

The self and others: Imitation in infants and Sartre's analysis of the look

KATHLEEN WIDER

Humanities Department, University of Michigan-Dearborn, Dearborn, MI 48128-1491, USA

Abstract. In *Being and Nothingness* Jean-Paul Sartre contends that the self's fundamental relation with the other is one of inescapable conflict. I argue that the research of the last few decades on the ability of infants – even newborns – to imitate the facial expressions and gestures of adults provides counter-evidence to Sartre's claim. Sartre is not wrong that the look of the other may be a source of self-alienation, but that is not how it functions in the first instance. An earlier and more primary form of looking with and at the other is a source of self-discovery. In early imitation, the infant and adult each see the other not as *objects* of experience but as *subjects* of action. Such looking is necessary for the infant to realize its own potential as a self-conscious, goal-directed subject of perception and action.

Jean-Paul Sartre's analysis of the Look of the other and its profound effect on one's experience of oneself is perhaps one of the best known sections of *Being and Nothingness*. In his discussion of our existence for others, Sartre contends that the self's fundamental relation with the other is one of inescapable conflict. I will argue that the research of the last few decades on the ability of infants – even newborns – to imitate the facial expressions and gestures of adults provides counter-evidence to many of Sartre's claims about the fundamental relation between the self and others.¹

This imitative ability of infants is commonly referred to as early imitation. In such imitation one looks at the other but not to make the other an object, as Sartre contends all looking at another does. That is, one does not look at the other in order to derealize his possibilities, make them dead possibilities, override his ends and goals with one's own or steal his organization of space. Rather in early imitation one looks at the other in order to take what is seen and transform it into motor activities of one's own body. One internalizes the actions of the other and absorbs them into one's own body and its behavior in order to make what one has seen in looking at the other into what one feels and experiences in the sensorimo-

tor activities of one's own body. This is one of the earliest and most primary forms of our relations with the other and in it we find a kind of profound unity if not with the particularity of the other's character and personality, certainly with the other as a human agent. We find a kind of species kinship rooted in the characteristics and abilities and physiology we share because, as human subjects, we are, as Sartre would agree, conscious human bodies. More sophisticated forms of interpersonal relations must be built upon earlier and more primary forms of intersubjectivity, among which is early imitation. Sartre begins at too advanced a level in his analysis of our relation with others. At this primary stage our relation with the other is characterized by union not conflict.

I don't mean to deny that the Look of the other can do all that Sartre says it can. That it can produce shame or fear or a counter-response of pride. My contention is that the Look as a source of self-alienation and objectification is not the foundation of our relation with others. Looking both with and at the other serves a positive function in infancy and early childhood. It's because I exist for others and others exist for me that I can develop my capacity for self-directed action and for choosing goals and ends within the shared space of the world. I will argue that my experience of the other through my own actions is not, in the first instance at least, a self-alienation but that it is a discovery and perhaps even a creation of the self.

In order to see how this empirical research on infants undermines some of the most fundamental of Sartre's claims in *Being and Nothingness* about our original relation with the other, I will first review the research findings on infants' ability to imitate adult behavior. I will follow that review with a discussion of Sartre's analysis of our relation with others in light of this recent research.

1. Early imitation

The traditional view of infancy

Research conducted over the last twenty years on the imitative ability of infants – even newborn infants – has challenged many of the more traditional views of developmental psychologists. One such view, held by Piaget among others, is about the original nature of human beings. This view holds that at birth humans are reflexive and nonsocial creatures. As Andrew Meltzoff notes, Piaget's description of the newborn's psychological state is one of "radical egocentrism" or "solipsism." For Piaget and others the

