

# MICHAEL POLANYI ON IMPLICIT BELIEF SYSTEMS, STABILITY AND TRUTH

Comments on a topic in Chapter 9 and 10 of *Personal Knowledge*<sup>1</sup>

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## ABSTRACT

In this paper I try to analyse and comment on a very important point put forward by M. Polanyi in his *chef d'oeuvre*. In Ch.9 of *Personal Knowledge* Polanyi deals with the problem of implicit belief systems and their aspects of stability. He brings up the Azande belief system as an example of such an implicit system of beliefs. Then he specifies the three aspects of stability exemplified by it. He also brings up examples from modern science to show that the Azande belief system and the modern scientific belief system have and use the same three principles of stability. And thus these principles ensure coherence of the systems and not their respective truth. A much stronger assumption of Polanyi is that there are no principles of doubt that would show which one of the rival belief systems is true and which is false. I will try to discuss and dissolve the problem, namely: on what grounds do we have and what Polanyi does to disqualify the Azande belief system as wrong and the beliefs as mere superstitions.

**Keywords:** implicit beliefs, belief systems, truth, falsity, justification, stability, coherence of beliefs.

In Chapter 9 of *Personal Knowledge* (PK) Polanyi deals with the problem of implicit belief systems and their aspects of stability. He brings up the Azande belief system<sup>2</sup> as an example of such an implicit system of beliefs. Then he specifies the *three aspects of stability* exemplified by it. He describes those particular procedures and methods by which the Azande protect their belief system against the impacts of external criticism and adverse evidence. As Polanyi writes:

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<sup>2</sup> Described by Evans-Prichard in his *Witchcraft, Oracles and Magic among the Azande*, Oxford 1937.

The stability of Zande beliefs is due, in the first place, to the fact that objections to them can be met one by one. This power of a system of implicit beliefs to defeat valid objections one by one, is due to the *circularity* of such systems. [...] A second aspect of stability arises from an automatic expansion of the circle in which an interpretative system operates. It readily supplies elaborations of the system which will cover almost any conceivable eventuality, however embarrassing this may appear at first sight. Scientific theories which possess this self-expanding capacity are sometimes described as *epicyclical* [...] The stability of Zande beliefs is manifested, thirdly, in the way it denies to any rival conceptions the ground in which it might take root. [...] This third defense mechanism of implicit beliefs may be called the principle of *suppressed nucleation*. (Polanyi 1962:288-91, italics MF)

Polanyi then brings up examples from modern (to him contemporary) science to show that Azande belief systems and modern scientific systems have and use the *same three principles of stability*. (Circularity, epicyclicality, suppression of nucleation). But – as Polanyi points out – these principles of stability ensure *coherence* and not truth. A much stronger assumption of Polanyi is that there are no principles of doubt that would show which one of the rival implicit belief systems is right or which is wrong, true or false. (Polanyi 1962:294) As he writes:

I conclude that what earlier philosophers have alluded to by speaking coherence as a criterion of truth is only a criterion of *stability*. It may equally stabilize an erroneous or a true view of the universe. The attribution of truth to any particular stable alternative is a fiduciary act which cannot be analysed in non-committal terms. (Polanyi 1962:294)

There is no principle for discovering who is right and who is wrong when defending his/her own implicit belief system, that is: one's own commitment. (Ibid.) And that:

Our formally declared beliefs can be held to be true in the last resort only because of our logically anterior acceptance of a particular set of terms, from which all our references to reality are constructed. (Polanyi 1962:287)

Nevertheless Polanyi concludes near the end of section 10 of the 9<sup>th</sup> chapter of PK that:

The process of selecting facts for our attention is indeed the same in science as among the Azande; but I believe that science is often right in its application of it, while Azande are quite wrong when using it for protecting their *superstitions*. (Polanyi 1962:294, italics MF)

In what sense, then, are the Azande „wrong” and their beliefs mere „superstitions”? On what ground and in what sense can Polanyi disqualify Azande beliefs as mere superstitions? His answer runs as follows:

[What] I reject ... as superstition, fatuity, extravagance, madness, or mere twaddle, is determined by my own interpretative framework. And different systems of acknowledged competence are separated by a *logical gap*, across which they threaten each other by their persuasive passions. They are *contesting each other's mental existence*. (Polanyi 1962:318-19; italics MF)

Thus for Polanyi, truth or falsity can be decided only *within* a system of beliefs (or conceptual system), the systems themselves are accepted or rejected by those who are committed to them or against them. The *logical gap* separating the systems, does not allow for a logical decision algorithm between them.

