Traders and Trappers

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THIS IS the story of an episode that occurred before the French and Indian War, when the French fur traders were driven out of North America, and before many of the Indians had firearms. A missionary named Martin had, with his family, lived with the Black Bear Indians and converted them to Christianity, and had taught them to speak English. Then, one night, a band of Wolf Indians had attacked and massacred many of the Black Bear tribe, and also the missionary and his wife. Their three small sons escaped: Allan, aged 3; Ralph, 5; and Oliver, 6. They were adopted into the Black Bear tribe, and were well-liked by everyone. When our play opens, 10 years later, they were already noted for skill with arms, and quickness of mind.

The action occurs in a forest, on the edge of an Indian village. In the background is a tent, against which leans a bow. There are four crude stools in the foreground, and leaning against a tree is a large slate, on which, as the play opens, Oliver is drawing a map showing a river, a hill, and an Indian village. Ralph is watching him.

The three boys are tanned and healthy. Each carries a large hunting knife in his belt. Allan is the most impetuous of the three. All of them are of courageous bearing, which reflects itself in their speech. Oliver: (Pointing to the map he has drawn

- on the slate) Here, Ralph, is the village of the Wolf tribe. We haven't had a fight with them for nearly two moons now.
- Ralph: If only we had half as many men as they! We'd show them!
- Allan: (Entering) Hello, there you are! (closer, and confidentially) There's something strange going on in this village. I don't know just what it is, but I've a hunch that traveller, Jonathan,

who came a few days ago, would gladly knife us all in the back.

- Oliver: Oh, no, Allan! He's a missionary, just like Dad. What have you noticed that's strange?
- Allan: Well, er, nothing exactly, but I trust my hunches.
- Ralph: Look, boys, here comes the chief! (The Chief enters. He is a tall, dignified man, with a pleasant smile which he uses sparingly.)
- Chief: Boys, I would like to have a long talk with you. (pauses) I don't need to tell you how hard we all worked this winter, trapping for furs. Do you know what we wanted them for?
- Ralph: Yes, Sir, I do! We're going to trade them to the French for guns!
- Chief: (smiling) Yes, Ralph. The Wolf tribe outnumbers us seven to one. The French Chief from way across the big water told his traders here to give us guns, because we are Christians, just like the French are. They don't want the Wolves to burn our village, and kill us. But (pauses), the Trader here is afraid of the Wolf tribe. One of our scouts learned he intends to cheat us in our big trade, and give us so few guns that we can't defend ourselves. The Wolves have scared him into doing that.
- Oliver: (angrily) We won't let him!
- Chief: That is what I wanted to talk to you about.
- Allan: What can we do?
- Chief: (pauses) Before your father came here, the Black Bear were as ignorant as the other Indians. Your father was not only the bravest man I have ever met, he was the wisest. He taught us all to speak English, how to care for our wounded, and many other things. Do you know what is the most important thing he taught us?

All: What?

- Chief: He taught us how to *count*. To be sure, we had words in our Indian language for one, two, three, four, and five; we called them eina, koopla, sona, vort, and vint. We had no words, no names, for six, seven, or any other numbers.
- Oliver: Why didn't you just make up words for the other numbers?
- Chief: We didn't know that there were any others. I know it seems strange now, for now we know that we can name as many numbers as we like. All we need is words for them. But don't think we were too dumb. The Wolf Indians can, even now, count only to three, and when I asked your father about it, he said that from the rising sun to the setting sun (he points, with a sweeping gesture) only the most learned and the most civilized tribes can count past ten.
- Ralph: Why is counting so important?
- Chief: You are still a little young to ask that question, Ralph, but since you are very quick, I shall tell you. Without counting we could not save the right amount of food to last through the winter, with a little to spare. Without counting, it would be very hard to divide up the fruits of the hunt fairly. (interrupted by the entrance of Jonathan, the travelling missionary. As he enters, Allan walks behind him and points toward him, to tell Oliver and Ralph; "this is the man I distrust.")
- Chief: Welcome, Jonathan, I was just thinking about you. The Black Bear tribe has a hard job to do. I was just now going to ask the boys here to help us with it, and perhaps you would help us, also. (Boys look surprised.)
- Jonathan: (hesitating, looking scared) Well, I'm not much of a fighting man, and I'm hardly strong enough for hard work, but, er, what is it you want?
- Chief: (appears surprised, and disappointed, as if he had thought very highly of Jonathan) No, it's nothing like that. I'll explain what we need. I was just telling our boys, here, that one of the valuable things their father taught

