FAMILY RESEMBLANCES AND CRITERIA*

HEATHER J. GERT

Gert, Heather J. "Family Resemblances and Criteria," Synthese 105, no. 2, November, 1995, 177-190.

Made available courtesy of Springer Verlag: http://www.springer.com/philosophy/philosophy+of+seience/journal/11229

The original publication is available at www.springerlink.com

***Note: Figures may be missing from this format of the document

Abstract:

In §66 of Philosophical Investigations Wittgenstein looks for something common to various games and finds only an interconnecting network of resemblances. These are "family resemblances". Sympathetic as well as unsympathetic readers have interpreted him as claiming that games form a family in virtue of these resemblances. This assumes Wittgenstein inverted the relation between being a member of a family and bearing family resemblances to others of that family. (The Churchills bear family resemblances to one another because they belong to the same family, they don't belong to the same family because they resemble one another.) A close reading of Investigations gives no evidence that Wittgenstein made this mistake. Rather, family resemblances may play a role like the one criteria play for psychological terms. They give excellent but fallible evidence for membership in the extensions of some terms.

Article:

Don't look only for similarities in order to justify a concept, but also for connexions. The father transmits his name to his son even if the latter is quite unlike him.¹

Wittgenstein is well-known for having argued against the assumption that all concepts are analyzable, in any interesting way, into necessary and sufficient conditions; and the notion of family resemblance is thought to provide a cornerstone for this argument. In the Philosophical Investigations this notion is introduced in §66, where Wittgenstein looks for something common to various games and finds only an interconnecting network of similarities or resemblances. He calls these resemblances "family resemblances". Seemingly sympathetic as well as unsympathetic readers have interpreted him as claiming that games form a family in virtue of these resemblances. But, this assumes that Wittgenstein mistakenly inverted the relation between being a member of a family and bearing family resemblances to others of that family. The Churchills bear family resemblances to one another because they belong to the same family, they don't belong to the same family because they resemble one another. (Surely truly sympathetic readers wouldn't be so quick to accept an interpretation that assumes Wittgenstein made such a mistake!)

The first section of this paper examines relevant passages from the Investigations, and shows that there really isn't any evidence that Wittgenstein made this mistaken inversion. In the second section I develop an alternative interpretation of family resemblances, arguing that these resemblances give excellent but fallible evidence for membership in the extension of some kind terms. The third section illustrates parallels between this interpretation of family resemblances and one accepted interpretation of Wittgenstein's notion of criteria. The strength of these parallels supports my interpretation.

Let's begin our discussion with §66. Wittgenstein has been talking about different kinds of games, and noting that as we move from one broad category to another (from card games to board games to ball games) there is nothing significant that is common to them all. He concludes that:

... the result of the examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail.³

He goes on to introduce the phrase "family resemblances" at the beginning of the next section:

I can think of no better expression to characterize these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. overlap and eriss-eross in the same way. — And I shall say: `games' form a family.

And for instance the kinds of number form a family in the same way. Why do we call something a "number"? Well, perhaps because it has a — direct — relationship with several things that have hitherto been called number; and this can be said to give it an indirect relationship to other things we call the same name. (§67)

The accepted and seemingly straight-forward interpretation of the above passages is that particulars are correctly called by the same name because they share overlapping resemblances or similarities. Interconnceting resemblances between games tie them together and make them all games; and similarly for numbers.

The following passages indicate how ubiquitous this view is (all emphases are mine): "There is no classification of any set of objects which is not objectively based on genuine similarities and differences". "... we might well expect both that the referents of many terms should be grouped in virtue of family resemblances and" "... they deserve to be in a family (and hence deserve to be called by the family name). And the grounds of this desert are resemblances in respect of features". "Wittgenstein argued that the referents of a word need not have common elements He suggested that, rather, a family resemblance might he what linked the various referents of a word". "The various uses of a word are unified, not by something they have in common, but by a 'complicated network of a similarities overlapping and criss-crossing' ...

The interpretation shared by the above writers depends on two initially plausible assumptions. One is that what is being said about numbers in the second half of §67 is true about games as well; members of both kinds are tied together by various relations. I believe that this assumption is correct. The other is that the relations mentioned in §67, those which tie numbers together into a family, are the same relations mentioned at the end of §66, resemblances or similarities. This, I believe, is where the problem lies. As Wittgenstein says in another context, "The first step is the one that altogether escapes notice", (§308): without noticing, Wittgenstein's interpreters have equated his use of "relation" and "resemblance". How easy this is to do is brought out by Anthony Kenny's revealing paraphrase of the last sentence of §66: "... instead we find a complicated network of similarities and relationships overlapping and criss-crossing" (my emphasis).

