

China Images

by Nancy Pine

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What Do Chinese Children Know?

Joe handed John and me cups of instant coffee as we relaxed from a day spent in the vast Nanjing Purple Mountain parkland. John, our Ph.D. advisor, was leaving in two days and we needed to make sure Joe and I had the materials, phone numbers, and details to carry on our research without his advice.

"You have to get to every school you can," John said, his concern for our work foremost on his mind. We listed the schools we hoped to visit and the different tests we planned.

"Be sure you get Weibo and Yafei to make arrangements no later than Monday," he said. John had known these young faculty members a few years, and they were helping us at every turn, making contacts, interpreting, and more.

"Let's see your testing materials." A knock interrupted. Qian Xingrong came in, two packages under his arms.

"Can you get these to my friends at UCLA?" he asked.

"Oh, brother. I can't take them," John said. "My suitcase is stuffed and I'm going to Japan. Joe and Nancy can do it." He had warned us we might get requests like this. Joe and I looked at each other. The packages were the size of a large phonebook.

Qian Xingrong thanked us, joked with John a bit, and headed out the door.

"Don't shut it," someone called from the hallway. Liu Haiping came in. The English department insisted we have another dinner with them the next night. While John

negotiated, Li Wei slipped in to deliver a translation for Joe and me. Someone else stuck his head in. I began to wonder when on earth we would finish getting organized.

"Hey, Little Brother. Come in. Come in," John called.

"Xu Jian-yuan," he announced to us while shaking his hand vigorously.

Embarrassed, Xu nodded. I realized, a bit slowly, that John had asked me to invite him to Nanjing to meet us. I had written him a month ago, but we had heard nothing. He and John had met the year before when Xu was taking a course for college English instructors. John thought he had a lot of potential and might like to do some research with us, but we had given up the idea when we hadn't heard from him.

Xu turned to me. "I received your letter yesterday, called the Foreign Affairs Office to make sure you were here, and caught a train."

"He's come hundreds of miles. He's got to have a hamburger," John said, wrapping up conversations and herding us out the door. We headed for the Jingling Hotel, covering the half-mile at a fast clip. Xu and John engaged in animated conversation while Joe and I pulled back to enjoy the never-ending impressions from the street. Joe poked me and pointed at a man, his worn Mao hat pulled down firmly, writing in his hand while another watched. Since being in Nanjing, we had begun to notice this invisible writing. Our hosts had sometimes tried to help us understand something by

writing a character or a number in their hand or on a desk with a finger, even though they knew we couldn't read Chinese.

In graduate school courses and research meetings John had told us story after story about his Chinese acquaintances doing this automatically, but its purpose was nearly incomprehensible to Westerners. One story he related was about a young faculty member, Chi Long, who while they were riding bikes kept asking John to pay attention to what he was writing. He was inscribing a character in the air and expected John to be able to see its details. John couldn't even tell that he was writing a character, let alone discriminate among its detailed strokes.

A few evenings before, while buying fruit at a sidewalk grocer's, I asked how much. The shopkeeper said the amount in Chinese. I made a writing motion with my hand, trying to indicate I needed it written down. He wrote in an exaggerated motion in the air, but I could not figure out the number. Part of my problem was it was written backwards to me. I thought the first number he wrote was a 'one,' but was not sure. He tried two more times, in large, slow strokes, but I remained clueless. Shaking his head amiably, he took my pen and wrote 7.7 on a scrap of paper. Such a simple set of numbers, yet I could not read them in space. The idea of reading a complicated character written in the air backwards, or even in the palm of the hand frontwards, was beyond me.

We found a table in the nearly empty Jingling restaurant, and while Xu navigated his first western meal with knife and fork, he described bits of his life.

At the end of his elementary school years, the Cultural Revolution launched across China. Lessons halted. Students spent their days criticizing teachers and schools and writing big character posters condemning them. When they were given a chance to go to the countryside to help the revolution and learn from peasants and workers, Xu was

glad to clamber aboard the truck. He was 16. Xu and others from Shanghai ended up in the southernmost part of Yunnan Province near Laos, an area known for its beauty and the water splashing festivals. For six years he planted rubber trees, and at night in his thatched hut he learned English by listening to clandestine broadcasts from the Voice of America and studying a textbook he managed to acquire. When he was finally allowed to return to the northeast, he studied English at Xuzhou Teachers' College where he continued to teach, the only one of his large farm unit of several dozen to get a college education. Assigned to teach nothing but beginning and intermediate English classes to future teachers uninterested in their government-assigned professions, both he and his students were utterly bored with the prescribed lessons.

