

# Semantic Triangulation<sup>1</sup>

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## 1. The metaphor and general idea of semantic triangulation

Suppose you are stranded on an island and you want to get over to the nearby mainland. Your only option is to swim. But is the other shore close enough? If you embark and it isn't, you drown. So you prefer to know before taking off. Happily, you are well equipped. You have not only a yardstick, but also a theodolite for measuring angles, and a good knowledge of trigonometry. You then determine the distance to the other shore by means of triangulation. You fix two points, A and B, on your own shore, and identify a third point, C, in sight on the opposite shore. You then measure the distance between A and B with your yardstick, and the two angles ABC and CAB with your theodolite. With this information you can calculate the distances AC and BC to the other shore.

In this case you have started out by identifying three points, and from there you measure one distance and two angles. But you can imagine a different epistemic situation. Suppose you know two points only, A and B, but for some reason you also know the two angles ABX and XAB to some as yet not identified point X. These angles determine the directions of the lines AX and BX. The point X is then located at the intersection of these two lines.

This can be called triangulation, too. In this case you have started out by knowing two points

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1. The first version of this text was presented at the Davidson conference in Karlovy Vary in September 1996. A revised version was completed in november that year. This was before the publication of other texts on triangulation, such as (Talmage 1997), (Verheggen 1997) and (Glüer 1999). I also had not taken (Davidson 200x), presented at the conference, into account. The present revisions are, in general, prompted by the availability of those texts. For helpful comments I am indebted to Donald Davidson and Kathrin Glüer.

and two angles. Angles can be regarded as three place relations:  $90^\circ$  is a relation that holds between three points in a right angled triangle. Then, in general, triangulation, in this second sense, can be described as a way of determining a third point from two given points and a complex three place relation holding between the three points. And described in this way, the notion of triangulation lends itself to be used as a metaphor.

This metaphor was introduced, ingeniously, into the philosophy of language by Donald Davidson.<sup>2</sup> Davidson considers a “triangle” of two speakers and some third point, and relations of semantic import, which together help to determine the third point, also of semantic import. Here is how Davidson depicts it in one passage:

We may think of it as a form of triangulation: each of two people is reacting differentially to sensory stimuli streaming in from a certain direction. If we project the incoming lines outward, their intersection is the common cause. If the two people note each others' reactions (in the case of language, verbal reactions), each can correlate these observed reactions with his or her stimuli from the world. The common cause can now determine the contents of an utterance and a thought. The triangle which gives content to thought and speech is complete. But it takes two to triangulate. Two, or, of course, more. (Davidson 1991, 159)

From Davidson's suggestion, let's settle for the term 'semantic triangulation'. What does this term stand for? Well, I shall try to put my understanding of it in very general terms, since this will prove important later on.

I shall take semantic triangulation to be a kind of determination of semantic content, a determination of what a term, or a concept, or a thought, is about. In semantic triangulation, this is the third point X, the entity to be determined. The two others are speakers/interpreters, A and B. These two speakers/interpreters communicate with each other. When they communicate, they communicate about something. We then have the three place relation: A's communicating with

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2. First time in (Davidson 1982, 327).

B about X. Because of the conditions for the possibility of communication, this relation determines what X must be.

That is the general idea of semantic triangulation. I think it is an idea of greatest philosophical importance. However, as stated so far, it is rather vague and difficult to get a good understanding of. Moreover, the picture of semantic triangulation can be employed in different ways, depending on what is accepted at the outset.

One way of using it is as telling us something about what linguistic meaning, or thought content, must be like. You then start out with a realistic picture of, say, the physical world, with its objects and events, and state general conditions on thought, or meaning, in terms of relations between objects and pairs of thinkers.

But you can use the same picture in the other direction. You start out with thoughts, and frame conditions of objectivity, or objecthood, in terms of shared availability. To be an object, it can be said, is to be epistemically available to several subjects, given that these subjects also can know about the cognitive sharing itself. In this case you start out with a kind of interpersonal idealism, and take the physical world to be, in some sense, constituted.