newborn's reflexive actions of sucking, grasping, crying and so forth are the material out of which cognitive and social skills must develop.² Any early imitative behavior on the infant's part is, on this view, simply mindless, reflexive behavior. This more traditional view also holds that more complicated forms of imitation, what Piaget called "invisible imitation," could not occur until an infant was at least eight to twelve months old. Invisible imitation is distinguished from manual imitation. Meltzoff and Keith Moore describe this difference.³ In manual imitation a child imitates an adult action that can be seen by the infant when performed by himself as well as when performed by the adult. Imitating the hand movements of an adult would be an example of this type of imitation. The child can use visual input to guide his imitative behavior. But in invisible imitation the child is imitating behavior that it cannot see in its own case. Imitation of facial expressions and facial gestures are forms of invisible imitation. The child must imitate an action it can see the adult perform but which it cannot see itself perform. The infant must match a behavior of its own which is felt (kinesthetically/proprioceptively) with a behavior of another which it sees. As Meltzoff and Moore point out, classical psychological theories argued that this kind of imitation must come later than manual imitation because of its sophistication and because it requires learning from experience of oneself in mirrors and manual exploration of one's own and others' faces.⁴ Recent research on imitative behavior in infants has also challenged the traditional focus of most studies on the development of a concept of self in infants. These studies focused on the exhibition of self-recognition in the mirror task. This is a task developed around 1970 by G.G. Gallup to test self-awareness in primates. "In Gallup's version, the subject's forehead and ear were unobtrusively marked with an odorless red dye, and self-recognition was indexed if the chimps looked in the mirror and then reached up to touch the marks on their own heads. This behavior was rare to nonexistent in marked chimps with no mirror and thus attributable to the chimpanzees using the information in mirrors to tell them about themselves."⁵ When this task was adapted for use with human infants, it was found that they failed to exhibit self-recognition on this test until eighteen to twenty-four months of age.⁶

The research on early imitation, by Meltzoff and Moore in particular, challenged the view that early human behavior is simply reflexive and gave evidence that invisible imitation occurs much earlier than Piaget thought. Meltzoff and Moore argue that studies of imitation and related phenomena in infants show signs of an earlier, more primitive notion of

self than that exhibited in mirror studies. For Meltzoff and Moore infants have an innate sense of the similarity as well as the distinction between self and others. They believe the fact that even newborns engage in invisible imitation supports such a conclusion. Let us examine the results of their research to see why they think it challenges so many of the traditional views of developmental psychologists.

Studies on imitation in infants

Meltzoff and Moore did the earliest studies that showed that very young infants had the ability to engage in not only manual but also invisible imitation. In their 1977 study they found that 12 to 21 day old infants could imitate three adult facial gestures: tongue protrusion, mouth opening and lip protrusion. They found that these young infants were capable of imitating these facial gestures even if their imitative behavior was delayed. A pacifier was placed in each of the infant's mouth while the adult displayed a particular facial gesture. None of the infants showed signs of dropping the pacifier and imitating the adult while the adult was demonstrating the gesture. But once the adult assumed a passive expression and the pacifier was removed, the infant did imitate the previous facial gesture of the adult. Since reflexes do not jump temporal gaps, Meltzoff and Moore argued this delayed imitation was support that imitative behavior in these infants was not simply reflexive behavior.⁷ A 1982 study of newborns whose average age was thirty-six hours, done by Tiffany Field and associates, supported Meltzoff's and Moore's findings. They found these newborns could both discriminate and imitate three facial expressions (happy, sad and surprised).⁸ Meltzoff and Moore wanted to show the ability to imitate is present at birth, so they conducted another study in 1983 in which they tested whether infants from birth to 72 hours old could imitate two different adult facial gestures: mouth opening and tongue protrusion. They found that infants this young could imitate these adult facial gestures; indeed one infant who did so was only 42 *minutes* old. They also found that infants worked at perfecting the gesture until it matched the adults.⁹ Although the results of these early research findings were controversial for many years, subsequent confirmations in many labs, including cross-cultural studies, have now supported and made common the view that neonates do have the ability to engage in invisible as well as manual imitation.¹⁰

These demonstrations show that very young infants have the ability to imitate the facial expressions and gestures of adults even before they have seen their own faces in a mirror. These examples of early imitation have several characteristics which support the view that such imitation is intentional and not mindless, reflexive behavior. First, such imitative behavior can occur even if delayed. The delays range from a few minutes to as much as four months between the actual demonstration of an action and the infant's imitation of it.¹¹ Infants work toward correcting mistakes and matching a visual target.¹² They can also imitate novel gestures.¹³ And they can imitate an intended goal even when the adult's attempt to reach that goal is unsuccessful and hence the infant does not see the goal performed by the adult.¹⁴ Most importantly, in invisible imitation they can imitate an action which they see with bodily movements of their own which they do not see.

