

Commentary: Mutual Recognition as a Foundation of Sociality and Social Comfort

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What makes us more or less understanding and feeling of each other? What does the experience of being connected or disconnected with one another actually mean psychologically? These questions are central to social cognition and require more than an engineering look at how we perceive and know people. Here I propose that social cognition is driven by the basic need to affiliate with others and that theories of mind are developmental by-products of this basic need. There is a primary affective and motivational context to the development of social cognition that deserves much more experimental scrutiny. At the core of this context, there is the need for mutual recognition and acknowledgment.

Social cognition is not an end in itself, but primarily a means to be connected and to “commune” with others, enjoying rather than dreading one another, overcoming tensions, gaining respect, building trust, getting our ways. We “cognize” and rationalize about other people as we show concern, try to help, cooperate, compete, or get even in revenge.

Most important is the fact that we expect similar treatment from others. We expect them to cognize and feel about us in the same way as we do toward them, expecting social payoffs or punishments from our actions, anticipating reciprocal understanding, validation, respect, prestige, or denigration in return. Viewed this way, social cognition is deeply embedded in a complex mirror game of reciprocation, mutual exchanges, and expectations. This is the view I present here.

In the complex mirror game, a context that characterizes human transactions, social cognition cannot simply be reduced to figuring and processing by inference what is hidden in the head of a particular individual. It is more relevant to consider social cognition as the process by which one builds and negotiates values such as respect and trust in relation to others, values that are shared and in which individuals can recognize themselves and be recognized by others as a measure of their social affiliation.

I will propose here that what underlies sociality and constitutes the experience of social comfort is individuals' sense of affiliation with others. The question of interest that derives from this proposition and should be at the core of social cognition is: what gives individuals the sense of their affiliation?

What is Sociality and What Constitutes Social Comfort?

Sociality and social comfort are of particular interest here. They are too often left to the exclusive consideration of clinicians and too rarely considered by developmental and experimental psychologists. They raise an issue that is all important to our daily existences, regardless of age and culture. This issue is what does it mean to feel more or less comfortable with others, to be socially "connected" as opposed to "disconnected," to pull toward and feel accepted, or, on the contrary, to pull away and feel socially rejected. My intention here is to address the question of what is sociality and what constitutes feelings of social comfort early in life and what these feelings mean in the course of the first years.

To do so, I propose to take a meta-step and consider social cognition in the perspective of early development, but for what it means in the life of the human child rather than how the child functions and grows as an information-processing capacity. My focus is on the affective and experiential aspects of social cognition early in life, a different take compared to most of the chapters assembled in this book.

In the context of the current debate on the origins of theories of mind and empathic feelings, my take is that social cognition encompasses much more than the two main views debated in the theory-of-mind literature, either the building of theories (e.g. Gopnick & Meltzoff, 1997) or the representational simulation of what is on the mind of others (e.g. Goldman & Sripada, 2005). This idea is not new, but I attempt to give it a new spin (see, e.g. Gallagher & Hutto, 2007; Hobson & Hobson, Chapter 15, this volume; Zahavi, 2006). In particular, I would like to make my case by discussing a common fact that is too often overlooked by cognitive psychologists, the fact that we are more or less sociable, more or less "inclined to associate with or be in the company of others."¹

Beyond the "Engineering" Look at Social Cognition

We lose meaning by reducing the perception and understanding of people, including the self (i.e., social cognition²), to the issue of controlling and predicting behavior in the strict behaviorist and "engineering" sense. It is far more complex and challenging than just construing what others, including the self, are going to do next, what is on their mind, what kind of beliefs they hold, and whether their actions are intentional or not. Obviously, all these features are crucial parts of social cognition, but they are only the "cold" tip of the iceberg. They represent the engi-

neering look at social cognition, what it takes “mechanically” to be socially adapted and functional in relation to others. What perceptual cues need to be picked up, what joint-attention capacities need to be in place, what degrees of executive functioning or representational abilities need to be operational for one to be able to learn, collaborate, and in general be productive when in contact with others. This is what cognitive psychologists mainly focus on, interested in the building of representations about the mind states of others: what their intentions are or what beliefs they hold. But this is only part of the story behind social cognition. It does not deal with what motivates us to relate socially the way we do. It does not tell us much about the nature of sociality.