In fact, I favour neither of these two ways of employing the triangulation picture, but a third way. I shall return to that towards the end. First I want to get a clearer view of Davidson's way of using it. My version will emerge out of a criticism of what I take to be Davidson's view.

As I see it, there are two different kinds of semantic triangulation in the passages Davidson devotes to the idea. One is more Quinean in nature, and is presented from a third person perspective. The second is more Wittgensteinean, and is presented from a first person perspective.

## **2. Davidson's first triangulation**

Sometimes, when Davidson writes on the triangulation theme, it seems clear that triangula-

tion is a way of determining relevant stimuli. In the first place, the presence of the second person is a necessary condition of there being a unique stimulus at all:

If we consider a single creature by itself, its responses, no matter how complex, cannot show that it is reacting to, or thinking about, events a certain distance away rather than, say, on its skin. (Davidson 1992, 263)

Anything that is a cause of behaviour of a creature is a candidate stimulus, i.e. possible to regard as what that behaviour is a reaction to. Davidson claims that without the presence of a second creature there is nothing further to determine any one of those causes as the relevant stimulus. There is no answer to the question (Davidson 1991, 159).

In the second place, the relation to the second person provides a way of determining what the relevant stimulus is.

It's a form of triangulation: one line goes from us in the direction of the table, one line goes from the child in the direction of the table, and the third line goes from us to the child. Where the lines from child to table and from us table converge "the" stimulus is located. (Davidson 1992, 263)

The lines in question are causal lines:

Communication begins where causes converge. (Davidson 1986, 317)

The first part of the answer, then, is that the relevant stimulus is a common cause of reactions of two persons.

Here two questions to Davidson naturally arise.

First, there is a question about convergence. If an event c is a common cause of to other events, a and b, then any further event d which is a cause of c is also a common cause of a and b. So there is no such thing as the common cause. There can, however, be a unique closest common cause. There doesn't have to be, but in case there is one, this is most plausibly what the talk

of the intersection of causal lines comes down to. Anyway, I shall presently just assume that the idea of converging causal lines is clear and precise enough.

Secondly, there is a question about necessary and sufficient conditions of being the relevant stimulus. Clearly, being the common cause of two persons' reactions cannot be a sufficient condition for being the relevant stimulus of those reactions. Counterexamples are too easy to come by. What more is needed, then?

At this point the third line of triangle, that directly connecting the two persons, is introduced into the account. As far as I can make out, there are two different ideas involved here, i.e. ideas about what further relation there shall be between the two persons, beside the existence of a common cause of their reactions.

The first idea seems to be that what an individual reacts to, i.e. what the relevant stimulus is in some particular situation, is something that cannot be determined by any single reaction in that situation. We need to find the common denominator of a number of situations in which that individual gives the same response. Take your response of shouting 'cow' as a reaction to certain stimulations of your retina. The most salient common denominator, common type of cause of these reactions, is the presence of a cow visible to you. It is also the smallest common denominator, in the sense of being the farthest common type of cause: any other cause of your reaction of shouting 'cow', that is of a type common to those situations in which you do, is in turn caused by the presence of a cow. We then say that the cow, or the presence of a cow, is what you are properly reacting to. That is the relevant stimulus, although this could not be determined from one single reaction alone. I think this idea is to be found in several of Davidson's passages, but not in pure form, because it is constantly intertwined with the other ingredients.

If this idea of a common type of cause of one person's reactions is correct, then it may seem that there is no need for a second person to provide an answer to the question of what the first

person is reacting to. According to Davidson, however, a second person is needed, because without her, there is no fact of the matter as to which of the first person's responses are similar!

