

13

Concluding Remarks and Pointers

Let us conclude this quite complex book, on the one hand, with some brief considerations, on the other hand, with two short paragraphs pointing to two very relevant and very topical developments: the new frontiers of neuro-science of trust; political dimensions of trust and of its crisis.

13.1 Against Reductionism

As for the general remarks, we hope that our readers have realized that trust is not at all a simple object and notion, but that it is possible and necessary (or at least very useful) to recollect its different aspects, functions, and components in a unitary, integrated, principled, and well-structured frame. This has been our attempt; against a lot of very reductive treatments of trust, due to very limited and *ad hoc* domains or disciplinary interests, or to very rigid formal tools.

We have systematically argued against not just abstraction, simplification, or normativity (very necessary in science), but against deformation and reductionism: arguing, for example, against the reduction of trust to a mere mental attitude without a behavioral or relational component, or to a mere vague feeling without specific thoughts (evaluations, predictions, and so on), or to a mere measure of the frequency of successes, or to mere subjective probability of a favorable event, or just to behavioral reliance, or just to exchange situations and expectation of reciprocation, and so on.

Moreover, it is not at all a question of taking into account all the components and functions, just adding one to the other, but of showing how one property is based on the other, one component is integrated with the others in a precise structure.

Finally, the structural nature of trust should not just be its ‘statics’, but it should also find and justify its ‘dynamics’: how trust increases or decreases, how we build it, how trust propagates, or how it is generalized, instantiated, transferred from one agent or one task/good to another, and so on.

No doubt our solution is still unsatisfactory, but we hope that our readers will be persuaded that this is the right objective: *an explicit anatomy of trust, an integrated and justified model of its ingredients, of their integration, and of how it works*. We do not need just domain specific

‘measures’ of some aspect of trust, or some *ad hoc* technical notion of very limited use; we need a real *theory* of trust. This is the (hard) mission of science.

13.2 Neuro-Trust and the Need for a Theoretical Model

In the last few years a set of studies on the neurobiological evidence of trust have been developed. One of the main claims from Kosfeld *et al.*'s neurobiological approach (Kosfeld *et al.*, 2005) about trust is that trust ‘cannot be captured by beliefs about people’s trustworthiness and risk preference alone, but that social preferences play a key role in trusting behaviour’ (Fehr, 2008). In other words, on the basis of their studies (Kosfeld *et al.*, 2005) there is an important and significant distinction between risk constituted by asocial factors and that based on interpersonal interactions. The thesis would be: by analyzing the neurobiological bases of trust it is shown that a trustor does not decrease the general sensitivity to risk, but on the contrary, this sensitivity seems to be decreased in social interaction.

However, how did they determine the neurobiological bases? They experimented with the trust game (involving real monetary exchanges between two actors playing the roles of trustor and trustee) with two groups of students, one that had received neuropeptide oxytocin and the other that had received an inert placebo. As Fehr writes: ‘the rationale for the experiment originates in evidence indicating that oxytocin plays a key role in certain prosocial approach behaviours in non-human mammals. (...) Based on the animal literature, Kosfeld *et al.* (2005), hypothesized that oxytocin might cause humans to exhibit more behavioural trust as measured in the trust game.’ (Fehr, 2008). In these experiments they also show how oxytocin has a specific effect on social behaviour because it impacts differently on the trustor and the trustee (only in the first case is there a positive influence). In addition, it is also shown that the trustor does not reduce the sensitivity to risk as a general behaviour but as a consequence of the partner nature (human versus not-human).

Following this paradigm we could say that when some social framework is given and perceived by the subject, oxytocin is released in a certain quantity, so modifying the activity of precise regions of the brain and consequently producing a more or less trusting behavior. But, what are the features of that social framework? Is this framework just based on the presence of other humans? And what is the role played by past experiences (for modulating the oxytocin release)? How are the unconscious and spontaneous bias (characterizing the emotional, hot, not rationale trust) related to the conscious deliberative reasoning (characterizing the rational and planned trust)?