By loose analogy, the meaning of cell phones and how they took over our lives are far more than what the analysis of how they are built and wired, and what function corresponds to what button, might reveal. The engineering power and configuration of the machine do not tell us why we use them in such an uncontrollable way, why it is so hard for most people to turn them off, and why they are so popular across generations and cultures. The engineering look does not inform us how the cell phone has changed the way we connect with one another, or the meaning this cultural artifact has in contemporary life. It misses the primal psychological reasons that lie behind what has ontological and developmental primacy: our basic need to be always faster in our transactions and continuously to be in touch with one another.

So, beyond the engineering look, the question is how and why do we engage in social cognition? How and why are we so compelled from a tender age to figure others' disposition, intention, and mental states? It is probably not just because we are wired to do so and have an early propensity to enact inherited potentials that are either there from the start or maturing, such as mirror neuron systems, theory building, or imitative capacities. Upstream, I shall contend, there is a major, foundational force that drives it all. This force is the basic need to affiliate with one another.

Motivational Roots of Social Cognition

Explicit social cognition such as theories of mind or the understanding of others' disposition is probably a by-product of a basic need to affiliate, the need to be and to feel inclusively recognized by others – the basic affiliative need (BAN) (see Rochat, forthcoming). In this perspective, social cognition is a special adaptation, possibly unique to our species, an adaptation to the basic need to connect and be part of others' life (Rochat, 2007).

This premiss dictates a different look at social cognition, a look that gives more explanatory power to the relational, affective, and emotional context of social cognition and what motivates our transactions with one another. From this premiss derives the general theoretical stance that social cognition does not occur or develop in the privacy of individuals' head. We do not experience others just by theorizing

or simulating what is on their mind. On the contrary, social cognition is primarily rooted in relational transactions that are affective and emotional, driven by the need to affiliate and to be an integral part in the life of others. It operates at an interpersonal rather than an intrapersonal level, rooted in the fact that we essentially live through the eyes of others.

To be human is indeed not just having the ability to generate theories of mind or the capacity to take an intentional stance or to simulate the mental states of others by taking a “like-me-stance”. It is primarily to care about how much empathy, hence acknowledgment and recognition of our own person, we generate in others – the fact that we care about our reputation as no other animal species does (Rochat, 2006a).

Honor, respectability, and social success – however one measures social prestige and recognition³ – are universal values evolved across human cultures. We all develop our understanding of others in the context of these values. A primary motive for understanding others is to monitor our own social situation, how others perceive and represent our embodied person. The need to be recognized ultimately drives social cognition. It is a general motivation that determines much of what we understand about others, the social information that is processed, and what children develop in their social understanding. The concern about reputation does have a central place in the human psychic that cannot be overlooked. But how can we render operational and testable such a general theoretical construct?

Reputation as a value entails, in order to be represented, a differentiation between first- and third-person perspective, much of what theories of mind and other higher-order social-cognitive capacities entail. But it entails also something far more basic, an affective core around which social cognition is built. This affective core is the direct experience of being more or less *acknowledged* by others.

Uniqueness of Human Sociality

In order to make sense of others, rationalize about them, and eventually learn from them – goals of social cognition as it is typically researched and conceived (see the majority of chapters in this book) – you need to be attuned and psychologically “open” to them and have some “feelings” about them, rather than just processing them as information providers.

In this perspective, I assemble under the umbrella term of “sociality” the feeling experience of “relatedness,” “attunement,” or “connectedness”, what is sometime described as “the critical connection with others” (Tronick, 2005). These feelings are the motivational core of social cognition and its development – they are what gives it its meanings and reasons to exist.

In comparison with other mammalian species, even close primate relatives, humans are born highly altricial (dependent on others) for their healthy growth, with a particularly late onset of basic autonomy in feeding or locomotion. In

addition, human physiological and behavioral development is noticeably slower compared to the young of any other mammalian species – this in spite of a small litter, which typically correlates with precocity in all other species (Gould, 1977; see also Rochat, 2001).