Meltzoff and Moore argue that such imitative ability involves a recognition that others are "like me." They conclude that such imitative behavior shows a recognition not just that others are like me as "enduring physical bodies that are like one's own body and move like one does," but that they are intentional systems with beliefs, desires and goals. They take the fact that by eighteen months old infants can go beyond surface imitation and imitate acts where an adult intention is unfulfilled as support for such recognition.¹⁵ In a 1994 essay, Meltzoff and Alison Gopnik argue that the imitative ability of infants shows that they understand that the bodily movements of others are like my movements and that my movements are like theirs. They think such understanding is the foundation for "like me" judgments with regard to the psychological states of others. They suggest that it may well be that our knowledge of the body (our own and others) is what leads to our knowledge of the mind. They suggest this because they believe that research showing the imitative abilities of newborns supports the conclusion "that children innately map certain of their own internal mental states, particularly their kinesthetic sensations, onto the bodily movements of others." So they conclude that knowledge of self and knowledge of the other develop together.¹⁶ Meltzoff argues for a similar position in a 1993 paper in which he contends that the bridge between self and other is present at birth. That bridge, he contends, is shared actions.¹⁷

Such shared actions manifest in early imitative behavior show not only a sense of likeness between the other and myself but also a sense of differentiation. When an infant imitates the behavior of an adult and of-

ten works at bringing his gesture in line with the target gesture, it is hard to deny there is some sense of an equivalence between the action of the other and the action of oneself. But there is also a distinction between self and other that is biologically guaranteed since the actions are performed by two different bodies. Beyond that studies in early imitation suggest, according to Shaun Gallagher and Meltzoff, that there is a primordial sense of self “What we might call a proprioceptive self – a sense of self that involves a sense of one’s motor possibilities, body postures, and body powers, rather than one’s visual features. The newborn infant’s ability to imitate others, and its ability to correct its movement, which implies a recognition of the difference between its own gesture and the gesture of the other, indicates a rudimentary differentiation between self and non-self.”¹⁸ Another reason invisible imitation ensures a sense of differentiation as well as equivalence between the actions of the self and the actions of the other is that my own actions are experienced proprioceptively and not visually while the reverse is true with my experience of the actions of the other.

Two more points about early imitation should be noted before going on to discuss Sartre’s analysis in *Being and Nothingness* of the relation between the self and others in light of this research. The first is that imitation is two-way and reciprocal. Not only do infants imitate the behavior of adults, but they can recognize when they are being imitated by adults and they show special interest in this. In a 1990 study, Meltzoff found that infants fourteen months old preferred looking at and smiled more at an experimenter who was imitating them and tested the imitating experimenter more to see if he or she were actually imitating them than they did with a control whether the control person was passive or engaged in “babylike” actions. Meltzoff concluded from this that infants can recognize structural equivalences between acts they do and acts they see. This is evidenced both in infants’ imitation *of* adults and in infants’ recognition of their being imitated *by* adults. G. Kugiumutzakis also found spontaneous imitations between mothers and young infants both of mothers imitating infants and infants imitating their mothers.¹⁹ One last point to note with regard to early imitation is that infants imitate people not things. People are special to us. Young infants are fascinated by the sight of other human beings.²⁰ As Michael Tomasello notes in an article entitled “On the Interpersonal Origins of Self-Concept,” “human infants are social creatures from the beginning. They show an interest in people’s faces and behavior from as early as we care to measure it. . . . They engage in rhythmic interactions with their caregivers . . . and match their behaviors

to those of their caregivers within minutes after birth.”²¹ Keeping the characteristics of early imitation in mind, let us examine Sartre's analysis of the relation between the self and the other as he presents it in *Being and Nothingness*.²²