The results of this discovery are without doubt quite relevant. But they must be complemented and interlinked with a general cognitive theory of trust. Without this link, without a mediation of more complex structures and functions, we risk that an articulate and multi-dependent concept is trivially translated only in a chemical activation of a specific brain area cutting out all the real complexity of the phenomenon (unable to explain, for example, why, before taking a very difficult decision we think on this for hours, sometimes for days. And how the contribution of the different beliefs impacts on that choice). The fact of individuating and establishing some precise and well defined basic neuro-mechanisms can be considered an important advancement for the brain studies and also for founding the cognitive models of the behaviour. In any case, in our view, they cannot be considered as the only description of the external behaviour (based on more sophisticated, articulated and complex notions

than a mapping of chemical activations), unable of really playing a role in a detailed and 'usable' prediction and description of the phenomenon. Without this mediation (*psychological interpretation*) *localization or biochemistry say nothing*.

For example, in addition to the clear general mechanism established by the study of Kosfeld *et al.* about a social predisposition of trusting behavior based on the oxytocin released, it also seems clear how the differences of the emotional part of trust among human individuals, in the same situation, can be explained by the different physiological functions of these release mechanisms. In our cognitive theory of trust these facts can be taken into account by the role played from the *different thresholds of the model* (one of the few parts that in our model includes the emotional component of trust; see Chapters 3 and 5), where the rationality describes only the macro attitudes (the general trends) and the fine-grained differences are due to the various subjectivities.

At the same time, the role of influence and guide of the rational, deliberative, belief-based process on the final trusting behaviour, also interacting and sometimes overlapping on the release mechanism of oxytocin should be also analyzed. The necessity of a socio-cognitive model of trust for a strict interaction, comparison and guidance (in both directions from the experimental results to the model and viceversa) would be really interesting.

It could be possible to experiment with the different trustor's beliefs on the trustee's basic features, evaluating how these beliefs (about individual willingness, individual competence or class, category, group membership, and so on) influence the trusting behavior of the trustor. The same holds for the dynamical aspect of trust.

In sum, trust cannot be reduced to a simple, vague, unitary notion and activation: it is a complex structure of representations, related feelings, dispositions, decisions, and actions. The analytic (compound) model of this phenomenon should *guide* the brain research, which otherwise looks rather blind, reductive, and merely suggestive.

13.3 Trust, Institutions, Politics (Some Pills of Reflection)

During these years of very serious financial, economic, and social crises 'trust' is every day in the newspaper headlines or in the speeches of political leaders, as the crucial issue of the crisis.

It seems in fact that trust is the engine of socio-economic development: there is a clear awareness from the public institutions, from the social and economic authorities, that trust is the glue of society (see Chapter 9). That if trust decreases to below a particular level, it could compromise some relevant social function (for example, those based on implicit reciprocal trust (see Chapter 4)). So many (public and private) actions are designed, planned and realized to increase it, to elicit individual and collective trust in society.

A particularly interesting case is trust in politics and institutions. As we have said (Chapter 2) trust is structurally based on the achievement of some goal, interest, need, desire, objective, etc. Without this motivational element there can not be trust. In the case of representative and institutional entities, these goals are (or better, should be) relative to collective achievements, public interests, ideal attainments. So the frustration of these achievements over a long duration can have different solutions: all of them explainable through our socio-cognitive model of trust. Let us show this very briefly and in a simplistic way.

A first solution is to attribute the direct responsibility of these failures to a specific political party (or to individual leaders). The result is the change of vote or preference. This is the more likely scenario.

A second solution is to attribute the responsibility of these failures to the external conditions in which the representatives of the people work (the world (global) causes for internal crisis are more often considered as unavoidable causes). So it is necessary to have a redefinition of the goals as achievable in these new contexts.