This is why according to Polanyi belief and doubt are equivalent. (Polanyi 1962:Ch.9,§2) Both involve personal commitment, a fiduciary act which is *ineliminable* and unjustifiable, because justification (by evidence or inference) exists only *within* the system, the stability and credibility<sup>3</sup> of which are sustained by commitment and maintained by the principles of stability used by the believers. The belief-systems or conceptual schemes can not be justified or falsified for (and by) those who accept or reject them.<sup>4</sup> This is why a Zande-type assertion, like “S. is a witch” is not simply false for a 20<sup>th</sup> century scientist but more than that: a superstition, a crazy assertion, twaddle, something which *can not* be true (nor incidentally) false, like, say: “George Washington was the king of France” or “Water is NaCl”).<sup>5</sup> These types of sentences, like “S. is a witch” can neither be true nor false. They are simply manifestations of a mentality foreign to us and unacceptable as candidates for being true or false. Unlike the statement “Water is NaCl” for the assessment of the truth-value of which we have a standard decision procedure, the assertion “S. is a witch” is rationally undecidable for us as far as its truth-value is concerned. It can only be rejected as nonsense, since there exists no methodological procedure to decide whether somebody is a witch or not. Because the concept of “witch” is (not simply missing but) excluded from our conceptual system. (It is not merely extensionally or incidentally void, like the notion of the “actual king of France”, but also intensionally so.) We do not believe in the existence of witches, we are not committed to a system containing such a belief.

As Polanyi writes:

<sup>3</sup> There is a parallel point in the SSK-type sociology of knowledge. As Barnes and Bloor write: “It is not that all beliefs are equally true or equally false, but that regardless of truth and falsity, the fact of their credibility is to be seen as equally problematic.” (1982:23)

<sup>4</sup> And as it was shown by Quine they are underdetermined by observational experience. And thus by “nature” in itself.

<sup>5</sup> This conception is very similar to Hacking’s notion of „styles of reasoning”. According to Hacking, a style of reasoning is characterized not by what is true and what is false in them, but rather by what is/can be true-or-false.

Cf. I. Hacking 1982.

According to the logic of commitment, *truth is something that can be thought of only by believing it*. It is then improper to speak of another person's mental operation as leading to a true proposition in any other sense than that it leads him to something the speaker himself believes to be true. (Polanyi 1962:305)

He then emphasizes that it is *illegitimate* (not simply wrong) to speak about some proposition as true in itself. (Ibid.) Truth without a believer is nonsense.

But what is this commitment, this fiduciary act which determines acceptance and rejection, belief or doubt? Is it a mere act of faith, a mere arbitrary decision, a mere irrational accident? The fiduciary act is not an irrational decision in Polanyi's view – I think – though it is not rational in the sense of the rationality internal to a given system itself. As Polanyi writes:

The enactment of commitment consists in self-compulsion with universal intent through the interaction of two levels: a higher self, which claims to be more judicious, taking control over a less judicious lower self. (Polanyi 1962:318)

Universal intent – I think – means bearing responsibility for accepting a belief item as a knowledge-claim, putting forward a particular belief as true within a system of beliefs and by that extending and strengthening (not destabilizing) a belief system itself. *Responsibility* is an essentially moral concept, and part of the notion of personality. Commitment to a system of beliefs is really part of one's personality, thus any belief taken to be knowledge is personal knowledge. To be committed to a belief or to a whole system of belief involves responsibility. And to be morally responsible involves to be open to moral assessment or to the judgment of others (the members of one's community) on account of that belief. The commitment means to be responsible for others and for oneself.<sup>6</sup>

But a belief *system* – in Polanyi's sense – is produced, maintained, stabilized and accepted by a given community, that is, by e.g. a scientific or else, by a tribal community, like the Zande people. A *system* of belief belongs to a community, not to any single individual. The individuals may – in different ways and to different extent – *share* the system of beliefs<sup>7</sup>, that conceptual framework which they acquire during their process of socialization. But the epistemic 'owner' of a system of beliefs is