The criterion on the basis of which a creature can be said to be treating stimuli as similar, as belonging to a class, is the similarity of the creature's responses to those stimuli; but what is the criterion of the similarity of the responses? This criterion cannot be derived from the creature's responses; it can come only from the responses of an observer to the responses of the creature. And it is only when an observer consciously correlates the responses of another creature with objects and events in the observer's world that there is any basis for saying the creature is responding to those objects and events (rather than any other source of the creature's stimuli). (Davidson 1991, 159)

Responses of the first person are the same or similar in virtue of being treated as such by an observer. Sometimes that observer is "we":

we group together the causes of someone's responses, verbal or otherwise, because we find the responses similar. What makes these the relevant similarities? The answer again is obvious; it is we, because of the way we are constructed (evolution had something to do with this), that find these responses natural and easy to class together. If we did not, we would have no reason to claim that others were responding to the same objects and events (i.e. causes) that we are. (Davidson 1991b, 200)

So the second person is needed for providing a standard of similarity of the first person's responses. And, I suppose that, despite the occasional first person plural, the relation is symmetrical. The two persons must therefore be mutually aware of each other as reacting to shared causes:

The only way of knowing that the second apex -- the second creature or person -- is reacting to the same object as oneself -- is to know that the other person has the same object in mind. But then the second person must also know that the first person constitutes an apex of the same triangle, another apex of which the second person occupies. (Davidson, 1992, 264)

To sum up: mutual awareness of each other and the shared cause of reactions is needed for pro-

viding standards of similarities of responses, and those standards are needed for finding the common denominator of situations giving rise to similar responses. These common denominators are the relevant stimuli, and therefore also objects of any thoughts which are caused by those stimuli.

This is how I understand Davidson's first kind of triangulation. I must confess that I find it puzzling.

There is one feature in this picture that I find questionable, but which I shall touch on only briefly. It is the rather anti-realistic view that there is no such thing as similarity of responses save as from the perspective of an observer. Davidson moves in one sentence from asking for the criterion for saying that a creature treats stimuli as similar to asking for a criterion of similarity of responses, i.e. (normally) behaviour. To me the difference between these two questions is enormous.<sup>3</sup>

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3. In (200x, 6) Davidson criticizes Kripke and Burge for just helping themselves to the idea of relevantly similar responses and, respectively, stimuli. According to Davidson it is circular to appeal to similarity in an account of conceptualization, because it is to explain what is natural for us by appeal to what is natural for us. This suggests two different interpretations. According to the first, there is, on Davidson's view, no such thing as e.g. the similarity of two responses beyond being treated as similar by us. This is an utterly problematic view, implying e.g. that we could not be wrong about similarities.

According to the second, Davidson holds only that the relevant respect of comparison of responses (or stimuli or other entities) is not determined independently of us, or of our concepts (whereas, given some respect of comparison, it is an objective fact whether or not two entities are similar in that respect). On the one hand this could mean that our concepts of response, etc, hang together with what we select as the relevant respect of comparison. This, however, is truistic, and does not add anything of substance. On the other hand it could mean that without "us" there is no relevant respect of comparison at all. But this appears almost as problematic as the first interpretation. Would the similarities of tigers in terms of mating behavior not be relevant to anything unless we endorsed it as such?

On p 9 Davidson dispenses with the first person plural, and speaks of "seeing the relevant similarity of one animal's responses through the eyes of another animal". But now a vicious regress threatens, for appeal to the eyes of the other animal apparently is an appeal to perceptual similarity, for which similarity of response is supposed to be the criterion

Be that as it may. What is more puzzling to me is that I cannot even see what kind of account this is supposed to be. My overriding impression of these passages about triangulation is that they present what makes the difference between being a cause of someone's reaction and being the relevant stimulus of that reaction. If the reaction happens to be that of having a thought, then the relevant stimulus is what the thought is about. The account then introduces the second person and converging causal lines, and so far so good. The next step, however, is to introduce such requirements as that the observer "consciously correlates the responses of another creature with objects and events in the observer's world", and as knowledge of the triangular situation itself. And now it looks as if part of the difference between just reacting and reacting to specific objects or events is having knowledge not only those objects and events but also about other persons and their knowledge of the same objects or events and of oneself. On the surface, this is a clear case of invoking, in the account itself, those categories and capacities that were supposed to be accounted for.<sup>4</sup> We are not much helped by being told that the difference between reacting to a particular object and just reacting consists in part in being aware of that object, even as an object of shared attention.