From the outset and typically for the rest of our life (Robinson Crusoe(s) aside), we are highly dependent on others for food, comfort, and protection, but also for instruction, achievements, and, in general, for affective support and emotional well-being. Humans have the particularity to be born too soon. The first months of human life can be equated to some sort of “extero-gestation” (Montagu, 1961). The prolonged period of immaturity following human birth correlates with particular adaptations in the way we deal and understand each other, including unique caregiving and instruction practices (Bruner, 1972; Tomasello, 1999).

This is an evolutionary fact that should be factored in as the unique context of human sociality. This context is too often overlooked and not considered enough as a crucial variable and potential causal factor in the investigation of how and what we understand of others, but also how and why we connect with them, and what constitutes social comfort. Humans do have special social needs, one of which is the basic need to be *recognized* and *acknowledged*, to be validated of their own existence via others. I will argue here that this is a cardinal aspect of both human sociality and human experience of social comfort, or discomfort.

Human Critical Social Needs

The need for others, expressed in newborns, is not just physiological. It is from the start also emotional, affective, and cognitive. The devastating effects of early stays in crowded hospitals or orphanages, and the absence of early bonding between the infant and caring individual(s), are clear demonstrations that the psychological integrity of the young child rests on more than sufficient food (Bowlby, 1969/1982; Spitz, 1965).

Deprived of basic attention and “caring,” children quickly slip within themselves. They withdraw from the social world, from which they cannot learn much any more. Social development is often arrested, drifting toward idling stereotypical actions, the kind reported by Spitz in what he labels as symptoms of “hospitalism,” also expressed in low-functioning autistic children (Sigman & Capps, 1997). Affects become flat; emotional expressions and behaviors become erratic; learning or any kind of instruction becomes deeply problematic.

Whether the causes are environmental or genetic in origins, there is no need to expound the fact that whatever hinders early bonding will have significant, typically detrimental, consequences at all levels of psychic life. Healthy development, including the development of the ability to simulate others or to construct theories about the mental states of others, depends on the basic ability to “relate” to others, to be “connected” with others,

Mutual Recognition as a Cornerstone of Human Sociality

Understanding others is a complex business. It is infinitely more complex than, let us say, figuring the blooming of a tree, the behavior of fish, the migratory flight of birds, or the trajectory of stones falling off a cliff. This is not just due to the fact that others are far more complex entities in themselves, are far more open-ended systems than trees or stones; the fact that they belong to a higher cognitive order than fish or birds. It is, in addition – if not mainly – due to the fact that others are like me, are the same kind of entities as me, and that I am trying to figure them out. Here I submit, as a general framework, that the complexity of social cognition rests primarily on the equivalence in kind between me and others, on the paradoxical fact that others are like me, yet are differentiated entities that I depend upon and get selectively attached to.

Within this general framework, social cognition is inseparable from self-cognition. Social knowledge and self-knowledge are two sides of the same coin, in the same way that Gibson (1979), in his ecological approach to perception, suggested that perceiving the world always includes co-perceiving oneself as perceiver. What I know and predict of others reflects what I know and predict of myself, and vice versa. At the core of social cognition, there is mutual recognition. By analogy to Gibson, in the realm of perception, to cognize others always includes *co-cognizing* oneself as social knower.

To be sociable is thus much more than just rationalizing about others' disposition, intention, and mental states. It is primarily about being "connected" and "recognized." Sociality or the quality of being sociable is inseparable from the elusive feeling of being included and having a causal role or impact on the life of others. It is about being "connected," ultimately about being visible rather than invisible, recognized rather than ignored or ostracized (see Honneth, 1995, for an in-depth philosophical elaboration of the idea). In this view, sociality rests on *mutual recognition*. The dramatic experience of trying to engage and interact with a person suffering from a lack of sociality gives clinical support to such account.