The purpose of the second paragraph of §67 is to clarify the term "family", not the term "family resemblance". If Wittgenstein's point were that things form a family on the basis of a relation of resemblance why would he use numbers as his example? Shades of red, or even bowls, provide much more likely examples of families formed on the basis of resemblance. Is it possible that he uses numbers because he simply doesn't have resemblance in mind?

There are many relations other than resemblance, and it is not immediately obvious what there is to say about resemblances between numbers. Which numbers bear direct resemblances to one another, and which are indirectly related through their resemblance to other numbers? It's more natural, it seems to me, to think of numbers as forming a family on the basis of mathematical relations (addition, multiplication, squaring, etc.). Could it not be that other families are also formed on the basis of relations other than resemblance? The most obvious example of a family is a human family, and resemblances are not the relations on which these families are based. For better or worse, plastic surgery can't make you a Rockefeller.

Apart from the fact that resemblances are mentioned immediately prior to the paragraph on numbers, there isn't any reason to think that Wittgenstein meant to say that numbers form a family on the basis of resemblances. A glance back shows that he made no claim about the role of resemblance in either §66 or in the first paragraph of

§67. (Did he think that men were brothers on the basis of build, gait or eye color?) In fact, there is no place in the Investigations where Wittgenstein says that families are based on resemblances. Family-making relations aren't necessarily relations of resemblance. That this is Wittgenstein's own view is made quite clear in the passage from Remarks on the Philosophy of Psychology quoted at the beginning of this paper. "Don't look only for similarities in order to justify a concept, but also for connexions. The father transmits his name to his son even if the latter is quite unlike him". 10

Throughout the Philosophical Investigations, when Wittgenstein notes that a kind is formed on the basis of relations, it is always on the basis of relations simpliciter. He never specifies that these must be relations of resemblance. We've already seen that this is true in the case of numbers, here are a couple more examples:

Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all — but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all "language". (§65, his emphasis)

We see that what we call 'sentence' and 'language' has not the formal unity that I imagined, but is the family of structures more or less related to one another. (§108)

Again, neither in §67, nor in the above passages, nor anywhere else, does Wittgenstein give us any reason to believe that resemblances are the relations that bind things together into families.

As noted earlier, Wittgenstein's discussion of family resemblance is often taken as part of an argument against necessary and sufficient conditions. It's assumed that the complicated network of resemblances he mentions takes the place of a hypothesized pervasive resemblance constituted by a set of necessary and sufficient conditions. In other words, bearing a family resemblance to a member of a kind is supposed to be both necessary and sufficient for belonging to a kind. As should be obvious, this would leave Wittgenstein open to a pretty devastating criticism: if interconnecting resemblances are the basis of membership in a family or kind we can't exclude anything from any kind. If we step back from our focus on family resemblance for a moment, and call to mind some of the other positions illustrated in the very same book, we notice just how odd it would be for Wittgenstein to hold anything like the view that is being attributed to him. Throughout the Investigations he goes to great lengths to demonstrate that even intrinsically identical things belong to different kinds in different contexts. Let's look at a couple of examples:

A coronation is the picture of pomp and dignity. Cut one minute of this proceeding out of its surroundings: the crown is being placed on the head of the king in his coronation robes. — But in different surroundings gold is the cheapest of metals, its gleam is thought vulgar. There the fabric of the robe is cheap to produce. A crown is a parody of a respectable hat. And so on. (§584)

In this passage Wittgenstein is only interested in claiming that in different contexts these goings on belong to different event types, but I doubt that he would object to our saying that in the imagined circumstances what is on this man's head is not a crown, nor is what he's wearing a royal robe.

And in §200 he uses an example the force of which relies on our understanding the activity described as resembling chess as closely as we can imagine, even though he denies that this activity is a game, let alone that it's a game of chess: 11

It is, of course, imaginable that two people belonging to a tribe unacquainted with games should sit at a chess-board and go through the moves of a game of chess; and even with all the appropriate mental accompaniments. And if we were to see it we should say that they were playing chess.

