Fundamentalism and Epistemic Authority

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I will discuss three questions in my paper:
1. What are the essential elements of fundamentalism?
2. What is the role of authority as a source of fundamentalism?
3. What is the role of trust in the spreading of fundamentalism?

For each question I will outline a possible answer from a special theoretical point of view.

I. What are the Essential Elements of Fundamentalism?

What is "fundamentalism"? There is an ongoing discussion about this question and many authors insist that fundamentalism is a distinctly present-day phenomenon and thus has to be understood as a reaction to modernity and its impositions (Almond/Appleby/Sivan 2003; Riesebrodt 2000). But the beliefs of contemporary fundamentalists reveal aspects which can be found throughout human history. I think that these general features are especially interesting and that they are connected with each other in a non-contingent way. Therefore I propose a wider characterization which not only encompasses modern phenomena but captures numerous varieties of fundamentalism. Accordingly three attributes are essential:

1. Fundamentalists propagate the supreme value of *salvation-goods* over *worldly goods*: for the ultimate fulfilment of human existence it is important to overcome the obsession with mundane happiness and material utility and to strive instead for eternal redemption and ends which are more valuable than profane satisfaction in the life here and now. The supreme value of salvation-goods justifies almost all sacrifices which are measured only by worldly criteria (Bernholz 2006). Salvation-goods must not necessarily be religious: to realize the mission of world history, the welfare of mankind or cosmic destiny can also gain supreme value in the sense of gaining lexicographic superiority over all inner-worldly aims.

2. Fundamentalists claim that their views are *certain* and that there is no room and necessity for doubt: an essential part of their thinking is their

conviction of the absolute truth and infallibility of their *Weltanschauung* and that critique or discussion of their views is superfluous and a sign of lacking insight or personal weakness. The truth is guaranteed by superior comprehension and higher forms of knowledge, disclosed by divine revelation and holy scriptures, irrefutable theories or charismatic enlightenment.

3. Fundamentalism includes *Manichaeism* and *intolerance*: the world is clearly divided into the good and the bad guys and there is a deep gap between the heroes and the villains – the good guys are *much* better than the bad guys. Consequently, there is no room for tolerance because the bad guys are too bad to be tolerated. That does not necessarily mean that they must be killed or suppressed by violent means – although there may be no strong reasons against such an idea. But it could also mean avoiding contact and strictly isolating the good from the bad.

Such convictions seem to be absurd and repellent and be based on simplified, naive and sometimes bizarre beliefs about the – natural, social and super-natural – world. Nowadays they must be upheld in a world in which alternative views are present which are much better substantiated and have undergone a long process of examination, revision and refinement. "Passions" rather than "reason" seem to guide actors who preach and obey the principles of fundamentalism.

However, it is both theoretically and practically wise not to abandon the assumption of rationality too quickly. *Theoretically* we may get wrong explanations if we attribute the belief in fundamentalist ideas psychologically to an obsession with frantic passions or to a fixation on absurd ideas – when they may in fact emerge as a result of individual rational adaptation to the context of special living conditions. *Practically* we may choose the wrong strategies in dealing with people who believe in fundamentalist ideas when we treat them as barbarians, maniacs or helpless victims of brainwashing and manipulation – when in fact we could influence them by the same kind of measures and factors as people who, for example, believe in the truth of Christianity or modern science.

I, therefore, think that it is worthwhile to discuss the thesis that a belief in fundamentalist views must not necessarily be irrational and unreasonable, but rather that these views can be learned and accepted in the same way as other convictions and beliefs are learned and accepted.

Social Epistemology

To support this thesis one can take as a starting point "social epistemology" (Coady, C.A.J. 1992; Matilal/Chakrabarti 1994; Schmitt 1994)

and an economic theory of knowledge as developed by Russell Hardin (1997; 2009). One of the main theses of these theories states that almost all of our knowledge is acquired not by our own autonomous exploration according to some ideal standards but by relying on information from others. In a modern world with a high degree of division of cognitive labour we are especially dependent on the testimony of experts and specialists whose qualifications cannot directly be judged by us as laypersons. One can indeed call it a "paradox of knowledge" that the more we know collectively, the less we know as individuals (Weber 1946).

From this it follows that the quality of our beliefs is not dependent on the quality of our individual insight but on the quality of collective knowledge acquisition which the single individual influences only marginally. The more society is based on an epistemic division of labour, the more dependent the individuals on sources of knowledge whose reliability they can hardly evaluate themselves.

It is a consequence of this fact that a mismatch between individual and collective rationality is possible: individuals could be epistemically perfectly rational in a social system of abundant epistemic irrationality. The individual belief in objectively wrong assumptions can accompany rationality and reasonableness on the side of the individual. To have wrong insights is not automatically the result of irrational behaviour. Whether individual rationality results in true beliefs is to a large extent dependent on external conditions which are beyond the control of the single individual.

To prevent misunderstandings, I want to make clear that my thesis that fundamental beliefs can be rationally explained does not imply a relativistic position or the assumption that all our knowledge is "subjective" because it is socially constructed. I believe instead that there are objectively valid standards about right and wrong and that modern sciences have developed insights which are "true" and justified according to these standards. The comparative superiority of science I take as granted. I also believe that fundamentalist convictions like "creationism", the objective truth of scripture, the Manichaen differentiation of the world in good and bad are objectively wrong and *indeed* absurd. So I must not necessarily respect fundamentalism as equally valid or legitimate compared with other, more scientific and enlightened world views to acknowledge that people who believe in fundamentalism could do this out of rational reasons.

