkable objects could provoke?

wonder about all that space. Does it go on forever? If not, where does it end?" From those thoughts, Resnick is led to objects containing puzzles about physics and its forces.

In *Evocative Objects*, at the beginning of each remembrance, I have added a quote from a well-known work, which makes a three-way connection between the quote, the object and the remembrance. With Resnick, I quote developmental psychologist Jean Piaget, writing how, from our earliest years, objects help us think about number, space, time, causality and life. Piaget reminds us that our learning is concrete and personal: as Resnick takes toys apart and puts them back together, he learns to see himself as capable of inventing ideas, of making them his own.

In another recollection, historian and sociologist of science Trevor Pinch describes building a VCS3 synthesiser lookalike as an undergraduate at Imperial College London. He planned to "make my own electronic music by laboriously recording one sound at a time". Despite the plan, Pinch's involvement with the synthesiser develops a life of its own. "Closer and closer I got to the essence of electronic sound – no longer interested in making tapes, I just wanted to experience new sounds, to find the elusive combination of timbres that would enable transcendence. I escaped into my own world of sound... I was living with a machine and it was becoming part of me." In the end, Pinch abandons the ▶

experience because it was getting "too hard, too weird... too lonely".

For biologist and science historian Evelyn Fox Keller, slime mould is also an object full of paradox – but of a very different sort. "In times of plenty, [slime mould] lives as an individual single-celled organism but, when food supplies are exhausted, it regroups... [and] traffics back and forth both between the one and the many, and between sameness and difference." For her, the betwixt-and-between slime mould not only becomes an object-to-think-with about cell processes, but also a way to think about the politics of science.

In the late 1960s, biologists argued that slime mould was triggered to change from a unicellular to a multicellular organism by a signal from "founder cells". But in a 1970 paper Keller and biologist Lee Segel disagreed, suggesting instead that changes in the slime mould were to do with the dynamics of the cell population as a whole: there was no single command-and-control centre in charge of the process. Biologists resisted, but eventually the more dynamic view of slime mould became the dominant view.

Two decades later, and then working on a biography of geneticist Barbara McClintock, Keller again faced resistance. Classical methods insisted on the researcher's distance from the object of study, but McClintock had wanted to get down among the corn cells of her research, so she imagined herself a modern Alice, shrunk to their scale. Her colleagues were not impressed. Keller began to identify with McClintock, and, like her subject, when she looked at the cells she saw social and decentralised processes. Keller came to see her career and that of McClintock as illustrative of how biology rejects theories that challenge the dogma of single and centralised causal factors.

As Keller wonders why we all find causal accounts so compelling, a more general point occurs to her: scientists, she argues, are not open to the "discrepancies between our own predispositions and the range of possibilities inherent in natural phenomena. In short, we risk imposing on nature the very stories we like to hear." Those stories, Keller suggests, are often the most reassuring ones and those that confirm us in comfortable ways of thinking.

"New" objects can also help us to see things with fresh eyes. For example, technology writer Annalee Newitz's description of the flickering screen of her laptop does not appear cold and abstract, but fully integrated into her sense of her body and mind. Newitz cannot tell where her laptop ends and she begins. In bed, she remembers not to let the blankets cover the computer's vents so it does not overheat. She is at one with her virtual persona: "I was just a command line full of glowing green letters."

The glucometer that measures the blood sugar of Joseph Cevetello, who has diabetes, has also become something more. It "has become me", he writes, as he lances his finger, readies an insulin injection, and waits for his meter to tell him what to do.

Cevetello and Newitz have achieved such intimate couplings between themselves and their objects that we might almost call them cyborgs. In the cyborg world, we move beyond objects as tools or prosthetics to become one with them. The natural and the artificial no longer find themselves in opposition. As we live with implanted computational materials, we come to be on a different footing with computers. Since we started to share other people's tissue and genetic material, we have increasingly been on a different footing with the bodies of others. As we live with objects that challenge the boundaries between the born and the created, between humans and everything else, we will need to tell ourselves different stories. ●

> "Annalee Newitz cannot tell where her laptop ends and she begins"

Over to you

Each of us has an object-to-think-with: what's yours? According to Sherry Turkle, the simple act of asking yourself that question can unlock a rich stock of memories, associations and insights into your thought processes that you may not be able to reach any other way. Maybe it's something you work with or look at every day: the pen your father gave you when you were 18, the palmtop you treated yourself to or the present of a fragile clay horse a dear friend struggled hard not to break on his way back from Zambia.

Whatever it is, *New Scientist* wants you think about that object and (in no more than 300 words) tell us what it means to you, how it connects you to your past or present, your work, your inner intellectual life, the world around you or to other people.

Post your offerings on our website at http://tinyurl.com/2x96mr. We will contact those we think best capture the spirit of Turkle's evocative objects and ask them to develop their thoughts into a magazine article – so include an email address, please.

PUNCHSTOCK, PAUL SPRINGETT/ALAMY