

*Offprint:*

# Trust, Sociality, Selfhood

Edited by

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## Trust in Early Development

*Philippe Rochat*

As a concept, 'trust' captures something foundational of both affective (subjective) and epistemic (objective) experience. Here I will consider trust as the experiential by-product of *an innate propensity to foresee outcomes*. This narrow operational definition allows one to embrace and systematically research trust as an object of empirical studies, not just an object of philosophical and metaphysical investigation.

Psychoanalysts such as Franz Alexander, Erik Erikson, or Donald Winnicott insist that the experience of *trust*, therefore also *distrust*, are foundational to psychic life, shaping personality from the outset of development (cf. Erikson 1993; Winnicott 1989). Current researchers of infant cognition do base much of their findings on the assumption that trust and promises furnish the mind of the young child – considering that most of the very fruitful experimental paradigms used to study infants (i.e., habituation, familiarization, violation of expectation, see Rochat 2001) rest on the fact that from the outset the mind works and grows by constructing grounds for expectations. Trust is indeed, from the very beginning, at the core of psychic life and a central theme of its development.

Trust is an elusive concept, difficult to grasp. Not unlike 'consciousness,' 'emotions' or 'selfhood,' it scares social scientists off because it is too 'soft,' difficult to define, difficult to circumscribe, and to 'operationalize.' Trust seems to cover too much of psychic life: from basic social emotions and affectivity to cognition, morality, the laws, politics, economics, and religion. We trust our wife, the person who sells us fish, the surface we step on, the bills we put on our bank account, the politicians we vote for, the priest we confess to, and the God we place our faith in. We also trust ourselves to not lose our temper and we trust others driving the opposite way at high speed on a highway, not to deviate from their trajectory. We do indeed place a lot of trust in a lot of people and things as we proceed through life. A great variety of experiences across domains refer, one way or another, to *trust* as a concept. The question, however, is whether there is some common ground to this reference. What might cut across the meanings of *trust* in these various domains, and various levels of social-psychic life?

However difficult it is to fathom *trust* as a concept, we have to embrace this difficulty, especially when dealing with the question of what constitutes *sociality* and *selfhood*, the topic of this book. Based on my specialization as someone who observes infants and how they develop, I try to show here that trust is indeed an essential element in psychic life. Without trust there is no development or progress in building coherence and meanings in our lives. More importantly, without trust there is no possible social development, no ethics, no sociality, no construction of shared values or social norms. Trust is indeed at the core of sociality and selfhood. I shall elaborate this point from the perspective of children and their development.

My aim is to show that there is some common conceptual ground to the idea of trust that can be traced back to the outset of human development. As a developmental psychologist, I try to show that trust, as a concept, is deeply rooted both in children's epistemic and social life, developing in particular ways and forms between birth and 5 years of age. These ways and forms trust develops reveal what might be the constitutive elements of what we mean by 'trust' across domains of social-psychic life, the psychological meaning of trust as it emerges in human ontology.

## Defining Trust

What is trust and how can it be operationally defined?

In the common, dictionary sense, 'trust' refers to reliance on the integrity, strength, ability, surety, etc. of a person or thing. There are two cardinal terms in this generic definition: the term 'reliance' and the term 'a person or thing.' Reliance pertains literally to the ability to count on something. In other words, it pertains to an expectation. The second term qualifies the fact that such expectation can pertain to a person, but also to inanimate, physical things, such as the ground, soil, food, a moving object, or any kind of physical, causal events. What this definition leaves open, however, is what aspect of a person or physical thing is actually trusted or relied upon by the 'truster,' or one who trusts. Is it integrity? Strength? Timing? The surety of an outcome, or is it a word given by someone else?

All these questions remain wide open because fundamentally the content of trust depends on context; it is neither absolute, nor singular. This content varies across people, across domains, and across cultures. It also varies across developmental stages, as we will see next.

