**teorema**
Vol. XXXIII/3, 2014, pp. 139-148
ISSN: 0210-1602
[BIBLID 0210-1602 (2014) 33:3; pp. 139-148]

# Zalabardo on the Distinction Between Inferential and Non-Inferential Knowledge

Miguel Ángel Fernández

In his recent book *Scepticism and Reliable Belief*, José Zalabardo presents an anti-sceptical epistemology that takes very seriously the difference between inferential and non-inferential knowledge, "…our account of knowledge –he says– has to respect the fundamental distinction between inferential and non-inferential knowledge." [p. 111][1] In this paper I want to scrutinise the distinction between inferential and non-inferential knowledge (hereafter 'IK' and 'NIK' respectively) that Zalabardo actually draws. I will argue that his way of drawing the distinction cannot be regarded as satisfactory because (i) far from capturing a *fundamental* difference between NIK and IK, it actually entails that both types of knowledge work in fundamentally the same way, and (ii) it easily permits misclassification of cases of NIK as cases of IK.

Section I expounds Zalabardo's distinction and explains why it entails that NIK and IK work in fundamentally the same way; section II explains how Zalabardo misclassifies cases that are clearly of NIK, if cases of knowledge at all, as cases of IK. The ease with which his distinction permits such misclassification produces a sort of taxonomical uncertainty that is alien to the stability of the intuitive distinction that the correct epistemology should aim to respect. Section III draws some conclusions.

## I

Let us begin with Zalabardo's distinction itself. His account of *non-inferential knowledge* (NIK) purports to be an improvement on Nozick's truth-tracking account. On Zalabardo's account Bel(*A*) amounts to NIK of *A* if and only if

(i) The belief's *tracking ratio*, that is the ratio: P(Bel(*A*)/*A*)/ P(Bel(*A*)/¬A), is sufficiently high [p. 113].

The numerator of the tracking ratio is the probabilistic rendering of adherence and the denominator the probabilistic rendering of sensitivity. The higher the value of the numerator, the higher the adherence of the belief; the lower the value of the denominator, the higher the sensitivity of the belief. Hence, knowledge is compatible with arbitrarily low levels of adherence, if they are compensated by high levels of sensitivity (i.e. low values for the denominator of the tracking ratio). This is what it means to say that adherence acts merely as a "calibration parameter" for sensitivity [p. 114]; sensitivity is more important than adherence in his characterization of NIK.

(ii) The belief's *safety*, that is: P(*A*/Bel(*A*)), is sufficiently high [p. 115].

When the values of the tracking ratio and the safety of a belief are sufficiently high, Zalabardo says that the belief *tracks the truth* [p. 117]. Tracking the truth is necessary and sufficient for a belief to amount to NIK.[2]

Lets move now to his account of *inferential knowledge* (IK). In his theory, Bel(*H*) amounts to IK of *H* if and only if:

(i) There is a proposition *E* such that *S* knows *E*, and

(ii) *S* knows that *E* provides adequate support for *H* [p. 88].

(*) *E* provides adequate support for *H* if and only if:

(ii*) P(*H*/*E*) is sufficiently high, and

(ii**) the ratio: P(*E*/*H*) / P(*E*/¬H) is sufficiently high [p. 85].

Although Zalabardo insists that "…inferential and non-inferential knowledge will receive separate accounts. Sensitivity will be the central notion of our account of non-inferential knowledge, while inferential knowledge will not require sensitive belief" [p. 66], it is remarkable that in fact the conditions (ii*) and (ii**) in his analysis of IK are very similar to the conditions (ii) and (i), respectively, in his analysis of NIK: condition (ii*) of adequate support corresponds to the safety condition of NIK and condition (ii**) of adequate support corresponds to the tracking ratio condition of NIK. He himself recognizes the implications of this similarity when he summarizes his theory saying: "In other words, a belief tracks the truth when it provides adequate support for its truth" [p. 118]. Conversely, one could say that *E* provides adequate support for *H* when *E* tracks the truth of *H*. But then, there is a truth-tracking condition, and hence a sensitivity condition, in his analysis of IK, contrary to his explicit intentions to keep sensitivity out of the analysis of IK.