Of course, this is not what Davidson is telling us. He cannot reasonably be seen as attempting to tell us what the difference in question consists in. If that could be achieved in a non-circular manner, we would have an account of psychological notions in terms of non-psychological notions, i.e. a reductive account, and Davidson does not believe in the possibility of a successful reductive account:

So far I have left out of explicit account the concepts of belief and intention, which are clearly essential to speaking a language. I have no thought of trying to introduce these concepts in terms of the simple conditioning situations I have been describing; the concept of

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4. This is explicitly noted in (Davidson 200x, 10).

thought is not reducible to these simple concepts. All I have tried to show so far is that interaction among similar creatures is a necessary condition for speaking a language. (Davidson 1992, 264)<sup>5</sup>

In this passage Davidson is explicit about not attempting to reduce the full-blown psychological notions of belief and intention to notions concerning conditioning. He does not, here or elsewhere, to my knowledge, speak explicitly of a reduction of the half-psychological notion of reacting to something to concepts of causality. But the sketches he provides indicate that he does not believe in this either.

On the other hand Davidson clearly affirms, in the quotation above and elsewhere, that the triangular situation is a necessary condition, both of having thoughts and of reacting to particular objects or events. Now we can present part of the necessary condition – that a second creature is present – in a non-question-begging way, even if we cannot give both necessary and sufficient conditions, i.e. not an entire account, without conceptual circularity.

However, I don't think this is right either. Why should we believe that the presence of a second creature really is a necessary condition of thought, or of intentional reactions? Well, one reason to believe this would be that we have a convincing account of how the presence of the second creature helps determining what the relevant stimulus, or the intended object, is. For instance, if we were convinced that the intersection of causal lines by itself determined the relevant stimulus, we could reason to the conclusion that this point of intersection could not be located without the presence of the second creature. This presence would then be necessary.

But, as things actually stand in Davidson's account, we cannot understand why the second creature or person would be needed except by attributing thoughts, awareness and knowledge to the two creatures to begin with. Of course, in a sense this is obviously and trivially right: you

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5. Compare (Davidson 200x, 9).

cannot have thoughts without having thoughts, but this does not serve as much of a reason for believing that you cannot have thoughts, or cannot react to particular events, all alone. And of course it is right to say that when we do talk about an object or an event which we both observe, this object or event is located at the intersection, or an intersection, of causal lines, but this does not begin to indicate that the intersecting itself is needed for providing an answer to the question what it is that either of us is observing.<sup>6</sup>

Because of this I find Davidson's triangulation picture difficult to understand also when considered as an account of why it is a necessary condition that a second creature be present. Neither do I know of any other good way of understanding it, and so I am indeed puzzled. I am pretty certain, however, that Davidson intends to make a conceptual point: our concepts of intentionality, of reacting to something, of believing and desiring, are not applicable to isolated individuals. As is clear from the above, I haven't been able to find a good reason for this view in Davidson's first version of semantic triangulation.

I think, in effect, like Davidson, that there is a need for the second person, but I don't think it is a condition for the application of intentional concepts. I shall return to this after considering Davidson's second kind of triangulation.

### **3. Davidson's second triangulation**

There is second theme involved in Davidson's remarks about triangulation and the need of the second person. This time it is a question, not of locating what a person is thinking about, or reacting to, but of securing the objectivity of thought. It is concerned more with truth than with reference, and it appears to have an inspiration in Wittgenstein:

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6. Similar reactions about this are also voiced in (Talmage 1997), (Verheggen 1997) and (Glüer 1999, 69-79). Verheggen differs from the rest in thinking that the argument can be completed. What she proposes is in line with what I have called here "Davidson's second triangulation".

Someone who has a belief about the world – or anything else – must grasp the concept of objective truth, of what is the case independently of what he or she thinks. We must ask, therefore, after the source of the concept of truth.