Kanner (1943), in his description of what he is the first to have coined as "infantile autism," notes that these children appear to have "an innate inability to form the usual biologically provided affective contact with people, just as other children come into the world with innate physical and intellectual handicaps." Kanner goes on insisting on what he sees as the "extreme autistic aloneness" of these children, their social isolation. Interestingly, for novice, yet well-intended, healthy adults who might try to engage with a child diagnosed with autism, there is always a great deal of discomfort and frustration, and the sense of being "thwarted", of becoming unsettled and unsure of themselves (Greenspan & Wieder, 2006; Sigman & Capps, 1997). These children are difficult to figure, removed, unpredictable, unreachable. They look through or beside you, they behave as if you were transparent, invisible, nonexistent, nonconsequential – an experience that is a typical source of great dis-

comfort for the well-intended parent or caregiver, and presumably a permanent discomfort for the autistic child withdrawn into his world.

The symptomatic trademark of autistic children is the depleted “sociality” experience by anybody trying to engage them and connect with them. The social current and co-creation of meanings that normally arise among communicating individuals are either hindered or plainly absent. It takes a great deal of expertise and exercises from parents, educators, and therapists to contact these children, a difficult and courageous enterprise that requires sometimes infinite patience (e.g. Greenspan & Wieder, 2006).

What makes the raising of an autistic child so much more difficult and exhausting compared to raising a healthy, even hyperactive child is the fact that there is no room for mutual recognition, no room for reciprocal acknowledgment of each other.

The love of parents might be inexhaustible; it consistently remains unmatched in its return. In this context, it is difficult for parents to recognize themselves in the impact they have on their child. Inversely, the child is impaired in recognizing himself in what he does to his parents. Autism causes *mutual* blindmindedness, mutual invisibility, and it is a source of great discomfort, obviously for the trying parents, but also for the disconnected child.

As a developmental, non-clinical psychologist, my point is that autism reveals the debilitating effect of a lack of sociality, the deep discomfort caused by the lack of mutual acknowledgment, and the hindered possibilities for reciprocal recognition in social exchanges. This appears to be a cardinal feature associated with this psychopathology and it is revealing of the point I am trying to make here.

The Social Mirror Game that Takes Place from the Outset

The sense of reciprocity is expressed very early in the life of the healthy child. By 2 months, infants start to engage in face-to-face proto-conversations, manifesting first signs of socially elicited smiles toward others (Rochat, 2001; Sroufe, 1996; Wolff, 1987). From this point on, infants express, in the context of interactive, typically face-to-face, plays, a new sense of shared experience with others, what Trevarthen (1979) first coined as primary intersubjectivity. When infants start to engage in proto-conversation, they are quick to pick up cues regarding what is to be expected next from the social partner. In general they are quick to expect that, following an emotional bid on their part, be it via a smile, a gaze, or a frown, the other will respond in return. Interestingly, adult caregivers in their response are typically inclined to reproduce, even exaggerate, the bid of the child. If the child smiles or frowns, we are inclined to smile or frown back at her with amplification and additional sound effects. There is some kind of irrepressible affective mirroring on the part of the adult (Gergely & Watson, 1999), almost as irrepressible as the opening of our own mouth while spoon-feeding someone else.

The complex mirror game underlying social cognition does manifest itself from approximately 2 months of age, and, from then on, infants develop expectations and representations as to what should happen next in this context. The still-face experimental paradigm that has been extensively used by infancy researchers since the 1970s provides good support for this assertion (see the original study by Tronick, Als, Adamson, Wise, & Brazelton, 1978).

From at least 2 months of age, infants are disturbed when the interactive partner suddenly freezes while staring at them (Rochat & Striano, 1999). They manifest unmistakable negative affects, frowning, suppressing bouts of smiling, looking away, and sometimes even starting to cry. In general, they become avoidant of the other person, presumably expecting him or her to behave in a different, more attuned way toward them.

