

Triangulation

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1. Introduction

Triangulation, the *Encyclopædia Britannica* informs us, is a technique used in navigation, surveying, and civil engineering, for precise determination of a ship's or aircraft's position, and the direction of roads, tunnels, or other structures under construction. It is based on the laws of plane trigonometry, which state that, if one side and two angles of a triangle are known, the other two sides and angle can be readily calculated.¹ As an analogy, triangulation was introduced into the philosophy of mind and language in Donald Davidson's 1982 paper "Rational animals". The analogy is used to support the claim that linguistic communication not only suffices to show that a creature is a rational animal in the sense of having propositional thoughts, but that it is necessary as well: "rationality is a social trait. Only communicators have it" (1982: 105).²

As originally presented, the triangulation argument goes via the premise that in order to have any propositional thought whatsoever, a creature needs to have the concept of objective truth. To have this concept, however, it must stand in certain relations of interaction not only with objects or events in the world but also with other creatures sufficiently like itself. The most simple such situation involves a 'triangle' of two creatures interacting with each other and an object or event in the world. This pre-cognitive, pre-linguistic situation is therefore *necessary* for thought, according to Davidson. Only when the interaction forming the base line of the triangle is linguistic in character is triangulation *sufficient* for thought, however:

If I were bolted to the earth, I would have no way of determining the distance from me of many objects. I would only know they were on some line drawn from me towards them. I might interact successfully with objects, but I could have no way of giving content to the question where they were. Not being bolted down, I am free to triangulate. Our sense of objectivity is the consequence of another sort of triangulation, one that requires two creatures. Each interacts with an object, but what gives each the concept of the way things are

1. "triangulation", *Encyclopædia Britannica* from Encyclopædia Britannica Online.

<<http://search.eb.com/eb/article?eu=75246>> [Accessed February 14, 2003].

2. This conclusion is already drawn in Davidson 1975, but there, the argument remains extremely sketchy. Triangulation is not mentioned.

objectively is the base line formed between the creatures by language. The fact that they share a concept of truth alone makes sense of the claim that they have beliefs, that they are able to assign objects a place in the public world (1982: 105).

The triangulation analogy has come to play a more and more central role in Davidson's latest work. The idea has undergone considerable development in the process and proven very powerful and prolific.

Most generally, triangulation is the key element in what could be characterized as Davidson's '*solitary content argument*': According to him, propositional content, be it of thought or linguistic utterances, requires a social setting. No solitary creature can have thoughts or mean anything by language. Moreover, as we already saw, thought and language are interdependent; no creature can have one without the other. This position in the theory of content is then used to support *epistemological anti-foundationalism and anti-skepticism*: Davidson's triangular account of the conditions of thought rules out any kind of foundationalism regarding empirical knowledge. If it works, none of the basic kinds of knowledge - knowledge of the external world, of our own and of other minds - is conceptually or temporally prior to any of the others (cf. esp. 1991). Moreover, since having any thoughts at all requires all three kinds of knowledge, triangulation even allows us "to recognize that we could never be in a position to doubt our knowledge of other minds or of an external world. (...) [I]f we can think or question at all, we already know there are other people with minds like ours, and that we share a world with them" (1998: 55, see also 1990: 201).

In what follows, we shall concentrate on the solitary content argument. Davidson himself summarizes it as follows:

[T]he triangle I have indicated is essential to the existence, and hence to the emergence of thought. For without the triangle, there are two aspects of thought for which we cannot account. These two aspects are the objectivity of thought and the empirical content of thoughts about the external world (1997: 129).