us was the ability to count. He taught us the names for the different numbers, different names than the ones we had used before. But the French have a way of making little marks for numbers, instead of writing out the words, and that is why they can figure so much better than we can, and cheat us in the trades. To protect ourselves against the Wolf Indians we need guns, and for them we must trade furs, and so you can see that the most important problem facing our tribe is that of learning some system of using marks for numbers. The French guard their secret carefully. Our best spy tried for weeks to discover it, but he was captured. (Proudly) He gave his life for the tribe.

- Ralph: (eagerly) I know two of the marks they use. (He goes to the slate: all numbers not written out in *words* in the dialogue from here on are to be written on the slate by the various speakers, or pointed at, if they are already on the slate. Portions of the map already drawn on the slate are erased to make room for the figures.) They just make a scratch for "one" like we do, "1." But for "two" they don't make two scratches, as we do, 11, but they use a mark like this: "2".
- Oliver: I remember that, now that you mention it, and also the mark they use for "three." They write "3" instead of our 1 1 1. But I don't remember any more. Maybe I'll think of them. I didn't realize how important numbers are.
- Chief: (pleased) Friends, you have a good start. I must go now, to the council fire. I am trusting you boys to work out a system for us. I believe white men are better at that than we are, and we are lucky to have you with us. (Leaves.)
- Jonathan: (Speaks quickly, anxious to persuade the boys to his point of view.) I'm very glad for this chance to help our Indian friends. I believe I can help you with your adventure of creating a new number system. First, don't you think the Indian way of writing two scratches

for the number two, like this (writes 11) is better than using this mark you mentioned, "2"? It's more logical. If one mark like this "1" means one, then two marks such as "11" should mean two. That's the natural, God-given way. These godless French, inventing a mark like "2"! Let's just follow the old system. For three we'll use three scratches, and so on.

- Allan: (Whispers, but everyone hears him.) I still don't trust this man! All this talk about the God-given way!
- Allan: (aloud, to Jonathan) Do you mean that Christians use scratches, as you want us to do, but heathens don't?
- Jonathan: Yes, that is right.
- Allan: On our father's watch the hours are marked with a funny kind of mark, one mark "I" for one, likewise "II" and "III" for two and three, but at four it has this mark "IV," and so on. My father didn't like the system and said some *heathen* Romans started it. Heathen, mind you! (angrily, to Jonathan) So I think you're trying to fool us!
- Oliver: (shocked) Allan, you musn't talk like that. This man is a missionary, like our own father, and he's trying to help us. I think we should take his advice. (turning to Jonathan) Please forgive my brother's rudeness.
- Jonathan: (smiling maliciously) Of course. Now, for these numbers---

Allan: (interrupting) I remember the mark the French traders use for four! It's this! (He writes "4.") Let's just make up marks of our own for the rest of the numbers. There's no sense in the way this man (he points toward Jonathan) suggests, of having five scratches for the number five, and so on. It gets too complicated. (To Jonathan) If you are really trying to help us, why don't you tell us the French system? You have been in the big cities of the white men, New York and Boston, and you must know the system!

Oliver: Yes, Allan is right. Tell us what system is used, by the French and by our own Americans out East.

Jonathan: (starts to walk away, then

whispers loudly, as if thinking aloud) If I don't tell them, they won't trust me any more. (He says, aloud.) I'll tell you, and then you can see how Godless and unnatural it is. They use this mark "4" for the number four, as Allan says, then this "5" for five, "6" for six, "7" for seven, "8" for eight, and "9" for nine. You can see what funny marks those are. They are hard to learn, hard to use. God never intended that we should use them. He gave us fingers so that we could use one finger to mean one, two fingers for two (illustrates by holding up his fingers), and so on, just like the scratches we make on a marking stick. (pauses) Well, boys, I must be leaving now, as I am journeying to another tribe today. Good-bye! (Leaves.)