<sup>6</sup> As was argued by P. Hieronymi (2008), one can bear responsibility even for involuntary beliefs. "It turns out, that failing to be voluntary, beliefs are a central example of the sort of thing for which we are most fundamentally responsible." (2008:361)

<sup>7</sup> H. Collins, who has introduced the notion of 'collective tacit knowledge' besides of the explicit one, writes that "...the individual is not the unit of analysis: the individual merely shares the collectivity's knowledge. The special thing about humans is their ability to feast on the cultural blood of the collectivity. [...] We are, in short, parasites, and the one thing about the human brains that we can be sure is special, is the way they afford parasitism in the matter of socially located knowledge." (2010:131)

a community, not an individual person (or a number of independent, detached individuals). A 'private belief system' if it remains completely subjective and idiosyncratic, would be considered as a simple individual system of delusion, a manifestation of madness. On the other hand, if a system of beliefs is accepted by a community but the individual knower, the knowing person is not committed to it or tries to detach him/herself (by withdrawing his/her personal commitment) from it, the person's knowledge-claims are considered (by positivist philosophers) to be completely *objective*. But this is according to Polanyi like a truth without a believer, or an unsigned cheque – mentioned in the above quotation.

For if the active participation of the philosopher in meaning what he says is regarded by it as a defect which precludes the achievement of objective validity, it must reject itself by these standards [...] While impersonal meaning is self-contradictory, the justification is self-justifying, if only it admits its own personal character. (Polanyi 1962:253)

But if both the personal commitment and the universal intention (the recommendation for acceptance to the whole community) are granted on the part of the knower, then his/her knowledge claim, is *personal knowledge* in Polanyi's sense. Universal intent, namely, is the intention to recommend the knowledge-claim, the particular personal belief, for universal acceptance, for inclusion into the communal system of beliefs as a true belief on the part of the knower. As for the concept of the 'personal' as distinct from both the objective and subjective knowledge, let me quote again Polanyi:

I think, we may distinguish between the personal in us, which actively enters into our commitments, and our subjective states, in which we merely endure our feelings. This distinction establishes the conception of the *personal*, which is neither subjective nor objective. In do far as the personal submits to the requirements acknowledged by itself as independent of itself, it is not subjective; but in so far as it is an action guided by individual passions, it is not objective either. It transcends the disjunction between subjective and objective."(Polanyi 1962:300)

And as he adds to this elsewhere:

It is the act of commitment in its full structure that saves personal knowledge from being merely subjective. Intellectual commitment is a responsible decision, in submission to the compelling claims of what in good conscience I conceive to be true. (Polanyi 1962:65)

There is, however, a question left to be answered for Polanyi. Namely: can systems of beliefs themselves be wrong? Or right? Can the notion of 'true/false' be applied

to them? When Polanyi deals with the role of education as a process of internalizing a system of belief of one's own community, he writes:

In learning to speak, every child accepts a culture constructed on the premises of the traditional interpretation of the universe, *rooted in the idiom of the group* to which it was born and every intellectual effort of the educated mind will be made within this framework of reference. Man's whole intellectual life would be thrown away should the interpretative framework be wholly false; he is rational only to the extent to which the conceptions to which he is committed are true. The use of the word 'true' in the preceding sentence is part of a process of re-defining the meaning of truth, so as to make it truer in its own modified sense. (Polanyi 1962:112)

This is, however, not an answer to our former question. It points out nevertheless that it is impossible, on pain of losing one's intellectual achievements and frame of reference, to reject a conceptual framework (rooted in the common idiom) as false from *within the framework*.

But is there any non-arbitrary, non-subjective ground to evaluate conceptual frameworks or systems of belief from *without, from the outside*?