In many of the relevant passages, the arguments for these two necessity claims are more or less run together. Here, however, I shall set out and assess them separately. Let's take the second line of argument first; it aims at showing that without triangulation, thoughts would not be about empirical *objects*. Here, triangulation is presented both as a condition on empirical reference and as a principle for the determination of empirical referents. I shall therefore call this 'the

argument from content determination'. Then, we'll look at the line of arguments aimed at showing that without triangulation, thoughts would not be *objective*. Thoughts, that is, would not have objective truth conditions, would not be true or false independently of being thought. Triangulation here is presented as a condition on having truth conditions, but not as a principle for determining them: In order to have thoughts a creature needs to have the *concept* of objective truth, it needs to have a *sense of objectivity*, and according to Davidson, this is impossible without triangulation. I shall refer to this second line of argument as 'the argument from objectivity'.

2. The argument from content determination

2.1 Ambiguities of cause

Davidson subscribes to what he calls 'perceptual' externalism about propositional content. The basic idea is that the content of basic perceptual beliefs (and their expressions) is determined by what *typically causes* them. Perceptual table-thoughts, for instance, are typically, though not necessarily, caused by tables. But to determine the typical cause of a certain belief-state it is not sufficient to consider a single creature and its causal relations to objects and events in its environment, Davidson argues. A plausible externalism needs to combine a perceptual with a *social* element, it needs to bring a second creature into the picture, a creature sufficiently like the first.

The problem this is supposed to help with is solving for a certain "ambiguity of the concept of cause": "In the present case", Davidson explains,

the cause is doubly indeterminate: with respect to width, and with respect to distance. The first ambiguity concerns how much of the total cause of a belief is relevant to content. The brief answer is that it is the part or aspect of the total cause that typically causes relevantly similar responses. What makes the responses relevantly similar in turn is the fact that others find those responses similar (...). The second problem has to do with the ambiguity of the relevant stimulus, whether it is proximal (at the skin, say) or distal. What makes the distal stimulus the relevant determiner of content is again its social character; it is the cause that is shared (1997: 130).

A typical cause of an event or state e is an event of a kind F such that F s typically or normally cause events or states of the same kind, E , as e . To determine such a cause, we therefore need to look at a number of situations in which E s are caused and see which elements these situations have in common. The second of Davidson's problems is that there might well be *more than one*

typical cause for *Es*. There might be longer *sequences* or *chains of causes* typically leading to *Es*. The first problem, however, is to determine which chains to look at for relevant similarities. Given that our inquiry is into the very conditions of thought, we cannot even take the *caused kind E* for granted. Davidson likes to bring this out by considering an observer trying to determine whether some creature has any propositional thoughts at all. Simply looking at all the causal chains going 'through' our creature will not lead anywhere: "[s]ince any set of causes will have endless properties in common, we must look to some recurrent feature of the gatherer, some mark that he or she has classified cases as similar", Davidson explains, and he concludes: "This can only be some feature or aspect of the gatherer's reactions" (2001a: 4f). Reactions need to be similar in order to determine what a creature finds similar, what it is reacting to. But similar in what respect? Will not any set of reactions be similar in endless respects as well? There is no way, Davidson argues, to determine the relevant standard of similarity from the reactions of a single creature alone. We need a second creature, a creature that itself reacts to the reactions of the first and finds a number of them similar.³ Such an observer can then go on to determine the typical cause of reactions of this kind.

This line of argument is far from unproblematic. In fact, it might appear to lead into an infinite regress: If what someone finds similar is determined by someone else's finding his reactions similar this in turn requires that the second person's reactions are found similar by someone other than himself, too. Davidson is aware of this: "Our grounds for claiming that a person finds one wolf similar to another is the fact that the person responds in similar ways to wolves. This prompts the next question: what makes the reactions similar? The only answer is, someone else finds both wolves and the reactions of the first person similar. This of course only puts the basic question off once more" (1997a: 83). Nevertheless, the quoted passage continues, the triangular situation is necessary for thought. But how can we hold on to this claim if it leads into regress? An answer might be sought in the anti-reductivist nature of the Davidsonian account; we shall come back to that later. Another puzzling element is the strong anti-realism or idealism seemingly implied by these passages (cf. also 1991: 212); Davidson sounds as if the relevant similarity of responses would actually disappear with its observer.⁴ But even observer-relative properties, we might feel like objecting, do not do that. According to the predominant

3. As far as I can see, Davidson nowhere explicitly requires reactions to be behavioral; given, however, that he claims that their similarity needs to be actually observed, behavioral reactions would seem the only plausible candidates.