However, despite the profound relativism and context dependence regarding the content of trust, the basic requirements or mechanisms underlying trust are basically the same: the same invariant and universal properties underlying the phenomenon, however filtered they might be in their expression at various levels of content and complexities.

## Trust and Development

Trust is the stuff of psychic life. I will suggest that trust is expressed from birth, even built in to the behavioral systems newborns become endowed with when encountering the world outside of the womb. The content of trust, hence its specific meaning, however, rapidly changes with experience. It is expressed with various levels of complexity. Nevertheless, once again, the constitutive ingredients of trust are there from the start.

If we define trust in the general sense of 'holding expectations about people and things,' we can say that trust necessitates at its core a future-oriented appreciation of the high probability that something in particular has to in principle happen again, or at least to happen in a certain way or form. At this basic level, trust necessarily entails memory and comparison of what happened in the past and should happen in the future. Trust, in this sense, rests on an anticipation of future events based on past experiences. It entails some understanding of a 'promise,' taken in the most general sense, and assuming that there are of course various levels of understanding of such a promise.<sup>1</sup>

One obvious counterpart of trust as a psychological phenomenon is its contrary: distrust (*la méfiance*). Trust exists because it can also be falsified or contradicted, in addition to simply not existing, or vanishing. Trust and its corollary promise can exist, can not exist, but also can be either confirmed and reinforced, or on the contrary, dismissed and infirmed. In this sense, and because of the possibility of being contradicted and revised, *trust* is at the core of development, central to changes, and in general psychological growth.

One central aspect of child development, in all domains, whether cognitive, social, affective, or emotional, is the process of detecting invariant features among changes. In other words, the main task of the child in development is to construct a familiar and coherent environment that gives room for psychological growth and adaptation. The name of the developmental game is primarily to create stability and unity over constant changes, to construct some mental anchorage for harnessing the constant flux of perceptual experience, be it real or imaginary, what William James called the stream of conscious experience.

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<sup>1</sup> Obviously, the implicit promise and trust expressed in infants' expectations about causal outcomes are incommensurate with those expressed for example in verbal commitments later in development, beyond the infancy period. The former are viewed here as the roots of the latter. The question is: what are the qualitatively distinct levels of trust and promise expressed by children from the outset and how do they unfold in early ontogeny to become the complex, adult-like trust expressed by children from approximately five years of age?

Trust, in the generic sense of probabilistic expectation about people and things, is inseparable from this basic developmental process. The name of the game is indeed for the child, from birth, and as such it will continue through the lifespan, to create trust and corollary promises in a world of experience that is constantly renewed, in flux, revised, and *re-negotiated* based on new outcomes. In other words, the main feature of child development is the creation of *certainty out of uncertainty*, trust and promises of particular future outcomes.

### Epistemic versus Social-Affective Trust

Looking at the literature on child development, we can distinguish two basic domains in the creation of certainty out of uncertainty: certainty creation in the physical domains and certainty creation in the social domain, trust and promises constructed in references to physical objects versus trust and promises constructed by children in relation to people.

The former has been primarily studied by researchers interested in children's development of physical knowledge using fruitful experimental paradigms such as habituation, preferential looking, familiarization, or more to the point: the violation of expectation paradigms where infants are tested in situations where they witness the un-expected, often 'impossible' outcome of a physical event (an object that suddenly vanishes, passes through solid surfaces, or is magically substituted by another). Children's exploration and presumed 'surprise' toward unpredicted or impossible physical outcomes have been extensively used to document core physical knowledge and early cognitive development, from the origin of number concept, object concept, to the knowledge of causality and space (Spelke 1999; Rochat 2001).

The other domain of trust and promises in relation to people rather than physical objects has been essentially considered by psychoanalysts and attachment theorists, such as Erik Erikson (1993), Donald Winnicott (1989), and John Bowlby (1969/1982) who considered the importance of the early construction of affective and social trust toward the primary caretaker (typically the mother), the person becoming for children *the primary object of inner certainty as well as outer predictability in the dispensing of attention and care*.