This reliable phenomenon is not just due to the sudden stillness of the adult, as the infant's degree of negative responses varies depending on the kind of facial expression (that is, happy, neutral, or fearful) adopted by the adult while suddenly still (Rochat, Striano, & Blatt, 2002). Also, it appears that, beyond 7 months old, infants become increasingly active, rather than avoidant and unhappy, showing initiative in trying to re-engage the still-faced adult. Typically, they touch her, tap her, or clap hands to bring the still-faced adult back into the play, with an intense gaze toward her (Striano & Rochat, 1999).

The numerous studies based on the still-face paradigm, but also studies using the double video paradigm in which an infant interacts with his or her mother seen on a TV, either live or in a replay (Murray & Trevarthen, 1985; Nadel, Carchon, Kervella, Marcelli, & Réserbat-Plantey, 1999; Rochat, Neisser, & Marian, 1998), all show that, early on, infants develop social expectations as to what should happen next or what should happen while interacting with others. The difficult question is what do these expectations actually mean psychologically for the child? What does it mean for a 2-month-old infant to understand that, if he smiles toward an individual, this individual should "normally" smile back at him? What does it mean that he picks up the fact that amplified and synchronized mirroring from the adult is an invitation for more bouts of interaction?

From an engineering look perspective, one could interpret these expectations as being perceptual or "low level" in nature. Accordingly, face-to-face interactions could be information-rich events for which infants are innately wired to pick up information, attuned and prepared from birth to attend and eventually to recognize familiar voices and faces (e.g. De Casper & Fifer, 1980; Morton & Johnson, 1991). From birth, infants would be attuned to perceptual regularities and perceptual consequences of their own actions, wired to prefer faces, human voices, and contingent events as opposed to any other objects, any other noises, or any other random events. Accordingly, this would be enough for young infants to build social expectations and manifest apparent eagerness to be socially connected, as shown by studies using the still-face experimental paradigm or the double video system.

But I propose that there I more to this puzzle than can be discerned via an engineering look. It is more than just mechanical and requires another, richer look to

capture its full psychological meaning. I base this proposal on evidence of major developmental changes in ways children appear to connect with others. I will briefly outline these changes, interpreting them at a more macroscopic level, linking them to changes in the way in which a child experiences others and ultimately figures them out, including the self. The point I am trying to get across is that there is a whole aspect of social cognition that needs to be specified and explored at this macro-level that the engineering look is missing.

Early Development of Social Connectedness as Co-Regulation

Among the multiple ways we are connected to the world, social connectedness is of a very special kind. My eyes and mind might be connected to my TV set or I might be actively connected to the object I am trying to reach and grasp, but I am not socially connected to them. We are not engaged in any kind of *co-regulation*.⁴ My TV set will not shut off if I cry, and the object I am trying to reach will not come closer or present its most graspable side to get scooped up by me. I am the absolute agent and they are the blind patients of my action, not monitoring anything of what I do or feel. I am transparent and invisible to them.

Unless they are dead or comatose, connecting with animate things, particularly people, is a radically different matter. It entails co-regulation. All protagonists can, in turn, be agents or patients. Unless one ignores the other, as in some instances of autism, the connection is reciprocal and the exchange is open. The connection is transformed into a creative meaning-making system. Mutual feelings and understandings can be created in interaction and in the mutual monitoring by the individuals engaged in the exchange. What is going to be expressed and experienced next will refer to what is being expressed now and what has been expressed and experienced before. Each time, it is a new history that unfolds, which is memorized and entered as a new variable for future exchanges. It is, indeed, a complex open system defining a relationship among feeling and mutually experiencing persons (see Hobson & Hobson, Chapter 15, this volume).

Aside from particular “attraction states,” such as the maintenance of an optimum flow in a joyful play, it is a self-organizing and for the most part non-deterministic process (see the dynamic system account of proto-conversational exchanges in Fogel & Thelen, 1987; Tronick, 2005).