4. Cf. Pagin 2001: 203, Glüer 1999: 74.

view, 'secondary qualities', for instance colors, are specified by reference to their effects on certain observers. But if an object is red, it is so no matter whether actually observed or not. Moreover, this anti-realism does not square well with statements Davidson makes elsewhere. If we disregard it, however, the conclusion that reactions need to be *observed* as similar, as opposed to merely being *observably* similar, would seem to lose its motivation. We shall have occasion to return to these worries, but let's put them aside for the time being and look at Davidson's second problem.

This is formulated as a problem about the 'location' of the stimulus, that is, the event or object that is *the* typical cause of a certain reaction *r*. 'Where' on the causal chain leading to the reaction is it? As remarked above, there might be a whole portion of the chain leading to *r* that typically does so. Take a visual table-belief: What determines the table as the typical cause as opposed to, for instance, certain patterns of visual stimulation? The second, after all, probably is an even more typical part of chains leading to such beliefs. Davidson:

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 (1992: 119).

The answer, again, is supposed to derive from the reactions of a second creature. As observers, we not only react to the first creature's reactions, we also react to some of the things that typically cause them. The question which of its typical causes determines the content of a perceptual belief can then be answered in the following way, here with a child as the first creature:

The relevant stimuli are the objects or events we naturally find similar (tables) which are correlated with responses from the child we find similar. It is a form of triangulation: one line goes from the child in the direction of the table, one line goes from us in the direction of the table, and the third line goes between us and the child. Where the lines from child to table and us to table converge, 'the' stimulus is located. Given our view of child and world, we can pick out 'the' cause of the child's responses. It is the common cause of our response and the child's response (1992: 119).

More precisely, the principle of content determination for perceptual belief Davidson avocates is this: "The stimulus that matters is the *nearest mutual cause*" (1998: 84, *emph. mine*). In the spatial terms of the trigonometrical analogy, the two creatures' reactions allow to triangulate

their object as the 'closest' or 'nearest' mutual cause of these reactions.⁵

To sum up: Davidson argues that the interactions of a single creature with its environment alone do not determine what it is typically reacting to. Typical causes are determined only as the '*common causes*', that is, as the nearest mutual typical causes of the reactions of at least two creatures interacting with the same object or event. Since this is a necessary condition for thought, externalism needs to be both perceptual and social: Causes determine content only in social settings, as common causes.

Notice, however, that the sense in which the triangular situation so far described is *social* is limited. So far, there is no requirement of *interaction* between the two creatures; all that is needed is that *one* of them observes the other. *This* is the form of triangulation that was at work already in radical interpretation, the Davidsonian scenario in which an interpreter tries to assign truth conditions to the sentences of a radically foreign language by finding correlations between sentences held true and observable circumstances in the environment of the speaker. Here, the interpreter triangulates the objects of basic perceptual beliefs by taking "the speaker to be responding to the same features of the world that he (the interpreter) would be responding to under similar circumstances" (1991: 211). This is not a matter of choice but the only way into the foreign language.