These two domains of trust development (concerning objects or people) need to be distinguished, one pertaining to object knowledge (epistemic trust), the other to affects and emotions that link the child to people (social-affective trust). Although we will see that both domains can overlap and certainly interfere with one another, they nevertheless correspond to ontologically different kinds of experiences: one with physical and causal

entities (objects), the other with psychological and 'reciprocating' entities (people).<sup>2</sup>

It is important to emphasize that the kind of trust constructed by young children in relation to physical objects is incommensurate with the kind of trust they construct in relation to people. Although both have in common the creation of certainty, the construction of expectations and future-oriented promises in relation to objects has to do with the detection of laws and invariant physical principles, e.g., that objects cannot be at two places at the same time, that they fall down rather than climb up, etc.

In contrast, expectations and promises in relation to people are *negotiated* in the radically different context of *social reciprocity*. Trust, in this context, is based on the inter-subjective sense of shared experience. For example, if I am sad, in pain, or hungry, I can trust my mother to feel for me and act upon it. Alternatively, if I am joyful and happy, I can trust my mother to be enticed towards experiencing the same emotions.

The negotiated nature of social-affective trust and its inter-subjective origin in development (i.e., its development in the context of reciprocal exchanges) makes it more fragile and less predictable than the epistemic trust that children can construct in interaction with physical objects. In the physical domain, children can extract laws and generalize these laws by logical necessity. In the social domain, invariant features and regularities in people are constantly negotiated and re-appraised in reciprocal exchanges. They can suddenly change and be dismissed (e.g., by others' mood swing, rumination, preoccupation, irritation, distraction, deception) and are in need of constant probing.

Expectations are more prone to be dismissed in the social domain than in the physical domain. The vulnerability of social trust rests on its inter-subjective origin. It is incommensurate with the more reliable epistemic trust children may construct in relation to objects and what they afford for action, the trust in what they can achieve with their own physical body in relation to them (e.g., reaching, eating, transforming, lifting, seeing, anticipating, etc.).

If it is important to contrast epistemic and social-affective trust at a conceptual level in order to emphasize important ontological differences between experiences in the physical and social domains, this distinction becomes quickly blurred and fuzzy when considering how much the con-

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<sup>2</sup> What can be expected in relation to physical objects or people is different, and infants are quick to express this difference (that, for example, people can act and interact at a distance, unlike physical objects, see Rochat (2001) for a review). Early on, people and objects form specific domains of development. In relation to trust and promise, these domains soon become unified as what children know about physical things begins to depend increasingly on instructions from others, hence interpersonal exchanges and social attunement.

struction of epistemic truth relies on the testimony of others. Such social reliance is expressed very early in development and increases exponentially throughout the entire lifespan.

As is well known, our knowledge rests mainly on the fact that we trust others in teaching and telling us about complexities of the world we could never figure out on our own: facts pertaining to the existence of black holes in the cosmos, atoms in all things, that the earth is not flat, that once upon a time there were dinosaurs that vanished suddenly because a large meteorite fell on earth and that Christopher Columbus might not, in the end, have discovered America.

Like most of what we know, all this knowledge rests on the testimony of others and on our trust that others are telling us the truth. If epistemic and social-affective trust can be conceptually distinguished, as I just tried to do, they are *de facto* and *in practice* inseparable. Like two sides of the same coin, they represent two inseparable aspects of the trust phenomenon.

However, as I will try to show next, the integration of epistemic and social-affective trust is rooted in basic, 'built-in' pre-dispositions that are expressed already at birth, quickly developing into various levels of trust.

### Six Levels of Trust Unfolding in Early Development

I will now describe at least six levels of trust that can be distinguished as they unfold in early development between birth and approximately 5 years of age (see summary Table below). My point is to show that these levels correspond to different forms of integration between epistemic and social-affective trust. Note that these levels, in my view, map onto the development of the sense of self, as well as the sense of others, and the sense of possession that I studied in recent years (Rochat 2003; 2009; 2010, in press). Trust participates in the same general progression and stages of social-cognitive development. I use the same developmental canvas here to try to 'naturalize' the various meanings of trust as they unfold in early development.

