MIND MAPPING

A Technique for Expanding Short-Term Memory in Interpreting

By Louise Ford

One of the most stressful situations in which I have interpreted occurs when a speaker presents complex information at a rapid pace - I am "keeping up", but constantly concerned that I might forget that "last point" before I have a chance to sign it! Inevitably, I DO miss something and berate myself for not remembering enough.

I would like to introduce to you a technique that I have found helpful in many situations (including preparing this presentation).

Mind mapping is an innovative technique for organizing information, developed by Tony Buzan of the Learning Methods Group in England. This diagram (fig. 1) is a redrawn version of the map I prepared for my presentation. My initial map took less than fifteen minutes to sketch out, and contained all the information I needed to present this topic orally. Of course, each time I went back to my file to work on it, I refined it again. In addition, the need to produce a paper for AVLIC to publish necessitated further work in adapting the map to the linear form of written English. In addition to the overall map for my presentation, I drew several sub-maps, which are more detailed.

Tony Buzan's book, "Use Both Sides of Your Brain" intrigued me. I have always been interested in the exploration of left and right brain phenomena, and I thought it might be worth reading. When I read Chapter Four, about using mind maps as a tool for note taking, studying and writhing, I had a sense of déjá vu. What I found was a theoretical framework for what I do when I am doing my best interpreting (also what I had often done in my head before writing an essay, but could not figure out how to get it down on paper!).

This technique taps into the intuitive and imaginative side of the brain, and helps to break rigid patterns of thinking. It is nonlinear in form, which allows one to do things with it that are not possible in spoken or written language. Most languages are produced in a linear form. If you want to expand on an idea, you add more words and more sentences. A striking characteristic of ASL is the non-linear organization of information. Our brains do not deal with information in a linear fashion either. Try this experiment:

> Turn to the person next to you and introduce yourself and make a comment about the conference. Quickly now, try to identify all the thoughts that went through your mind. I am certain that none of you simply thought, "Hi, my name is ___. Blah, blah...".

Most people probably had between eight and fifteen associated thoughts from which they selected what to say. In addition to that, you had to make choices about which structures you would use, what tone you would set for the interaction and what information you would reveal.

The brain operates in an associative manner. Each idea has branches, sidetracks, hooks...whatever you choose to call them. The brain creates relationships between ideas, concepts, and experiences. Language is simply a tool to express those relationships.

Most of us find our memories are fickle and not to be depended upon. Why else do we write lists for groceries, errands, phone calls, people to see, keep appointment books full of lists? I complain bitterly when I cannot remember from one minute to the next what I was going to do in the basement—usually I have to go back to where I started from and try to remember! I am sure we are all aware of the present limitations of our memories. I emphasize the word *present* because they can be expanded.

Psychological studies about the functioning of the short-term memory indicate that the average capacity of short-term memory is seven units ±2. That means at our worst, we can likely still deal with five units in short-term memory, and at our best, we can likely deal with nine units. Basic information, right? Apparently, we cannot increase the capacity in short-term storage much beyond the nine units. Some amazing feats have been reported where people remember mile-long strings of numbers, but those people use special techniques and besides, they are extremely rare! For those "normal" people among us, we will just have to learn to get along with our seven units ±2. As an interpreter, I would dearly love to have one of those mile-long memories—imagine the time lag one could develop! In order to improve my performance, I need access to as much memory capacity as possible. Since I cannot manufacture more units, I need to find a way to expand the units so they will hold more information, and allow me access to the wealth of information I have in my long-term memory.

Mind mapping is a technique, which can be used to expand the capacity of our short-term memories. In his book, Mr. Buzan explains this technique in terms of working on paper—taking notes, writing essays, preparing lectures, and creative writing. First, we will explore the basic technique, and then discuss how it can be adapted to the interpreting process.

Let's start off by pretending we have a writing assignment. The instructor in our creative writing class has asked us to write a short piece about gardens.

First, we take a piece of paper and put something in the middle that means "gardens". For some, it will be the word, for other, it may be a picture or symbol. (Fig. 2 is my completed map for this assignment).

The next step is to associate other ideas with your main idea. For example, when I visualize a garden, it is always full of flowers. So I drew a line off to the left and drew a symbol that means flowers to me. Then I think about the colours and how they brighten up my kitchen.