But what exactly can be derived from these considerations? At most, it seems to me, that, if there is thought, it is *possible* for a suitable observer to establish the relevant correlations. The presence or absence of a mere observer cannot plausibly be taken to make a difference to the states the observed creature is in. Even if it is us, the observers, that categorize events as relevant causes and similar responses, it would, as Davidson himself puts it elsewhere, "be foolish to deny that these divisions exist in nature whether or not anyone entertains the thought" (1998: 80). Equally foolish would it be to deny the observer-independent existence of the content-determining correlations. Therefore, no conclusion to the need for an *actual* second creature seems warranted at this stage. Davidson, however, claims that thought and language are social in a much stronger sense than this; he holds that "[t]he possibility of thought as well as of communication depends (...) on the fact that two or more creatures are responding, more or less simultaneously, to input from a shared world, and *from each other*" (1997a: 83, *emph. mine*). Clearly, it is the presence of an actual second creature that is required, according to Davidson,

5. In terms of the *temporal* order of the causal chains leading to the reactions, it would be the *last* one that is an element of both chains.

and it needs to interact with the first one, not simply observe it.⁶

2.2 Reactions and interactions

In an interactive triangle, there are two creatures reacting both to an object or event in the world and to each others reactions. A mere observer assigns objects to reactions on the basis of what is salient to him - but that might not be what is salient to the observed creature itself. Davidson illustrates this with the example of a lioness stalking a gazelle:

If a second lioness joins the first in pursuit of the gazelle, I can eliminate such complete dependence on my own choice of salient object in this way: I class together the responses of lioness A with the responses of lioness B in the same places and at the same times. The focus of the shared causes is now what I take to be the salient object for both lionesses. I no longer have to depend on my own choice of the relevant stimulus of the lionesses' behavior (2001a: 6f).

Even this picture falls short of interaction, however; what we see instead is that the second creature needs to be *sufficiently similar* to the first in terms of natural similarity responses in order to triangulate the objects of its reactions. Davidson continues, however: "A *further element* enters when the lions cooperate to corner their prey. Each watches the other while both watch the gazelle, noting the other's reactions to the changes of direction" (2001a: 7, *emph. mine*). And: "[A]n interconnected triangle such as this (two lionesses, one gazelle) constitutes a *necessary condition for the existence of conceptualization, thought, and language*" (*ibid.*, *emph. mine*). The necessity of interaction, that is, comes into view first when we consider the possibility of reactions expressing propositional thought.

The question can be put like this: What do we need to add to mere reactions to objects in the world to make these reactions into expressions of (or evidence for our creature's having) thoughts about those objects? Davidson's answer, here in terms of a speaker:

The speaker must have the concept of the stimulus. Since (...) a table is identified only by

6. This claim has weaker and stronger readings, however: A strong reading would have it that it is only in social situations that any state is a thought with empirical content or any reaction expresses such a thought. This is clearly too strong, for surely we are able to talk to ourselves or think while alone. In a footnote to "The Second Person" (1992) Davidson attacks Chomsky for thinking "the pure Robinson Crusoe case possible". And he explains: "By the pure case, I mean a Robinson Crusoe who has never been in communication with others" (1992: 115, n. 11). This might indicate a weaker reading of the necessity of actual interaction according to which interaction is necessary *at some point*, for instance, it might be necessary for the *acquisition* of language and concepts. See below.

the intersection of two (or more) sets of similarity responses (lines of thought, we might almost say), to have the concept of a table (...) is to recognize the existence of a triangle, one apex of which is oneself, the second apex another creature similar to oneself, and the third an object (...) located in a space thus made common (1992: 120f).

The argument seems to be this: Since the object a thought is about is determined by triangulation only, thinking of a particular object *eo ipso* is thinking of an object someone else is also thinking of. Moreover, it is thinking of that object *as* an object someone else is thinking about. And unless someone else is in fact thinking of the same thing, and the thinker is justified in thinking so, there is no determinate object of the thought. "[T]he basic triangle of two people and a common world is one of which we must be *aware* if we have any thoughts at all" (1998a: 86, *emph. mine*).