#### *Six Levels of Trust Unfolding in Early Development:*

- Level 1:* Built-in (biological) trust (birth)
- Level 2:* Mutual (dyadic) trust (2 months)
- Level 3:* Triadic (referential) trust (9 months)
- Level 4:* Objectified (recognized) trust (18 months)
- Level 5:* Extended (reputable) trust (36 months)
- Level 6:* Ethical (principled) trust (48 months and up)



### Level 1: Built-In (Biological) Trust (Birth)

In considering the origin of trust in development, it is necessary to remember what contemporary infancy research has clearly established in the past 50 years: we are not born 'machines' made of reflex mechanisms. On the contrary, infants from birth are acting in a meaningful environment made of resources that are vital for their survival. Neonates are endowed with pre-adapted action systems that are not just triggered by external stimulations like reflexes, but rather oriented toward food, people, warmth, and safety, all environmental features necessary for their survival in their original state of prolonged immaturity. In this context, there is biologically determined 'built-in' trust. If infants are ready to suckle from birth, it is because there are suck-able things in the environment that eventually can be suckled, which they can feed and get comfort from. If infants are ready to orient toward a sound at birth, it is because there is the built-in promise that there will eventually be something to see that produced the sound (e.g., the mother's face if the baby hears her voice). If neonates root avidly with their mouth open toward a tactile stimulation they feel on their cheek, they do so with the implicit, built-in promise that they will eventually encounter something to suck on and feed from.

From birth on, it appears therefore that infants express pre-adapted perception and action systems that are functionally oriented and come to closure with the encounter of specific features and resources in the environment. These systems have built-in expectations about particular outcomes. Inscribed in them is the implicit trust of particular physical encounters and associated subjective experiences of comfort, satiety, warmth, or protection.

### Level 2: Mutual (Dyadic) Trust (2 Months)

By the second month, things change dramatically in the world of infants who begin to smile back and engage in sustained face-to-face non-verbal dialogs with others. This is the birth of so-called 'primary inter-subjectivity' or the expression of shared emotional experience with others. Infants start to co-construct affective meanings with others. In these first proto-conversations, infants rapidly develop social expectations, showing surprise, if not dismay when for example a playful social partner suddenly stops being engaged. By the second month, infants begin to expect someone to behave in a certain way in certain social contexts. They quickly show distress and emotional withdrawal toward an adult who abruptly and for no apparent reasons adopts a frozen attitude with a still face. In addition, they seem to resist reconcilia-

tion with the social partner as she resumes a normal interaction (cf. Tronick, Adamson et al. 1978; Tronick 2005).

From the earliest age, infants are indeed highly sensitive to the attention received from others, constantly gauging how much others are engaged toward them (cf. Reddy 2003). They are also quick to develop a preference for particular interactive styles of social partners they are familiar with (i.e., the mother), generalizing such preference when encountering strangers (cf. Bigelow and Rochat 2006).

The first non-verbal language of children is indeed well-documented, expressed from 2 months of age in the context of face-to-face interactions, made of mutual gazes, precise contingency of exchanges and turn-taking, with compulsive 'motherese' and other affective markers from adults. The syntax of this early non-verbal grammar (e.g., when I smile, the other should not scream or cry) and the semantics that children derive from it (e.g., if I smile and the other looks away, something is wrong) is primarily emotional and affective. But from these exchanges, infants develop expectations. These expectations form a second level of trust, beyond the built-in trust expressed at birth, which can be described as the mutual trust arising from dyadic exchanges and the primary inter-subjectivity evident in infants from the second month. In contrast to the first level, trust is not just a built-in feature of innate systems. At this second level, trust becomes negotiated and co-constructed in complex emotional and affective interaction with others.