2. The Sartrean look

Sartre argues in part three of *Being and Nothingness* that I come to an awareness and certainty of the existence of the other through an experience of being looked at. The look of the other produces in me an experience of shame or fear because the look always objectifies me. That is, I am seen as an object by the other. This objectification and its source in the look of the other is made evident through my experience of shame or fear. Thus it is through an experience of my own – through my own subjectivity – that I come to grasp the existence of a consciousness – a subjectivity – other than my own. My existence *for* others and the conscious experience it creates reveals to me the existence *of* others. There can be no direct apprehension of the other's subjectivity. I grasp it indirectly but with certainty through certain subjective experiences of my own. These experiences are created by the other's look. The Look then is central to Sartre's analysis of the fundamental and original relation that exists between the self and others. And the look of the other creates conflict between oneself and others. Although my first response to being objectified by the other – to being made an object of evaluation and judgment in the eyes of the other – is shame or fear, that is often quickly followed by a counter-response of pride in which I attempt to assert my subjectivity and make the other an object. In Sartre's terminology I try to transcend the other's transcendence. But the other is not *originally* revealed to me as an object Sartre contends. If he were he wouldn't be revealed as another person, another subject of consciousness. The other is first experienced as the one who makes me into an object. “My being-as-object for the Other . . . is the essential structure of our original relation with the Other.”²³ That is, the other is first experienced through the Look as one who can steal my world, reorient space and what is in it relative to his ends and goals rather than to mine. The other, Sartre contends, is the death of my possibilities. He limits and restricts them (*BN*, 264). The other is the “one who looks at me” and gives me an outside, a nature. And because of that the other is the source of my alienation from myself since this “outside” is a part of me that I can never fully grasp,

although I can recognize that it is somehow “me”. But it is a “me,” a part of myself, the objectified self if you will, that remains within the other and always outside my reach although not outside my sight. To grasp myself as an object, I would have to take the viewpoint of the other and that is a perspective I can be certain exists but I can never occupy. So it is through the other that I become an object according to Sartre (*BN*, 280). It is because of that fact that Sartre believes “I need the Other in order to realize fully all the structures of my being” (*BN*, 222) – which is why Sartre thinks being-for-others is part of the ontological structure of the for-itself.

Sartre is right about the central importance of looking in the fundamental relation between the self and others. But numerous studies in child development indicate that the primary form of looking occurs first in experiences such as the interlocking gaze between mother and child so necessary to a child’s development in the early months of infancy, in the joint visual attention behavior in which both mother and infant readjust their gaze to follow the gaze of the other, and in the form of looking that occurs in early imitation, the behavior I’m focusing on in this paper. These forms of looking serve a positive function in uniting subjects of perception and action. For example, the joint “looking at” experienced in joint visual attention is thought to be an early form of what one researcher calls the “meeting of minds”²⁴ and appears to help the child learn to organize space and understand that space is shared by others. In early imitation “looking at” is mutual between adult and child. Each sees the other not as an object of experience but first and foremost as a *subject* of action. Sartre is right that the other is needed to realize fully all the structures of my being, but these structures are not limited to or in the first instance structures of my being as an object for another. Rather I need these experiences of looking at and with another to realize my own potential as a self-conscious, goal-directed subject of perception and action. Through imitation one learns not only about others or about one’s existence for others, but one learns about one’s own possibilities as an embodied subject of action and consciousness. More importantly for the argument of this paper, one finds in the infant’s capacity for invisible imitation an early – if not innate – ability of humans to identify with others of their kind and to do so at the level of bodily action. The infant looks at the other not as an object but as a person, as an entity whose movements can be imitated in the movements of his own body. In invisible imitation this bodily absorption of the other – the other’s gestures and expressions – is even more pronounced since the infant must transfer what it sees into an

experience it feels as a set of sensorimotor activities of its own body. In early imitation the other's subjectivity is experienced through one's own subjectivity, as Sartre argues it must be, but it is experienced through oneself as a center of action rather than through one's experience of shame or fear. Such experience of imitating the actions of others opens up the range of possibilities and goal-directed action for the infant rather than restricting his possibilities. Our original relation with others involves self-discovery and possibly even self-creation rather than alienation.²⁵