The answer follows almost trivially from the above described Polanyian argument: rejection of frameworks/systems of belief other than ours is not only possible but inevitable. And since each of us is (must be as a human being) committed to one or other system of belief, which are separated by a *logical gap*, there is no way for a formal discussion based on a common ground and a proceeding according to a *common* logical algorithm. Thus, it seems, that Polanyi assumes a very serious kind of incommensurability<sup>8</sup> between and among the different systems of belief. So that the acceptance and rejection is a question of commitment, a fiduciary act, which as he admits is hazardous and may be erroneous. Is this the human predicament? Are all systems on a par, and is the choice among them a mere matter of chance?

I do not think, however, that Polanyi is a relativist. Even though he admits the cognitive fallibility of mankind. But he puts forward a very interesting argument which – I think – can save the cognitive value of even such a system as the Azande witch-beliefs. Let me quote this interesting argument which puts Polanyi's reconstruction of cognitive assessment into a wider perspective:

Though a Zande witch-doctor arguing in terms of the poison-oracle is a clearly rational person, his rationality is altogether deluded. His intellectual system may gain a limited justification within a society which it supplies with a form of leadership and the means for deciding disputes, however unjustly. But as an interpretation of natural experience it is false. (Polanyi 1962:318)

<sup>8</sup> As it was pointed out by Struan Jacobs in his *Polanyi's Presagement of the Incommensurability Concept* (2002)

Now this is the point: systems of belief may serve different purposes and they have to be evaluated accordingly. The belief in the poison-oracle is not a knowledge claim about nature but a means of maintaining social order. And “witch” is *not a natural but a social kind*. The aim and use of the Azande system of belief is not the understanding and control of nature but that of the Zande society. The quest for comparison of the Azande and the modern scientific belief system according their truth value is thus meaningless. Since systems of belief may differ according to their aim and intention, not merely according to their truth value.

## SUMMARY

From the above argument, it follows that according to Polanyi belief *systems cannot be attributed truth values*, only *single beliefs* can be assessed as true or false *within* a given system. The belief systems may not be completely disjunct, there may be beliefs share by different systems, the truth value of which beliefs is the same even though the methods of justification are different in the different systems.

Another consequence is – I think – that there is no single linear scale along which we could order all spacio-temporally different human belief *systems according to their (moral, functional, cognitive or other) value*. The comparison of belief systems is a multi-parameter task, the result of which must accordingly be multi-dimensional (=non linear).

There is, however, a very important question, left untouched by Polanyi as well as in this paper so far. Namely: are there (can there be) internal principles for *de-stabilizing whole belief systems*, not merely some single, particular beliefs within it (like the original Popperian falsification principle of modern science.) Or: the de-stabilizing effects may come only from outside, like in the case of the Aristotelian system which was strongly de-stabilized during the 16<sup>th</sup> century by (among others) the impact of Hermetism, a conceptually and methodologically completely alien system of beliefs. The question is whether there are systems which contain a kind of feed-back mechanism for improving themselves in their cognitive and functional (or other) achievements. (In contrast to the Polanyian positive feed-back, this would be a negative feed-back). Is there thus, a possibility to compare belief-systems according to their self-correcting power, that is, according to the *aspects of in-stability*?

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## REFERENCES

- Barnes, Barry; Bloor, David. 1982. Relativism, Realism and the Sociology of Knowledge. In: *Rationality and Relativism*, ed. M. Hollis, S. Lukes. 21-47. Cambridge, Mass: The MIT Press.
- Békés Vera. 2001. Antropológiai példák Polányi Mihály tudományfilozófiájában. *Polanyiana* 10(1-2):22-43.
- Collins, Harry. 2010. *Tacit and explicit knowledge*. Chicago: Chicago University Press.
- Hieronymi, Pamela. 2008. Responsibility for Believing. *Synthese* 161:357-73.
- Hacking, Ian. 1982. Language, Truth and Reason. In: *Rationality and Relativism*, ed. M. Hollis, S. Lukes. 48-66. Cambridge, Mass: The MIT Press.
- Jacobs, Struan. 2002. Polanyi's Presagement of the Incommensurability Concept. *Studies in His. and Phil. of Sc.* 33:101-16; reprinted in *Polanyiana* 15(1-2):5-20.
- Polanyi, Michael. 1962. *Personal Knowledge*. London: Routledge and Kegan Paul.
- Quine, Willard van Orman. 1975. On the empirically equivalent systems of the world. *Erkenntnis* 9:313-28.