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A Kinship Parable¹

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Abstract

The protagonist of the parable, Eager Graduate Student (EG), wants to apply the idea of cultural consensus and goes to the field and finds a set of terms the villagers use to refer to each other. EG elicits data by using triad questions and works out the semantic links among the terms. He finds that the semantic domain he has elicited is also a cultural domain based on consensus analysis. When he returns and talks with Prof. Silverback about his research, Prof. Silverback tells him he has been eliciting kin terms and he should go back and use a genealogical framework instead of the triad questions. EG suggests that they try a new program called Kinship Algebra Expert System and to their astonishment the program works out the logical structure for the semantic domain. Even more, it predicts the genealogical definitions of the kin terms even though EG had not asked his informants about the way kin terms relate to genealogy. Prof. Silverback is very disturbed as the computer program is able to predict the genealogical definition of the kin terms, which challenges longstanding assumptions in anthropology about the primacy of genealogy for understanding kinship. The enormity of what has happened slowly begins to sink in as he realizes that “this is telling us something fundamental about human cognition, perhaps something about culture ... about what it means to be human!”

Eager Graduate student (EG for short), tired of taking courses that only seemed to be interested in navel gazing –“Am I supposed to construct my navel by gazing at others, or am I suppose to construct others by gazing at my navel?” he asked himself in confusion, after one of his classes. “Surely there must be something better!” One day a fellow graduate student suggested that he attend the Summer Workshop on Quantitative Methods and Modeling.² The following summer EG went to the workshop. While there, he learned about semantic domains and cultural consensus analysis.³ “Now there’s something that makes sense,” he said. “Here’s a methodology for eliciting concepts and working out how the concepts make up a system. There is also a method for testing whether this is a shared conceptual system, one of the hallmarks of what we mean by culture.” (EG was remembering his undergraduate course on culture in which culture was defined as shared concepts and ideas.)

So EG decided to pack his travel bags and go off to the field to apply what he had learned in the Workshop. He quickly made friends with the men in the village where he was staying. He listened to his friends and discovered that they had terms they used to refer to others. Altogether, he discovered, they had 6 terms: *Tabu*, *Tama*, *Luta*, *Tuwa*, *Bwada* and *Latu* that they used to refer to males. EG noted that a man might say of another man: “My *Tama* went to the other village yesterday to visit some friends.” EG dutifully wrote down all the instances where he heard someone use one of these terms used in reference to a male.

Remembering his summer workshop and semantic domains, EG decided to see how the terms relate to each other as dyads. So he set up a series of frames of the form: “If you refer to a male person X as

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² NSF Summer Institute for Research Design and Methods in Cultural Anthropology.

³ Romney, A. Kimball, Susan C. Weller, and William H. Batchelder. (1986) Culture as Consensus: A Theory of Culture and Accuracy. *American Anthropologist* 88: 313-338.

_____, then X refers to you as _____.” EG tried this out and it worked beautifully. When he asked someone (a male person), “If I (properly) refer to a male person X as *Tabu*, then X would refer to me as _____?” and his informant immediately replied, *Tabu*. In no case did EG receive back an answer other than one of his 6 terms when he tried each of the 6 terms.

He found that the children took great delight in his questions and went around, saying in sing-song voices as if it were a game: “If I refer to you as *Tuwa* then you refer to me as *Bwada!*” “If I refer to you as *Latu* then you refer to me as *Tama!*”

EG then decided to consider triads and he asked his friends about the frame: “If I use _____ to refer to X, and X uses _____ to refer to Y, then I should use _____ to refer to Y.” This also worked, and he got back statements such as “If I refer to X as *Bwada* and X refers to Y as *Tama* then I refer to Y as *Tama*”. But he noted that this required 36 sets of frames and his friends were getting bored with so many frames to fill out. Sometimes it took a while for his friends to reply, and he observed that they kept using the terms *Tama* and *Tuwa* to work out the answer to his questions. So EG asked his friends about the terms *Tama* and *Tuwa* and they said that these were two very important terms.

EG had an insight: “Why don’t I just use *Tama* and *Tuwa* as the terms for the 2nd entry in my frame. This will reduce the list to 12 questions.” For completeness, EG decided to also use the terms that paired with *Tama* and *Tuwa* as terms for the 2nd entry in the frame. This increased the total number of questions to 24, still less than 36.