Outcomes of social exchanges and what is going to happen next are hard to predict, as multiple variables interact simultaneously (mood, temperament, the familiarity and disposition of the protagonists, notwithstanding age, behavioral state such as hunger, fatigue, and so on). But, despite this highly unpredictable aspect, there is one major stable character in social connectedness. It is that the exchange is *mutual, cumulative, and creative*, as opposed to being purely unidirectional, causal, and non-creative, as in the case of a thermostat responding to temperature changes in a room (one-way regulation in a closed loop). The mutual, cumulative, and particularly the creative character of social

connectedness as defined here does not apply to the imitation documented in newborns, which remains essentially rigid and responsive in character (Meltzoff & Moore, 1977; Rochat, 2006b). These responses become more flexible, attuned, and hence socially connected to the experimenter by 2 months. By 6 weeks, for example, infants show a deliberate effort in approximating an adult model moving his tongue either at the midline or to the side (Meltzoff & Moore, 1992).

In brief, it appears that, in development, from 2 months of age, infants become sensitive to the relative attunement that others express toward them, engaging in co-regulated exchanges, taking the role of agent and patient alternately in the interaction. In starting to do so, they become highly sensitive to how others respond to them and they themselves respond more or less “accordingly.” The accord of their response is what makes them socially connected in the sense used here. In my view, this is indexed by what appears to be the universal emergence of socially elicited smiling at around 6 weeks of age (Rochat, 2001; Wolff, 1987).

If the onset of social connectedness as co-regulation emerges by 2 months, it develops rapidly and takes increasingly complex forms in the coming months and years. In general, these more complex forms correspond to the new ways in which young children co-regulate with others, first in the form of dyadic exchanges (primary intersubjectivity), and eventually, by 9 months in the form of triadic exchanges (secondary intersubjectivity), when children start to interact with others, in reference to and with the help of objects in the environment. (For more details, see Goubet, Rochat, Maire-Leblond & Poss, 2006; Rochat & Striano, 1999; Tomasello, 1995; Trevarthen & Hubley, 1978.) This development is now well documented, but I would like to end this chapter by accounting for its meaning at a more meta-level and in relation to what I view as important steps in the development of children’s social connectedness.

Development of Mutual Recognition

In the light of what is developing next, I take it that the deeper psychological meaning of the still-face phenomenon that is observable from 2 months of age (a child’s disengagement and unease when facing a suddenly frozen partner) is not just that the child is reacting to a violation of his or her social expectations. The deeper psychological meaning of this reaction is that the child has been unexpectedly “tricked” by the adult – that some kind of basic trust regarding what was unfolding between the child and the interacting partner is suddenly lost. In line with the idea that we are deep down driven by the need to affiliate with others, my interpretation is that the child is actually experiencing a loss, the unexpected loss of what he was enjoying, the pleasure of co-creating playful happenings, a pleasure literally “personified” in the engaging individual who is now frozen and staring at him for no obvious reasons.

In the still-face phenomenon, the infant expresses his experience of a transition from social comfort (the pleasure of co-creating and co-regulating with someone) to social discomfort (the sudden interruption of such pleasure). He also expresses what we could see as some sort of implicit mourning and “betrayal,” in the fact that infants do not always recover their cheerfulness completely when the adult eventually snaps out of the still face and tries to re-engage the child (Muir & Hains, 1993; Rochat, Striano, & Blatt, 2002; Tronick et al., 1978). If mourning or betrayal might be too loaded as terms, still-face episodes appear nonetheless to affect future exchanges in the relationship. Early on, infants detect variations in interactive styles and become selective based on past exchanges. For example, there is evidence that infants from at least 4 months of age are attuned and seem to differentiate the particular interactive style and relative contingency of their mother as opposed to a female stranger (Bigelow & Rochat, 2006). This early sensitivity to familiar interactive styles gives more room for the experience of “betrayal”, a sense of losing social connectedness and possibly experiencing rejection, a source of deep anxiety when familiar persons change. Social connectedness suddenly vanishes because the other might be drunk, preoccupied, high, or in a rage. The child withdraws as his existence within the relationship vanishes. The new attitude of the other no longer reflects anything the child is used to. I would say that during this severance of social connectedness, the child is no longer acknowledged in his own existence.