Next I think about the fresh fragrance of the flowers, which immediately leads me to other associations. Since this feels like a separate idea, I drew it on the other side of my paper. The idea did originate from my thought of cut flowers in the kitchen, so I showed the connection by drawing an arrow.

As you add more ideas and associations to your map, the order in which they occur to you makes no difference to the finished map. The important thing is that your map shows relationships between ideas. Once your map is done, you can look for other relationships, order your ideas, highlight essential points—all on one sheet of paper! I completed my original map on "Gardens" in less than six minutes, and I am now ready to write my short essay or poem.

This technique may remind you somewhat of brainstorming, where you jot down ideas in an associative manner. Mapping is a more advanced technique, which provides the opportunity to easily discover relationships between ideas at the same time. Brainstorming can also reinforce linear thinking, as the results are usually in list form.

A common difficulty in both writing and interpreting is trying to organize and order thoughts before we even know what they are. Trying to impose an order on information is a particularly ineffective way to organize it. Allowing the natural relationships between ideas to order thoughts for you makes much more sense.

With the mind mapping technique, we can look at a multitude of aspects of a topic or concept. Like a holograph, it allows us to explore something from all sides, from the top or the bottom, rotate it, move it closer, distance ourselves from it, see it in relation to a larger scene, and to perceive colour and depth.

I have a beautiful apple in my hand. I would like you to close your eyes and visualize this apple.

Look closely at it skin.
Picture it on the table in your kitchen.
Picture it on a tree in someone's garden.
Hold it in your hand and feel its weight.
Split it open and look at the inside of the apple.
Bite into it and taste it.

That's just the beginning of the process. Let's try to develop a map about the apple. (See Fig. 3, 4, 5 and 6)

I start with an apple in the middle of my page. I have a set of primary associations which come to mind quickly (this becomes the second "layer" of my map). Try to sketch your own.

As quickly as I was getting those associations down, they were triggering other associations in my mind. They become the third layer of my map. Sketch yours.

No sooner do I start putting these down on my map, but *another* set jumps up! Of course, they don't usually come nicely ordered like this, but the map allows me to insert my ideas wherever they best fit. When I am mapping in a creative vein, I usually work with a larger page, so that I am not restricted by any external factors.

If you look at each later in turn, there are several interesting points to note. Each layer of the map ties deeper into the long-term memory and "flushes out" the idea. The associations created in this way build an entity with depth. I find if I only use brainstorming, my product seems shallow and lacking in range. I could continue building this map—probably out to seven or eight layers if I had enough space. I would like to emphasize that the map did not grow in orderly way, layer by layer, but by allowing the natural associations of my mind free rein. One branch may be fully developed before you get a chance to start the second or third.

Any idea we start with, and any associations we get from that idea have "hooks" into long-term memory storage. To illustrate this, I will call out a list of nouns. I would like you to write down the first thing that comes to you mind after each word.

cinnamon • poppies • Siamese cat • liver • sand

Take a look at what you have written down and identify where it came from, and how it got on your paper. Try to visualize the activity in your brain during this process. The analogy that works for me is a fishing rod with line and hook. As the first idea enters my mind, the hook is cast at lighting speed and with great precision into to the lake (of my brain), and just as quickly comes back with the fish (the association). The image is quite amusing, but I like it. When I feel like I have and an extremely brilliant thought, the hook is transformed into one of those elegant flies used to catch trout and salmon.

My associations for those five words come from my long-term memory, and they were in credibly easy to access. I had no difficulty pulling that information out of my brain. It would be wonderful if we could call on a memory system that efficient while we are actually interpreting! With practice, I think we can!

By visualizing the information we receive in the form of a map with layers and tentacles hooking into long-term memory, we can gain access to what we already know. Using valuable short-term memory capacity to remember what we already know is simply wasteful!

Let's now try mapping from what we hear, (someone else's ideas), and see if we can apply the technique. First, I will ask you to map the exercises on paper, and then we will try to do them with visual images.

> John flew to Toronto for a major technical trade show. He was in charge of the display for his company, Digitronix. He had carefully packed everything he would need for the show in his carry-on bag, knowing how careless baggage handlers can be! When he arrived at the airport, he went to pick up his suitcase from the carousel. After the usual wait, bags started to come down the conveyor belt. All but his, that is!