Nevertheless, the aforementioned truth-tracking condition implicit in his account of IK is not *exactly* the same as the truth-tracking condition in NIK. Whereas the truth-tracking condition in NIK requires that the *belief that A*

tracks the truth of *A*, the truth-tracking condition in IK requires that the *evidence E* tracks the truth of *H*. There are two differences between these two tracking conditions. First, in the NIK one, but not in the IK one, it is a *belief* that is required to track the truth; and second, the truth it is required to track is the truth of *its own content*, whereas in the IK condition it is an evidential *proposition E* that is required to track the truth of a *distinct content H*.

However, the first of those differences disappears if we consider the similarity between the truth-tracking condition in NIK with another condition, besides (ii*) and (ii**), that Zalabardo imposes on IK:

> PI: *S* can have inferential knowledge of *H* based on the evidence provided by *E* only if *S*'s belief in E confirms *H* [p. 98].

Given that Bel(*E*) confirms *H* only if P(Bel(*E*)/*H*) / P(Bel(*E*)/¬H) is sufficiently high, we can see that *this* ratio is structurally the same as the tracking ratio in condition (i) of NIK:[3] the ratio demanded by PI requires, as much as the tracking ratio in condition (i) of NIK does, that *a belief*, not merely an evidential proposition, tracks the truth. The only remaining difference between the tracking ratio in NIK and the ratio entailed by PI is that the denominator in the tracking ratio in NIK states how sensitive Bel(*A*) is *with respect to A* and its numerator how adherent Bel(*A*) is *with respect to A*, whereas in the ratio entailed by PI its denominator states how sensitive Bel(*E*) is *with respect to H* and its numerator how adherent Bel(*E*) is *with respect to H*. Where NIK requires that Bel(*A*) tracks the truth of the very same proposition believed, i.e. *A*, IK requires that Bel(*E*) tracks the truth of a different proposition, i. e. *H*.

I think that the fact that in Zalabardo's account NIK and IK both contain a truth-tracking condition, should make us wonder if the distinction drawn between them is really fundamental. I do not want to challenge the fact that in his account the two types of knowledge come out as different and independent, they indeed are different and independent: one can have NIK of *p* without having IK of *p*, because one doesn't have any further evidence for *p* but one belief that *p* tracks the truth of *p*, and one can have IK of *p* without having NIK of *p*, in a case where one's belief in *p* is not itself sensitive but one has adequate evidence for *p*. Nevertheless, I still want to say that this independence is not enough to warrant the claim that the two types of knowledge in question are *fundamentally* different. Moreover, I think that Zalabardo's theory teaches us exactly the opposite, that they are *not* fundamentally different, that both types of knowledge work in fundamentally the same way: by truth-tracking. As we have seen, what distinguishes them is which belief is required to track which truth, but I take that not to be a *fundamental* epistemic difference.

The two kinds of knowledge distinguished in Zalabardo's theory are genuinely distinct and independent. It is in virtue of that independence that

IK can perform one of its important functions: help us overcome the (possible) *insensitivity* of Bel(*H*) [p. 64]. In effect, in a case where our Bel(*H*) is insensitive, and therefore cannot be NIK, we can still come to know *H* inferentially on the basis of an evidential proposition *E*. But recall that condition PI on IK ultimately requires that our Bel(*E*) tracks the truth of *H*, which in turn requires that the value of the denominator of P(Bel(*E*)/*H*) / P(Bel(*E*)/¬*H*) be sufficiently low, which means that it requires that Bel(*E*) is sufficiently *sensitive* with respect to *H*.[4] Here we clearly see how IK is capable of playing one of its alleged distinctive functions thanks to an epistemic mechanism that is fundamentally of the same sort that the one operative in a case of NIK: a tracking ratio has to be sufficiently high for the knowledge to arise.

In Zalabardo's theory NIK and IK are two independent kinds of knowledge, but his account, far from helping identify a fundamental difference between them, entails that they are not fundamentally different, that they work in fundamentally the same way. Obviously, IK involves having evidence and NIK doesn't,[5] but if the role of evidence in the achievement of knowledge is explained as yet another instance of the same epistemic mechanism that is present in cases of NIK, then I think we should conclude that NIK and IK are two manifestations of the same fundamental epistemic phenomenon. If one thinks that there is a fundamental epistemic difference between those two types of knowledge, Zalabardo's theory doesn't explain what it is.

