Philosophical Investigations 65ff.: On Family Resemblance

Wittgenstein's remarks on family resemblance belong to the best known parts of the PI. Nevertheless, there has so far been no general agreement on their detailed philosophical content and their role in the whole architecture of the PI.

The attention Wittgenstein's remarks have drawn is partly due to Renford Bambrough's famous article [1960/61] on them. Bambrough's query is still one of the most interesting in the literature. According to Bambrough in these remarks one can find a solution to the so-called problem of universals. Bambrough writes⁵⁸:

"The nominalist says that games have nothing in common except that they are called games.

The realist says that games must have something in common, and he means by this that they

⁵⁶ I quote here what Bambrough calls the "bare bones" of his reconstruction of Wittgenstein's solution (p. 199. All references with page-number only refer to Bambrough's essay.). There is a conceptual tension in the following quotation with regard to the realist's position. If it is possible that something *must* be the case, but *is* not the case, then what "the realist says" and "the realist's claim" cannot be identical. But in some occurences "something must be the case" and "something is the case" are interchangeable. Therefore I understand in the following what the realist says in the sense of the realist's claim.

must have something in common other than that they are games.

Wittgenstein says that games have nothing in common except that they are games.

Wittgenstein thus denies at one and the same time the nominalist's claim that games have nothing in common except that they are called games and the realist's claim that games have something in common other than that they are games." [198f.]

Now we have two possibilities:

either

(i) to be a game is not the same as to be called a game,

or

(ii) to be a game is the same as to be called a game.

If (i) is true, then it is also true that Wittgenstein denies the nominalist's claim, so long as we take Bambrough's reformulations as appropriate. And if (i) is true, then it is also true that Wittgenstein denies the realist's claim. But in this case Wittgenstein would also deny what both the realist and the nominalist accept: that games are called games.

But if (ii) is true then it is only true that Wittgenstein denies the realist's claim, but it is not true that he denies the nominalist's claim. Therefore, Wittgenstein only denies at one and the same time the nominalist's claim and the realist's claim if (i) is true.

Now, (i) is true iff

(i.i) something can be a game without being called a game, or

(i.ii) something can be called a game without being a game.

But if (i.i) is true, then Wittgenstein's claim could not be a solution to the so-called problem of universals at all, assuming, that is, that we take the so-called problem of universals to consist in the questions whether there can be an objective justification for the application of a general term to its instances, and - if there can be - in what it consists [cf.: p. 198]. For Wittgenstein's claim is about games and not about what we call games. Even if games have nothing in common except that they are games, the things we call games might in fact have something in common other than that they are called games, just as a specific subset of the set of games may have something in common.

If (i.ii) is true, then Wittgenstein's claim could only be a solution to the so-called problem of universals, provided there were at least <u>two</u> games among the things which are called games. Since Wittgenstein's claim does not entail this proposition it is also in that case no solution.

If (ii) is true, then Wittgenstein's claim is the same as

- "games have nothing in common except that they are called games",

and

 "the things called games have nothing in common except that they are games", and

- "the things called games have nothing in common except that they are called games."

Therefore, if (ii) is true, then it is not only the case that Wittgenstein does not deny the nominalist's claim, but his claim is the same.

Therefore, Wittgenstein's remarks on familyresemblance - as they are understood by Bambrough - are either no solution to the so-called problem of universals at all, or they are a nominalistic one.

Furthermore, for the nominalist's claim to contradict the realist's claim (i) cannot be true. For, if (i) is true, then the realist's claim is compatible with the claim that games have nothing in common except that they are called games. But this is exactly the nominalist's claim. On the other hand the nominalist's claim is compatible with the claim that games must - "must" understood in the sense Bambrough understands it in the last sentence quoted above - have something in common other that they are games. But this is exactly the realist's claim.

Therefore, if the debate about the so-called problem of universals is characterized by two proponents - the nominalist and the realist whose claims contradict one another in the way described by Bambrough, then Wittgenstein is a nominalist. But if the solution of such a problem consists in the formulation of a third position, which shows that the two proponents are both false in one respect and right in another one, then Wittgenstein's claim is no solution at all, if Bambrough's reconstruction is appropriate. At least it is not clear how something can be the solution of a problem, if it only repeats what one of the proponents has already claimed. This could only be the case, if the arguments were new. Therefore it would seem advisable to look at the flesh around the bare bones.