Joe and I learned volumes during the next two days as Xu patiently answered our questions. He would never have said so, but I am sure he was astonished by our ignorance about the Chinese language. Self-effacing, with an open smile and one lock of hair that insisted on flopping down on his forehead, his manner invited conversation. He explained and explained how Chinese characters are constructed and how they are taught. Every time we thought we understood, we found we had it wrong. Wasn't a character the same as a word? Weren't there any picture hints in characters? Why not, when all our beginning Chinese books showed characters as simplified pictures? How could you learn them? Why couldn't adults read the alphabetic system that young Chinese children used when they first learned to read? Yafei had said it was impossible to read what his first-grade daughter had written in Latin letters on a picture she had drawn. But why not? It was in well-formed, pronounceable letters from our perspective.

Slowly we began to comprehend.

To decode a character Chinese had to focus on much more detail than our 26 letters required. One small piece - a missing line or stroke, a missing dot - could completely change a character's meaning. A bit like in English when one letter can change the meaning of a word – such as 'desert' to 'dessert.' Except in Chinese, a single character is made of five, ten, fifteen separate lines, called strokes. We found it hard to grasp. And the Latin letters Chinese children used in primary school? These were merely a crutch until they learned enough characters to discard them. The letters were too simplistic for all but the most elemental statements of a first grade primer.

The bottom line seemed to be that characters had little connection to sound/symbol relations. There is no "sounding out" of characters. You either know what the character means, or you don't. And that was a very difficult concept to get into our western heads.

By the time Xu ran for his train a day-and-a-half later, Joe and I were much better informed, and the three of us had decided on a research project Xu could do to enliven his professional life. He had a six-year-old son in the last year of preschool who was learning to write a few characters. He would observe and document the process his son engaged in. We would continue our conversation by mail. Also, John had involved him in a small project and wanted him to visit Los Angeles within the year.

Amidst a flurry of good-byes, John left Monday morning. Relieved to have his frenetic pace abate, Joe and I feared we might err dreadfully. He had introduced us to China, to ways of doing research, and to important contacts. From now on we were on our own.

There was no time to fret; Yafei and I had an appointment at the Nanjing University preschool. I ran to my room, grabbed the

briefcase I had packed the night before, and, skirting the steam plant coal pile, headed for the main gate.

In the school office we began the greeting formalities. A wait in an office or meeting room for the director and an assistant. Tea, while they told us about the school, what children we would be working with, and how. Sometimes it was perfect; sometimes we had to renegotiate what we thought we had arranged in previous meetings. That morning it worked out well.

The director showed us to a small upstairs room buzzing with three- and four-year-old activity. We greeted Teacher Liu, who without fuss, showed us to a table in one corner where we could meet with one child at a time. It was a good set up. Working with the children in their own classroom helped them relax.

Clustered around a few low tables, the children were trying to fit together plastic pieces a bit like the Tinkertoys I enjoyed as a child. Well padded against the cold with thick cotton pants and jackets of blues, yellows, and reds, their high-colored faces concentrated on their efforts.

Turning my jacket collar up against the damp cold of the concrete building, I pulled out our new task. A child would get a set of three papers, each with ten identical characters except one that had a small part missing. I wanted to see if they could find the character that was different, and also I wanted to watch how they did it. Would they select it differently from the ways our own children did in the U.S.? Would this tell us anything about different types of children's learning?

Teacher Liu brought us the first three-and-a-half year old. Yafei gave her the first page of characters and asked her to find the one that was different, that had something missing. Ms. Liu pointed to the characters on the first paper and repeated Yafei's directions in a lilting tone.

信 信 信 信 信
信 信 信 信 信

"Can you find it?" she said, making it sound like a game. The child leaned forward and looked along the line of half-inch square characters, one finger rubbing the edge of the paper. Slowly she moved her hand forward and pointed to the correct one. I handed Yafei the next set of characters, smaller and more detailed than the first.

初 初 初 初 初 初
初 初 初 初 初 初

He repeated the instructions. She looked carefully, her fingers lingering on each one. After a pause she pointed to the one with a small line missing. Yafei gave her the third, smaller and more detailed set.

期 期 期 期 期 期
期 期 期 期 期 期

She inched forward again, more confident; then hesitated. Teacher Liu squatted beside her and showed how she could compare one character with another. I held my frustration. I wanted to see how the children made selections by themselves. There was no way I could intervene, though. She was not giving the child the answer, but she certainly was helping. The student put her finger on one and then the next, inspecting them carefully, but in the end selected the wrong character. Even so, her methodical process seemed more deliberate than what I imagined U.S. three-year-olds would do.

After she showed two more children how to hunt for the character, Yafei told Ms. Liu it did not matter whether a child selected the one with the missing part; we were just interested in seeing how they went about the process. At that point she relaxed. How hard it was even for preschool teachers in China to think in terms of a non-testing situation. Having their students do the best, do perfectly on any task was the default mode.