## II

But suppose we don't believe there is a fundamental distinction between NIK and IK and rest content with the distinction between those two types that Zalabardo's theory enables us to appreciate. In this section I want to argue that we cannot rest content with Zalabardo's distinction, because it easily permits distortions in the classification of cases. In particular, there are cases that look like prototypes of NIK, if they are cases of knowledge at all, that with ease Zalabardo renders as cases of IK. I will illustrate this phenomenon with two specific examples and then explain what I think are the general consequences for his overall theory of his procedure in such specific cases.

The two examples I will consider are examples that are problematic for Nozick's original truth-tracking account, to the extent that they are clear cases of knowledge but Nozick's account implies that they are not knowledge at all. Zalabardo thinks that a virtue of his account is that it is capable, unlike Nozick's, of classifying the problematic cases as cases of knowledge. However, Zalabardo's account achieves this by classifying the cases as cases of *inferential* knowledge, where the cases look like cases of *non-inferential*

knowledge. Hence, his strategy involves a distortion of the epistemic nature of the cases.

In what follows I will leave on the side why exactly the cases are problematic for Nozick's account, and concentrate on Zalabardo's way of handling them.

> *Example* 1: "A grandmother *sees* her grandson is well when he comes to visit; but if he were sick or dead, others would tell her he was well to spare her upset" [Nozick (1981), p. 179. My emphasis].

Given that the grandmother's belief doesn't track the truth, because its tracking ratio is 0, Zalabardo cannot classify it as a case of NIK, that's why he is forced to classify it as a case of IK:

> [We have to find]… a proposition that represents the grandmother evidence…. A proposition *E* describing the grandson's visit and his appearance on that occasion will do the job. *E* will provide adequate support for the proposition that the grandson is well (WELL), since both [P(*E*/WELL) / P(*E*/¬WELL)] and P(WELL/*E*) can be expected to be high. In addition, the grandmother can be expected to know *E*, as well as the evidential connection between *E* and WELL – she knows that looking as he did denotes good health. Finally, *E*'s support for WELL is clearly not misplaced, and it doesn't violate PI: she is more likely to believe E if her grandson is well than if he isn't. The grandmother's belief is a case of inferential knowledge that doesn't track the truth. We are going to see that we can apply the same strategy to other problematic cases [p.126].

> *Example* 2: Oscar *sees* that there is a dog before him (DOG) and thereby comes to know perceptually (DOG). But just as the grandmother's belief, this belief in DOG doesn't track the truth because Oscar is prone to mistake hyenas for dogs, and so if there were a hyena instead of a DOG, he would still believe that there is a dog in front of him (and the probability that if there were not a dog, there would be a hyena is not negligible).

Given that Oscar's belief doesn't track the truth, because its tracking ratio is close to 0, Zalabardo cannot classify it as a case of NIK, he applies again his strategy of reconstructing it as a case of IK:

> [Consider the proposition]…. 'a four-legged, floopy-eared, friendly animal with short fur, short legs, disproportionately long body, wagging tail, etc., etc.'…. Let me abbreviate the proposition that a creature with these features is before Oscar as DACHSHUNDLIKE. The proposal is that Oscar knows DOG inferentially

> on the basis of evidence provided by DACHSHUNDLIKE, which he knows, in turn, by truth tracking [p.127].

Zalabardo explains how all the required support connections between DACHSHUNDLIKE and DOG obtain, plus the remaining conditions demanded by his analysis of IK are fulfilled, and therefore Oscar knows inferentially DOG.

It is important to emphasize that these two cases, as initially described, are cases of unaided perceptual knowledge: the grandmother and Oscar *see* to be the case *exactly the same thing* that they thereby come to know to be the case. If they know what they do they know it non-inferentially, that is, not by knowing *other propositions* on the basis of which they come to know what they do, but just by being directly acquainted with what they thereby come to know. I think Zalabardo's theory does not respect these facts because it depicts the cases as ones where the appearance of things plays an evidential role, acting as an epistemic intermediary between the believers and how things are.

I agree that such evidential retreat to appearances can be part of the nature of a case, but it is not clear to me that it is part of the nature of the two examples as initially described. For example, when one has doubts that the thing one seems to see is really of the kind it appears to be, one might go cautious and take the way it looks explicitly as a reason among others to believe that it is the way it appears to be. In this sort of case I agree that appearances do play an evidential role and that the knowledge of the thing that arises, if it does, is inferential. But it is not part of the description of the two examples above that the believers have doubts of that sort. For example, the grandmother is not described as having doubts about the health of his grandson *when she sees him*. Zalabardo needs to do much more to convince us that in the examples he considers appearances indeed play the evidential role that he says they do, without saying more the claim that they do looks like a distortion of the epistemic nature of the cases.

