So, what about… mimetic theory and contemporary psychology?

Well, let's read some excerpts from a highly recommended book:

SCOTT R. GARRELS (editor), *Mimesis and Science – Empirical Research on Imitation and the Mimetic Theory of Culture and Religion*, Studies in Violence, Mimesis and Culture Series, Michigan State University Press, 2011.

Enjoy this "trailer", but don't forget to watch the full movie!

Erik Buys, February 2012

Interdividual Psychology

In René Girard's seminal book *Things Hidden since the Foundation of the World*, psychiatrist Jean-Michel Oughourlian together with Guy Lefort and René Girard, proposed a new kind of psychology, an *interdividual* psychology. They wanted to go beyond "psychologies either of the subject or of the object". In *Mimesis and Science* (MS), Oughourlian clarifies what he considers to be *psychologies of the subject*, with Freudian psychoanalysis being a prime example, and why they are not satisfying – MS, p.47-48:

Those psychologies referred to as "psychologies of the subject" are of great diversity. They are pertinent to the questions that interest us in that they suppose that the subject is a delimited and independent psychological entity, and that psychological movement is born in the inner depths of that entity – that the source of dynamism lies within the subject. Freudian psychoanalysis, which is the best-known form of subjective psychology, calls this dynamic force "libido". […] The Freudian theory of the instinctual origin of psychological movement seems to me contrary to reality and to observed psychological facts. Those facts exist precisely because humans have become freed, in the course of a long phylogenesis, from the power of instinct. To the contrary: the psychological bears witness, each time it appears, to the freedom that characterizes human behavior in comparison with the instinctive. By the logic of the mimetic perspective, and in deference to the reality of facts, subject psychologies must be rejected: to suppose that psychological movement originates within the interior of a "monadic" subject is a mythical illusion.

At the other end of the spectrum – or so it seems – are the so-called *psychologies of the object*, with Skinner's behaviorism among others. Oughourlian criticizes this approach to human behavior as well, claiming that it once again merely focuses on our *animal side* – MS, p.48:

More serious and dangerous still is the approach of those psychologists who place the origin of psychological movement totally outside the subject, in the object (interpreted in an instrumental sense and not at all in the sense that psychoanalysis attributes to it). In fact, the object as such possesses no force at all, either of attraction or of determinism, and it cannot be turned into a stimulus eliciting a psychological response – except under experimental conditions where the complex interactions that are introduced are the real cause of the effects produced but are ignored by behaviorists. […] Are we really to believe that human reactions are fortuitous, totally random, and that if a subject reacts in a certain way, it is simply the consequence of

"reinforcement", the effect of his having been rewarded in some way by the result obtained? This is a claim that is all the more appealing to behaviorists in that the reinforcements themselves are founded, according to their thinking, on the satisfaction of instincts or needs, something that once again roots the source of psychological movement in the biological. These object psychologies blithely carry over forms of animal behavior into the human, completely obscuring what is fundamental: the progressive liberation of man from instinctual imperatives in the course of his phylogenesis, the development of what we call human freedom, even if it often degenerates into servitude and unhappiness.

According to Oughourlian, human psychology should be understood as quite a unique dynamic, originating from highly *mimetic* connections between human beings – MS, p.49:

Psychological movement is touched off at the time of the linking of... two psychological entities by way of the mimetic connection that enables the movement of one to be communicated to the other.

We must give due recognition to the interchangeability, the porosity, and the constant interaction between the self and the other. The self is a purely psychological entity, a structure in constant becoming at the heart of continuous exchanges with similar structures.

As for Oughourlian's definition of interdividual psychology – MS, p.50:

Interdividual psychology is the study of the types of interaction that take place between psychological entities – interactions that actively constitute the existence and the individuality of each person. Mimesis is the principle that governs the genesis of selves and their interactions. It is a principle of the transmission of information from one self or several to one or several others. [...]

The true psychological actuality is the relationship between *the two. This psychological relationship, which is exclusively mimetic, I call the* interdividual relation.

Noteworthy is that every (sense of) self only exists by some sort of misrecognition, what in French is called *méconnaissance*, primordially by misrecognizing what everyone's so-called *own* identity owes to the existence of (social) others.