If, in the case of modern science, subjective rationality coincides with objective rationality, it is because of the rationality of social knowledge

production on a collective level. In an open and liberal society with a highly competitive system of science, "absurd" and questionable claims by experts and authorities are contradicted by dissenting experts and authorities, scientific hypotheses and theories are systematically contested and scrutinized, the achievements and failures of science and technology as well as the controversies between scientists are checked and reported by independent and professional media and also by many different kinds of ordinary people. All this information influences the convictions and opinions of individuals and prevents them from trusting charlatans and false prophets and believing one-sided and selective world-views.

But the fact that individuals live in an environment which provides them with these kinds of institutions and information is not an outcome of their individually rational strategies of knowledge acquisition. The opposite is true: the outcome of their individually rational strategies of knowledge acquisition is dependent on the "epistemic environment" in which the individuals live and seek orientation.

Therefore, under certain empirical conditions, people may adopt a corpus of beliefs which may seem absurd from an external point of view – but it is possible that under these conditions individuals who believe in "fundamentalist truths" do not behave more irrationally than individuals who believe in the "enlightened" world view of our society. The task would then be to specify the conditions under which fundamentalist views can be explained as a result of individually rational adaptation to a deficient epistemic environment. By this I do not want to claim a priori that, in fact, all fundamentalist convictions can in all aspects be rationally explained. I try to exemplify the main conditions under which such an explanation would be possible (Baurmann 2007a; 2008a). We have to look whether and to what degree these conditions are actually fulfilled in a concrete empirical case. By this procedure, we can measure in how far and in which respects real instances of fundamentalism could be explained as outcomes of rational belief formation and in which situations do we have to consider irrational influences.

II. What is the Role of Authority as a Source of Fundamentalism?

If one starts from the insight that almost all of our knowledge is acquired by relying on information from others then one promising approach to explaining fundamentalist beliefs would be to explain them as having been adopted from certain epistemic authorities. This would

suggest focusing primarily on the ordinary members of a group who accept the views of their authorities and leaders – not on the authorities and leaders themselves. I do not aim at explaining the emergence of fundamentalist views as such and the motives and beliefs of the people who develop and proclaim these views. Such an explanation would, in my opinion, have to consider quite different objective and subjective factors.

The aim is, therefore, to show that fundamentalist views could, under specified conditions, be rationally explained as an adoption of the views of certain authorities thus following the same pattern as the adoption of other kinds of views of other authorities under different conditions.

The fact that fundamentalist beliefs may be adopted from authority-figures, not as a result of autonomous reasoning and deliberation is *not* per se an indicator of the irrationality of the believer. To accept testimony of epistemic authorities believed to possess superior competence is nothing dubious or questionable. On the contrary, deference to epistemic authority is a necessary part of human living in general and is especially indispensable in a modern, science-based society with an advanced division of cognitive labour (Fricker 1998; Manor 1995). To rely on special expertise could be rationally justified in theoretical as well as practical matters. Also in ideological, political, ethical or religious issues the competence and resources of individuals to get substantiated insights are limited and it would be a hopeless venture to try and become well-informed and competent in all these fields. Therefore, it can be a perfectly rational decision, for example, for an accomplished physicist not to invest his scarce resources in also becoming an expert in religion but to adopt the judgement of an acknowledged religious authority in these matters.

But, of course, this does not implicate that the relationship of fundamentalist believers to their authorities and leaders will necessarily have a rational basis. It is useful to contrast two alternative types of authority here: the *paternalistic* type with the *expert* type (I owe this useful distinction to Edna Ullmann-Margalit).

Paternalistic authority is built on the model of God or father. Followers of paternalist authority believe that the authority knows what is best for them, that it wants what is best for them and that it makes decisions on their behalf. It is symptomatic that paternalistic authorities exploit the father-metaphor to transfer the naturalness and legitimacy of the father's authority to the relationship between master and subordinates. Thus a paternalistic pattern of authority involves a relation of near-ownership:

the follower belongs to the authority in much the same way that children belong to their fathers.

If fundamentalist authorities equal paternalistic authorities, an adoption of their views by their followers cannot be explained as a rational process. We may instead have to explore psychological mechanisms which can explain how fear of a despot can be transformed into trustful obedience and submission, or existential dependency into loyalty and devotion.

Accepting *expert authority* also includes believing that the authority knows better, that it is benevolent and – if it is regarded as an authority in practical matters – makes decisions on the behalf of others. But unlike the deference to paternalistic authority, the deference to expert authority can be based on reason and rational insight and must not resort to the father-metaphor to assure legitimacy and obedience

This assumption presupposes a crucial premise: that ordinary people can rationally judge the epistemic reliability of expert authorities even though they are not able to fully understand the special competences and arcane insights of these experts. So, how can laypersons evaluate the epistemic quality of a source of knowledge in an area in which they cannot judge the knowledge itself?

Scientific Authorities and Laypersons

It is helpful here to use a differentiation made by Alvin Goldman. He makes a distinction between *esoteric* and *exoteric* statements by experts (2001: 94ff.). According to this distinction esoteric statements belong to the sphere of expertise which is opaque for laypersons and which they therefore cannot evaluate: for example the statement that a certain blood examination reveals a specific illness. On the other hand, exoteric statements are statements which are comprehensible for laypersons and whose truth-value they can judge: for example the prediction that a certain kind of therapy will cure an illness. Whereas laypersons cannot assess the quality of an expert's competence by the quality of his esoteric statements, they have evidence of this quality by the quality of his exoteric statements: successful therapies are indicators of the competence of a doctor and the quality of medical science whereas failing therapies are indicators either of the incompetence of the doctor and/or the deficiencies of medicine as a science. In the case of a confirmation of exoteric statements the layperson can infer that only people who master these esoteric statements are also able to produce successful exoteric statements.