What I propose is that, in fact, in the still-face phenomenon, the child manifests the loss of an alliance co-created in interaction with the now frozen other. Before the still-face episode, the child’s own existence was acknowledged via affective mirroring and contingent responses from the adult. During the still-face episode, this acknowledgment was suddenly gone, pulled like a carpet from under his feet, and the child collapses by becoming suddenly transparent to the other. What ensues is profound *social discomfort* expressed in avoidance, agitation, and eventually crying.

The need for acknowledgment in relationships emerges with the onset of social connectedness at 2 months. From this time on, it becomes a major motive for the development of social cognition, both in form and in content. The child will learn how to please and what is pleasing or displeasing to others in order to capture their attention. The capturing of social attention becomes a major motive in the child’s life. The child needs others’ acknowledgment in order to exist. Attention toward them is the currency against which this acknowledgment is measured. This process becomes increasingly evident as children gain postural independence and autonomy by moving about on their own. From then on, one of the child’s major social motives is typically to attract the attention of others in everything they do. When entering the infamous “terrible 2s,” children will create social crises to assert their own social existence, running toward cliffs without turning back and despite the desperate calls from caregivers.

The control over the attention of others toward the self is a major drive for the development of social cognition. It is also what gives children, as well as adults, the sense of being recognized – ultimately the sense of an affiliation to others.

Conclusions

So what is sociality and what constitutes social comfort? I attempted to show that these two questions do not meet the prevalent “engineering look” at social cognition. What drives social cognition is primarily the basic need to be part of other people’s lives, to communicate and affiliate with them. This need appears to be particularly exacerbated in our species. I have proposed that what underlies social cognition are first and foremost mechanisms by which others can be monitored in their relation to us – how they value and pay attention to us, and what place we have in their lives. In this general context and based on the developmental considerations outlined above, I conclude that sociality is the sense of mutual acknowledgment of each other’s existence that is created in reciprocal exchanges with others. Social comfort thus consists in the experience of being recognized as much as we recognize the other. Inversely, social discomfort is the experience of being transparent or invisible for others, the experience of not being acknowledged, hence socially disconnected. I have proposed that sociality and the sense of social comfort begin to develop by the second month in the context of reciprocal exchanges, this development continuing through life. Social cognition is primarily a spin-off of such development.

My conclusion is that the perception and understanding of others should be considered primarily as the by-product of a basic need to be recognized, to partake in the life of others, a spin-off of the basic drive to be acknowledged in one’s own existence through the eyes of others.

Notes

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- 1 This is the first definition of “sociability” offered by the *Unabridged Random House Dictionary* (2nd edn.). “Sociality” is defined as the state or quality of being sociable (third definition). This is the generic sense of these terms used here.
- 2 “essentially a blending of social and cognitive psychology which focuses on how individuals perceive, recall, think about and interpret information about the actions of themselves and others” (*The Penguin Dictionary of Psychology*, ed. A. Reber & E. Reber (3rd edn. Harmondsworth, Penguin, 2001)).
- 3 There is obviously great variability in how prestige and recognition can be accounted for. It varies across cultures but also across individuals and social-economical classes within a culture. These values of social recognition also change over historical time, particularly in changes in recent Western history that have led toward “modernity,” “post-modernity,” and now global “hypermodernity,” which brings people closer faster, breaking barriers of space and time in the circulation of information and providing exploding opportunities for virtual experiences. These values can be measured as the accumulation of material wealth, acts of

courage, acts of devotion, learning achievements, or, more humbly, acts of obedience and submission. Obviously it is a complex issue and it all boils down to how individuals measure and represent their power situation in relation to particular others or to the group at large.

- 4 Artifacts such as computers or interactive video games represent interesting exceptions to the point I am trying to make. To some extent, these inanimate artifacts do co-regulate with us as we play with them. They track our actions and respond to them as we do to them. But these artifacts have been fabricated and designed for such purpose. As inanimate machines, they are not creative in themselves. They are just extensions of the intentions of the designers. In interacting with these machines, we are actually co-regulating with those who designed them. Machines are just inanimate intermediaries of their intentional designers. They are not creative in themselves.

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