Bambrough illustrates his interpretation with a

simple diagramm:

d e b C a ABCD ABCE ABDE ACDE BCDE [p. 189]. He writes: "Here we can already see how natural and how proper it might be to apply the same word to a number of objects between which there is no common feature." [Ibid.] And if we take only the subset: d C a ABCD ABCE ABDE BCDE, "then although they all happen to have B in common, it is clear that it is not in virtue of the presence of B that they are all rightly called by the same name." [Ibid.] The first group of objects can only be an illustration of Wittgenstein's position with regard to games if we suppose that - if (i) is true, then either - to be a game is not a feature of each game, or - to be a game is a feature of each game, but this feature is not represented in the list A, B, C, D, E; and - if (ii) is true, then either - to be a game/to be called a game is not a feature of each game, or - the illustration is not relevant for the

question whether the things which are called games have something in common.

Furthermore, *clear* is that *if* we (rightly) apply the same name to the number of objects of the first group, *then* it is not in virtue of B that we call the number of objects of the second group rightly by the very same name. But this is only analytically true. Now, let us take the following group instead of Bambrough's first one:

f g h i j PQRS PQRT PQST PRST PQRU

If one can accept it as natural and proper to apply the same word to Bambrough's first group of objects, how natural and proper would it then be to apply the same word to my group? But here it would not be analytically true that *if* we (rightly) apply the same name to this group, *then* it is not in virtue of P that we call a subset of this set by the same name. This would only be the case, if it were clear that it is not in virtue of P that we call the objects of my group by the same name. But whether the objects of my group are called by the same name in virtue of P nothing one can see!

But now Bambrough writes that, even if the number of objects were infinite, and if all of them have a common feature or features, "it would not be in virtue of the presence of the common feature or features that they would all rightly be called by the same name, since the name also applies to *possible* instances that lack the features." [189f.]

But here it is clear that Bambrough's simple illustration is no longer one in favour of this

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thesis. For if all elements of an infinite set of objects had one or more common features, then his set of the five objects {a,b,c,d,e} would not be an example of a subset of such an infinite set. Therefore we have to make a distinction between two independent arguments in Bambrough's analysis:

- (a) it might be natural and proper to apply the same name to a number of objects, which have no common feature;
- and
- (b) all general names apply not only to actual instances, but furthermore to possible ones which have no common feature.
- (a) is compatible with:
- (c) it might be natural and proper to apply the same name to a number of objects, which have one or more common features.

Now the "it might be"-propositions (a) and (c) will be - for the sake of argument - reformulated into "there are"-propositions:

(a') there are applications of the same name to a number of objects, which have no common feature;

and

(c') there are applications of the same name to a number of objects, which have a common feature.

If we remember now the claims of the nominalist and the realist we see, that (a') would suffice to deny the realist's claim, and that (c') would suffice to deny the nominalist's claim, so long as we accept the things that the nominalist and the realist say with regard to games are instances of their respective general positions, which could be expressed in the following way:

- (N) Objects, which are called by the same name, have nothing in common except that they are all called by that name.
- (R) Objects, which are called by the same name, (must) have something in common other than that they are all called by that name.

That is, if we were able to show that Wittgenstein hold both (a)/(a') and (c)/(c'), then we could say that Wittgenstein both denied the nominalist's and the realist's claims. First to (a)/(a'). Wittgenstein writes in PI 66:

"Consider for example the proceedings that we call 'games'. I mean board-games, cardgames, ball-games, Olympic games, and so on. What is common to them all? - Don't sav: 'There must be something common, or they would not be called 'games'' - but look and see whether there is anything common to them all. - For if you look at them you will not see something that is common to them all, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! - Look for example at board-games, with their multifarious relationships. Now pass to card-games; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost. - Are they all 'amusing'? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball games there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck; and at the difference between skill in chess and skill in tennis. Think now of games like ring-a-ring-a-roses; here is the element of amusement, but how many other characteristic features have disappeared! And we can go through the many, many other groups of games in the same way; we can see how similarities crop up and disappeare.