Sartre continues to discuss the self's relation with others in a section on the body that immediately follows his discussion of the Look in *Being and Nothingness*. Here he distinguishes two aspects of the body's existence: (1) my body as it exists for me and (2) my body as it exists for the other. According to Sartre, I experience my body as it exists for me as a lived reality not as something known or objectified. But I experience my body as it exists for others as something objectified. Sartre contends that no communication is possible between these two levels of my being. But invisible imitation, I think, reveals the possibility of communication between these two levels and hence between the self and others. For Sartre "to study the way in which my body appears to the Other or the way in which the Other's body appears to me amounts to the same thing" (*BN*, 339). Keeping this in mind, I think we can see in invisible imitation the other's body as it is for me (which is the same as my body as it is for the other) transformed into my body as it is for me. That is, the other's body *as seen* is transformed into my body *as lived and experienced*, my body as a center of action. The reason this is possible is because, as early imitation makes evident, the other's body as seen is not strictly an *object* of attention but can also be perceived as a *subject* of imitation. Remember that infants do not try to imitate the actions of objects, but only the actions of subjects. Sartre is wrong when he contends that before I apprehend the other's body, "I must apprehend the Other first as the one for whom I exist as an object" (*BN*, 330). In imitation I apprehend the other as another subject through apprehending his body, that is, through apprehending the movements of his body. I do apprehend the other's body through an experience of my own body, as Sartre points out, but not through an experience of my body as objectified nor of the other's as the source of my objectification. I apprehend the other's body as a subject of action through the experience of my own body as a subject of action as well. One of the first signs that I recognize my body as it exists for others – as an *object of* awareness – is in the mirror recognition task. Such self-awareness comes after my absorption of the other's body as it exists

for others (as seen) into my body as it exists for me. Sartre says that the child's perception of his own body as an object comes after his perception of the other's body as an object (*BN*, 358). That may well be the case. But it is also true that the child first perceives the other as a *bodily subject* of action in order to come to a sense of himself as a bodily subject of goal-directed action as well. Sartre does acknowledge that my perception of other people is radically distinct from my perception of things (*BN*, 345). The other, he says, is originally given to me as "*a body in situation*" (*BN*, 344). The other's body appears as a "*totality of life and action,*" (*BN*, 346), as alive, as flesh, as embedded in the world of instruments and actions. But he fails to see that at least one avenue by which we grasp the other as well as ourself as flesh – as in situation – as alive and embodied is by absorbing the expressions and gestures of the other into the movements of our own body.

In the third part of chapter three of *Being and Nothingness*, Sartre deals with what he calls our concrete relations with others. There he says that "the original bond with the Other first arises in connection with the relation between my body and the Other's body" (*BN*, 361). Obviously I think he's right about that, but I think he's wrong in how he interprets this bond. It is because we are embodied consciousness that we can be made into objects and make others into objects. It is this constant attempt to objectify the other which marks, for Sartre, our relations with others. Even when Sartre complicates his discussion of the objectification involved in our relations with others and acknowledges that we search for union with the other as well, he still maintains that such union, if possible at all, is fleeting and simply a temporary "appeasement" at the heart of the conflict between ourselves and others and not a solution to that conflict (*BN*, 428). Although Sartre thinks our pursuit of union with another person in love and sexual desire ultimately fails,²⁶ he does allow that there can be an experience of a plurality of subjects who recognize each other as centers of subjectivity. This experience of the 'we', as Sartre calls it, comes through common action or a common perception. The best example of this, he says, is spectators at a theatrical performance united in a shared experience of the play they are watching. Although there can be temporary experiences of union with other subjects, this kind of experience "could not be the foundation of our consciousness of the other" (*BN*, 414). The reason it could not is because the two forms of the experience of being *with* others that Sartre identifies: the 'us-object' and the 'we-subject' are, he argues, secondary structures of our existence for others. The 'us-object' is created when two or more people (an entire op-