Scientific disciplines with a direct connection to technology or other practical applications – like physics, chemistry or medicine – produce as an outcome huge numbers of exoteric statements which can be verified or falsified by almost everyone: the claim that airplanes fly, generating plants produce power, cars drive, computers calculate, technical instruments repair malfunctions or tablets cure are checked in the everyday practice of a technology- and science-based society by the countless uses and applications of the devices and tools of modern society. Exoteric statements cannot only be checked by laypersons to establish in how far they correspond with reality, they can also be checked by laypersons in regard to their coherence with each other (Coady, D. 2006; Thagard 2005).

So all in all laypersons can and in modern societies do have relevant evidence to assess the quality of science and technology and thereby of the competence of scientific experts. Their trust in science is not pure faith. Of course, laypersons do not scrutinize the exoteric statements of science and its technological performance themselves by means of scientific methods. When they check whether exoteric statements of science correspond to reality, then it is with the yardstick of common sense (Hardin 1992; Lipton 1998). But to base decisions and convictions on common sense is not wrong or unreasonable if that is all we can have at reasonable costs. That does not mean at all that evidence which underlies common sense plausibility must be weak – in fact, it can be very strong and even overwhelming, as in the case of modern science and technology.

However, it seems to be not very surprising that laypersons have good reasons to be convinced of the superior competence and knowledge of scientists. But how can it be the case that people can equally be rationally justified to rely on authorities who present themselves as "preachers of fundamentalism"? How could it ever be rationally justified from a subjective point of view to believe in the truth of an ideology which demands the sacrifice of worldly interests, the exclusive devotion to airy, transcendental goods and the firm hope for eternal salvation – or, to put it in the context of our considerations: how could it ever be rationally justified for a sound individual to believe in the epistemic competence and the superior knowledge of an authority who proclaims such ludicrous ideas?

Ideological Authorities and Laypersons

The crucial point here is as in the case of scientific experts the question of how ordinary people and laypersons can assess the reliability of epistemic authorities if they lack the special competence which these

authorities claim to have. In regard to the assessment of competence in ideological matters, an additional restriction applies: although experts in religious matters, for example, do produce exoteric statements which can be understood by laypersons – there is an afterlife, the kingdom of Christ will come, God is almighty –, there is no reliable and unambiguous method to test statements of this kind and, especially for laypersons, there is no easy way to judge the rightness or wrongness of such claims on the basis of everyday experiences and common sense. They are not exoteric statements that can be easily refuted or confirmed by reference to hard facts. This is largely different in the case of experts whose competence can be more or less directly inferred from the success or failure of technical devices or empirical prognoses.

But although the evidence for and against the competence of experts in ideology and faith is considerably weaker than in the case of scientists and engineers, it is not negligible and can also provide a basis for a reasonable and pragmatically sound judgement. There is a direct and an indirect way of assessing the competence and reliability of ideological authorities. The indirect way is of special importance as direct proofs of the quality of an ideology are of limited significance. Indirectly I can assess the abilities of ideological authorities in mainly three dimensions.

Firstly, I can consider their position and performance in society. If ideological authorities and experts have a high status in the social hierarchy, if they are successful economically and politically, if they are able military strategists or reveal "charisma" as opinion leaders, then these facts are indirect indicators that their ideology, their ideas and world views may also have substance and validity as they seemingly provide useful and effective guidance in life.

Secondly, experts in ideology can be educated in the same kind of institutions as authorities whose epistemic competence and reliability are proved and undoubted. Experts in ethics, for example, in our societies normally have studied philosophy, law or theology at universities which entailed an intensive acquisition of knowledge and a systematic education of their cognitive abilities comparable to the study of physics or chemistry. The conclusion, therefore, seems to be plausible that, if the superior competence of scientific authorities who I am justified to trust can be traced back to their education at universities, I have good reasons to believe that also philosophers, jurists or theologians have acquired superior competence and are reliable as epistemic authorities in their particular fields.

Thirdly, persons who claim a special authority in ideological matters could display exceptional competences and personal characteristics in

other areas which are verifiable and in some way linked to their ideological views and convictions. They may have an extraordinary ability to solve conflicts and quarrels, to muster social support for the poor and needy, to give good advice in difficult situations or to find the appropriate words to comfort and reconcile. Additionally they may demonstrate a special degree of personal courage, honesty, integrity and steadfastness. The assumption that personal attitudes and traits of these kinds are in some way influenced and determined by the world views and the creed of an individual is not unfounded.

Proponents of fundamentalist views can and sometimes do in fact fulfil all of these conditions. They can be charismatic figures being socially, economically and politically successful and may rise to the top of the societal hierarchy, they can have a high standard of education and professionalism – there are theologians, engineers, doctors and physicists among them – and they can reveal exceptional abilities as social leaders and mediators as well as extraordinary qualities of character. The more and the better persons with fundamentalist views perform in these different dimensions, the more it is justified from the perspective of an ordinary member of a group to attribute also superior epistemic authority to them – and the more they have reason also to adopt their fundamentalist views.

Common Sense Plausibility of Fundamentalism

There is also a more direct assessment of fundamentalist views possible. Ideologies produce many exoteric statements which, as I said, are understandable with common sense even if there is no simple way to verify or falsify them. That also holds true for fundamentalist views: it is not hard to understand that you should value salvation-goods higher than worldly goods, that something is claimed as irrefutable and that the world is divided into good and bad – but the validity of these statements is not a simple matter of fact and ordinary persons usually will not have the ability, the knowledge and the resources to examine their truth and the framework of background assumptions thoroughly. But that does not mean that they also have to abstain from judging the common sense plausibility of fundamentalist views or their pragmatic usefulness and practical relevance.