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

And in PI 67 Wittgenstein writes:

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

Here one can surely say that Bambrough's first group is a simple illustration of the former remarks, that is, that Wittgenstein accepts (a)/(a').⁵⁹ This acceptance is not restricted to

⁵⁹ A more extended illustration with the example of "game" can be found in: Suter [1989]. Bambrough elaborates this point with his example of the Churchill face. Bambrough writes: "The members of the family have no *feature* in common, and yet they will all unmistakably have the *Churchill face* in common." [p. 190] Here it seems as if the *Churchill face* cannot be a *feature*. (There is a problem with the understanding of the word "feature" which in English has a peculiarly specific meaning when refering to the separate parts of the

the word (or concept) "game". The description and comparison of games functions only as an example for concepts like "language" and "proposition" ("Satz") [PI 65], "number" [PI 67], and others.⁶⁰

But how are all these remarks related to our objection above that Bambrough's first group could only be an illustration of Wittgenstein's position if we suppose that

if (i) is true, then
either
to be a game is not a feature of each game,
or
to be a game is a feature of each game,
but this feature is not represented in the list A, B, C, D, E;

human face. Thanks to Peter Cripps for this point.) But I see no reason why this should be the case. I think it would be more correct, and less misleading, to say that the *faces* of the members of the Churchill family do not have a common feature, but that the *members* have at least one common feature, namely the Churchill face. But the Churchill faces do not have the feature "Churchill face" in common. See also: Wennerberg [1967] for an extended critique of Bambrough's account.

⁶⁰ There is a debate in the literatureconcerning which concepts are - according to Wittgenstein - family resemblance concepts and which are not. Some authors belief that all concepts are family resemblance concepts. Cf.: Kutschera [1973], p. 190 - for predicates with one place; Pompa [1968], p. 347; Pitcher [1964], p. 220. Others argue that not all concepts are family resemblance concepts. Cf.: Llewelyn [1968], p. 343; Simon [1969], p. 409; Wennerberg [1967], p. 125f.; Hunter [1985], p. 62; Manser [1967], p. 211; Suter [1989], p. 31. For Bambrough the question is irrelevant (p. 194). I will try to show that not all concepts need be family resemblance concepts, but won't try to say in detail which are and which are not. and

- if (ii) is true, then

either

- to be a game/to be called a game is not a feature of each game,

or

- the illustration is not relevant for the question whether the things which are called games have something in common?

For Wittgenstein also says that games have nothing in common. For Bambrough's reconstruction of Wittgenstein's claim to be correct one has to make - as I want to call it - a "not literally meant"- objection. That is, Wittgenstein indeed thought that games have something in common, but does not mention it, because it is, for instance, too trivial. According to Bambrough Wittgenstein should rather have said that games have nothing in common except that they are games.⁶¹ The "not literally meant"objection is enormously widespread in the literature.⁶² Other candidates for a common feature are:

- that games are activities (Wennerberg [1967], p. 110);
- that games have rules (Khatchadourian [1968], p.209; Suter [1989], p. 26; Hallett);
- that games have the capacity to serve specific human needs (Khatchadourian [1968], p. 211);
- that games play a specific role in human life (Manser [1967], p. 217);
- that games are (interwoven with) activities (Savigny; Campbell [1965], p. 241);
- that games are proceedings (Savigny);

⁶² I found only one exception: Pitcher [1964], p. 212.

⁶¹ A similar argument is to be found in: Kutschera [1973]. p.191.

- that games are located in space and time (Campbell [1965], p. 241).⁶³

Let us start with the last candidate. To say that every game is located in space is similar to saying that every body is located in space. In *PI* 252 Wittgenstein comments on such propositions as follows:

"'This body has extension.' To this we might reply: 'Nonsense!' - but are inclined to reply 'Of course!' - Why is this?"

The answer to the question is given in the foregoing section:

"Example: 'Every rod has a length.' That means something like: we call something (or this) 'the length of a rod' - but nothing 'the length of a sphere.' Now can I imagine 'every rod having a length'? Well, I simply imagine a rod. Only this picture, in connexion with this proposition, has a quite different role from one used in connexion with the proposition 'This table has the same length as the one over there'."