Passages such as these show, if such demonstration is needed, that Wittgenstein does not believe that resemblance is sufficient for membership in a kind — much less that interconnecting resemblances are sufficient!

The purpose of this first section has simply been to show that Wittgenstein did not intend to claim that particulars belong to a kind in virtue of family resemblances. Returning to the origins of the phrase, "family resemblance", it's easy to see that we don't belong to our families in virtue of resemblances. But this is not to say that there isn't any connection between being of the same family and resembling one another. You resemble other members of your family because you belong to the same family; the relations which ensure that you all belong to the same family are the type of relations which are likely to produce resemblances. Isn't it odd to assume that Wittgenstein got his own analogy backwards?¹²

II

It is tempting to ask: If resemblance is not the relation in virtue of which things belong to a kind, what is the relevant relation? And why doesn't Wittgenstein just come out and say what he thinks it is?¹³ But to ask these questions is to assume just the kind of uniformity that Wittgenstein wanted to avoid. Which relations are relevant depends on which kind we're talking about. The relations that persons of the same family bear to one another are very different from the relations that numbers bear to one another. (No number is related to three by marriage.) Maybe some kinds are defined, in part, by the types of relations that hold between their members. This is what Wittgenstein means when he suggests that we look for connexions, not merely resemblances, in order to justify our concepts. Nevertheless, he does mention resemblances, and makes a point of labeling some of them "family resemblances". If these resemblances don't take the place of necessary and sufficient conditions, what role do they play? In this section I will sketch a new positive account of family resemblances.

So, what are family resemblances? To begin with, they are resemblances, ways in which some things resemble one another. We don't need a technical understanding of resemblance here, but "resembles" shouldn't be thought of as synonymous with "shares properties with". ¹⁴ As far as I can tell Wittgenstein doesn't point out this distinction, but since he doesn't discuss properties he has no reason to. I make the distinction because virtually all previous interpreters have not, and have assumed that whatever Wittgenstein said about resemblances could be translated in a simple way into talk of shared properties. I think they've been wrong about this.

Here are a couple of reasons for differentiating between "resembling" and "sharing properties with". First, not all properties contribute to resemblance. For instance, relational and negative properties generally don't count. No one but a philosopher would be tempted to say that my apple and my computer resemble each other in virtue of sharing the properties of not-being-a-unicorn or being-on-my-desk. Nor do you resemble this paper, or the number two, in virtue of the fact that you all share the property of being such-that-there-are-nine-planets-orbiting-the-sun. Sharing properties is not sufficient for any degree of resemblance.

Second, if resemblance is merely a matter of sharing properties then degree of resemblance should depend on something like number or percentage of properties shared. But when was the last time you counted how many properties two things shared in order to determine whether or not there was a significant resemblance between them? Counting properties is an impossible task, and there just isn't any a priori reason to believe that the degree to which two things resemble each other depends on the number of properties they share. Consider colors. What evidence do we have that scarlet shares fewer properties with navy blue than it does with crimson? Maybe scarlet and navy share the property of being-on-the-same-flag more often than scarlet and crimson do. Maybe they are both colors that I like, while crimson is not, etc. Nevertheless, it's clear that the reds resemble each other more closely than either resembles the blue. To put the point more generally, it simply does not follow, a priori from the fact that A resembles B more than it does C that A has more properties (or a greater percentage of properties) in common with B than it does with C. In short, "resembles" is not synonymous with "shares properties with".

Members of the kinds to which we refer can resemble one another in various ways. Some resemblances are shared by many members. (Lots of games involve winning and losing.) Others are simply shared by a few. (A relatively small set of games involve dice.) Some might even be shared by all and only members of the kind. Some resemblances jump right out at you, and some are only discoverable by means of detailed investigations. For our purposes, what is important is that people generally pick up on the same resemblances, and we have a

tendency to group things together on the basis of some of these resemblances. Family resemblances are those salient resemblances which are fairly common to, or distinctive of, the members of a kind, and which we often use to identify members of that kind.

While most of the resemblances we rely on probably strike us as salient right from the beginning, this is not always true. Specialists are trained so that certain resemblances become salient for them. For example, after much study an Art History student comes to be able to recognize that an unfamiliar painting is in a familiar style: Expressionist, Impressionist, etc. She knows that this is so because she is struck by its resemblance to other paintings of that style. Similarly, but without the conscious effort, a teenager recognizes that the unfamiliar song he's hearing on the radio is punk rather than heavy metal.