Let's call this the requirement of *knowledge of the triangle*. The considerations supporting this requirement are, again, far from unproblematic. Even if we lay our doubts about the necessity of the actual presence of the second creature aside for a moment, it is not clear why thinking of a table would be thinking of it *as* an object someone else is also thinking of. It is far from obvious that in order to think we need to know the conditions of thought (or the principles of content determination),⁷ not to speak of knowing that they are fulfilled.⁸ If the knowledge requirement can be motivated, however, it immediately turns into a requirement of *mutual* knowledge in the Davidsonian picture: If it is a condition on my thinking of a table, that I know that someone else is thinking of the same table, then this other person in his turn needs to know that someone else is thinking of this table. In a basic triangle of just two creatures we therefore need to know this of each other. How is that possible?

For two people to know of each other that they are so related, that their thoughts are so related, requires that they be in communication. Each of them must speak to the other and be understood by the other (1992: 121).

Actual linguistic interaction, therefore, is a condition on the possibility of thought and language, according to Davidson; both are essentially social, and there is no thought without language.

Remember, however, that our question was what needs to be added to mere reactions to

7. This is a point often made in discussions concerning the compatibility of externalism and self-knowledge. See, for instance, Burge 1988.

8. Cf. Verheggen 1997: 364, who asks why mere thinking that one is interacting with another creature would not suffice. See also Heil 1992, ch. 6.

objects in the world to make these reactions into (expressions of or evidence for) thought; the answer seems to be, bluntly put: language. Davidson acknowledges that this answer might seem unhelpful, indeed: "The reason this answer is not very helpful is that it assumes what was to [be] explained: Of course if there is language there is thought, so it cannot be easier to explain the former than the latter" (2001a: 13). As an *account* of the conditions of thought or language, the triangulation scenario is patently circular; moreover, this is not really a circle that first comes to its close with the invocation of language at the very end of the story. Rather, the account seems to invoke *conceptual capacities* in characterizing the very element that makes it social in a strong sense: the interaction between the triangulating creatures. This becomes especially clear in the requirement of mutual *knowledge*. And there does not seem to be any way around this, no way, that is, of characterizing any kind of interaction *sufficient* for thought that would not invoke such capacities. Thus, Davidson for instance writes: "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" (1991: 212, *emph. mine*). And an interactive triangle is sufficient for thought only if exercise of the same, clearly thought-like, conceptual capacities is required of the first creature itself. The circularity in question therefore cannot be avoided by merely shunning the last steps of the argument, by, for instance, arguing that the requirement of mutual knowledge does not hold, or by denying that only language can fulfill it. Rather, it seems to necessarily come with any attempt to answer the Davidsonian question: "What must be added to the basic triangle of two or more creatures interacting with each other through the mediation of the world *if that interaction is to support thought?*" (2001a: 13, *emph. mine*).

Davidson himself does not regard this circularity as damaging to his argument; he comments: "Nevertheless, it is useful to recognize the somewhat surprising fact that the social element that is essential to language is also essential to thought itself" (2001a: 13). The use of the triangulation analogy, he seems to be saying, does not lie in providing an account of the conditions of thought and language, at least not if by an account we mean something like *necessary and sufficient conditions*. Such an account is, according to Davidson, simply not forthcoming. Thought, language and the other intentional concepts cannot be reduced to anything else (cf. 1992: 120; 2001a: 13). It is, therefore, not surprising that as soon as we try to say what it is that must be added to the basic triangle that would *suffice* for thought we run in a circle.

However, being an anti-reductionist does *not* preclude one from having something interest-

ing to say about the conditions of thought, not even in non-intentional terms. For even where necessary and sufficient conditions cannot be other than circular, the same does not hold for conditions that are *necessary, but not sufficient*. Even if triangular interaction that supports thought cannot be spelled out without circularity, triangular interaction that does *not* support thought can:

There is a prelinguistic, precognitive situation which seems to me to constitute a necessary condition for thought and language, a condition that can exist independently of thought, and can therefore precede it. (...) The basic situation is one that involves two or more creatures simultaneously in interaction with each other and with the world they share; it is what I call *triangulation*. It is the result of a threefold interaction, an interaction which is twofold from the point of view of each of the two agents: each is interacting simultaneously with the world and with the other agent. To put this in a slightly different way, each creature learns to correlate the reactions of other creatures with changes or objects in the world to which it also reacts. One sees this in its simplest form in a school of fish, where each fish reacts almost instantaneously to the motions of the others. This is apparently a reaction that is wired in. A learned reaction can be observed in certain monkeys which make three distinguishable sounds depending on whether they see a snake, an eagle, or a lion approaching; the other monkeys, perhaps without seeing the threat themselves, react to the warning sounds in ways appropriate to the different dangers, by climbing trees, running, or hiding. But on reflection we realize that the behavior of these primates, complex and purposeful as it is, cannot be due to propositional beliefs, desires, or intentions, nor does their mode of communication constitute a language" (1997: 128).

A necessary condition on a creature's having thought and language that we can formulate in non-circular terms, is that of *the actual presence of and interaction with a second creature*, Davidson claims.⁹

But even if being an anti-reductionist does not preclude one from formulating interesting necessary conditions, it does not provide any *support* for the necessity of some particular condi-

9. It seems doubtful, however, that an analogous move really is open regarding the infinite regress started by requiring a second creature for the determination of relevant similarities among responses (see above, 2.1). This regress clearly is of a vicious kind: The initial condition generates an infinity of conditions on similarity such that the fulfilment of the $n+1$ st is *prior* to that of the n th. And there is no way to formulate the requirement that would not give rise to regress; in particular, the regress does not depend on presupposing thought. That the requirement of a second person leads to regress, therefore, does not allow for it's nevertheless being a necessary condition on similarity.

tion. And, obviously, such support cannot be derived from conditions that are sufficient, but circular, either. So, the question is: Does Davidson provide sufficient support for the claim that thought and language are necessarily social? Support, that is, that does not derive from any circular, but sufficient condition? Pagin, when belabouring this point, is doubtful: "[A]s 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" (Pagin 2001: 205).

What about animal triangulation, however? Assume, we grant Davidson that the lionesses, fish and even the monkeys in his examples do not have propositional thoughts. Still, a second lioness, fish or monkey is required to determine the objects of their non-cognitive reactions to objects in the world, according to Davidson. Does not this provide non-circular support for the claim that for cognitive reactions a second creature of the same kind is required, too?

There are a number of issues here. One is that Davidson claims that an *interactive* triangle is necessary for thought. It does not seem part of his argument, however, that a second lioness interacting with the first is necessary for determining the common causes of their reactions; as we saw above, he considers that possible as soon as we can observe two lionesses reacting simultaneously to the same gazelle; the lionesses interacting with each other, on the contrary, was considered as a further element on the road to thought, so to speak (cf. 2001a: 6f). This, however, would seem to qualify the necessity of a second lioness, fish, or monkey. If no interaction is required to determine the objects of their reactions, the necessity of the actual presence of the second animal would be subject to exactly the same doubts as voiced above: The object does not have to be determined by actual causal chains intersecting, potential ones would seem to do equally well.

Another question is the following: Even if actual second monkeys were necessary, what would this teach us about the conditions of thought? If there is an irreducible gap between reactions like those of the monkeys and propositional thought and its expression, why would what is necessary for monkey reactions to have determinate objects also be necessary for propositional thought? Which relation between monkeys and sentient beings warrants this conclusion? It is natural and plausible to conceive of reactions like those of the monkeys as *an earlier stage in the evolution* of sentient beings. But does that support the necessity claim? Notice, that this is *not* a question about the modal force, if any, attaching to considerations of evolutionary priority. Even if we grant the evolutionary priority of the monkey reaction stage, both onto- and phyloge-

netically, we still lack good reason for thinking that what was necessary at an earlier stage remains so at a later.¹⁰ This could only be changed, it seems to me, by a plausible story about how thought emerges from reactions like those of the monkeys, a story that would make essential use of second creatures in bridging the gap between monkeys and thoughts. But no such story can be expected, according to Davidson himself, and for conceptual reasons:

The difficulty in describing the emergence of mental phenomena is a conceptual problem (...). In both the evolution of thought in the history of mankind, and the evolution of thought in an individual, there is a stage at which there is no thought followed by a subsequent stage at which there is thought. To describe the emergence of thought would be to describe the process which leads from the first to the second of these stages. What we lack is a satisfactory vocabulary for describing the intermediate steps (1997: 127).