The Never Ending Mimetic Story of Embodied Simulation

Imitation from the get-go and early self-awareness

Psychologist Andrew N. Meltzoff, who became famous for his discoveries about infant imitation, clearly challenges some traditional views on child development – MS, p.59:

Humans imitate before they can use language; they learn through imitation but don't need to learn to imitate.

Vittorio Gallese, professor of physiology in the Department of Neuroscience of the School of Medicine at the University of Parma, and one of the researchers that discovered mirror neurons, summarizes how Meltzoff's investigations show the importance of mimetic ability in human development – MS, p.96:

At birth, humans already appear to be engaged in interpersonal mimetic relations. The seminal study of Meltzoff and Moore and the subsequent research field it opened showed that newborns are capable of reproducing mouth and face movements displayed by the adult they are facing. The particular part of their body responded, though not in a reflexive way, to movements displayed by the equivalent body part of someone else. As Meltzoff recently wrote, "The bedrock on which commonsense psychology is constructed is the apprehension that others are similar to the self. Infants are launched on their career of interpersonal relations with the basic perception: 'Here is something like me.'" These results suggest that neonates are innately prepared to link to their caregivers through imitation, clarifying yet another of the various capacities that locate human infants in the social world from the very beginning of life.

According to Gallese, Meltzoff and other researchers, a complex mirror neuron system (MNS) connects human beings to each other from the get-go, allowing for the emergence of self-awareness. Imitating, for example, facial expressions without seeing themselves, allows babies to develop an embodied sense of *self* and *other*: experiencing the physical reactions of their body distinguishes the babies from what they see in the environment. Or, inclining to imitate the behaviors of adults, infants often experience some sort of failure in trying to accomplish the same behaviors themselves, which creates a distinctive distance between the child and the others surrounding it. *Self* and *other* therefore are co-constituted. Gallese, MS, p.99:

Whenever we meet someone, we are implicitly aware of his/her similarity to us, because we literally embody it. Meltzoff and Brooks have suggested that the "like me" analogy between infant and caregiver is the starting point for the development of (social) cognition. The "like- me" status, though, is neither the outcome of an inference by analogy nor the result of our conscious reflection on a perceived external similarity. Our social identification with others is a constitutive endowment of what it means to be human. The I-Thou relation is shaped by bidirectional interaction processes, hence "self" and "other" are originally co-constituted. Infants use the observed behavior of their human partners as a mirror to gain more knowledge about themselves. But the same process also works the other way around: it enables infants to know about others.

The development of a desire for recognition and learning about "the world"

Infants imitate their caregivers in all sorts of ways, also concerning intentions and desires. It is no surprise then that infants soon discover themselves as the object of their caregiver's desire, precisely because of their mimetic ability. As Gallese rightly stresses, the desire for recognition is all too human – MS, p.90:

The desire of being the target of other's desire becomes one of the distinctive features of the extreme alterity of humanity from nature and vitality, one of the main themes of Kojève's phenomenological anthropology. To desire another's desire, to be the target of others' desire, means to gain social recognition.

Meltzoff points out that the mimetic connection with others allows human infants to move from merely instinctive perceptions and reactions to a broader experience of the environment. Apart from describing the positive aspects of this connection (e.g. concerning language acquisition), Meltzoff also hints at possible conflicts emerging from the same dynamic. He's not shy about using biblical metaphors (from the *Garden of Eden* to suggesting the story of *Cain and Abel*) – MS, p.60:

The young infant lives in a kind of psychological Garden of Eden. There are two people paying attention to one another in a blissful state of dyadic interaction. This does not last for long. Soon there are interlopers as the infant becomes aware that third parties are rivals for mother's affection. For example, infants begin to pay attention to the fact that mothers do not always look at them, but also cast their gaze on external objects, siblings, and spouses in the environment. One measure of this dawning realization is infants' gaze following – that is, their tendency to follow mother's gaze to an external target in order to see what she is looking at. Such gaze following is not the duplication of exact bodily movements, but rather a taking into account that mother's behavior is directed toward (or "about") an external target.

There is a triangle, to use a foundational Girardian concept. The triangle is formed by the mother-baby-object. In this triangle, the mother's visual glances refer infants to selected external targets. The onset of infant gaze following has profound implications both for language and emotions. It is relevant for understanding the meaning of an emotional display, because a person's emotion is often engendered by what he or she sees in the external world (e.g., that scene is disgusting or enticing). By following your partner's gaze, you can better understand the cause of her emotional display and thereby your partner's tastes, desires, and proclivities.