It follows from our understanding of family resemblance as resemblances which are salient and relatively common to, or distinctive of members of a kind that most members of family resemblance kinds will bear family resemblances to one another; though these resemblances needn't be pervasive. It also follows that it is possible for something to share some of these resemblances without belonging to the kind. To say that many members of a kind bear a certain resemblance to one another, or that this resemblance is distinctive of that kind, is not to say that everything which bears this resemblance to a member of a kind is thereby also a member of that kind. Thus, the understanding of family resemblances I'm proposing allows them to overlap and criss-cross in the way Wittgenstein described.

We now have the beginnings of an alternative account of Wittgenstein's notion of family resemblances. Instead of taking them to be those resemblances in virtue of which particulars are members of the same kind (family resemblances as replacements for necessary and sufficient conditions) my account holds that they are a subset of the resemblances which hold between particulars that are, in a sense, already members of the same kind or family. Again, members of a human family bear family resemblances to one another because they belong to the same family, they don't belong to the same family because they resemble one another. You resemble your parents because of the way you're related to them, you're not related to them because you resemble them. But why should we be interested in family resemblances?

The ability to recognize particulars as belonging to the same kind is fundamental to the ability to use natural language, and for many kinds this ability is largely a matter of recognizing family resemblances. Much of what we are doing when we teach a child how to speak is teaching him how to group things as we do. But we will only succeed in teaching the child this grouping if he already experiences the world in much the same way we do. If a child cannot pick up on the resemblances we recognize between members of a kind then he is not going to be able to identify members of that kind. I am not going to be able to teach a tone-deaf child to differentiate between signals on the basis of their tone, nor can I teach a color-blind child to differentiate between otherwise identical red and green blocks.

That all those who share a language must be capable of recognizing the same family resemblances is one of the points Wittgenstein makes when he talks about forms of life:

What has to be accepted, the given, is — so one could say — forms of life.

Does it make sense to say that people generally agree in their judgments of colour? What would it be like for them not to? — One man would say a flower was red which another called blue, and so on — But what right should we have to call these people's words "red" and "blue" our 'colour words'?" — (PI IIxi p. 226)

What we need, in order to share a language, is to be similar enough to allow the possibility of teaching by means of examples. Wittgenstein calls this teaching by ostension. Because we cannot present a child with every member of a kind, an important part of what she learns is to recognize resemblances between the examples she's been given and new instances, like our Art History student. Because family resemblances are those resemblances which help us to identify something as belonging to a kind or family, there is an intimate conncetion between family resemblance and ostension, or the giving of examples. As indicated above, if we

couldn't recognize family resemblances we couldn't make use of examples. Therefore, if the fact that we lcarn by examples is important, family resemblances are important.

While the phrase, "family resemblances" occurs only once in the Philosophical Investigations, the discussion of ostension and examples is pervasive. In passages such as the following Wittgenstein demonstrates that the meaning of a term is often taught by presentation of examples:

How should we explain to someone what a game is? I imagine that we should describe games to him, and we might add: "This and similar things are called 'games' ". And do we know any more about it ourselves? Is it only other people whom we cannot tell exactly what a game is? — But this is not ignorance. (i69 his emphasis)

Unfortunately, talk of 'giving examples' is ambiguous. In the basic instance one simply presents a particular of the relevant kind. But while this may be the most basic way to give an example, it isn't the only way. We also use pictures and verbal descriptions, etc.I6 Examples given in these ways are not, strictly speaking, ostensive definitions, but they do have much in common with such definitions; and whether examples are given by means of pointing, pictures, or descriptions, awareness of the relevant resemblances is often essential to learning the meaning of a term, even when those resemblances are not necessary for membership in the term's extension.

To sum up this section: Family resemblances are salient resemblances which are shared by many members of a family resemblance kind. We generally rely on resemblances of this type to recognize members of these kinds, and our ability to learn how to use family resemblance terms depends on our ability to recognize these resemblances. Family resemblances play this role despite the fact that bearing a certain family resemblance to members of a kind is neither necessary nor sufficient for membership in the extensions of these terms. (Note that this leaves open the possibility that there are other properties or relations which are necessary and/or sufficient for inclusion in these extensions. That's not a question I'm going to tackle.)