From this perspective the proclamation of the supreme value of salvation-goods over worldly goods will have a chance to impress people and to correspond to their experience if they actually live in a “vale of

tears", in a desperate social, political or economic situation which offers no realistic hope for the future and for a better or decent life. Under such conditions the propagation of salvation-goods instead of unachievable material goods, the promise of redemption from all worldly hardship, the prospect of a better existence in the afterlife or the personal fulfilment in the service of unchangeable laws of history may be welcomed and appear plausible as an alternative to a miserable reality and its inescapability and hopelessness – at least a bet on their truth may seem better than a bet on an improvement of the actual living conditions. But a higher ranking of salvation-goods in relation to worldly goods may not only appear plausible against a backdrop of bleak misery. It could also be convincing in a situation of "relative deprivation" in which a group of people find themselves constantly excluded from important and valuable goods and positions, or even in a situation in which people are personally disgusted by the "shallowness" and "emptiness" of a culture of materialism and consumerism.

The claimed certainty and infallibility of fundamentalist views and principles will appear as an important and desired feature if people see themselves in a situation in which action is of urgent necessity and crucial decisions have to be taken: whether to begin a war or an insurrection, whether to react in face of suppression or attack, whether to launch terrorist assaults or whether to withdraw completely from normal life. In situations like these the stakes are high and uncertainty and fickleness are hard to accept. The offer of certainty and security is an attractive option under such circumstances. However, also in this respect the attraction of fundamentalist views is not only fuelled by dramatic and extreme conditions. Due to personal idiosyncrasies people in a peaceful and well-ordered society can already experience everyday decision costs on the basis of refutable assumptions and preliminary knowledge as being unbearable high. They will possibly develop strong incentives to look for and appraise "better", less insecure and less sceptical world views.

The Manichaeism of fundamentalist positions and the lack of tolerance for people who think and act differently will be the more plausible, the more the reality is one of conflict and war, hostility and hatred. If I am entrenched in a fierce struggle with another group and the fight is a matter of life and death, then there is no room for tolerance, and the view that either the good or the bad will prevail seems to be the only way to see things realistically. But, as in the other cases, here too can moderate versions of antagonistic relations add to the plausibility of the Manichaen classification of the world. Even without hostile acts and open aggres-

sion can the fact of irreconcilable life-styles, emotional aversion and deep gaps between the values and norms of groups feed the conviction that there must be an essential difference between people with the right attitude and people with the wrong attitude towards the world.

Last but not least "monks and martyrs" among the fundamentalist believers can produce additional evidence. Fundamentalist views are extreme views and are seen by outsiders as absurd and bizarre – a fact that is known by many followers of fundamentalist ideas themselves. Therefore, it is important for internal reassurance that the power of these ideas is demonstrated as impressively as possible. What could be a better proof of fundamentalist convictions than people who as "monks" or "martyrs" demonstrate convincingly that they do indeed reject worldly happiness and material satisfaction and instead choose the promise of eternal redemption in the afterlife? Their sincerity and the power of their beliefs seem to be beyond doubt. (How a rational explanation of their becoming monks and martyrs is possible is not my subject here, but compare the insightful book of Rodney Stark 1996).

If all supporting conditions are fulfilled, the common sense plausibility of fundamentalist views seems to be quite strong. In fact, it seems to be no weaker than a crude materialist position which postulates worldly goods and pleasures as exclusive values for life, takes a thoroughly relativist or nihilist stance in regard to all convictions and is ready to accept and tolerate everything and everyone. If such a simplistic materialism is judged by the common sense of people who have the luck to live in economic abundance, in safety, freedom and peace, it may make as much sense to them as the fundamentalist equivalents may make sense to their poor brothers who have the bad luck to live in poverty, uncertainty, bondage and war.

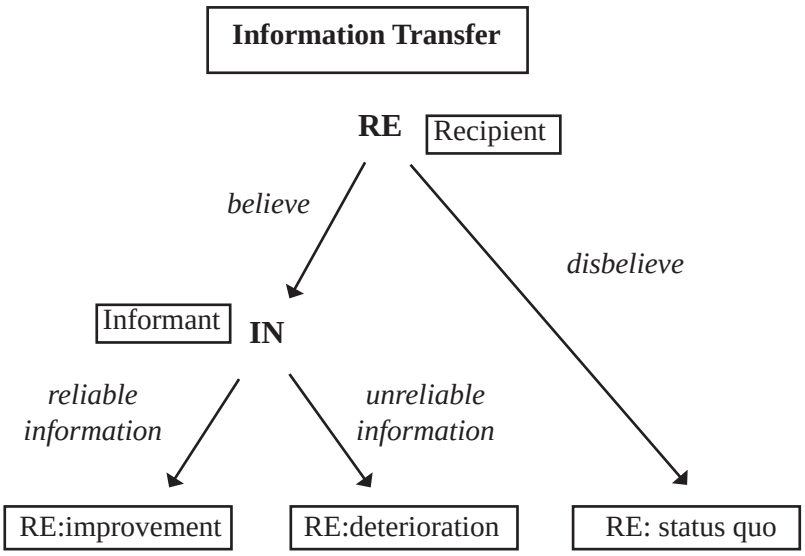
But common sense plausibility of fundamentalist world views is only a necessary condition for a subjectively justified belief in the reliability of fundamentalist authorities. A further factor which is decisive is the kind of *trust* in which fundamentalist authorities and their followers are embedded.

III. What is the Role of Trust in the Spreading of Fundamentalism?

We acquire our knowledge of the things we cannot or do not want to find out ourselves from the testimony of other *persons*. In its generality the statement is true for all contexts: whether we get information in the family or in our circle of friends, in school, college or church, during

vocational training, in our university study, or from media such as books, newspapers, films, radio, television or the internet, whether the transfer of knowledge is mediated by institutions and technical devices or not – and it is true for the case in which people acquire their knowledge from the testimony of fundamentalist authorities.