This concludes our discussion of Davidson's argument from content determination. Triangulation offers a powerful and suggestive analogy for the exploration of the conditions on and principles of externalist content determination. It seems doubtful, however, that the analogy really bears out the strong social necessity claim Davidson would like it to support. Content determination is only the first part of the triangulation arguments, though; it remains to consider the argument from objectivity.

3. The argument from objectivity

If the argument from content determination strikes one as Quinean in character, one might like to characterize the argument from objectivity as more Wittgensteinian in spirit.¹¹ It starts out from the following observation: "[T]hought is objective in the sense that it has a content which is true or false independent of the existence of the thought or the thinker" (1997: 129). That thought is objective in this sense should, despite the realist flavor of Davidson's formulation, be rather uncontroversial; basically, the claim is that propositional thought is something the concept of truth, however precisely it is to be understood, is essentially applicable to. Thoughts have truth conditions, and concepts have satisfaction conditions. Which applications of a given

10. Notice, too, that this might seem to invert the intended direction of support when Davidson, for instance, says: "[T]he triangle I have indicated is essential to the existence, and *hence* to the emergence, of thought" (1997: 129, *emph. mine*).

11. Pagin uses these characterizations in Pagin 2001, and Davidson repeatedly acknowledges Wittgensteinian inspirations. There are clear parallels between his argument and certain (community) readings of the so-called private language argument.

concept are true and which mistaken, however, is not determined by the thinker's believing them to be. The objectivity of thought minimally is the requirement that the concepts of truth and falsity, of semantic correctness and mistake, have an application to thought and its expressions. According to Davidson, however, there is no 'space' for the application of these concepts outside or independent of a triangular setting: "The point isn't that consensus defines the concept of truth but that it creates the space for its application. If this is right, then thought as well as language is necessarily social" (1997: 129).

For one creature in isolation, the thought seems to be, it remains indeterminate which of its reactions, if any, even *deviate* from the others. Only a social setting provides a contrast necessary for determining any reaction as a deviation; if the reactions of two creatures to some kind of object or event normally agree, but on some particular occasion differ from each other, at least one of them deviates from the regularity in their joint behavior.¹² Such discrepancy is not sufficient to determine who is deviating, but, or so the space-metaphor suggests, it is necessary for applying the concept of deviation at all (cf. 2001a: 7). In the argument from objectivity, triangulation thus figures as a condition for thought to have determinate content only, not as a principle for determining truth conditions: "The point is not to identify the norm, but to make sense of there being a norm" (2001a: 7).

Possible deviation is not yet possible mistake, however:

[T]o have a belief it is not enough to discriminate among aspects of the world, to behave in different ways in different circumstances (...). Having a belief demands in addition appreciating the contrast between true belief and false, between appearance and reality, mere seeming and being. (...) 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" (1991: 209).

In order for the concept of *truth* to be applicable to thoughts, the argument goes, the thinker himself must have this concept. Davidson formulates what basically is the same requirement in a variety of ways; originally he put it in terms of the necessity of having the concept of *belief* for having any beliefs (1975; 1982). In other places, the stress is on the concept of a *mistake*, of erring in one's beliefs. These concepts form a package, and without them, a creature cannot be said

12. This only holds on the assumption that there in fact is a joint regularity; otherwise, the discrepancy might equally well show that the creatures in question are not reacting to a common cause anymore - or have never been doing that.

to have any beliefs at all, according to Davidson. And he concludes: "We must ask, therefore, after the *source of the concept of truth*" (1991: 209, *emph. mine*).