III.

Now that we have some idea of what family resemblances are, and of the role they might play, let's examine the parallel I've claimed to find between Wittgenstein's notion of criteria and the account of family resemblances just given. The interpretation of "criteria" I'm using is fairly widely accepted, though I can't claim that it has unanimous approval. Nevertheless, the fact that there are important similarities between these interpretations makes them, if not more likely to be true, at least more interesting.

In §580 of the Philosophical Investigations, Wittgenstein says, "An inner process stands in need of outward criteria". For the purpose of this discussion I will take criteria to be associated with inner processes or states; that is with psychological processes and states. Though this is how Wittgenstein usually uses the term "criteria", he does not always conform to this restriction; see §182 and (§354, for instance. Nevertheless, interpreters often claim that his use of "criteria" is best understood as denoting only the public accompaniments of private experiences, and I will follow their suggestion. ¹⁸

Before considering what Wittgenstein did mean by "criteria", let's take a moment to consider what he did not mean. According to a popular erroneous interpretation, behavior is the only criterion of psychological processes and states, and this criterion (behavior) is constitutive of that of which it is a criterion (psychological processes or states). That would mean that words such as "fear" and "pain" referred simply to types of behavior. Clearly, this interpretation leads straight to the claim that Wittgenstein is a behaviorist. ¹⁹ He, himself, explicitly denies this charge:

"But you will surely admit that there is a difference between pain-behavior accompanied by pain and pain-behavior without any pain?" — Admit it? What greater difference could there be? (§304)

It might now be asked whether ["fear"] would really relate simply to behavior, simply to bodily changes. And this we wish to deny. There is no future in simplifying the use of this word in this way.²⁰

Now, there is no doubt that Wittgenstein said some things that were false, but given that he explicitly denies being a behaviorist, a non-behaviorist interpretation of his work is preferable, if possible. And it is possible.

So, what are criteria? They are the outward manifestations by means of which we classify psychological states and processes. These manifestations are of two broad sorts: behavioral and circumstantial. A child learns to say, of herself, that she is in pain, by being told — or otherwise having it indicated to her — that the feeling she is experiencing is pain. Others indicate this by attributing pain to her when the appropriate criteria are present: that is, when she behaves as if she were in pain (crying, wincing, etc.), and/or when they know that something painful has happened to her (she is bleeding, she has been struck by a heavy object, etc.).

Criteria are what we must witness in order to learn the meaning of the word "pain", or any other term referring to psychological states or processes; criteria are not by any means themselves the referents of these terms. Behavior does not constitute a sensation, it is merely one reasonably reliable indication of its presence. Notice that the mistake made by those who take Wittgenstein to be a behaviorist is that of taking criteria to be necessary and sufficient conditions: if the criteria are present, the sensation is present, if not, it is not. This is very like the mistake, discussed earlier, of trying to make family resemblances play the role denied to necessary and sufficient conditions; that is, of thinking that having interconnecting family resemblances is necessary and sufficient for belonging to a kind.

The assumption is often made that if we have to use criteria to learn the use of a psychological term. or even how to recognize when we're in a particular psychological state, that these criteria must always accompany psychological phenomena. But this does not follow. Despite the fact that we learn psychological terms in situations in which outward criteria are present, it is most natural to say we learn that they refer to psychological states themselves — whether or not the criteria happen to be present in a given instance. Wittgenstein is aware of this, and when he says that "An inner process stands in need of outward criteria", he is not saying that there is no inner process, in a given instance, without corresponding outward criteria. He is talking about an inner process type, not an inner process token; the terms he discusses are kind terms, not proper names.

How do words refer to sensations?— There doesn't seem to be any problem here; don't we talk about sensations every day, and give them names? But how is the connexion between the name and the thing named set up? This question is the same as: how does a human being learn the meaning of the names of sensations? — of the word "pain" for example. Here is one possibility: words are connected with the primitive, the natural, expressions of the sensation and used in their place. §244)

Notice that he doesn't claim that "the primitive, the natural, expressions of the sensation" are exhibited every time the sensation is experienced. And such a claim would clearly be false.