Language acquisition is also facilitated by following the gaze of social others (as strikingly described by St. Augustine in The Confessions, *book 1). In the prototypical case, a mother's verbal label refers to the object she is looking at –* this *is a dog;* that *is a bottle – where the referent is indicated by the mother's gaze. We have empirically demonstrated that individual infants who follow mother's gaze move more quickly through the first stages of language learning. Beyond all this, some, like Ginger Rogers, would argue that gaze following is an intersubjective act: "When two people love each other, they don't look at each other, they look in the same direction."*

Mimetic interconnectedness: generating *self* and *other* from a *we-centric space*

For better or worse, due to our mimetic abilities we are *social animals*, connected again and again through a process of *embodied simulation*, as Vittorio Gallese calls it. The following excerpts are all from his article *The Two Sides of Mimesis: Mimetic Theory, Embodied Simulation, and Social Identification*, which concludes the first part of the book *Mimesis and Science*.

First of all, writing about a *we-centric space* and a *shared manifold*, Gallese repeats the idea of Oughourlian's *interdividual* dynamic of psychological development – MS, p.96-97:

At the onset of life, interpersonal relations are readily established within a primitive shared "we-centric space." Neonates share this space with their caregivers. The physical space occupied by the body of the caregiver – the mother, in the first place – is "hooked up" to the body of the infant to compose a shared space. This we-centric space becomes richer and multifaceted, due to the wider range and meaning of interpersonal relations in the course of development.

[...]

Very early on, infants show unequivocal signs of social interaction sequences. They actively solicit their caregivers' attention and engage themselves in body activity displaying "protoconversational" turn-taking structure – that is, characterized by a structure remarkably similar to adult conversations.

Trevarthen recently defined these early mother-child interactions as "primary musicality," where "protoconversations and games with infants carry narratives in cycles of effort and excitement, with predictable harmonies and pauses, and the infant anticipates the steps and remembers the distinctive melodies and rhyming cadences well, becoming an increasingly skilled co-performer."

Furthermore, as beautifully shown by Reddy, preverbal infants only a few months old, when engaged in social interactions, even show signs of so-called "self-conscious emotions" like embarrassment, pride, and coyness at a developmental age preceding the onset of self-reflective consciousness, definitely well before they are capable of self-recognition when looking at their reflection in a mirror. As Reddy writes, "Engaging with other minds is an emotional process from start to finish." Immediately after, she adds, "Rather than derive from conceptual development in the second year of human infancy, these [self-conscious] emotions exist in simple forms as ways of managing the exposure of self to other from early in the first year and are crucial for shaping the infant's emerging conception of self and other."

These results suggest that prior to any triangular mimetic relationship, the main object of infants' mimesis is the affective behavior of the "other". In sum, as pointed out by Beebe et al., developmental psychology has shown that the mind begins as a shared mind. I posit that mirroring mechanisms and the functional mechanism they underpin – embodied simulation – are a crucial component of what makes our mind in the first place a shared mind.

The shared we-centric space enabled by the activation of mirroring mechanisms is paralleled by the development of perspectival spaces defined by the capacity to distinguish self from other, as long as self-control develops. Infants progressively develop an agentive, subjective perspective on the world. However, such a process of personal identification anchored to an egocentric perspective contains and depends upon a contrastive element. "In the absence of reciprocity there is no alter Ego," writes Merleau-Ponty.

It is not possible to conceive of oneself as a "self" without rooting this process of appraisal in an earlier stage in which sharing prevails. Also, in adulthood a shared manifold of intersubjectivity underpins, scaffolds, and enables our social transactions.

Following Gallese and others, it is fair to say that empathy and emotions also originate according to mimetic processes. To understand this even better, one might consider the following suggestion. We already know that an infant unwittingly imitates facial gestures of another. Maybe at one point this other is in pain. Later on, when the child is experiencing pain itself, it will experience the contraction of muscles previously associated with seeing another in pain. From then on, the facial expression of the other experiencing pain, will be associated with the child's own experience – hence it will understand/signify the experience of the other; this example maybe shows how we could understand the emergence of an emotional realm.