So EG posed his new questions about triads to a number of male informants and recorded their replies. He put all of his data into neatly drawn tables. Then he wanted to know if this is a cultural domain and so he applied the ideas of cultural consensus analysis and discovered a high degree of concordance among his informants. This was, indeed, a cultural domain. EG was very happy. He had discovered a semantic domain and had worked out how the terms in the domain relate to each other as dyads and as triads. He had also established that this is a cultural domain, based on consensus analysis.

EG noted that one of the terms, *Luta*, did not seem to be used by the men very often for other men. Each man kept saying that he could refer to himself as *Luta*, but thought it sort of silly to do so: “Why would I want to refer myself as *Luta*?” EG wrote in his notebook that his friends did not use the term *Luta* to refer to other men. Each of the men volunteered, though, that there were women who would refer to him as *Luta*. But EG only wanted to focus on how the men used terms and did not pursue this any further. Nonetheless, following the advice he received in the Workshop, EG dutifully wrote down in his notebook the comments made by the men about women using the term *Luta* for men.

One afternoon, one of the men pulled him to the side and said, “I notice that you have been asking us about how we use these six terms. There is something that your questions have not brought out and I think you should know about it.” EG asked him to explain. The man then explained to EG: “When a man refers to another man using the term *Tama*, and that man refers to a woman using the term *Luta*, then the first man refers to the woman by using the term *Tabu*.” EG was puzzled as he did not know that the term *Luta* was used by a man for some women, and he couldn’t understand why the term *Tabu*, which he thought was only used to refer to men, was also used to refer to some women. Though puzzled, EG wrote down in his notebook what the man had told him. He then asked other men about the frame “If I refer to X (a male) by the term *Tama* and X refers to Y (a female) by the term *Luta*, then what term do I properly use for Y?” To his surprise, he consistently got back the answer: *Tabu*.

Armed with this knowledge, EG went back to Research University to talk with Prof. Silverback. “Prof. Silverback, I have gotten some very interesting data about a semantic domain and want to see what you think.” Prof. Silverback looked at EG’s notes and tables and asked EG: “Don’t you realize you have been getting kin terms? EG said “No. What are kin terms?” Prof. Silverback rolled his eyes upward and thought to himself: “Why should EG know about kin terms? We no longer teach classes on kinship as it’s too hard for the students to learn and beside, some of my fellow anthropologists have said that there is no

such thing as kinship.” Prof. Silverback asked EG if he collected any genealogies while in the field, and did he use Notes and Queries⁴ as a guide for getting information on what the terms mean. EG looked totally puzzled. Prof. Silverback explained: “When you are eliciting kin terms, you need to find out from your informants which of your relatives – your genealogical relatives – for whom you can use a particular kin term. You start with genitor and genitrix and ask your informants what term they use for genitor and for genitrix.” EG interrupted Prof. Silverback. “Oh! Now I know what you are talking about. While in the field I remembered something about genitors and genitrixes from my undergraduate anthropology courses and so I asked my friends about genitors. They didn’t know what I meant, so I explained. A genitor is the man whom you either know is your physical father, or whom you believe to be your physical father according to your concept of reproduction.” EG was proud of himself for remembering that definition when he was talking with his friends in the field.

EG told Prof. Silverback that his friends did not see what was so important when he told them about genitors. “Why are you so concerned about this physical father?” they asked EG. EG recounted to Prof. Silverback that he was very puzzled at this point. In the Workshop he had learned about semantic domains and how semantic domains are based on terms elicited from informants. Since the ideas of genitor and genitrix had been so important in his undergraduate class, he assumed they must have a term for genitor. The more he pursued the matter with his friends, the more puzzled they became and they began asking EG questions like “Who is your genitor? How do you know that he is your genitor?” EG replied to them: “Well, until I took an anthropology course I didn’t know about genitors. But what I learned is that this is a way of referring to my physical father, and he is the man who made my mother pregnant.” At this point, EG, recounted, his friends smiled. “Don’t you know,” they said, “that the seminal fluid does not make a child [who becomes one of us]. Spirits bring at night time the infant.”⁵ EG told Prof. Silverback that this was all too much for him. “Maybe they have terms for genitors,” EG said to Prof. Silverback, “but if they do they certainly are keeping the information hidden.”