I am *not* objecting to Zalabardo's account that it distorts the grandmother and the Oscar cases because it depicts the subjects as performing a *conscious inference* from the way things appear to be to the way things are, a process of inference that lacks psychological reality. His account is not distorting in that way.[6] What I'm objecting has nothing to do with the *psychological relations* that might exist between beliefs about appearances of things and beliefs about things, it rather concerns the *epistemic relations* that Zalabardo thinks exist between those beliefs. My objection is simply that he hasn't given us a reason to accept that the propositions about the appearance of things play the evidential role that he claims for them, and without that reason his claim looks like a distortion of the cases.

Perhaps Zalabardo can reply that we *have to* accept his reconstruction of the cases as cases of IK, for otherwise we will not be able to classify them

as cases of knowledge *at all*. Given that the beliefs in those cases do not track the truth they cannot be cases of NIK, if the cases are not reconstructed as ones of IK, then they are lost as cases of knowledge altogether, contrary to what intuition says. The problem with this reply is that the dictate of intuition is not just that the cases are cases of *knowledge*, leaving open whether they are cases of NIK or IK, its full dictate is that they are cases of *non-inferential knowledge*. The fact that Zalabardo's theory is incapable of saving this full dictate of intuition shows, I think, that it is incomplete. The difficulty that the above examples help to bring out is *not* that we have to choose between losing them as cases of knowledge altogether or accept Zalabardo's reconstruction of them as cases of IK, but rather that the class of beliefs that track the truth and the class of beliefs that are cases of NIK do not coincide.[7]

There is a second problem with Zalabardo's strategy in handling the above examples. The strategy of reconstructing the cases as ones of IK is designed to apply to cases where there is a belief that *doesn't* track the truth but is clearly a case of knowledge. However, it is not clear what could prevent us from extending that type of reconstruction beyond the class of these problematic cases into cases that *actually track the truth*, for in all such cases it seems always possible to find the sort of evidential propositions and the sort of evidential connections between them and the belief of the subject, that Zalabardo finds in the grandmother and the Oscar cases and that renders them cases of IK.

I don't have a general proof of this but we can go piecemeal and check that in many cases where a Bel(*A*) *does track the truth*, we can find a proposition *E*, for example comprising the appearances that lead one to believe *A*, such that it provides adequate support for Bel(*A*), the support that *E* gives to Bel(*A*) is not misplaced and it also complies with condition PI. Those cases will fulfil all of Zalabardo's conditions for *both* NIK and IK, but then, to which category do these cases belong? Zalabardo's strategy not only seems to distort the epistemic nature of some specific cases that are problematic for truth-tracking accounts, but also seems to cause a sort of generalized uncertainty as to how to classify many cases whose classification should not be problematic.

## III. Conclusions

When one starts reading Zalabardo's book, one gets the impression that the fundamental difference between NIK and IK that his theory will account for is that truth-tracking is the essence of NIK, but not of IK, and that evidence is the essence of IK, but not of NIK. As I've explained, things do not turn out to be quite like that.

Although IK of *A* does not require that Bel(*A*) tracks the truth, it nevertheless requires that one's belief in the evidence for *A*, Bel(*E*), does track the truth of A; this is what his condition PI on IK demands. What one thought to be the distinctive nature of NIK, i.e. truth-tracking, turns out to be also involved in IK.

Although NIK of *A* does not require that one possesses independent evidence that provides adequate support for Bel(*A*), it nevertheless requires that one's Bel(*A*) provides adequate support for its own content, this is entailed by the structural isomorphism between his definition of adequate support and his conditions for a belief to track the truth. What one thought to be the distinctive nature of IK, i.e. evidential adequate support, turns out to be also involved in NIK.

For Zalabardo knowledge is, first and foremost, *protection from risk of error*, given this conception of what knowledge is it should not come as a surprise that in his theory all kinds of knowledge work in fundamentally the same epistemic way: by one instantiation or another of truth tracking, for in what way can one be protected from error other than by tracking success?

Zalabardo's distinction not only doesn't help to see whatever fundamental epistemic difference there might be between NIK and IK, I also argued that it permits the reconstruction of many cases of NIK as cases of IK, it is consistent with finding in many cases of NIK all the ingredients necessary to make them be cases that satisfy all the conditions for IK. I take it that the correct distinction between IK and NIK should not allow for such facile and distorting reconstructions.