I believe Wittgenstein put us on the track of the only possible answer to this question. The source of the concept of truth is interpersonal communication. Thought depends on communication. This follows at once if we suppose that language is essential to thought, and we agree with Wittgenstein that there cannot be a private language. The central argument against private languages is that unless a language is shared there is no way to distinguish between using the language correctly and using it incorrectly; only communication with another can supply an objective check. If only communication with another can provide a check on the correct use of words, only communication can supply a standard of objectivity in other domains, as we shall see. We have no grounds for crediting a creature with the distinction between what is thought to be the case and what is the case unless the creature has the standard provided by a shared language; and without this distinction there is nothing that can clearly be called thought. (Davidson 1991, 156)

Several ideas are involved here. The first concerns the need of grasping the concept of objective truth, of facts obtaining independently of our own thoughts. Davidson claims, if I understand him, that a person cannot have a belief about the world without also believing, or at least understanding the very idea, that the world is as believed to be independently of the belief, and that is to have the idea of objective truth.

I am sceptical about that claim, since it seems to require a speaker to have beliefs about beliefs in order to have beliefs about stones and tables.<sup>7</sup> This seems to me implausible, but it is not a point I shall dwell on.

The next step in this line of reasoning is the claim that grasping the concept of truth requires communication with others. As far as I can see, Davidson tries to support this claim in two ways. According to the one there is something special about coming to have the idea of truth, which requires communication, and according to the other, thinking in general requires lan-

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7. This point is apparently first made by Davidson in (Davidson 1984, 170).

guage, which in turn requires communication.

I begin with the first way of supporting it. In one passage Davidson writes

If you and I can each correlate the other's responses with the occurrence of a shared stimulus, however, an entirely new element is introduced. Once the correlation is established it provides each of us with a ground for distinguishing the cases in which it fails. Failed natural inductions can now be taken as revealing a difference between getting it right and getting it wrong, going on as before, or deviating, having a grasp of the concepts of truth and falsity. A grasp of the concept of truth, of the distinction between thinking something is so and its being so, depends on the norm that can be provided only by interpersonal communication, and, indeed, the possession of any propositional attitude, depends on a grasp of the concept of objective truth. (Davidson 1994, 15)

This passage indicates that Davidson's view is this: if you are by yourself, the idea objective truth just wouldn't occur to you. It does take interaction with another creature for planting that idea in your mind.

It does not seem that Davidson here is arguing for the more conceptual point that whatever goes on in a person's mind, while isolated, it could not count as, or be truly characterized as, thinking a thought that involved the notion of objective truth. Rather, the point seems to be that it takes some particular causal history for this particular thing to go on in your mind. But, so far as I can see, this is sheer empirical speculation.<sup>8</sup> Even if the claim is empirically true<sup>9</sup>, this is of no direct philosophical significance. Maybe the brain doesn't develop properly unless the child

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8. Virtually the same point is made in (Glüer 1999, 78). Glüer stresses that the issue is an empirical one.

As regards the possibility of error Davidson sometimes presents the matter as a purely conceptual one. In (Davidson 200x, 4) he speaks of "mak[ing] space for something that can be called error", and in (Davidson 200x, 9) of the basic triangle as needed "for anything to count as error". But the claims are stated without argument.

9. I recall having read that the little experience we have of so called wild children (having spent their first years with animals) reveals that, after the age of eight, if a child hasn't by then mastered language, it will remain an impossible task for it.

receives impulses from interaction with adults. This would not show that grasp of the concept of truth in any philosophically interesting sense depends on social interaction, because that sense would be no different from the sense in which grasp of the concept of truth depends on the presence of oxygen.

I now turn to Davidson's second way of supporting the claim. In a passage quoted above Davidson gives an indirect argument for this, via the intersubjective nature of language. But this in effect makes the appeal to grasping the concept of truth superfluous in the context. Davidson believes that thought depends on language, and that language is by its nature intersubjective. These beliefs, of course, are sufficient for concluding that having thoughts requires interaction with others. The appeal to grasp of the concept of objective truth provides no additional support.