When the "not literally meant"-objections are founded on the supposition that Wittgenstein does not mention such things as the location of every game in space and time because of their triviality and self-evidence, then we also find a counterpart for this argument in *PI* 251:

"What does it mean when we say: 'I can't imagine the opposite of this' or 'What would it be like, if it were otherwise?' ...

 $^{^{\}rm 63}$ For reference to Savigny and Hallett see footnote 5 in the first essay.

Of course, here 'I can't imagine the opposite' doesn't mean: my powers of imagination are unequal to the task. These words are a defence against something whose form makes it look like an empirical proposition, but which is really a grammatical one."

Now, can we imagine that a game is not located in space and time, is no activity, is no proceeding? I think we can't in the sense of Wittgenstein's remarks. Therefore these proposals for candidates of common features can be answered with: "Nonsense!"

That every game plays a specific role in human life resembles the following problem:

"When we say 'Every word in language signifies something' we have so far said nothing whatever; unless we have explained exactly what distinction we wish to make. (It might be, of course, that we wanted to distinguish the words of language (8) from words 'without meaning' such as occur in Lewis Carroll's poems, or words like 'Lilliburlero' in songs.)" [PI 13]

A situation which would make the proposition that every game plays a specific role in human life say *something* is for instance described in *PI* 200.

With regard to the candidate that every game has the capacity to serve specific human needs one could answer either that this capacity is nothing one can see or - better - with PI 14:

"Imagine someone's saying: 'All tools serve to modify something. Thus the hammer modifies the position of the nail, the saw the shape of the board, and so on.' - And what is modified by the rule, the glue-pot, the nails? - Our knowledge of a thing's length, the temperature of the glue, and the solidity of the box.' - Would anything be gained by this assimilation of expressions?"

The situation is different in the case of one candidate for a common feature - that games are games. This supposed common feature resembles the features of location in space and time and the like insofar as it seems to be hard to imagine the contrary, whereas if (i) were true, we could imagine that something is called a game, but is not really one. But if (ii) is true or if we understand the proposition that every game is a game literally, then this proposition seems to reduce to "Every game is identical with itself."⁶⁴ In this case one can answer with *PI* 216:

64 Bambrough himself proposes another line of argument. He writes: "In the sense in which, according to Wittgenstein, games have nothing in common except that they are games, and red things have nothing in common except that they are red, brothers have nothing in common except that they are brothers. It is true that brothers have in common that they are male siblings, but their having in common that they are male siblings is their having in common that they are brothers, and not their having in common something in addition to their being brothers." [p. 194] (This passage is directed against: Strawson [1959], p.11.) Here it seems as if every proposition which describes something that can be in common is also analytically true, or at least is different in its truth-conditions from paradigmatical empirical propositions. One could argue against Bambrough that brothers have in common their being male and have in common their being siblings. But neither their being male, nor their being siblings is their being brothers. Only their being male and siblings is - perhaps - their being brothers. On the other hand it is perhaps true that neither their being male nor their being siblings is something in addition to their being brothers.

"'A thing is identical with itself.' - There is no finer example of a useless proposition, which yet is connected with a certain play of the imagination. It is as if in imagination we put a thing into its own shape and saw that it fitted."

With regard to one candidate for a common feature - that games have rules - I am not sure whether this could also be answered in one of the ways above. But I have the feeling that also here there is something awry.⁶⁵

Now, Wittgenstein's remarks in *PI* 66 and elsewhere seem to give us reason to believe that Wittgenstein accepts (b). For Wittgenstein writes:

"And we extend our concept of number as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres." [PI 67]

"For how is the concept of a game bounded? What still counts as a game and what no longer does? Can you give the boundary? No." [PI 68]

"One might say that the concept 'game' is a

⁶⁵ Perhaps one could argue along the following lines. According to Wittgenstein a game is *defined* by its rules. [Cf.:*PI* 205] That is: to follow this or that rules *means* to play this or that game. But it is not a part of the definition of chess that skill plays a specific role. Therefore the "common feature" of all games that they are played according to rules is something different from the features listed by Wittgenstein.

concept with blurred edges." [PI 71]

It is true that in cases where (a)/(a') is appropriate, often (b) is also. But if we look at the context of the quoted passages we see that there are no reasons to attribute (b) to Wittgenstein:

"...I can give the concept 'number' rigid limits..., that is, use the word "number" for a rigidly limited concept, but I can also use it so that the extension of the concept is not closed by a frontier." [PI 67]

This remark suffices to show that Wittgenstein does not accept at least that part of (b) according to which every word applies to possible objects, and not only to actual ones. But (b) not only expresses a position with regard to openness of concepts, but furthermore one with regard to vagueness. Here we can look at PI 69:

"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'" (This expresses the vagueness of the concept "game" - R.R.) 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. We do not know the boundaries because none have been drawn. To repeat, we can draw a boundary - for a special purpose. Does it take that to make the concept usable? Not at all! (Except for that special purpose.) No more than it took the definition: 1 pace = 75 cm. to make the measure of length 'one pace' usable. And if you want to say "But still, before that it wasn't an exact measure", then I reply: very

well, it was an inexact (a vague - R.R.) one. - Though you still owe me a definition of exactness."

This remark suffices to show that Wittgenstein does not accept that part of (b) that is concerned with vagueness. On the contrary, both quotations give reasons to attribute (c)/(c') to him.

Whereas with the acceptance of (b) Wittgenstein would not only deny the realists claim (R), but furthermore support the nominalist's claim (N) if we accept that "to be called by the name 'T'" is not among the features - with the non-acceptance of (b) Wittgenstein does not only not support the nominalist, but with the acceptance of (c)/(c') he denies the nominalist's claim.

There is a further line of argument in Bambrough's account which did not find a sufficient echo in the literature.⁶⁶ For him family resemblance is not only sufficient as an objective justification of our application of a general term to its instances - which is contrary to the realist's claim -, but is furthermore necessary as such a justification - which is contrary to the nominalist's claim. To show the necessity of family resemblances Bambrough describes a situation "where a set of objects literally (! R.R.) and undeniably have nothing in common except that they are called by the same name." [p. 199]⁶⁷ He writes:

"If I choose to give the name 'alpha' to each of

⁶⁶ An exception is Savigny.

⁶⁷ Notice that his remark and the following ones indicate that Bambrough does not accept (ii), but implicitly (i).

a number of miscellaneous objects (the star Sirius, my fountain-pain, the Parthenon, the colour red, the number five, the letter Z) then I may well succeed in choosing the objects so *arbitrarily* that shall succeed in preventing them from having any feature in common, other than that I call them by the name 'alpha'." [p. 199f.]

The points in which this imaginary case differs from real ones are:

- the arbritrariness of the selection of objects in the imaginary case,
- that the class of alphas is a *closed* class, that is, "no further application can be given to the word 'alpha' according to the use that I have prescribed." [p. 200], and
- that "I cannot teach the use of the word 'alpha' except by specifically attaching it to each of the objects in my arbritrarily chosen list. No observer can conclude anything from watching me attach the label to this, that, or the other object, or to any number of objects however large, about the nature of the objects, if any, to which I shall later attach it. The use of the word 'alpha' cannot be *learned* or *taught* as the use of a general word can be learned or taught." [p. 200f., my italics -R.R.]

We have already seen what Wittgenstein's position is with regard to the openness of concepts. Therefore it is only necessary to discuss the other elements of that reasoning. First, which use of the word 'alpha' can neither be learned nor taught? There was no use described in Bambrough's description of the imaginary case, but only a giving of a name to objects. Or as Wittgenstein writes:

"One thinks that learning the language con-

sists in giving names to objects. Viz., to human beings, to shapes, to colours, to pains, to moods, to numbers, etc. To repeat - naming is something like attaching a label to a thing. One can say that this is preparatory to the use of a word. But what is it a preparation for?" [PI 26]

"What is the relation between name and thing named? - Well, what *is* it? Look at languagegame (2) or at another one: there you can see the sort of thing this relation consists in." [*PI* 37]

"For naming and describing do not stand on the same level: naming is a preparation for description. Naming is so far not a move in the language-game - any more than putting a piece in its place on the board is a move in chess. We may say: *nothing* has so far been done, when a thing has been named. It has not even *got* a name except in the languagegame." [*PI* 49]