I believe that one of the many important lessons that one can learn from Zalabardo's book is that drawing the correct line between NIK and IK in a principled way is a task much harder than it might look.*

*Instituto de Investigaciones Filosóficas/UNAM*
*Circuito Maestro Mario de la Cueva s/n*
*Ciudad Universitaria, Coyoacán*
*México, DF, C.P. 04510, México*
*E-Mail: mafv@filosoficas.unam.mx*

NOTES

* This paper was written thanks to the financial support of research project PAPIIT – IN400513, "Conocimiento y Escepticismo", granted by DGAPA-UNAM.

[1] All page references without name of author are to Zalabardo, José. *Scepticism and Reliable Belief*, Oxford, Oxford University Press, 2013.

[2] In saying this, for the sake of simplicity, I am ignoring the fact that in Zalabardo's epistemology there is another species of non-inferential knowledge, i.e. "knowledge by default", [*cf.* pp. 136-9], which does not meet the conditions (i) and (ii) I have just identified in the main text. Putting knowledge by default on the side has no consequences for the criticisms I will make.

[3] The other condition for Bel(*E*) to confirm *H* is that P(*H*/Bel(*E*)) is sufficiently high, which exactly mirrors the condition (ii), the safety condition, of NIK. It follows that PI entails a full truth-tracking condition on IK.

[4] Remember that the denominator of a tracking ratio states how *sensitive* the belief is.

[5] However, an implication of Zalabardo's theory is that evidence is also *somehow* involved in NIK. Given his way of defining adequate support as the condition that the evidence tracks the truth of the hypothesis, such definition entails that the truth-tracking condition on NIK is tantamount to the claim that the belief must provide adequate support for its own content: "...on the account of [NIK] that has emerged, knowing *p* non-inferentially requires that your belief provides adequate evidence for *p*. Hence evidence is somehow involved in NIK as well as in IK. To know that *p* requires either possessing or "embodying" adequate evidence for *p*" [p. 119]. Once again, what was supposed to be distinctive of one type of knowledge, in this case evidence in IK, turns out to be also somehow involved in the other type of knowledge.

[6] He explicitly says that in his account "… [an actual] process of conscious inference from *E* to *H* won't be required for inferential knowledge" [p. 87]; that "knowing *p* inferentially doesn't require engaging in an actual process of derivation of *p* from the evidence..." [p. 129].

[7] In a way Zalabardo accepts this because, as I pointed out in footnote 2, he thinks that there is a class of beliefs that are cases of NIK without tracking the truth, they are what he calls "knowledge by default". But evidently, the grandmother and the Oscar cases are *not* cases of knowledge by default. So we can formulate what I'm saying in the main text by saying that those problematic cases suggest that the class of NIK includes *more* than the beliefs that track the truth and the standing beliefs that are knowledge by default.

## REFERENCES

NOZICK, R. (1981), *Philosophical Explanations*, Cambridge, Massachusetts: Harvard University Press.

ZALABARDO, J. (2013), *Scepticism and Reliable Belief*, Oxford: Oxford University Press.

## RESUMEN

Este artículo examina la distinción en conocimiento inferencial (CI) y no inferencial (CNI) que José Zalabardo presenta en su reciente libro *Scepticism and Reliable Belief*. En el artículo se argumenta que la distinción que Zalabardo establece no es satisfactoria, ya que (i), en lugar de capturar una diferencia *fundamental* entre CNI y

CI entraña realmente que ambos tipos de conocimiento funcionan fundamentalmente de la misma manera, y (ii), permite tergiversar reconstrucciones de muchos casos de CNI de modo que aparezcan como casos de CI.

PALABRAS CLAVE: *conocimiento inferencial, conocimiento no inferencial, rastreo de la verdad, evidencia*.

ABSTRACT

This paper examines the distinction between inferential (IK) and non-inferential knowledge (NIK) that José Zalabardo puts forward in his recent book *Scepticism and Reliable Belief*. The paper argues that the distinction he draws is not satisfactory because (i) instead of capturing a *fundamental* difference between NIK and IK, it actually entails that both types of knowledge work in fundamentally the same way, and (ii) it permits distorting reconstructions of many cases of NIK as cases of IK.

KEY WORDS: *Inferential Knowledge, Non-Inferential Knowledge, Truth-Tracking, Evidence*.