A third solution is to consider the goal in general as not achievable independently from the specific political party or leader. This kind of attribution can be realized in particular in the cases in which relevant changes and advances are expected with respect to the current social, cultural, economic situation. So there could be a disappointment with respect to the possibility of these changes. There needs to be backing of the social goals and an advancement of the individual ones and a departure from politics and institutions and a re-evaluation of private and individual objectives. The result is a weakening of collective goals, values, principles, of social attainments, with clear consequences on the cooperative and interactive climate. At the same time, given the social intrinsic nature of the environment in which humans live, there will emerge, on the one hand, a disorientation with respect to the identity, the ends both of the single individual and society; on the other hand the need will emerge for alternative social infrastructures and entities, pursuing collective goals (even of small communities).

A concrete example of the attribution of the responsibilities to the context is given in the Italian political situation: the good public-opinion performance of Berlusconi's government in these years of very serious economical and social crisis. One of the reasons for this endurance is precisely the fact that, despite the continuous very bad trends and results, people ascribe them to external circumstances and international factors. The government (with the help of its quasi-monopolistic control of media and thanks to its 'activism' on the media) is able to convey to the public the image of 'doing as much as possible!'. This is actually false (while reading for example the data about the strong increase in tax evasion, or comparing investments in Italy and Germany, or listening to trade unions, Confidustria, or Bank Italia analyses), but what matters obviously is the information and the image: 'We are doing our best! Circumstances are adverse').

On the contrary, the previous government (Prodi) was seriously affected by a trust crisis; not only for having too high expectations, but also because there was a systematic *internal attribution* of all their difficulties and partial successes. This was very much due to the continuous media-communication of disagreements and fights inside government or its majority, a weak decision style, etc. This gave the impression that they (the government and those parties) were inadequate, that any partial success was obvious and not so much due to their ability or commitment, while any retard or failure was definitely due to their internal limits and fragility.

13.3.1 For Italy (All'Italia)

In a recent editorial of an Italian newspaper a journalist was synthesizing the core problem of Italy and of its crisis, with these words: '... *It is a collective disaster, the greater tragedy: we are losing trust, will to fight, hope*'.

Why is losing trust – especially for a country – a big tragedy? And what is the link between will to fight and hope? Maybe, because trust is, on the one hand, the social glue of any

collective and collaborative aspect and action? Of any institution not overwhelmed by fear? Maybe because trust is the oxygen of the individual enterprise?

We hope we have explained this and/or provided the fundamental tools to explain it. We tried to build explicit and operational models to explain the nature of the phenomenon, its subtle relationships, to understand the (mental and interpersonal) backwater ‘processes’ and ‘mechanisms’, which are not easily observable.

What – for example – is the link between trust and ‘*will to fight*’, that is the felt motivation to fight for achieving our own (individual or collective) objective against perceived obstacles and difficulties? The link is rich; on the one hand, I cannot feel sure and be convinced of fighting without some self-trust, some positive expectation of possible success, but also some positive evaluation of me, of my capacity and persistence, some sense of control, the feeling that this result also depends on me (on us) (not on providence or some generous powerful man). Moreover, if this should be a collective effort and result I have to trust the others, their motivation, conviction, self-esteem and their trust in me. There must be reciprocation and collaboration, no betrayal and cowardice. Moreover, I have to trust the fair rules of the social competition, my institutions, legal conditions, of our possibility and willingness to change them. I have to trust possible organizations in this fight, and their leaders. Even some form of trust in the adversaries is needed (except in some form of real war). And so on. Moreover, those trusts are not simply independent and additional; they are circular: the one influencing the other; growing together or crowding down together. Moral dimensions influence the institutional one, and collective atmosphere influences the individual motivation and attitude, and so on. This is the Italian ‘tragedy’.

And what is the link between the crisis of trust and the ‘*perdita*’ (loss) of hope and of a sense of the future? As we have explained, trust (especially trust as decision, counting on, action) entails some ‘hope’, necessarily, as a subcomponent: the positive expectation that those results are possible, will hopefully become true. This is the core of hope in its broadest sense.

References

- Fehr E., On the Economics and Biology of Trust, Technical Report of the Institute for the Study of Labor, no 3895, December 2008.
Kosfeld, M., Heinrichs, M., Zak, P.J., Fischbacher, U. & Fehr, E., Nature 435: 673–676, 2005.