I shall therefore turn to the reason for the intersubjectivity of language that Davidson presents. As Davidson says, this argument is essentially Wittgenstein's, or at least it conforms roughly to one kind of interpretation of Wittgenstein's private language argument. On this kind of interpretation, sometimes called the community view, or the majority view, the private language argument fits well into the triangulation model. The idea is, roughly, that one creature by itself cannot use language either correctly or incorrectly, since there is no independent standard of evaluation, and therefore no basis, for one single agent, for distinguishing between applying an expression correctly, and applying it incorrectly. But if you bring in several speakers – maybe two, or perhaps three, is enough – then the required independent standard is provided. The practice of the community forms the basis of evaluation. Each speaker can compare himself or herself with the community, to see if the individual use matches the community use.

Therefore, if two or more speakers are similar enough in their applications of a term, intending to use it the same way, then a standard of evaluation of use of the term, and hence a meaning, is established. It is established, so to speak, at the intersection of individual usages. The

triangulation is then completed.

I doubt that this is exactly how Davidson views the matter, but clearly Davidson claims that the presence of the second speaker is, again, a necessary condition for having thoughts. But again, I think this account suffers from exactly the same kind of problem as the first kind of triangulation.

We cannot really view this sketch of how the community provides a semantic standard as an account of the difference between speaking meaningfully and not speaking meaningfully. The reason is that the members are supposed to compare their respective applications, and therefore asked to perform mental operations of the kind that was supposed to be explained. In effect, Wittgenstein hints at this when criticizing the idea that going in accord with a rule should be explained in terms of agreement:

It is no use, for example, to go back to the concept of agreement, for it is no more certain that one proceeding is in agreement with another, than that it has happened in accordance with a rule. (Wittgenstein 1978, 392, (part VII, # 26))

Going by a rule, or applying a concept, involves grasping a criterion of sameness in respect of that rule, or that concept. Agreement between persons is a concept of sameness in judgement, and using agreement as a standard of evaluation therefore involves grasping both this very concept of agreement and also specific criteria of sameness of judgement in particular cases. Therefore, in explaining the grasp of concepts, or the grasp of the correct use of a term, in terms of agreement, we already appeal to the grasp of the general concept of agreement, and of the specific criteria. Without a grasp of these criteria, the noise making creatures would not know in what respect to compare their respective noises.

So we cannot really regard this community view as an account of the difference between uttering meaningfully and just uttering. And, as before, this sketch of an account cannot serve

either as an argument that the community, or the standards of a shared language, is a necessary condition of speaking meaningfully, for if the interesting difference between being on one's own and being in a community cannot be stated without presupposing that the community members have the capacities that were considered problematic to begin with, we haven't even been given a reason for disbelieving that isolated individuals can have them, too. Therefore, this second, Wittgensteinian, kind of triangulation argument fails as well.

#### **4. Explanatory triangulation**

In both of the varieties of triangulation considered so far, there is an attempt at explaining why certain intentional concepts, like belief, thought, grasping concepts, using terms rightly or wrongly, or reacting to particular objects or events, cannot be applied – either applied meaningfully, or applied truly – to isolated individuals. I think such attempts are bound to fail in precisely the way that these two have failed: we cannot explain why these concepts don't apply to isolated individuals, because in doing so we would have to provide something of a reductive account of these intentional concepts. We would have to explain, without appeal to these very notions, the relevant difference between the isolated individual and the group, and this would, indeed, constitute a reductive account. I believe such an account to be impossible. I think that Davidson does, too.

In effect, I think this opposition to reductionism is part of the motivation behind the very idea of triangulation. The picture is the following. We imagine an isolated individual, and we inquire into the basis for applying intentional concepts to him. It seems that what is available to us, as the basis for applying those concepts, are just physical facts. If we were to state conditions for applying intentional concepts to an individual, just in terms of physical facts, we would have to provide a reductive account. This cannot be provided. The conclusion, then, is that these con-

cepts cannot be applied.

I think there is something right about this. I also think the conclusion is mistaken. What is right about it is that the intentional notions really are at home in an interpersonal setting. Whatever account we can give of these notions, or of some of them in terms of others, we can give only by considering interaction and interpersonal relations. On this score I am in full agreement with Davidson.

However, this means only that our explication of such concepts must make reference to interpersonal relations, and to situations of interaction. It does not mean, in my view, that our application of these concepts is restricted to such situations. This is the shortest way of stating what I believe is the difference between Davidson and myself in this respect. Semantic triangulation is needed for the explication of semantic concepts, but not for their application.