pressed class, for example) are objectified by the look of a third person (or by the oppressor class). Experiencing union with other subjects is dependent here on our existence for others and the objectification that involves. It is in resisting the mutual objectification by a third party that multiple subjects find temporary union with each other. In discussing the 'we-subject', Sartre argues that "it is the world which makes known to us our belonging to a subject-community, especially the existence of the world of manufactured objects" (*BN*, 423). When I use these manufactured objects – the hammer, the jam jar opener, the subway – I am one among many, part of the 'they' who use these objects to pursue common ends. But such union with others, including the union between spectators at a play, involves me only as an anonymous "tool user," "subway rider," or "play viewer." Such experience of a we-subject requires some more primary form of recognition of others' existence. Sartre claims that to recognize the other as speaking to me in an "Exit" or "Entrance" sign or for an object to appear to me as being humanly made as opposed to unworked upon matter, the other must first be given in some other way. The only other way possible, on Sartre's view, is for the other to be given as the one who looks at me and in doing so objectifies me. Hence, for Sartre, the experience of the we-subject is just an enrichment of some of the forms of our existence *for* others.

But I think that once again Sartre fails to look at more primary and much earlier forms of self-other relations. These are forms which are necessary not only for consciousness of others and an awareness of how others' consciousness of oneself creates objective aspects of the self, but also for how I come to self-realization and awareness of myself as a *subject* of consciousness. Early imitation as well as related phenomena in infancy suggest that our existence for ourselves, certainly as subjects of perception and action, is just as dependent on our existence *with* others as it is on our existence *for* others.²⁷ Even if Sartre were successful in showing these later experiences of union with other subjects are secondary and dependent on some other way of recognizing the other, my earlier arguments are meant to show that the experience of objectification is not the only – and most probably not the primary – way of experiencing the other.

3. Possible Sartrean responses

Sartre might respond to my criticisms of his analysis of our original relations with others by arguing that in early imitation the infant does not yet

exist *for itself*, that it is not a self-conscious creature. Therefore studies in early imitation shed no light on the original relation between the for-itself and others. But if we recall some of the characteristics of early imitation, I think they indicate that self-consciousness is present, in at least a primitive form, even in the newborn. The fact that newborns as well as older infants work at perfecting imitative behavior and matching the facial gestures of adults along with the fact that they are capable of deferred imitation shows that there must be some sense of the self and its gestures as distinct from the adult and his gestures. Without some bodily sense of self, how could the infant realize when his gesture has matched that of the adult? Even within the context of his own analysis of consciousness, Sartre would have to acknowledge that the infant is self-conscious if he is willing to accept that the infant is conscious, since one of his fundamental claims in *Being and Nothingness* is that all consciousness is self-consciousness.

A stronger Sartrean response could be mounted by appeal to Sartre's use of Lewin's notion of hodological space. Adrian Mirvish does an excellent job of arguing that one can find the possibility for authentic relations between the self and the other (especially between parent and child) in Sartre's use of this notion of hodological space, that is, space structured and oriented relative to one's own goals and ends. Unlike most commentators who find the possibility for positive human relations only in Sartre's later work, Mirvish argues that this possibility is present in Sartre's early work despite his negative analysis of our relations with others in *Being and Nothingness*. I don't deny that this possibility is present in Sartre's early work and in precisely the place where Mirvish finds it.²⁸ But Mirvish, although he acknowledges that goals can be shared, focuses on the conflict that inevitably arises because people live in shared space and hence the way one organizes and structures space may at times conflict with how another does. His argument is that this conflict can be positive. I have no argument with that view. But I think there is an even more fundamental point to be made in this discussion of space and its organization relative to one's goals. The evidence suggests that there wouldn't be goal-directedness at all for the infant, at least in terms of space, unless he had first experienced *shared* goals, directions and actions. Unfortunately, although Sartre refers to the notion of hodological space at least twice in his discussion of our existence for others in *Being and Nothingness* (308, 322), he never uses this notion to explore the possibility for positive human relations.