Revise your map if you feel it is necessary, and notice what kinds of images and hooks you used. Many of the assumptions we accept without question come from experience buried in long-term memory. Try to identify where you have depended on those assumptions. Some of mine where:

- John is an adult male.
- He went to Toronto in a plane.
- Someone bought the ticket.
- He had to go through check-in and security.
- His personal items were in his suitcase.

Let's try the exercise again. This time close your eyes and try to visualize this even into just a few essential images. Identify the discrete images that made up your map and where they were located in

space. If you could visualize this in three images or less, you are making very good use of the stacking and hooking ability of your brain. If you had more than three images, try the exercise again.

Now construct an ASL version of your map. You have already held this story in your mind for five minutes or so, and it likely has not lost any detail during that time. The English version contained six sentences and ten clauses. That's quite a chunk to remember. Constructing a map helps to distill the "meaning" of a passage, which makes the interpreting task much easier.

As a demonstration of the economy of visual images, let me explain the two images I constructed from the passage about John.

1. A man sitting in an airplane with the name tag "John", holding a sample case with the name DIGITRONIX on his lap, visualizing his display at the trade show, looking out the window at the CN Tower.
2. The same man standing at the carousel frowning and tapping his foot.

Each of these images can conjure up a host of associations from my long-term memory.

Take a couple of minutes to review your mapped images, and see where the hooks to your long-term memory are. I will read the piece once more, and ask you to imagine yourself interpreting it—sign it if you want to—using your map as your guide for encoding the message.

Remember that languages are full of redundancies—you won't lose the message by discarding parts of what you hear or see. Here is another selection, somewhat more complex and abstract. It is a piece I began with a map after a tense situation where I felt unwanted as an interpreter. The original map could have produced another twelve-page paper, so I redrew a portion of the map to help me focus.

> With all the emphasis on independence of disabled persons, there has been much discussion of what independence means for each individual, and for what collections of individuals. For most people, it means taking charge of their own lives and directing their interactions with their environments—be it a physical setting or the people around them. In many instances, it means the removal of an intermediary and having direct access to people, facilities, and information. Dependence on another human being is not encouraged, as it is believed that it hinders the growth of independence. When a cross-disability group meets, participants want to interact directly with each other. However, almost every interaction with a deaf person is "mediated" through an interpreter. While other disabled groups are reducing their dependence on others for an incredible range of needs, deaf people are seen to be increasingly dependent on interpreters. As interpreters, we are seen as fostering that dependence! What a quandary!

Take a few moments to review your own map—try to pare it down to the least number of essential images and symbols. Feel free to check it out with someone else, compare notes. There are no right or wrong ways to develop mind maps—only ways that either work or don't work for you.

Do you think you could reconstruct my message from your map? I would suggest you review your map in an hour, at the end of the day, and perhaps next week—I think you will be surprised at how much of it you can remember and successfully decipher!

Another aspect of mapping that has proven beneficial to me is that more of the information I process is stored in my long-term memory where it is easily accessible to me. By linking the information I am working with right now to something in my long-term memory, I am building neural pathways to assimilate that information into existing networks. I used to complain that I would never remember anything after an interpreting assignment (especially the topics I was interested in and wanted to learn more about). It is possible that all of the information actually IS stored somewhere in long-term memory, but it just inaccessible. This could be compared to storing unrelated pièces of equipment in a warehouse, but not bothering to list them on the inventory.

When you use mapping, you create a place for the information to belong in your head. You "list it on the inventory" connected to related bits of information

About sixteen months ago, I presented a workshop on this topic at an OASLI workshop in Milton. I used a little book called "Once I Had a Monster" as one of the exercises. When I opened my file and saw the cover of the book, I could remember most of the images I had mapped for it. I have also used mapping on occasion to help me study for exams and tests. So far, it has helped me earn two A-marks at the University of Ottawa, and I am working on my next course now. I have also used it to prepare reports on learners' progress and grant proposals in my present position. My time, like yours, is valuable and we should not waste the memory power that already exists in our brains.

From papers from the 1988 Conference of the Association of Visual Language Interpreters of Canada, David-Francios Dinning Editor.