- Boys: Good-bye!
- Allan: I'm going to have him trailed. I still don't trust him! (Leaves.)
- Oliver: You know, I think Allan has something there. Why should we make five scratches to mean the number five, when we can use a mark like this 5? We could use the Roman numbers Allan mentioned, like those on the watch, using V for five, and so on, but why not start at the beginning and have a brand new mark for each number, like these that Jonathan showed us (points to the 1, 2, 3, ..., 8, 9 on the slate), not just a new mark, V, for five?
- Ralph: These numbers are fascinating, don't you think? It's interesting that the Indians used one kind of numbers, the white men another, and those Romans, whoever *they* were, used a third kind. It makes me wonder how many kinds of numbers there are in the whole world.
- Oliver: Everyone really uses the same numbers, I think. Take five, for example. We now call it "five" and write it 5 for short, while our tribe used to call it "vint" and wrote it 11111. These Romans wrote it V. It's still the same number, though. It seems to me that there is really only one set of numbers but many

different ways to write them, and our problem is to invent the easiest marks for writing them.

- Ralph: Yes, you are right. All we are looking for, after all, is the easiest way to use marks for numbers, and so far we've succeeded up to nine. That's strange! Johnathan stopped at nine. (points to slate) He didn't tell us what the French traders use for ten. But surely they don't go on forever, inventing new marks for every new number! It would be too hard to *remember* all of them. I wonder if Jonathan stopped at nine so he wouldn't give away their secret.
- Oliver: I see what you mean, Ralph. The French can't go on inventing new marks forever. But they can't start repeating, either, because numbers don't repeat. No two numbers are the same. I wonder what they do? (pauses, and thinks.) I remember, when Mother started to teach me how to write, before her death, I practiced on a sentence with a 23 and a 19 in it. (He pronounces these "twothree" and "one-nine" and writes them) I've forgotten what little reading and writing she taught me, but I have kept the papers I wrote on, and I saw them the other day, with those figures on them.
- Ralph: The two-three must mean two, and three more, that is five; then (excitedly) the one-nine is just what we want, because one and nine more is ten! (Points to the 19 on the slate).
- Oliver: I don't think so. They wouldn't write two-three (he writes 23) if they meant five, they'd write 5. Still, onenine seems like as good a way as any to write ten, if we aren't going to invent a new mark.
- Ralph: Wouldn't three-seven also mean ten, in the same way, because three and seven more is ten? (He writes 37, and then 28, and 82.) And wouldn't twoeight and also eight-two mean ten? Won't that be awfully confusing?
- Oliver: (slowly, thinking hard) Yes, that's not a very good way to write ten, after all. We seem to be stuck. We can't go

on inventing new marks forever, and when we try a combination of these, (pointing to the list on the slate) we get into an awful mess. (louder) I've got it! We'll do both!

- Ralph: How can we do both?
- Oliver: We'll use a *new* mark, σ or Δ or something, for ten. Let's use this: A. (Writes these three marks, then erases the first two.) Then this: A1 will mean ten and one more, or eleven. A2 (reads this "ten-two") will mean ten and two more, or twelve.
- Ralph: That will work clear up to nineteen. Then what?
- Oliver: (eagerly) Then we'll use 2Λ to mean two *times* ten, that is, twenty. 2Λ1 will mean twenty and one more, and so on. Now we are getting someplace!
- Ralph: Then 2Λ means twenty, while Λ2 means ten and two, or twelve. Can we do that?
- Allan: (comes rushing in, with the Chief, and an Indian who has Jonathan's arms tied, and is dragging him.) Look what I found! It's just as I suspected. We followed Jonathan nearly a mile. In a clump of trees and bushes he met the French trader and started bragging to him that he had fooled us, that we were on the wrong path now with our number system. He's not a missionary at all, but a spy!
- Oliver: Allan, you were right! Jonathan certainly had me fooled. He's a scoundrel! The French are trying hard to cheat us, but we'll win out in spite of them! (pauses) Allan, let me show you what we have done, while you were gone. We've invented a new mark for ten, Λ , then for eleven we write $\Lambda 1$, for twelve $\Lambda 2$, and so on. Then when we come to twenty we put the 2 in front of the Λ , and write 2Λ . Ralph doesn't think it's right to have the 2 in front of the Λ mean two *times* ten, and when the Λ comes before the 2 (points to Λ 2) have it mean ten *plus* two. What do you think?
- Allan: I think it is a good idea. Otherwise we would have to invent so many new