In the most general form we can, therefore, model the basic structure of knowledge and information transfer as a transaction between two persons, "the recipient (*RE*)" and "the informant (*IN*)".



This simple sequential representation depicts the crucial problem for the recipient *RE*. *RE* can believe the information of *IN*, or *RE* can disbelieve the information. If *RE* disbelieves the information, he remains in the status quo of his current state of knowledge. If *RE* believes the information and the information is true then he expands his knowledge and improves his situation compared to the status quo. However, *RE* by presupposition will not check the truth of *IN's* information himself. So by believing he runs the risk that *IN* will transfer wrong information to him and that his epistemic situation compared to the status quo will deteriorate – *RE* would in this case not only have to do without new information but would believe false information. Therefore, if *RE* believes in *IN's* information he makes himself dependent on *IN's* credibility and becomes vulnerable to *IN's* behaviour. The incentive for *RE* to take this risk is, of course, the potential gain he can realize through solid information from *IN*. The possible incentives for *IN*

are left open in this depiction because they will largely vary with the context and the person.

This short analysis reveals that the basic strategic structure of knowledge transfer can be characterized as a "trust-problem" (Lahno 2002: 25ff.). A trust-problem is embodied in situations in which one person as the "truster" makes himself vulnerable to another person, the "trustee", by an act of "trust-giving". The incentive for the truster to take this risk is the fact that a trust-fulfilment by the trustee would improve the situation of the truster compared with a situation in which he refuses to trust the potential trustee. Situations with trust-problems are universal and significant elements of human co-operation and coordination and their structure is responsible for the fundamental dilemmatic character of social order (Coleman 1990: 175ff.). The prominent features of a trust-problem are also present in an information transfer between a recipient and an informant as analyzed above (Hardwig 1991; Govier 1997: 51ff.). That reveals that the case of knowledge acquirement by testimony is an element of a much larger set of situations which are essential for human interaction and which all exhibit the same exemplary problematical structure.

As a discrimination between credible and suspicious testimony cannot by presupposition be targeted at the verification or falsification of the testified information itself it must be targeted at the testifier: consequently, it will be rationally justified for a recipient to believe in the *truth of the information* from an informant if it is rationally justified for a recipient to believe in the *trustworthiness of the informant* as a source of reliable information. Therefore, a discrimination between credible and suspicious testimony must entail essentially a reference to the general conditions and context-specific factors which are relevant for the epistemic trustworthiness of informants in certain situations and in respect to the subject of their testimony (Fricker 1994; Lehrer 1994). An interplay among at least three sets of factors and conditions is crucial in this respect: a trustworthy informant must be *competent*, he must possess appropriate cognitive and intellectual abilities as well as sufficient external resources to identify the relevant information. *Incentives* as well as their *dispositions* can motivate informants to exhaust their cognitive potentials and to utilize their resources to discover useful information and to transmit their knowledge to the recipients; but incentives and dispositions can also tempt informants to behave opportunistically, to underachieve and to misuse their resources and to deceive recipients with wrong, misleading or useless information.

All in all, it does not seem to be an especially easy task to assess the epistemic trustworthiness of informants. A positive assessment apparently presupposes that informants are possessing appropriate cognitive and intellectual abilities as well as disposing sufficient resources, that extrinsic incentives are not effective enough to motivate opportunistic behaviour at the expense of the recipient or that – if this is the case – dispositions like honesty or conscientiousness are strong enough not only to prevent endogenously motivated misbehaviour but also to overcome the temptations of unfavourable extrinsic incentives.

That does not mean that trust in the reliability of information must be "blind" trust. As already argued, even laypersons have the chance to judge by common sense the epistemic reliability and competence of expert authorities. But further analysis reveals (Baurmann 2007a; 2008a) that trust in expert authorities must be embedded in *social* and *personal trust* if it should have a solid basis. Because even if we presuppose that laypersons can *in principle* judge the epistemic quality and trustworthiness of expert authorities, it does not follow that *individual* laypersons *alone* can do this. Their individual experiences are normally much too limited to justify such a judgement. It must be based on additional information from other laypersons and their experience with expert authorities: the fundamental dependence on testimony is, therefore, *iterated*. What then is the basis for a rationally justified trust in other laypersons as testifiers?

Social Trust

If we look at the social facts, we can uncover a number of rules which incorporate criteria to distinguish those of our ordinary fellow citizens we should trust with regard to certain issues from those we should mistrust – these rules are highly context-dependent and cover a wide range of areas: from trivial everyday questions to religious and social subjects. The criteria of these rules are not specific and clear-cut. They are informal, socially evolved criteria.

These rules lay the foundations for *social trust* and thereby – beside other things – determine the scope and nature of collective knowledge from which an individual can benefit. In this respect a continuous range of possibilities between two extremes exists (Baurmann 1996; 1997): at one extreme, epistemic trustworthiness is attributed in a highly *generalized* form. Rules of such a generalized social trust entail the presumption of epistemic trustworthiness as a default position – accordingly, a recipient should assume that an informant conveys the truth unless there are

special circumstances which defeat this presumption. It is presupposed by a generalized epistemic trust that everyone normally has the epistemic competence in regard to the topic in question and no extrinsic or intrinsic incentives to withhold the truth from others.

The other extreme consists in attributing epistemic trustworthiness in a highly *particularistic* way. Individuals adhere to a particularistic trust if they only trust members of a clearly demarcated group and generally mistrust the members of all other groups. Under this condition, their epistemic sources will be restricted to people who share the distinctive features which separate them from the rest of the world and grant them membership in an exclusive group. Particularistic trust is supported by rules which are the mirror image of those rules which embody a generalized trust: while rules of generalized trust state that one should *trust* everybody unless exceptional circumstances obtain, rules which constitute particularistic trust state that one should *mistrust* everybody with the exception of some specified cases.