Fig. 1

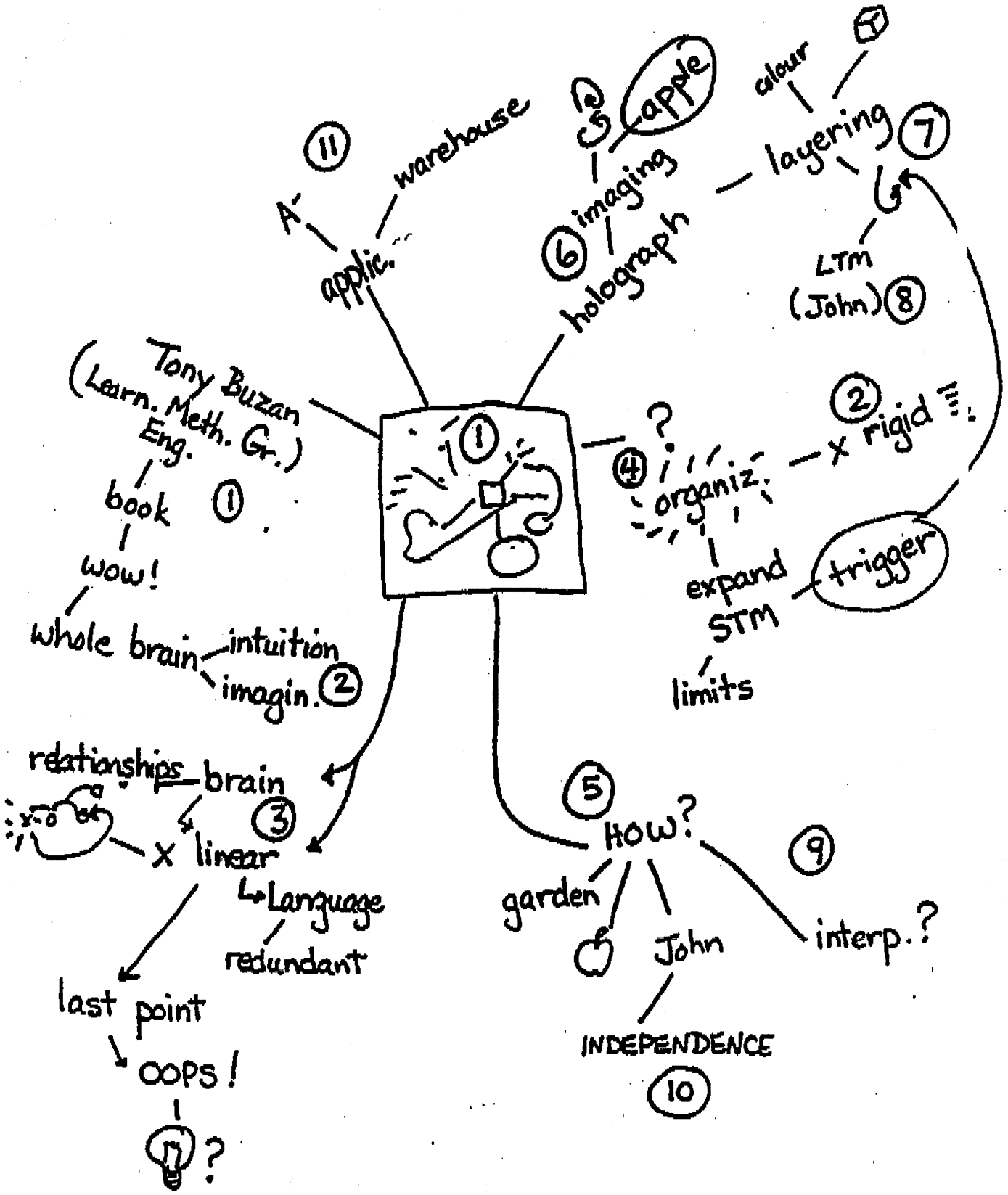
Tony Buzan
(Learn. Meth. Gr. Eng.)
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Fig. 2