"What would it be like if human beings showed no outward signs of pain (did not groan, grimace, etc.)? Then it would be impossible to teach a child the use of the word 'toothache'." (§257)

Here again the claim is merely that there have to be natural outward signs of pain in order for there to be a language about pain, not that these signs have to be exhibited whenever one's in pain. Because psychological phenomena are never directly perceived by more than one person, without these manifestations we could not teach one another psychological terms. But we don't have to use every experience of a sensation, etc., to teach someone the appropriate term. As long as the criteria are present often enough, we'll have no problem. (Again, we're interested in names of sensation types, not proper names for token sensations.) If our language is a public one, and each of us uses psychological terms in the same way, their use must depend on what is publicly observable. ²² Criteria, by making possible ostensive definitions of psychological phenomena, fulfill this requirement, and it is only by means of criteria, that is by means of what's public, that the words of a public language could come to be used to talk about what is, in this sense, private. Similarly, as we said earlier, family resemblances are what make ostensive definitions of family resemblance terms possible. Without easily accessible overt resemblances we wouldn't agree in many of the groupings we made, nor would individuals even be able to make these groupings.

As was mentioned earlier, Wittgenstein points out that particulars can be of different kinds even though they are intrinsically identical. This is clearly true for some kinds. Say we have two pieces of paper: one is a dollar bill printed at a U.S. mint; the other, intrinsically indistinguishable from it, was printed by a master counterfeiter. Despite the overwhelming similarity the first is a dollar bill and the second is not. There is no a priori reason to suppose that the classification of psychological phenomena is not similarly constrained by context. This is part of what Wittgenstein is getting at when he says, "It shows a fundamental misunderstanding, if I am inclined to study the headache I have now in order to get clear about the philosophical problem of sensation" (§314). Too narrow an examination of the thing itself will not give us the meaning of a given term referring to it. How could it, when the thing is a member of many different kinds and is correctly referred to by so many different terms?

SUMMARY

We've seen that the identification of "resemblance" with the more general term "relation" led philosophers to misinterpret Wittgenstein's notion of family resemblance. These philosophers had assumed that Wittgenstein intended to classify things as belonging to kinds on the basis of family resemblances, while in fact he merely intended to point out that what "we see" are family resemblances. These resemblances are the result, not the basis, of family membership. Nevertheless, results provide valuable evidence, and family resemblances allow for the ostensive teaching and definitions without which we would not be able to learn and use language.

We've also seen that there is an interesting parallel between Wittgenstein's notions of family resemblance and criteria. Criteria are necessary for learning psychological terms. They allow for the ostensive definition of psychological terms in much the same way that family resemblances allow for the ostensive definition of family resemblance terms: both allow for ostensive definitions by being immediately and publicly available. Thus, family resemblances and criteria play parallel roles in language-learning, though each plays its role in regard to different types of terms. Also, even though family resemblances and criteria are necessary for learning the meanings of these terms, possession of neither family resemblances nor criteria are necessary for membership in the extensions of these terms. A token pain need not be directly associated with any pain criteria, but knowing how to use the term "pain" involves recognizing pain criteria. Any token game need not bear a significant family resemblance to other games, but knowing how to use "game" involves recognizing the ways in which games tend to resemble one another.

NOTES

- * I would like to thank Felicia Ackerman, Donna Summerfield, and the Texas A+M Reading Group for comments on earlier drafts of this paper. And, most of all, I would like to thank Bernard Gert for his help and encouragement.
- 1 Wittgenstein (1980, §923).
- 2 In what follows I will tend to use the term "resemblance", rather than "similarity". They should be understood as synonymous for the sake of this discussion.
- 3 Wittgenstein (1953, §66). Unless otherwise noted, all quotations are from this text.
- 4 Bambrough (1966, p. 203).
- 5 Richman (1962, p. 821).
- 6 Throp (1972, p. 568).
- 7 Roseh et al. (1975, pp. 574-75).
- 8 Mills (1993, p. 139).
- 9 Kenny (1973, p. 163). Similarly, in his summary of §§66 and 67 Haig Khatchadourain (1966, p. 207) says, "So that some members are directly related by qualitative *resemblances* to other members, while some or all are also indirectly related to other members through their *direct relations* to members themselves directly related to the latter" (my emphasis).
- 10 Wittgenstein (1980 §923).
- 11Whether or not Wittgenstein is right about this is irrelevant to the point at hand.
- 12 Anthony Manser has also noted that the standard interpretation of Wittgenstein's notion of family resemblance gets the relation backwards, but he appears to believe that Wittgenstein, rather than his interpreters, was guilty of this mistake. See Manser (1967).