So we can conclude that Bambrough's description of the imaginary case is either no description of a name-giving procedure, or it lacks its essential part - the description of the use of the word 'alpha'. The second possibility is the interesting one, for it leads to the question whether we can imagine a use for a word which is applicated to such arbritarily chosen objects. One, not only imaginary, example is given with (not in) Bambrough's description itself. That is, the naming of the objects above can play the role of a (supposed) counter-example to a philosophical claim. For, it is of course the case that the reader of Bambrough's essay can learn, and can be taught, what Bambrough calls 'alpha', and how he uses this word. Another example seems to be relics in religious contexts. The objects

called "relics" need not have more in common than the alphas have, yet there is still a use of the word which can be taught and learned by the members of the religious community. But the important point is that the use of the word "relic" does not consist only of saying "Relic", when one sees (or thinks of) a relic. The use includes much more than this, and that makes it a use.

Therefore, I think, we can also conclude that family resemblance between objects which are called by the same name is not a necessary condition for an objectively justified application of that name. Whether or not objects called by the same name have something in common, stand in a family resemblance relation to one another, or are simply "arbitrarily" chosen will depend on the language-games in which that name is used. There are no abstract general sufficient and/or necessary conditions which must be fulfilled in order objectively to justify an application. Therefore, to ask whether family resemblance is necessary and/or sufficient as a justification is an incomplete question since it lacks the (hidden) part "relative to languagegame 'L'". This situation is principally the same as in the case of exactness. This is expressed in the last two sentences of PI 69:

"And if you want to say "But still, before that it wasn't an exact measure", then I reply: very well, it was an inexact (a vague - R.R.) one. - Though you still owe me a definition of exactness."

The interlocutor's objection is correct if we take a specific form of exactness - for instance the exactness in some fields of the physical sciences - as our criterion. In this sense Wittgenstein can answer: "very well, it was an

inexact one." The objection is wrong *if* it is to mean that the measure were useless. In this sense Wittgenstein can answer: "you owe me a definition of exactness".

Now we can say, that Bambrough is right in his comment that Wittgenstein both denied the realist's and the nominalist's claim. But he is not right in what he takes to be Wittgenstein's argument. For the realist's claim bases on the universalisation of specific language-games or practices - namely those of the (physical) sciences. The nominalist's claim bases on the universalisation of (parts of) our ordinary discourse, which includes the application of word to objects between which there are only family resemblances or even only arbitrary relations. What Wittgenstein denies is the universalisation of both groups of language-games.

Finally we can have a look at the alternative (i)/(ii). So far we have only discussed what would be true *if* one of the two positions were true. But which *is* true? According to Hunter "the final arbiter of whether something is a game is whether the linguistic community routinely so describes it; in spite of there being nothing that all games share, we all soon learn to identify activities as games by their properties." ([1985], p. 62, cf. also p. 54)⁶⁸ This will also be true for possible cases. This statement entails the proposition that the community cannot err in identifying a game as a game, that is: to be called a game is (an essen-

⁶⁸ It is clear, I hope, that with "to be called" was always - that is, also in Bambrough's remarks meant "to be routinely called by the linguistic community" and not "to be called at time t and place p by person P".

tial part of) being a game. I think for the actual instances that is true, but for the possible ones one also has to register that there may be differences in the community's linguistic practices. This doesn't mean that, with regard to possible future instances, one or all parts of a community may err, but only that it is at that moment not decided whether this or that activity will be called a game or not, even if it resembles one or more known games very closely. As far as features of the objects in question are concerned, this is true because there are only family resemblances between the actual instances and because these may vary in different directions. Therefore, at least with regard to games (the actual instances for "game") (ii) is true.

But (ii) cannot be generalized. For in the case of the use of words according to fixed criteria the community can err in identifying objects as falling under the concept. Whether an object is one which falls under the explicitly defined concept C depends on there being defining features. In identifying or finding them even the whole community can err.69 But that an object falls under the concept C if it has the defining feature has now been decided.⁷⁰ In physical sciences as one paradigmatic area of such cases the specification of defining features is normally dependent on whole theories, which for instance also entail propositions about the relevant object's structure and behavior with regard to others, that is: what they - the structure and behavior - explain and by which they are explained. In these cases a version of

⁶⁹ That does not mean that there can be errors in every case at every time and place by everyone.

⁷⁰ This does not exclude that the community may later take another feature as the defining criterion.

(i) is true.

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