### Level 3: Triadic (Referential) Trust (9 Months)

From approximately seven- to nine-months, infants begin to break away from face-to-face interactions with others, starting to engage others in reference to objects outside of the dyadic, emotional exchange. This is the birth of secondary inter-subjectivity: infants starting to engage in systematic joint attention with others *about* objects, starting to monitor others' facial expressions to disambiguate novel situations encountered in the environment, which is labelled 'social referencing.'

From this age on, infants appear to invest trust in others to teach them something about objects in the environment, or about potentially threatening situations. They will now begin to refer systematically to their mother's facial expression (the extent to which she expresses fear) as they approach a potentially treacherous obstacle such as a steep staircase or a cliff, and before they engage in any further foray of the environment. They will tend to do the same thing if they see the novel face of a stranger.

A nice example of the epistemic trust ten-month-olds express toward others is the recent research by Topál et al. (2008) showing that infants by this age expect adults to teach them something about objects. Citing

these authors, infants are inclined to take a 'pedagogical stance' toward others. Topál and collaborators demonstrate that the famous Piagetian stage 4 A-not-B error of object permanence, robustly reported in infants ten-months and younger, can actually be predicted by the presence or absence of subtle communicative and emotional cues from the Experimenter who is hiding the object at the different locations (Topál et al. 2008).

This research shows that pragmatic misinterpretations by ten-month-olds could explain, in part, the tendency of the infant to perseverate in searching for the object at the old (wrong) location, despite their direct witnessing of a change in hiding place.

Topál's research shows that the perseverative error of infants drops significantly when the Experimenter does not provide subtle communicative cues such as eye contact, motherese, affective attunement, or social contingency in the presentation of the hide and seek game. These results indicate that by 10 months, infants take an interpretative stance toward the adult based on how she interacts and behaves in relation to them.

Infants interpret the adult as *wanting* to teach them something (a game) based on the presence or absence of certain communicative cues. Likewise, in this pedagogical relation, infants behave as learners, ascribing to themselves the propositional attitude of 'wanting to learn,' all of this of course in the context of having a good, intimate social time of sustained mutual attention.

In short, from approximately nine months, there is evidence that infants express a new, third level of trust, a trust that is based on emotional and affective cues that index the power infants now confer to others to teach them something: the rule of a new game or dangers they might not be able to fathom. At this level, infants expect others to teach them something they do not know, trusting that others are inclined to do so and ultimately that they know more. They begin to entrust others with the power to inform.

Nine month-olds show first signs of being humbled by others, starting to give them the benefit of their own epistemic and competence doubt.

#### Level 4: Objectified (Recognized) Trust (18 Months)

By the middle of the second year, children become selective in their imitation of others and in learning from others. They recognize who might be a better model to learn from when trying to resolve a problem they cannot resolve on their own, such as opening a tight box, reaching for an object that is too far for them to reach, or learning the use of a new tool to perform a novel action. They begin to show selective epistemic trust in others, discriminating and comparing how much they can learn from them. By this age, children become selectively inclined to ask for help and to imitate oth-

ers. They become resourceful in gathering information from people showing more or less competence. For example, 18-month-olds will tend to be more inclined to ask for help from a skillful rather than a clumsy actor to resolve a physical problem, based on previous observations and when free to request help and instruction from different people they previously witnessed acting with more or less skill (Goubet, Rochat et al. 2006).

By this age children demonstrate selective epistemic trust, based on previous exchanges and observations, detecting the relative resourcefulness of people that are potentially available for help and instruction. In their selective trust, children also become sensitive to the relative willingness and disposition of people to help and share their superior competence.

### Level 5: Extended (Reputable) Trust (36 Months)

By the middle of the second year and beginning of the third year, children begin to manifest self-conscious emotions such as shame, pride, and embarrassment. They show public elation when succeeding at a challenging task or might blush and hide their face when their failures or shortcomings are exposed. Presentation of the self in reference to the imagined evaluative eyes of others becomes a new, central preoccupation in the psychic life of children.