In any case, human beings always are physically connected to each other, and understand each other because of an ongoing reciprocal embodiment of each other's actions and behavior – MS, p.98:

The MNS, together with the discoveries of developmental psychology [...], provides a new empirically based image of intersubjectivity viewed first and foremost as intercorporeity. *Intercorporeity, in turn, leads to social identification. Social behavior is not peculiar to humans. Nevertheless, central to all human social cultures of whatever complexity is the notion of* social identification *with the members of those cultures. All levels of social interaction that characterize cognition in single individuals, in one way or another, intersect or overlap with the notion of mutual recognition and intelligibility, that is, with the notion of social identification.*

Gallese further elaborates on the important notion of *embodied* simulation – MS, p.99-100:

In opposition to standard accounts of simulation theory (ST), I qualify simulation as embodied *in order to characterize it as a mandatory, pre-rational, nonintrospectionist process. The folk-psychological model of mind reading proposed by standard accounts of simulation theory, which Gallese and Goldman utilized to frame the functional relevance of mirror neurons, in my opinion* does not apply *to the nonrepresentational character of embodied simulation, as spelled out in Gallese's work, and in the present article. The embodied simulation model is in fact an attempt to avoid folk psychology as the sole account of interpersonal understanding. Before and below mind reading is* intercorporeity *as the main source of knowledge we directly gather about others.*

A direct form of understanding others from within, as it were – intentional attunement – is achieved by the activation of neural systems underpinning what we and others do and feel. Parallel to the detached third-

person sensory description of the observed social stimuli, internal nonlinguistic "representations" of the body states associated with actions, emotions, and sensations are evoked in the observer, as if *he or she were performing a similar action or experiencing a similar emotion or sensation.*

It must be stressed that the term "representation" is used here very differently from its standard meaning in classic cognitive science and analytic philosophy. It refers to a particular type of content generated by the relations that our situated and interacting brain-body system instantiate with the world of others. Such content is pre-linguistic and pre-theoretical, but nevertheless has attributes normally and uniquely attributed to conceptual content.

Finally, the subpersonal level of the shared manifold is instantiated as the activity of a series of mirroring neural circuits. The activity of these mirror neural circuits is, in turn, tightly coupled with multilevel changes within body states. Mirror neurons in monkeys and the MNS in humans instantiate a multimodal shared space for actions and intentions. As we have seen, other data show that analogous neural networks outside the motor system are at work to generate multimodal emotional and somatosensory "we-centric" shared spaces.

To put it in simpler words, every time we relate to other people, we automatically inhabit a we-centric space, within which we exploit a series of implicit certainties about the other. This implicit and pre-theoretical, but at the same time contentful state enables us to directly understand what the other person is doing, why he or she is doing it, and how he or she feels about a specific situation.

To conclude, I'd like to present Gallese's words on how alterity is constituted together with the, indeed "mimetic" or "mirroring", construction of the self through the process of embodied simulation – MS, p.100-101:

This, of course, doesn't imply that we experience others the way we experience ourselves. The I-Thou identity relation constitutes only one side of the intersubjectivity coin. As posited by Edmund Husserl, and recently reemphasized by Dan Zahavi, it is the alterity of the other that guarantees the objectivity we normally attribute to reality. Our lived experience (Erlebnis) *of the "external" world is determined by the presence of other sentient agents.*

It must be noted that the alterity character of others as we experience them also maps at the subpersonal neural level, because the cortical circuits at work when we *act neither completely overlap nor show the same activation intensity as when* others *are the agents and we are the witnesses of their actions. The same logic also applies to emotions and sensations.*

It must also be stressed that the functional mechanism of embodied simulation should not be conceived as a rigid, reflex-like input-output coupling. Several brain-imaging studies conducted on human beings have shown that the intensity of the MNS activation during action observation depends on the similarity between the observed actions and the participants' action repertoire. In particular, one fMRI study focused on the distinction between the relative contribution of visual and motor experience in processing an observed action. The results revealed greater activation of the MNS when the observed actions were frequently performed with respect to those that were only perceptually familiar but never practiced.

Every instantiation of mirroring or interpersonal resonance – that is, embodied simulation – is always a process in which the behavior of others is metabolized by, and filtered through, the observer's idiosyncratic past experiences, capacities, and mental attitudes. Future research will have to focus on the role played by factors like specific personality traits, gender, professional expertise, etc., in modulating these neural mechanisms.