EG told Prof. Silverback that when he could not elicit their term that means genitor, he gave up trying to talk about genitors and genitrixes as he had no term that he could use that was part of a semantic domain. EG discussed with Prof. Silverback that, in contrast with his failure with genitor, he had had excellent success with the 6 terms he elicited and with his use of dyads and triads to work out the relations among these 6 terms.

Prof. Silverback told EG that he would have to go back to the field and collect the data properly. “Even if they don’t have a term for genitor,” he told EG, “insist on them telling you what term to use for the person who is one’s genitor, and similarly for genitrix.”⁶ Without that information, we can’t even begin to analyze the 6 terms you have written down.” EG was genuinely puzzled, as he had great respect for Prof. Silverback and he remembered what he had been told at the Workshop about semantic domains. “Why can’t we just treat these 6 terms as part of a semantic domain and analyze them just like any other semantic domain?” he asked. Prof. Silverback smiled, for he knew that EG was referring to his work on semantic domains.

Prof. Silverback then told EG that he had just heard about a new computer program, called Kinship Algebra Expert System (KAES),⁷ and maybe the program might be able to do something with his 6 terms.

⁴ Rivers, W.H. R. 1910, The Genealogical Method of Anthropological Inquiry. *Sociological Review* 3:1-12.

⁵ Malinowski, B. 1932: 160. *The Sexual Life of Savages in Northwest Melanesia*. 3rd ed. London, Routledge and Kegan Paul.

⁶ “I was able to make the natives understand very thoroughly that I wanted the ‘proper father’” Rivers, W. H. R. 1900, A Genealogical Method of Collecting Social and Vital Statistics. *Journal of the Royal Anthropological Institute* 3:74-84.

⁷ KAES program discussed in Read, D. and C. Behrens. 1990. KAES: An Expert System for the Algebraic Analysis of Kinship Terminologies. *J. of Quantitative Anthropology* 2:353-393; see also Read, D. 2001 What is Kinship? In *The Cultural Analysis of Kinship: The Legacy of David Schneider and Its Implications for Anthropological Relativ-*

Prof. Silverback thought to himself, though, that it was hopeless. “How can we analyze a kinship terminology when we only have the 6 terms used by males and we have no information on the genealogical definition of any of these terms?” But Prof. Silverback kept his thoughts to himself as he could see EG’s very worried expression.

So Prof. Silverback turned on his computer, clicked on the KAES program, and told EG that the first thing they had to do was to make a kin term map from the information his friends had told him. Prof. Silverback explained that a kin term map (or at least this is what he understood) was a way to graphically show how the kin terms are related to each other as terms. They looked at EG’s notes and saw that the tables EG had made in the field had exactly the information they needed to make a kin term map. All they had to do was to enter the 6 terms on the computer screen and then connect the terms using arrows that represented how the four terms (*Tama/Latu* and *Tuwa/Bwada*) connected the 1st and 3rd term in the eliciting frame used by EG. Prof. Silverback commented to EG, “In your notes, where you have the frame ‘If I use the term *Tuwa* to refer to X and X uses the term *Tama* to refer to Y, then I use the term *Tama* to refer to Y’, this means we need to connect the term *Tuwa* (1st term in your frame) to the term *Tama* (3rd term in your frame) with an arrow that represents using the term *Tama* (2nd term in your frame).” “This is easy,” said EG. “We are just using the information my friends told me when I asked how the terms are related as triads and making a diagram that shows graphically the information I recorded in my tables.”

After making the diagram on the computer screen, Prof. Silverback pressed the Analyze button and the computer spent some time with its cursor showing that it is busy computing. After a few moments, several windows appeared. The first window was labeled Graph. EG looked at it and said with surprise: “This is amazing! On one side of the graph are the 6 terms I elicited, and on the other side are 6 more terms that look like they should be terms used by females. Just as I suspected – the men have a set of terms and the women have a set of terms. This means I was right to not worry about the terms used by the women. The women have a semantic domain parallel to the men’s semantic domain.” The computer kept working and another screen appeared in which some of the terms that had been distinct in the previous screen were now joined together as a single term used by both males and females: specifically the terms *Tabu* and *Latu*. “Well,” commented, EG, “so my idea was only partially right. Maybe, I should have asked the women about the terms they use!” Prof. Silverback just smiled.