Waiting between children, I glanced around. Across the small room was an alcove of miniature toilets in stalls without doors, a step up from the two-year-old room where a number of chamber pots lined one wall. In the other direction, a doorway led into the sleeping room where they took after-lunch naps. Each small bed had a colorful sheet tucked around the mattress and a thick, brightly patterned quilt folded neatly at the foot. The preschools we had seen so far all had ample room for such napping accommodations, unlike where my son had attended, where cots were stacked in a hallway and brought into the activity room at naptime.

The next child came and the next. With a gentleness that surprised me Yafei explained the task to them, his serious demeanor melting away in their presence. I had seen him with his six-year old daughter. He was quite serious with her, but then, he had also been trying to make her behave and she was strong willed.

Part way through the testing, Yafei asked an almost four-year-old, her bright yellow and green flowered jacket highlighting her high-colored cheeks, why she had selected a character. It had been the wrong one.

She looked at him intently, then back at the paper and pointed to part of the character.

"The lines don't meet," she said. We were amazed. She was pointing to a small flaw created by the photocopying. Asking those who followed the same question, we discovered several were sidetracked by tiny imperfections caused by the copying process - two lines not quite connected or a white dot within the black print. Would the three- or four-year-olds at home notice such detail? I didn't think so, but maybe they would.

Outside the school gates Yafei and I bid good-bye. As I threaded my way down a lane and onto the campus, I quickened my pace. Joe had been to a primary school, and

we wanted to talk about our mornings and have lunch before afternoon appointments.

Next day Weibo, who had arranged for many of our school visits, appeared at my door in time to discuss the visual memory tasks for Gulou Preschool. Similar to those John had tried with Chinese adults the year before, we wanted to learn if young children had the same unusual visual memory skills.

"This is the *best* nursery school in the city," Weibo said. He was pleased the director had agreed to let us work there. I was not so thrilled. Joe and I had gone round and round with him about this.

We wanted and needed to work with average schools, not the privileged. At the university preschools, because they were part of what the socialist system called a 'work unit,' all employees' children attended - kitchen workers, steam plant workers, and professors. Though probably better equipped than many schools, they included a cross-section of society. But a private preschool? It would be full of children whose parents could pay to get them in, who had passed some sort of exam, or who had the right connections. It did not sit well with me.

"We need to see children in regular schools," Joe had repeated. John had jumped in, "They need to visit BAD schools."

Weibo parried. "Those schools aren't any good. Why do you want to see them?"

I had gotten up and poured more hot water into Weibo's cup to calm my annoyance. I explained again that we wanted to know how all children learn, and that meant seeing a variety of schools. Visiting one of the best was all right because it taught us the 'finest' education available in Nanjing. (As I said this, I did not believe it since my experience in the United States was that not all 'fine' schools delivered substantive teaching.) Nevertheless we needed to spend most of our time elsewhere. Weibo tried to respond politely and agreed

to find a 'bad' school for us, his lack of enthusiasm apparent.

I found his attitude disconcerting and it kicked in a memory from years earlier when I had encountered a similar attitude in the Soviet Union. I had led a traveling seminar of high school students through that country. We camped in tents and cooked our own meals. The government guide assigned to us was disgusted by our living arrangements and refused to stay in campsite cottages. She went off to the city each evening after telling me I was trying to act like the working class, like the proletariat. I was getting the same message from Weibo. He had distain for the schools that were not 'the best.' It made me uncomfortable. I came from a public school tradition and was committed to helping all children gain a sound education. Not just those whose parents could afford private schools. Besides, didn't communist governments espouse egalitarianism and rail against inequities in the United States?

When we turned down the sidewalk leading to the Gulou Preschool gate, I stopped to photograph the modern buildings of glossy white ceramic tile trimmed with deep red. Decorative bushes drooped under wet snow laid down the night before. Heavy anodized metal windows caught my eye. A far cry from the leaky metal frames of the university preschool. Director Hao showed us around well-equipped rooms before leading us to her freezing office. An alert, assertive middle-aged woman, she wanted to know what she would get from us. I promised to let her know the tentative results of our research before we left Nanjing and would send more when we knew them.

Throughout the next few hours we watched children engage enthusiastically in visual memory tasks, and then returned to her office. She asked if we would share the visual activities with her. It seemed a

reasonable request, and I returned a couple of days later with copies. I asked how they would be used, assuming they could help develop students' abilities.

"To test children," she said. "They are a good way to test for intelligence because they go directly from the eyes to the brain."

I looked at the papers in her hand. If I could have taken them back, I would have. She was going to use my materials as a gatekeeper for children going on to another grade or getting into her school. But I had promised them. After some cordial but strained conversation over tea, I said goodbye. I had benefited from research sessions with her students, and she had gotten what she wanted. The whole scene left a bad taste in my mouth.