For the availability and distribution of knowledge in a community, it is of utmost importance which form of social trust prevails. Generalized social trust in the epistemic sense enables people to utilise a huge reservoir of collective knowledge with low costs. They gain access to a large number of different sources which can provide them with information and insight. That means that individuals can benefit from the experience of a huge number of other people in very diverse contexts and can base their judgements on a broad fundament of facts and data. In a high-trust society the individual will get a lot of information and criticism by happenstance and on the cheap.

Particularistic trust, in contrast, *ceteris paribus* has undesirable consequences from an epistemic point of view. It restricts the chances of individuals to get a solid foundation for their opinion formation. The aggregated collective knowledge on which they could base their judgement of the trustworthiness and the credibility of epistemic authorities and other sources will be severely limited. But particularistic trust not only limits the available knowledge. If the collective knowledge of a particular group entails selective information and one-sided world views, the systematic lack of alternative information and views can not only contribute to an unjustified *mistrust* towards in fact trustworthy persons and institutions, it can also lead to an unjustified *trust* in untrustworthy and unreliable persons and institutions.

If we ask which factors determine the scope of social trust, we are again confronted with an iteration of our problem: the rules of social

trust also embody a kind of knowledge which is hardly at the disposal of one individual alone. Without the experience of others, the assessment of the rules of social trust would be based on thin evidence. As single individuals we cannot acquire sufficient information about the average competence of the members of our society, the incentives they face in different social contexts and situations and the motivations and attitudes they normally possess. To form a reasoned opinion on whether it is justified to trust my fellow citizens or not, I have to know relevant facts about the institutions and the social structure of my community, the ethnic and political composition of the population, possible conflicts between the values and interests of different sub-groups and much more.

Personal Trust

So far I have referred to the fact that individuals have to utilise collective knowledge to place justified trust in experts and their fellow citizens. But this does not mean that there are no situations in which people base their trust on their individual knowledge. If favourable conditions obtain in the relationship to particular persons, individuals can by means of their own evaluation and experience assess whether these persons have competence, what kind of extrinsic incentives effect their behaviour, and what character and dispositions they reveal – we can characterize cases in which we come to trust other persons on such an "individualized" basis as instances of *personal trust*.

The best chances to gain insights which can create this kind of personal trust exist in the context of ongoing and close relationships which produce a lot of information about other persons. But we can have reasoned opinions about the trustworthiness of certain persons even under less favourable conditions. Even if there is no direct relationship with a person but otherwise a regular or intensive flow of information and impressions, I may be in a position to make good guesses at the abilities, the situation and the character of that person. Personal trust must not be reciprocal. I can deeply trust other persons without them even knowing me. I can be the ardent follower of a political or religious leader or be convinced of the trustworthiness of a famous scientist, foreign correspondent or a news moderator. This kind of "detached" personal trust can be well-founded if it is based on sufficient evidence, though even being instantly impressed by the charisma of a person is not per se misleading or irrational. We dispose over a certain ability to intuitively judge trustworthiness and personal integrity – at least to a certain degree (Frank 1992; Baurmann 1996: 65ff.).

The more individuals I trust personally, the broader the potential reservoir of independent information and knowledge I can draw from to judge the validity of social rules and criteria for the credibility and trustworthiness of people, institutions and authorities. This judgement also involves reference to testimony to a large extent – but it is testimony from sources whose quality I can evaluate myself. Therefore, I can ascribe a high "trust-value" to the testified information, so to speak. In these cases my trust is not only based on predetermined rules and their more or less reliable indicators of trustworthiness but on my own – sometimes careful – individual assessment of persons and situations. Information from personal confidants, therefore, often overrides the recommendations of social rules and criteria.

I will also be inclined to ascribe a comparable high trust-value to information which stems from sources whose trustworthiness has not been ascertained by myself, but by the testimony of people I personally trust. In this way it is possible to profit from a more or less widespread network of personal trust relations which is linked together by people who trust each other personally and thus simultaneously function as mutual trust-intermediaries (Coleman 1990: 180ff.). Such trust-networks pool information and knowledge and make them available to the individual at low costs or even for free. They represent important instances of "social capital" (Baurmann 2008; Baurmann/Zintl 2006).

The efficiency of personal trust-networks as information pools is enhanced if the networks transgress the borders of families, groups, communities, classes or races. The more widespread and the larger the scope of trust networks, the more diverse and detailed the information they aggregate. Particularistic networks which only connect people of a certain category or which are very limited in their scope are constantly in danger of producing misleading, partial and one-sided information. The chances of individuals to get from their trust-networks the quality and quantity of information they need to form a realistic and balanced picture of their world is, therefore, largely dependent on the coverage their trust-networks provide.

Trust-networks can remain latent and silent about the established social criteria for epistemic credibility and authority for a long period. Their special importance becomes evident when, for example, under a despotic regime a general mistrust towards all official information prevails. But personal trust-networks also provide fall-back resources in well-ordered societies with usually highly generalized trust in the socially certified epistemic sources (Antony 2006). Under normal circumstances in our

societies we consult books, read newspapers, listen to the news and pay attention to our experts and authorities if we want to learn something about the world. And even when we develop mistrust towards some of our authorities or institutions, we normally do so because we hear suspicious facts from other authorities or institutions. Nevertheless, the ultimate touchstone of my belief in testimony can only be my own judgement. And it makes a great difference whether I can base this judgement only on my own very limited personal information or if I can fall back on the information pool of a widely spread personal network which is independent of socially predetermined criteria for epistemic credibility and authority.