As in the argument from content determination, the perspective is, thus, shifted to the first person: It is not enough that there are two interacting creatures; rather, they need to be aware of each other's reactions and their possible divergence. Since mistakes are determined only on the basis of such divergence, having the concept of a mistake itself requires a social setting. Here, too, interaction is not supposed to be a sufficient condition for thought; the monkeys from the earlier example interact in this sense but they do not have propositional thought - exactly because, Davidson argues, their behavior does not justify the ascription of the *concepts* of truth and mistake to them. Again, only linguistic communication does: "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" (1994: 15).

That, from the perspective of the thinker himself, triangulation creates the 'space' for the application of the concepts of truth and mistake can mean at least two things, however. It can mean, either, that these concepts can be (truly) *applied* (to myself or others) only in triangular situations¹³, or it can mean that they can be *acquired* only in triangular situations.

There are many passages in Davidson suggesting that he, in fact, sees triangulation as a condition on the *acquisition* of the concepts of truth and mistake, for instance, the following one:

Thought, propositional thought, is objective in the sense that it has a content which is true or false independent of the existence of the thought or the thinker. Furthermore, this is a fact of which a thinker must be *aware*; one cannot believe something, or doubt it, without knowing that what one believes or doubts may be either true or false and that one may be wrong. *Where do we get the idea that we may be mistaken*, that things may not be as we think they are? (1997: 129, *emph. mine*).

The suggestion then is that without the actual experience of discrepancy, and, possibly, correction, the acquisition of the concepts of truth and mistake is impossible.

As a point about the required causal history of the acquisition of these concepts, this might easily seem sheer empirical speculation. And even if it is empirically true that creatures like us do not develop rational minds in isolation - Kaspar Hauser cases might give some reason to

13. Any use outside of social situations would have to be characterized as in some sense derivative from this original use.

think so- , there is no evidence whatsoever that this is due to missing experiences of divergent reactions. If this were their final resting point, the triangulation arguments would seem robbed of much of their intuitive force.¹⁴

On a more conceptual reading, however, the point of the argument from objectivity is that an isolated creature cannot (truly) apply the concepts of truth and mistake to anything, not even to what is going on in its own mind. This becomes possible only in a social setting:

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 (1994: 15).

On this reading, the argument would seem open to much the same objections that were formulated for the argument from content determination. As witnessed by the passage just quoted, to be *sufficient* for thought, triangulation involves the very capacities it was to make possible and that leaves the necessity of those parts of the condition that can be formulated without circularity unsupported. Moreover, any 'norm' for truth and mistake determining these in relation to the reactions of fellow creatures would seem to determine them regardless of the actual presence or absence of those fellows.¹⁵ While it might be true - and radical interpretation provides some reason to believe it is - that if a creature has language, and, thus, thought, triangular principles of content determination do apply, it thus remains doubtful that they apply *because of* the triangulation.

14. Both Glüer (1999: 78) and Pagin (2001: 207) have charged Davidson with ultimately resting his case on sheer empirical speculation. Replying that there is a degree of empirical speculation in any argument short of logical proof, does not really help here (cf. Davidson 2001b). For even if we subscribe to this naturalist picture of philosophy, there clearly are degrees of empiricity and some claims clearly are too empirical to support much modal consideration.

15. That it is necessary to have the concept of *belief* in order to have beliefs or to mean anything might also well strike one as *empirically false*; children under the age of 4 normally do not yet have a 'theory of mind' sophisticated enough for second-order belief, yet it seems extremely difficult to maintain that they have no beliefs or do not mean anything by what they say. Even clearer counterexamples might be provided by certain high-functioning subjects with autism (cf. Glüer and Pagin 2003).

4. References

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