The computer kept working and now the screen showed a graph that was no longer symmetric. The graph node for the kin term position marked “*Latu of Tama*” had disappeared and the arrows going to this node now pointed to the node for the term *Tabu*. However, the node marked “*Luta of ‘Mother’*” had not disappeared. (The computer used the expression ‘Mother’ since EG had not provided any female marked terms and so the computer had to use a transliteration of a term that must have been in the terminology.) Then EG remembered what his friend had told him about a man using the term *Tabu* when this man refers to another man as *Tama* and that man refers to a woman by the term *Luta*. EG told Prof. Silverback what his friend had told him in the field and Prof. Silverback said to EG: “Technically, they have a Crow Skewing Rule.” “What’s that?” EG asked. Prof. Silverback didn’t clarify, and instead said that what EG’s friend had told him was good enough as an explanation.

The computer now showed a new screen, which had a list of transliterated terms and the set of genealogical positions that would be included under each transliterated term. The list included “GrandParent/Grandchild”, “Mother”, “Father”, “Maternal Uncle”, “Sister”, “Brother”, “Older Sibling”, “Younger Sibling”, and “Child”. “Amazing!” said EG. “How did the computer figure out that all of these terms

ism, R. Feinberg and M. Ottenheimer eds. University of Illinois Press, Urbana. Pp. 78-117. KAES Program initially written in Turbo Pascal™ by Dwight Read and Cliff Behrens. Rewritten in Java™ by Michael Fischer in conjunction with Dwight Read. Copy of the Java™ version may be obtained from the author or from Michael Fischer, Dept. of Anthropology, U. of Kent at Canterbury, M.D.Fischer@Kent.ac.uk

and their genealogical definitions? Even I didn't know anything about genealogical definitions for terms since I couldn't get anyone to provide a term that meant genitor. I certainly didn't know that they have this term "Maternal Uncle" and I did not ask anyone about female marked terms!"

The computer kept working and a new screen appeared that looked like the kind of diagram EG had seen in one of his classes. The diagram was an idealized genealogy, with ego at the center and a kin term listed for each position in the genealogy. It was Prof. Silverback's turn to express amazement, for he had been sure that nothing would come of trying to analyze EG's 6 terms. "This is remarkable! We have the complete terminology right before us, along with the genealogical definition of each kin term. But how can this be?" he wondered to himself. "We do not have any information about the genealogical definitions for the 6 terms. We do not even have a complete list of terms! Yet here it is, in front of us, all of the missing terms of the terminology and a complete set of genealogical definitions of kin terms." Prof. Silverback began thinking out loud: "In the good old days, when doing rigorous fieldwork was a requirement, we would spend hours working out the genealogical definition of kin terms with informants as we all knew that kin terms are just a way to categorize kin types, and kin types based on genitors and genitrixes are the basis of kinship. So we had to start with definitions of kin terms based on genealogical criteria, for how else could we know what a kin term means?" "But," he thought to himself, "EG did not get any information about terms and genealogical definitions. He did not ask anyone about the terms they use for genitor or genitrix. All he did was ask them about how the 6 terms relate to each other in the form of dyads and triads, just as we have argued is the way to analyze a semantic domain. And he used cultural consensus analysis to make sure that this is a cultural domain. So how can the computer screen show us not only the 6 terms and how they are used by males, but also terms that EG did not know about and did not ask about? Further, how could the computer determine the genealogical definition of not only the 6 terms elicited by EG, but the terms not elicited by him, and still further, how could the computer work out the way the terms elicited by him are used by females and by males?" Here Prof. Silverback was responding to the fact that the computer showed two more genealogical diagrams, one with a male ego and the other with a female ego. The two diagrams were similar, but differed by showing that for some genealogical positions the kin term used by a male was not the same as the kin term used by a female.

By this point Prof. Silverback was almost visibly shaken. "Is it possible that we have all been wrong and that kin terms provide a conceptual system that is not simply a classification of sets of kin types? Could it be that while people do trace out genealogical linkages, it is also true that the kin terms form a separate conceptual system, with its own internal logic, one that is more basic than the definition of kin terms using genealogical kin types? Could it possibly be the case that kinship terminologies are so logically constructed that even with EG's list of 6 terms used by males and without any information on the usage of terms by females it is possible to predict the complete terminology as used by males and females and to predict all of the genealogical definitions of kin terms? If so, then we have been wrong all of these years...." But he didn't say anything to EG about what he was thinking.