This self-preoccupation is also turned toward the evaluation of others, children becoming increasingly selective of who they might learn from and admire more than another. As for the self, others begin to be experienced and construed as more or less reputable entities from whom one can learn more or less and who might provide more or less epistemic as well as social leverage.

This is the time when children might begin to develop personal affinities and friendship with peers, developing selective trust as they enter pre-school and grow in independence by having to socialize away from the family. Such a big leap in socialization constrains the young child to make choices as to who they might prefer to play and spend time with. Reputation begins to play a role and starts to be a central preoccupation. Remember that reputation comes from the Latin word *putare*, which refers to accounting or to count.

With reputation, we 'count' on someone. In other words, we trust that such or such will behave in certain ways. Likewise, by 3 years, children begin to expect or trust people to behave in certain ways, based or according to their reputation: the reputation of being popular, skillful, funny, a bully, weak and fearful, or on the contrary, strong and courageous. Now with their own reputation children begin to maintain and project to the public eyes about themselves, as evidenced with their new propensity to express self-

conscious emotions such as pride or in the hiding of their face when their shortcomings might be exposed.

### Level 6: Ethical (Principled) Trust (48 Months and up)

By the fourth and fifth year, children become 'principled' in dealing with reputation and how people ought to behave. Trust now appears to be regulated in relation to social norms and refers to principles that are internalized by the child: principles of fairness, equity, and ways of behaving in relation to others, whether to help or not to help, to feel empathy or to feel resentment, show understanding or not. These 'moral' principles begin to be spontaneously manifested in children from the time they also manifest explicit 'theories of mind,' expecting others to behave in certain ways based on an attribution of attitudes, such as beliefs, intentions, wants, or any other mental states.

Trust, in this new 'meta'-context, begins to be inferred and formalized in reference to necessary and normative principles. For children, people are now expected to behave according to principles that are logical but also moral, such as the principles of fairness and equity, all dictated by the formal understanding of reciprocity that guides social exchanges, at least in all human cultures. At an empirical level, in a recent study we found for example that by the age of five, and not earlier, children are willing to engage in costly punishment, sacrificing some of their own resources to selectively penalize individuals (animated puppets in our experiment) who shared selfishly in previous rounds of a three-way sharing game (Rochat, Robbins et al. 2010, under review).

At five years, children respond to distrust and violation of basic equity principles by punishing, thus re-stating and enforcing these formal principles, even when this punishing is at their own cost. In this context, children entrust others with moral principles. Their understanding of *trust* becomes normative like an internalized, shared, and collective law to which everyone should abide.

### Conclusion

In discussing trust at the origins of development, I have attempted to show that this elusive concept is rooted in biology, quickly developing to encompass at least six levels of trust understanding that unfold in early ontogeny, between birth and the age of five. There is no question that trust continues to develop all through the lifespan, but what is changing early in development is particularly radical and marked: from built-in functional promises

of future events and encounters in the environment to moral and socially sanctioned trust in others.

I would like to conclude by proposing that trust and confidence (which means etymologically 'faith with others' or 'with faith') is a basic ingredient of life in the most general sense. At the level of biology, any learning organism carries in itself the promise of new skills or bettering of life circumstances: the promise of future food, warmth or comfort. This is what newborns are equipped with, guided by the default assumption of bettering current circumstances, in finding food when hungry, comfort, relief from pain and threat when under pressure and suffering. This default assumption is an implicit built-in trust that is part of the action systems characterizing behavior from birth.

Infants show an originary and basic propensity to be geared toward and expect particular outcomes: relief from pain or hunger, the latching onto the mother's breast that is smelled or felt, the finding of a face where a voice is heard. Violation of such expectation is the source of new searches and new discoveries, until something else can be expected. Hence, it is a major source of progress. However, if the violation of expectations persists and no revisions of the original expectation can be done, trust is replaced by *distrust*, the source of most ills in children from the earliest age, and of course throughout the lifespan. But this is the negative counterpart of trust, something that would deserve a whole new discussion in the perspective of development.

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