There is, I believe, a tacit assumption, which leads from the correct view that triangular situations are required for explication, to the incorrect view that they are also needed for application. This is the view that if an intentional or semantic concept is applicable to an individual in isolation, it must be possible to identify those non-intentional properties in virtue of which that concept is applicable to her, given only facts about her considered as isolated. I am not attributing this view to Davidson, of course, since that would be pure speculation.

I do hold that this view is mistaken. The most obvious alternative is that in which you are allowed to appeal to dispositions, or counterfactuals. We might say e.g that a creature has beliefs, even when isolated, provided it has such and such dispositions to interaction, or again provided it would, or could, act in such and such a way in a triangular situation. We need not know what kind of physical, or non-intentional, properties the creature has, in isolation, in virtue of which such counterfactuals are true of it. Talk about dispositions is one way of extending the application of a concept – solubility, say – from situations with respect to which it can be

explained, to situation with respect to which it cannot. When can explain what solubility is by appealing to situations in which something dissolves; we cannot explain it by appealing only to situations where nothing dissolves. I am not claiming that disposition talk is the only way to effect such extending, or the best way. It is just a well known way.

So far, however, I have not given any positive reasons for the claim that intentional concepts really are applicable to isolated individuals. Let me conclude by giving one. My basic assumption is that intentional concepts, and semantic concepts in particular, are introduced in explanations of behaviour. In our attempts at giving a systematic account of such concepts we introduce them for explaining certain phenomena.

I think semantic triangulation, much as Davidson presents it, belongs in this picture. Thus, suppose we have two persons, A and B. We have reason to think that they are coordinating their behaviour, and on this basis that they have beliefs and intentions which they manage to communicate to each other. We assume that they have beliefs and intentions as a way of explaining this coordination.

Do we have any principles for finding out what beliefs and intentions they do have and communicate? Yes, we do. One such principle, in my view the overarching principle, is that of selecting the best explanation of the success of communication.

So, what is the best explanation of the assumed fact that creatures manage to identify the contents of each others' thoughts? Well, part of the explanation is that they succeed because they often communicate about easily identifiable objects or events. We shall therefore have reason to believe that in many situations they communicate about something they both observe and also believe they both observe. What they both observe is a common cause, or perhaps the closest common cause, of their beliefs. Therefore, the fact that an event is the closest common cause of two creatures' thoughts, can be, and often is, part of the best explanation of the (assumed)

fact that they manage to communicate thoughts about that event.

Here we do have the triangular situation that Davidson pictures. What the respective thoughts of the two creatures are about gets identified as the third point of a triangle of causal lines. What the creatures communicate about is that object or event *X* which enters into the best explanation of success of communication, and the fact that it is located in the intersection of causal lines qualifies it precisely as being part of the best explanation. Clearly, then I think Davidson, with the idea of triangulation, has brought something of great importance into the philosophy of language.

But now, precisely because it is a question of explanation, we must assume that what we appeal to in the explanation has an independent existence. We have assumed that A has a thought, with a determinate content, irrespective of what B thinks, and that B has a thought, with a determinate content, irrespective of what A thinks, and that they also manage to identify each other's thoughts. It is not part of this picture that *X* is constituted, or metaphysically determined, as the object of thought because of the triangular situation.

What is it, then, that does get determined? Answer: what does get determined, or partly determined, in this triangulatory fashion, is our concept of thought and reference, or aboutness. It is, I suggest, part of our concept of the aboutness of thoughts, or perhaps of the best systematic reconstruction of that concept, that the aboutness relation between thoughts and objects is that relation which, in triangular situations, best explains how creatures manage to identify what other creatures are thinking about.

In this way we don't explain the creation, or instantiation, of the aboutness relation as holding between a particular speaker's thought and a particular object or event. We explain why an already existing relation between the thought and the object qualifies as instantiating the aboutness relation. And in this social psychology, semantic triangulation, as part of the best explana-

tion of the success of communication, plays a decisive role.

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