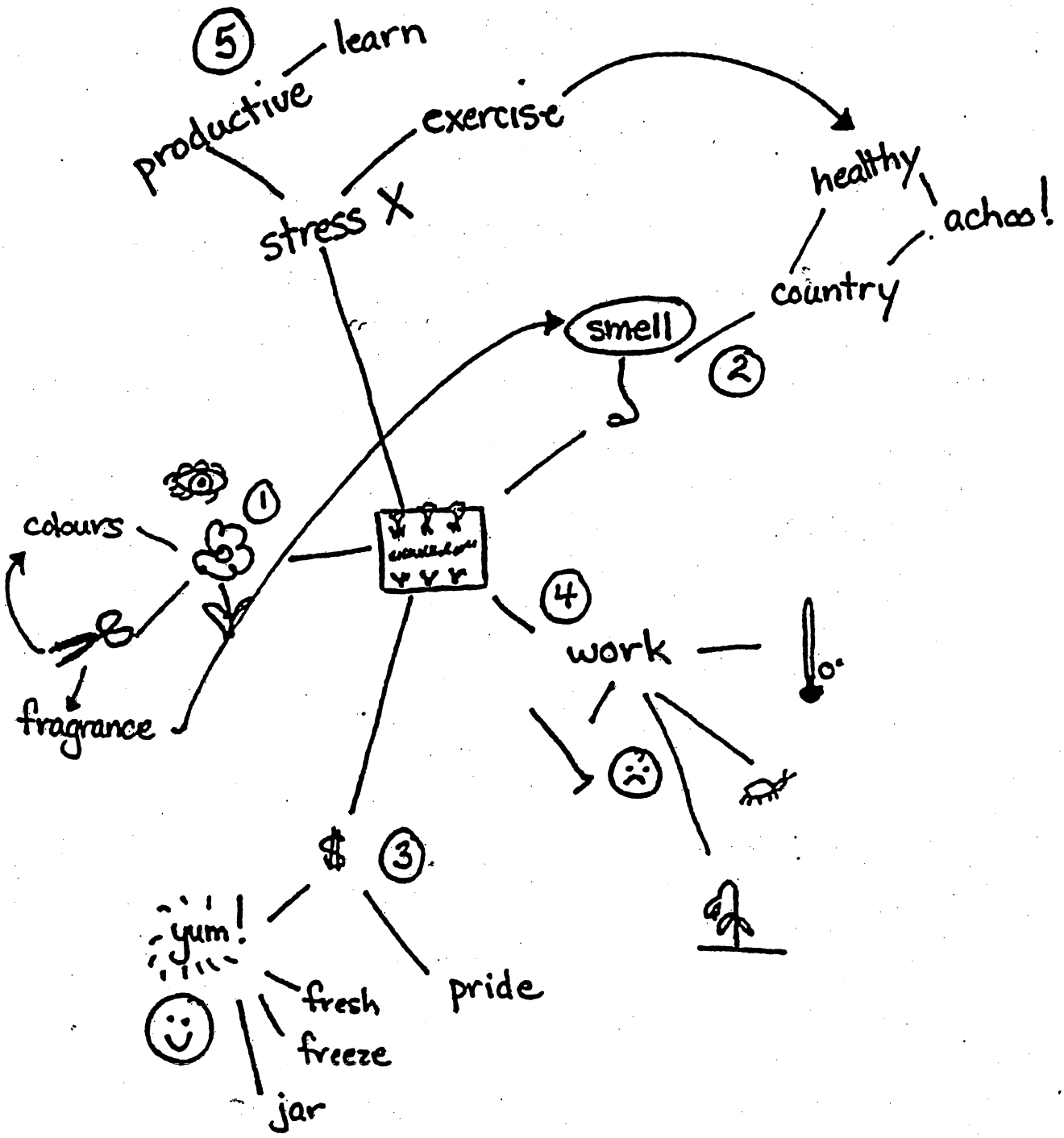
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Fig. 3