Meanwhile Weibo, who was working hard for us, found a 'bad' preschool. Friday afternoon, hardly the best time to visit, he and I headed there in a light drizzle. Its substantial looking building stood behind a new primary school, suggesting it was not a 'terrible' preschool.

Greeted by the director and a teacher, we were led upstairs for tea and a long slow conversation during which I described how we were studying young children's learning in China and the United States and that we were discovering a lot by working with Chinese children. They seemed un-enthusiastic, and I was not sure if this was their natural response to a strange foreigner or whether Weibo's attitude toward the school was creeping into the conversation as he interpreted.

"But we don't teach children to write characters," the director said. "They learn that in primary school."

"Yes, yes," I replied. "I understand. What we are learning, though, is that many Chinese children have developed skills even by two or three years old that are quite different from American children. For

example, they seem to remember a lot about complicated visual designs."

They began to look more interested.

"What would you like to do in our classrooms?" the director asked. I explained how we wanted to show the children a few words and designs and see if they could remember them long enough to write them on paper. There was no 'right' or 'wrong' to the task. We just wanted to learn how much they could do, because children in the U.S. had great difficulty doing such a task. The director and teacher talked to each other, their body language suggesting they were warming to the idea.

He turned to us. "The children are still asleep. Wait a minute while Teacher Yue wakes them so they can try your tasks." Weibo looked at his watch. I thanked the director for allowing us this privilege, and inquired if it would be possible to work with the older children too. Before interpreting, Weibo suggested to me in English that that would be too much.

"Just ask her," I said, trying to keep a friendly demeanor but feeling my annoyance growing at his foot dragging. I knew he was giving us considerable time and I should be grateful; but my clearest realization was that if I antagonized him, it could transfer to his interpreting and end our session. The director agreed to the extra classes with some enthusiasm, and sent off an assistant to prepare the four- and five-year-olds.

We were led to the three-year-olds. A few were still in the sleeping room getting their shoes on, but the rest were at tables looking alert. Weibo chatted with them for a moment, responding readily to their eager faces. He had a one-year-old daughter and loved children. When they were ready, he held up the first of three Chinese characters for ten seconds and then showed it to them an extra five. I finally got his attention to have him put it away. I wondered if he

thought these children needed extra time because they were at a 'bad' school.

They bent to the task of reproducing the character on their papers, one careful stroke at a time. No scribbling, no apparent frustration at not remembering all of it. Many of the children were making clear, if large and spread out replicas. Weibo waited for them to finish, and asked if they were ready. Eighteen solemn heads nodded and they seemed to sit up a bit straighter. He held up the second character, more complex, with more strokes than the first one. This time he held it for ten seconds moving it slowly from the left side of the room to the right, and put it away. Good. I reprimanded myself for being suspicious of his motivations. He followed with the third and most complicated character and then a geometric design. Their reproductions from memory continued to look fairly accurate, though crude.

Weibo paused, then said, "Are you ready? This one is going to be different." He held up the first English word. When he took it away at the end of ten seconds, some wrote, but many just stared at him. They seemed stumped by this foreign script. Although the Chinese characters were much too advanced for them to recognize, they were not fazed by remembering and reproducing them. But this foreign language stopped them.

Weibo and I looked at each other with the recognition that the second, more difficult English word should not be used. He thanked the children for their work. The teachers collected the papers and handed them to me. Faces alert and enthusiastic, they waved their well-padded arms and we went off to the next class.

Walking through the school gate in the continuing drizzle at the end of the afternoon, we finalized plans for dinner at

Weibo's apartment, and he headed home. Dusk was settling over the city, as parents arrived. I watched them tuck their children under their bicycle ponchos to keep them dry. They pedaled off, ponchos of reds, lavenders, bright blues enlivening the dimming light. A stranger would never have guessed that under each one was a precious cargo leaning against the rider.

I started toward the university, my head swimming with what I had learned during these three weeks and of all the unanswered questions. How on earth could preschool children pick up a tiny photocopying irregularity as something significant in a character? And did Chinese youngsters concentrate on things longer than our children, or was I imagining that? Did any of these unique skills transfer to primary school learning and lessons? If so, what were our children in the United States learning? They went around singing alphabet songs and proudly pointing to letters they recognized. Was remembering characters and being able to reproduce them the equivalent?

I craved time to visit primary schools to answer some of these questions. I wanted to tape record Chinese lessons and have them translated so I really knew what was going on. But this trip was over. Monday to Shanghai; Tuesday to Los Angeles. I passed through the north campus gate and stopped to watch students on the soccer fields. The sweep of the old traditional tile roof of the English Department poked out from behind cedar trees that had witnessed decades of change and turmoil. As the mist wet my hair, I sighed and started toward the Foreign Experts Building. It had been a glorious and cold three weeks. I had scratched the edge of this ancient world and felt compelled to explore it further.

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