- 13 I do not mean to say that there is no role for resemblance to play in defining kinds. Nor do I want to insist that there is *no* kind for which resemblance is *the* defining relation. All I mean to say is that Wittgenstein did not claim that resemblance was the one and only kind-making relation.
- 14 This point has been made by others. See, for instance, Lewis (1983).
- 15 Unfortunately, to speak in terms of *sharing* resemblances is misleading. It is this kind of talk that encourages one to think of resemblance as a matter of sharing properties.
- 16 Interestingly, it is not always clear from the text when Wittgenstein is talking about ostension and when he is talking about other means of giving examples. I think we may take this as some indication of the extent of their relevant similarity. (This is *not* to say that we should consider a distinction unimportant simply because Wittgenstein fails to apply it!)
- 17 Accounts of this interpretation can be found in: Hintikkas, (1986, pp. 286-89); and B. Gert (1989, pp. 201-22).
- 18 For a couple of writers who endorse this restriction see B. Gert (1989) and Donagan (1966).
- 19 See, Pitcher (1964, chapter 12).
- 21) Wittgenstein (1980. §166).
- 21 How is this possible? Perhaps through hearing things like: "Joey must be in pain, but he's acting like he's not", or by being asked if one is in pain a question that would make no sense if "pain" referred to pain behavior. Similarly, asking where it hurts makes sense only if one is asking for the location of the sensation. 22 A fuller discussion of criteria would include a discussion of Wittgenstein's arguments against the possibility of a private language, but such a discussion is beyond the scope of this paper. For discussions of these arguments see Ayer (1956) and Rhees' reply (1956); B. Gert (1986), Hintikkas (1986) and Kripke (1982).

REFERENCES

Ayer, A. J.: 1956, 'Can There be a Private Language', *Proceedings of the Aristotelian Society XXVIII*, 63-76, Supp.

Bambrough, R.: 1960, 'Universals and Family Resemblances', *Proceedings of the Aristotelian Society* LXI, 207-22.

Donagan, A.: 1966, 'Wittgenstein on Sensation', in G. Pitcher (ed.), *Wittgenstein: The Philosophical Investigations*, Doubleday, New York, 324-51.

Gert, B.: 1986, 'Wittgenstein's Private Language Arguments', *Synthese* 68, 409-39. Gert, B.: 1989, 'Psychological Terms and Criteria', *Synthese* 80, pp. 201-22.

Hintikka, M. and J. Hintikka: 1986, *Investigating Wittgenstein*, Basil Blackwell, New York. Kenny, A.: 1973, *Wittgenstein*, Harvard University Press, Cambridge, Massachusetts. Khatchadourain, H.: 1966, 'Common Names and "Family Resemblances" ', *Philosophy*

and Phenomenological Research XVIII, 341-58.

Kripke, S.: 1982, Wittgenstein: On Rules and Private Language, Harvard University Press, Cambridge, Massachusetts.

Lewis, D.: 1983, 'New Work for a Theory of Universals', Australasian Journal of Philosophy 61, 343-77.

Manser, A.: 1967, 'Games and Family Resemblances', *Philosophy* 42, pp. 210-25.

Mills, S.: 1993, 'Wittgenstein and. Connectionism: a Significant Complementarity?' in

C. Hookway and D. Peterson (eds.), *Philosophy and Cognitive Seience*, Cambridge

University Press, Cambridge, Massachusetts.

Pitcher, G.: 1964, The Philosophy of Wittgenstein, Prentice-Hall, Englewood Cliffs, New Jersey.

Richman, R. J.: 1962, 'Something Common', Journal of Philosophy LIX, 821-30.

Rhees, R.: 1956, 'Can There be a Private Language?', *Proceedings of the Aristotelian Society* XXVIII, 77-94, Supp.

Roseh, E. and C. B. Mervis: 1975, 'Family Resemblances: Studies in the Internal Structure of Categories', *Cognitive Psychology* 7, 573-605.

Throp, J. W.: 1972, 'Whether the Theory of Family Resemblances Solves the Problem of Universals', *Mind* 81, 567-70.

Wittgenstein, L.: 1953, *Philosophical Investigations*, Macmillian, New York. Wittgenstein, L.: 1980, *Remarks on the Philosophy of Psychology*, Vol. 1., Basil Blackwell, Oxford.