We can conclude that personal trust-networks provide individuals with a pool of independent information about the trustworthiness of other people, groups, institutions, specialists, and political leaders. The rules which guide and determine our social trust and our confidence in authorities and experts can be scrutinized by utilising the collective experience and knowledge which is embodied in our personal trust-networks.

Given the important function of trust-networks as ultimate sources of reliable information and testimony, a systematic restriction of their scope and an arbitrary limitation of their members have serious consequences for the quality of the collective knowledge they incorporate. Exclusive networks that only consist of people who belong to a special and limited group can create a vicious circle with social rules that prescribe particularistic social trust, whereas widespread personal networks can support and strengthen a generalized social trust and can contribute to the validity of individual knowledge. Therefore, the chances that people will get reliable information from their personal networks will be all the greater, the more these networks are open and inclusive.

These insights into the role of common sense and the different and interrelated forms of trust in supporting or eroding our confidence in experts and authorities lead to a quite satisfying picture if we apply them to science and technology in our societies. Science and technology produce a stunning output which can be judged by common sense wisdom and everyday experience. The individual gets relevant information from his own personal experience and from the converging testimony of other laypersons and his fellow citizens. Belief in the truth of this information is embedded in a highly generalized social trust which can, in turn, utilize a large number of informal channels of information and communication. Ultimately the trust in science is supported by personal trust-networks which are typically widespread and inclusive in an open and democratic society.

But, as already mentioned at the beginning of the paper, if in the case of modern science subjective rationality coincides with objective rationality, it is not because the individuals behave rationally but because of the rationality of social knowledge production on a collective level. The same mechanisms on the individual level which in the case of modern science and an open society lead to the rational acceptance of an objectively superior system of knowledge will under different conditions lead to the rational acceptance of an objectively *inferior* and epistemically *deficient* system and its authorities. I think that one can explain by means of quite similar "micro-mechanisms" why, in a certain societal framework, it can be subjectively justified for ordinary people to believe in the trustworthiness of modern science just as well as why, in another societal framework, it can be subjectively justified for them to believe in, for example, the superior epistemic authority of magicians, oracles, men or "gentlemen" (Shapin 1994).

This is possible if – beside an apparent competence of fundamentalist authorities because of the common sense plausibility of fundamentalist views – three additional conditions are fulfilled: if people can only develop a *particularistic trust* and if they live in *epistemic seclusion* and *social isolation*. Under these conditions people can be locked in a "fundamentalist equilibrium" in which particularistic trust, epistemic seclusion, social isolation, and common sense plausibility of fundamentalist beliefs are mutually reinforcing and create an environment in which an acceptance of "fundamentalist truths" is no less rationally justified from a subjective point of view than the belief of individuals in our society in science and technology as the most advanced manifestations of truth and intellectual progress.

Particularistic Trust

I have characterized particularistic trust in contrast to generalized trust as a situation in which people only trust members of a clearly demarcated group and generally mistrust the members of all other groups. Particularistic trust can emerge in a group and become consolidated if this group has alienated, conflict-ridden or hostile relationships to other groups or is even at cold or hot war with them. In such a situation I will have good reasons as a group-member and be rationally justified to distrust the members of the other groups: they will possibly have strong incentives to act against my interests and the interests of my group and to fight, cheat and deceive us systematically. Constellations like these do not only emerge in

situations with dramatic outlook and deep conflicts. If I am member of a cultural sub-group in a society with a provocative deviant life-style I will also experience the fact that benevolence and sympathy towards me will be limited, that the basis of common values and norms may be very thin.

In situations which give rise to particularistic trust, my personal trust-network will quite naturally be strictly limited by the confines of my group. I will observe that only members of my own group are embedded in a sufficiently similar social environment and that only they exhibit the kind of personal commitment which creates a foundation for personal trust-relations. There will be no opportunity to establish such relations with the members of other groups if there is in fact no real basis for trust and confidence. And I do not need to have extraordinary social competence and cultural empathy to recognize that I better not trust my enemy on the battlefield, the agents of an occupying force or public prosecutors who condemn my group, its values and life-style.

In such circumstances my personal experience will be strongly confirmed by the experience and testimony of the members and trust-intermediaries of my trust-network. Our collective knowledge will validate the rule in our society which states that our social trust should be strictly confined to members of our own group. Trust in all its dimensions will be infected: I will not trust the authorities of other groups, my social trust will be strictly limited by the confines of my group and so will be my personal trust-networks – not because of my prejudices, but because of the factual conditions and my real experience.

Epistemically the result will be that my only reliable sources of information will be the individuals who belong exclusively to my particular group. I will only trust them to have the incentives to transfer reliable and useful information and knowledge to me. Under this condition the quality of my personal knowledge depends entirely on the quality of the collective knowledge of my special group. If this public knowledge is deficient, my individual knowledge will be as well – and if this public knowledge is infected with fundamentalist ideology, I will have no access to other sources which I can trust and which probably would offer me divergent and alternative world views.

Epistemic Seclusion

Epistemic seclusion describes a situation in which individuals are systematically cut off from dissenting opinions and are limited to information which uniformly supports and reinforces a selective point of view

– for example the point of view of fundamentalist authorities (Breton/ Dalmazzone 2002). In an open and plural society with a free competition between ideas and world-views, formal and informal institutions for the systematic distribution of these ideas and views and a scientific production of knowledge, fundamentalist beliefs will not remain unchallenged but will be confronted with alternative positions and views. The individual in such a society will get a lot of information without investing many personal resources. Many bits of this information will conflict with a fundamentalist world view and can create doubts, whether the individual believer welcomes these doubts or not. Therefore, faith in the epistemic authority of fundamentalist preachers will be more steadfast if alternative views and information from other sources will not come to the attention of their followers.