Fig. 4

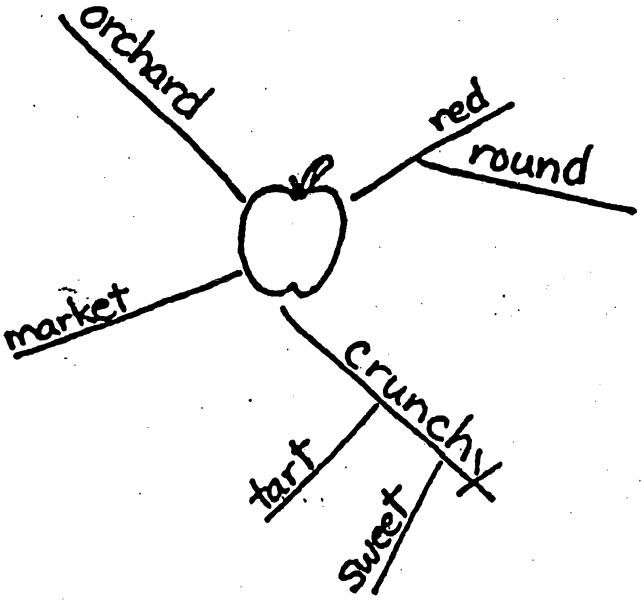

Fig. 5

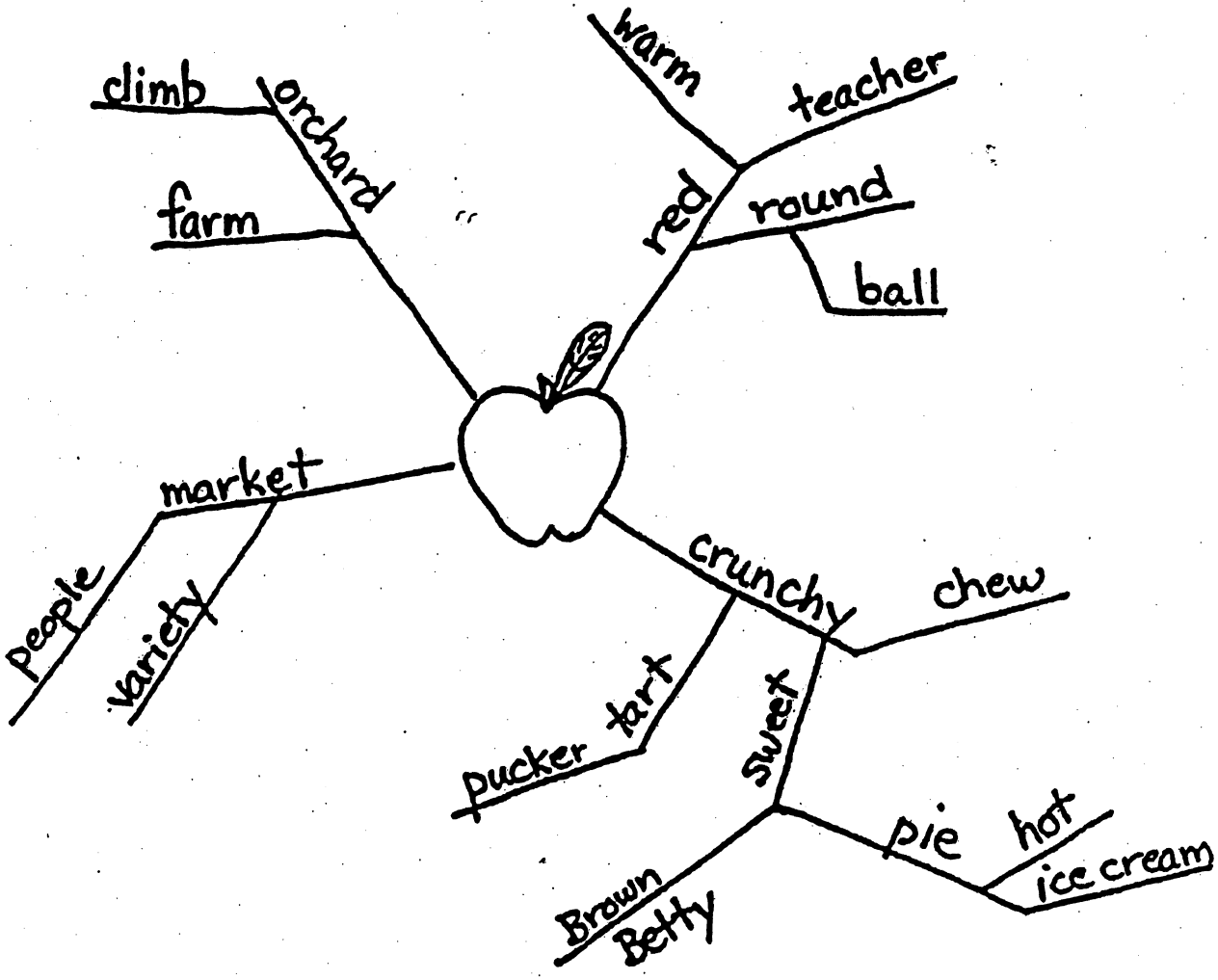
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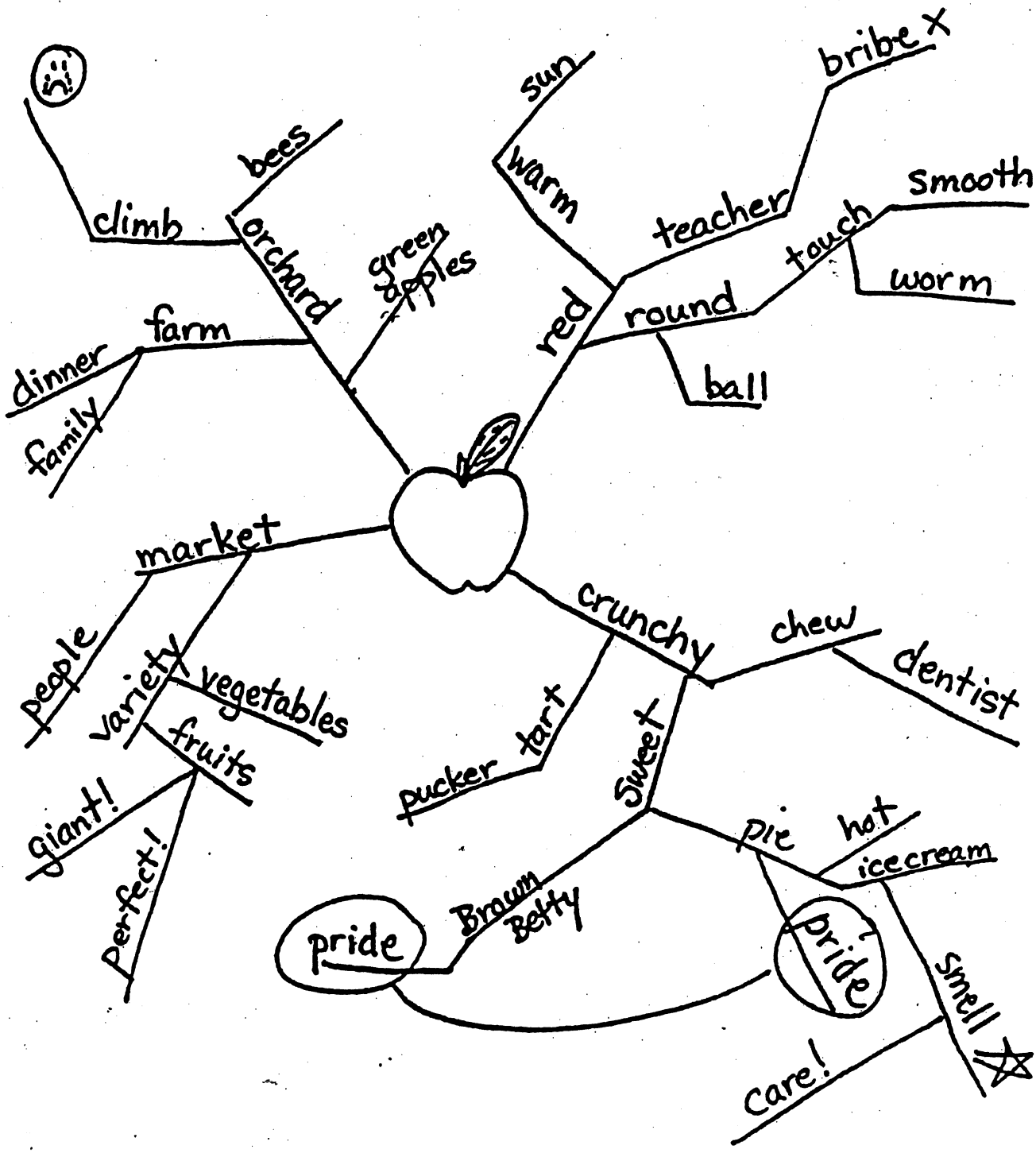
Fig. 6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pie
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pride
Brawn
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pride
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care!