Prof. Silverback shook himself, realizing the enormity of the implications of what he had been thinking and its implications for all the years of work spent by his colleagues working on analyzing genealogical definitions of kin terms if what he saw on the screen was correct. Shaken, he turned to EG and said instead: "Well, EG, this exercise has made me realize why we insist on students doing fieldwork the right way. I know you've had a lot of fun treating kin terms as if they are a semantic domain, but now you have to get down to the serious business of becoming a real anthropologist. I want you to put your notes away, and in turn I promise you I won't tell anyone else about your near miss on your first fieldwork experience. When you go back to the field, I want you to figure out what term they use for genitor and what term they use for genitrix. This will take some work on your part and you will have to ask a lot of indirect questions. Then I want you to fill out this blank genealogical grid by asking them what term they would use for someone in each genealogical position on the grid...." As Prof. Silverback talked, he put his arm over EG's shoulder as if to console him. He slowly directed EG out of his office, telling EG to

come by anytime he needed to find out more about the genealogical method and how to elicit genealogical kin term definitions from informants.

After EG left, Prof. Silverback hurried to his bookshelf and pulled out a dusty back issue of the *American Anthropologist*.⁸ “I know that I have seen that terminology before,” Prof. Silverback said to himself. “Yes. Here it is. Let’s see. Here is the list of kin terms in the article along with their genealogical definitions, just as they should be listed. Surely it cannot be the case that the KAES program, only using EG’s 6 terms and the kin term map based on his triad data, along with that silly version of the Crow Skewing Rule he wrote down in his notes, actually generated the complete terminology and all of the genealogical definitions of the kin terms. The program must be using a lookup table or something like that.” (Prof. Silverback didn’t really know what is a lookup table, but it sounded good.) “Now let’s see. What about the list of Transliterated Terms generated by the KAES program? These can’t possibly be right. What about that term ‘Maternal Uncle’? EG didn’t have that in his notes, so how could the program possibly know about such a term? I’m sure that it is not in this list of kin terms reported on in the article.” Prof. Silverback looked at the article and there it was – *Kada*, -- with genealogical definition, mother’s brother. Prof. Silverback was visibly shaken and checked the other Transliterated Terms against the terms in the article and exclaimed, “It’s exactly the right list! Must be pure coincidence, or a lucky guess! Now let’s look at the genealogical definitions – the definitions produced by the program can’t possibly match the real definitions, for some of the definitions are bizarre.” Prof. Silverback was looking at the genealogical definition of *Tabu* given in the article: *Tabu* – ff, fm, mf, mm, mmb, fz, fzh, fzd, fzdd, ss, sd, ds, dd, man’s zds, man’s zdd, woman’s bs, woman’s bd, man’s wife’s brother son, man’s wife’s brother’s daughter, woman’s mbs, woman’s mbd, woman’s mmb, and woman’s mmbd. “Now that is definitely an odd list – how could the KAES program ever figure out *that* list?” Prof. Silverback mumbled to himself. “Let’s see what is on the computer screen for *Tabu* –ff, fm, mf, mm, mmb, fz...” By this point Prof. Silverback was beginning to feel very uncomfortable, as if he was faced with a fact that he was desperately trying to hide from himself. “..., fzh, fzd, fzdd...” he stammered, slowly realizing that there was no difference between the list on the screen and the list in the article, except that the screen included other, more distant genealogical positions not mentioned in the article. Quickly, and almost as if in desperation, Prof. Silverback turned to the other terms. “This one is in complete agreement! That one is also in complete agreement! Surely there must be one disagreement someplace!” Then Prof. Silverback reached the end of the list and sank back into his chair and spoke as if to someone. “But this can’t possibly be! We’re talking about people, not machines! Machines may be predictable, but people aren’t. Kinship has to do with flesh and blood, real people, not cold symbols and mathematical-like relations. People are quirky; people are not consistent; people are not machines. People can’t be predicted with certainty.⁹ There *must* be at least one error in here someplace; one term that does not quite fit; one term that has a genealogical definition that cannot be predicted!” Prof. Silverback kept looking at the screen, then at the article, then at the screen, then at the article, and slowly it began to dawn on him. “Maybe this is telling us something fundamental about human cognition, perhaps something about culture. Maybe this is even telling us something about what it means to be human!” With that thought, Prof. Silverback turned off the computer, then turned out the lights, and left his office, a puzzled smile on his face.

⁸ *American Anthropologist* 1965 67(5) Part 2: 142-185.

⁹ Paraphrase of an anonymous reviewer comment on a manuscript, 2001