marks we couldn't remember them all.

Jonathan: Boys, I have been a spy, and I'm heartily ashamed of myself. Let me prove it to you by telling you the truth about the white man's numbers. (Adds, under his breath: maybe you'll be easy on me then.) Oliver and Ralph here have performed one of the most astounding feats of all history! Of course it's all right to have 2A mean two times ten. while $\Lambda 2$ means ten *plus* two. It took a thousand years for our ancestors to discover that! But once they did, they progressed so rapidly that they are now far ahead of the Indians, who haven't discovered it. So far ahead that they make by using number principles! rifles (pauses) There are only two slight improvements which have been made on the system you boys have discovered.

Boys: (happy) What are they?

- Jonathan: Men learned, after many, many years, that no new mark for ten is needed. Instead of writing twenty-one this way (he writes $2\Lambda 1$), that is, two times ten plus one, and instead of writing $2\Lambda 3$ for twenty-three, they learned that they could leave out the Λ and just write 21 and 23. That makes the system harder to learn, beceuse the ten is not written, but it makes computation so much easier! A small child can now add numbers that would have stumped the wisest men of old!
- Oliver: Then the *two* in 23 means "two times ten" while the *three* means "and three more"! No wonder we couldn't figure out what the two-three on my early writing-lesson meant! It's so easy when someone tells us, and so hard to figure out alone!
- Ralph: We wrote thirteen as A3, in our system. How do you write it, if you have no mark for ten?
- Jonathan: That's the interesting thing about the white man's system. Just as twenty-three is two times ten plus three, written simply as 23, so thirteen is just one times ten plus three, and we just write it 13.

Ralph and Oliver: (eagerly) I see!

- Jonathan: The way we write ten is the strangest part of the whole system. Just as twelve is one times ten with two added, so ten, itself, is one times ten, with nothing added. So, instead of inventing a mark for ten as you did, our ancestors invented this mark, zero (he writes 0) to mean no arrows, or no enemies, just as 3 means three arrows, or 3 enemies. Then they wrote ten this way (he writes 10) meaning one times ten and no more. So you see we don't need a special mark like yours to mean ten, if we have a mark for zero. (pauses) Boys, I want to make a confession to you. When the Trader told me your tribe was trying to discover his number system, or invent another one just as good, I laughed at him. I told him that the greatest scientists and thinkers of Greece and Rome and other nations had never discovered a good system. Only the Hindus had learned the secret, and how they hit upon it, nobody knows. So I'm here to say that you boys can be proud of this day's work. All of civilization is based on a convenient way of writing numbers and here, alone, in the depths of the forest, you have invented such a way! Believe me, I'm sincere when I say, regardless of what happens to me, I'm proud to have known you.
- Oliver: (proudly, to the Chief) I think we have finished the job you set for us.
- Chief: (has been standing quietly, with folded arms, since entering) Friends, I have always thought that only white men could understand numbers, but this system is so simple that I can learn it easily. Boys, the gratitude of our tribe to you is as boundless as the sky, and will endure while the sun rises and sets. The French will not cheat us out of rifles again, and we need fear no enemies, great or small. (to Jonathan) Come along. The tribal council will decide your fate. (to the boys) We want you there also. You will be the youngest men ever to sit on our council, the youngest warriors our tribe has ever boasted.

(Curtain)