The first – and most important – step to achieve epistemic seclusion is to rule out the possibility of an inner-group competition between different world views and their proponents occurring. The group criteria for epistemic authority must single out only one kind of credible source of ideological instruction and alternative sources should at best be absent altogether. A free market of ideas must be prevented. This could be achieved by "simple" measures of information control such as closing channels for information and communication and separating the members of the group from other possibilities by technical means. This must not necessarily happen by force and fraud. It will be sufficient if it is simply too costly to get this kind of information by individual effort.

A further mechanism to fortify the epistemic seclusion of a group is to establish a norm of exclusion by which those individuals who develop dissident views are excluded from the group (Hardin 2002). As a result of such a norm dissenters and less committed members of a group will depart and the epistemic homogeneity of a group will be aggravated and secured by the remaining faithful. The exodus of the weak leaves the steadfast in control. Therefore, in a group with an effective norm of exclusion, "voice" will seldom be heard and it would – in the face of the threat of ostracism – be especially costly and risky.

However, it is possible to consolidate the faith of individuals in the truth of their particular beliefs even when they know that others generally believe differently. Epistemic seclusion could also work by constant reinforcement. Systematic indoctrination is an effective mechanism and an additional device of epistemic seclusion. "Indoctrination" must not necessarily refer to a strategy of "brainwashing" or otherwise thumping beliefs into people by overriding their ability to think and to reason.

Indoctrination could very well address the rationality of people if it consists of a continuous and systematic supply of consistent information and explanation which exclusively support a certain view. For individuals who are confronted with a self-contained *Weltanschauung* which is, so to speak, constantly updated and systematically defended against external critique and attacks, it is not irrational to be influenced in their beliefs by such a form of "information policy".

Social Isolation

In an open and inclusive society I not only by coincidence and free of cost obtain information which may consolidate or shake my general convictions about the world but I also come into contact with a lot of people who may consolidate or shake my convictions especially about my fellow men. I may learn that the rules I once adopted about whom I should trust and whom I should mistrust do not tally with my experience of other people any longer.

But social contacts might not only contribute to correcting wrong perceptions of the world and other people and to preventing epistemic seclusion. They also open up the chance of hostility and conflict, engrained antipathy and mutual hatred being overcome by cooperation and social exchange. Social contacts can create cooperative bonds, reciprocal commitment and elementary trust and can help to trigger positive feelings and to generate common interests (Baurmann 2007b) – and thus thwart essential elements of a fundamentalist view of the world.

Because of this potential of social contact and exchange a decisively helpful instrument for the stabilization of fundamentalist views is the social isolation of the group of believers. This isolation can be a result of external as well as internal forces. If there are already antagonistic and hostile relations to other groups, a certain degree of social isolation will already be existent. It will of its own accord lead to a restriction in the scope of social trust and to exclusive personal trust-relations which reserve social contacts of a certain intensity to other members of the same group.

Social isolation could be effectively corroborated if a social group offers its members an "all-inclusive package" which covers more or less completely all needs and interest from the cradle to the grave. If kindergartens, schools, universities, hospitals, employment possibilities, sports clubs, social associations, newspapers, television programs, nursing homes, social welfare and cemeteries are all supplied by the social group itself – and may be even of a better quality than the external

alternatives – then there is no necessity for the members of a community to leave the context of their own group if they want to enjoy such facilities and institutions.

For the individual members of a group with a high degree of social isolation and an efficient internal supply of social benefits, the exit-costs will easily become prohibitive or exit could even become factually impossible. On the one hand there will be the security and the amenities of their own group and the feelings of solidarity, social embeddedness and commitment. On the other hand there is the threat of contempt and hostility from the members of other groups and a high degree of uncertainty whether and how it would be at all possible to live outside the old group and if the outer world would even accept a dissident. A migration of people in or out of a fundamentalist group will be discouraged and a fluctuation between different groups or an overlapping of group membership will be minimal under such conditions.

IV. Fundamentalist Equilibrium

The more these conditions obtain, the more people will be locked in a "fundamentalist equilibrium" in which the factors conducive to the adoption of fundamentalist beliefs are mutually reinforcing. Social isolation of a group will deepen mistrust towards outsiders and strengthen the relations of particularistic trust to fellow members. It will also contribute further to epistemic seclusion which in turn secures the fundamentalist views. Those views are positively supported by the evidence which stems from social isolation and hostile relationships to other groups, whereas fundamentalist views also deepen the process of social isolation and hostility. A vicious circle will come into effect in which all elements strengthen each other and drive the group down the fundamentalist track.

Of course, fundamentalist ideas themselves can be the crucial factor which starts the whole process and leads as a catalyst to social isolation, aversion and hostility, particularistic trust and epistemic seclusion. But for the members of fundamentalist groups, their stigma and the hostility and contempt of other groups are real and so is the justification of their particularistic trust from their subjective point of view.

The essential message is that the individual follower of fundamentalist authorities can behave subjectively rationally and reasonably. Individuals who adopt the "fundamentalist truths" of their group must not behave more irrationally than individuals in an open society who accept the

"enlightened" world view of *their* culture. The mechanisms are basically the same, while the external conditions differ. Both kinds of individuals trust their authorities on the basis of common sense plausibility, the epistemic rules in their group and the testimony of people whom they trust socially and personally. In both cases the rational justification of their trust is necessarily a pragmatic justification which refers to a "satisfying explanation" in view of the available evidence. It is pure luck for the inhabitants of an open and liberal society that they live under conditions in which they can practise a generalized social trust and obtain the kind of information which harmonize the outcome of their individual epistemic rationality with objective epistemic rationality. But this objective rationality resides in the institutions of modern science and the culture of an open and liberal society and not in the individual rationality of the single citizen.

V. References

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