In conclusion let me offer one reason why Sartre views our fundamental relation with the other as negative. It is the residue of Cartesianism

that is present in *Being and Nothingness*. Although he rejects Descartes' mind/body dualism and repeats more than once in *Being and Nothingness* that it is the body which is the subject of consciousness, he still holds fast to the Cartesian starting point: the "I think" rather than the "I act." In the first part of his discussion of our existence for others, he says "the only point of departure is the Cartesian *cogito*" (BN, 251). Earlier he makes a similar point:

The sole point of departure is the interiority of the *cogito*. We must understand by this that each one must be able by starting out from his own interiority to rediscover the Other's being as a transcendence which conditions the very being of that interiority. (BN, 244)

Although our philosophical rediscovery of the other might begin in interiority, our original relation with the other begins in infancy. We might say metaphorically that the infant wears his consciousness on the surface of his body. Long before the development of reflective self-consciousness and even before there exists the kind of pre-reflective self-awareness Sartre thinks is primary, that is, a self-awareness that can be made reflective, there exists a bodily self-awareness which constitutes our most primitive form of self-consciousness.²⁹ It is precisely in this experience of one's own body as a sensorimotor organism, as a perceptual perspective on and in space, that we first discover the other. Studies in early imitation support the view that our awareness of others mediates our awareness of ourselves not only as objects of the judgments of others but as bodily subjects of perception and action.

Notes

1. I began thinking about Sartre's analysis of the Look in relation to research on infant imitation after reading Natika Newton's discussion of imitation in relation to understanding actions in her book, *Foundations of Understanding* (Philadelphia: John Benjamins Publishing Co., 1996), pp. 127–133 and Shaun Gallagher's essay with Andrew N. Meltzoff on Merleau-Ponty and early imitation, "The Earliest Sense of Self and Others: Merleau-Ponty and Recent Developmental Studies," *Philosophical Psychology* 9 (1996), 211–233.
2. Andrew N. Meltzoff, "The Roots of Social and Cognitive Development: Model of Man's Original Nature," *Social Perception in Infants*, ed. Tiffany M. Field and Nathan A. Fox (Norwood, NJ: Ablex Publishing Corp., 1985), pp. 2–3.
3. Meltzoff and M. Keith Moore, "Infants' Understanding of People and Things: From Body Imitation to Folk Psychology," *The Body and the Self*, ed. Jose Luis Bermudez, Anthony Marcel, and Naomi Eilan (Cambridge: MIT Press, 1995), p. 49.

4. See especially Meltzoff and Moore, "Early Imitation Within a Functional Framework: The Importance of Person Identity, Movement, and Development," *Infant Behavior and Development* 15 (1992), 479–505, and Meltzoff and Moore, "Infants' Understanding," for a discussion of this traditional view and this distinction.
5. Meltzoff, "Foundations for Developing a Concept of Self: The Role of Imitation in Relating Self to Other and the Value of Social Mirroring, Social Modeling, and Self Practice in Infants", *The Self in Transition: Infancy to Childhood*, ed. Dante Cicchetti and Marjorie Beeghly (Chicago: University of Chicago Press, 1990), p. 140.
6. See George Butterworth, "Self-Perception in Infancy," *The Self in Transition*, pp. 120–121, and Meltzoff, "Foundations for Developing a Concept of Self," pp. 140–141 for a discussion of these mirror self-recognition studies.
7. See Meltzoff and Moore, "Imitation of Facial and Manual Gestures by Human Neonates," *Science* 198 (Oct. 7, 1977), pp. 75–78 for a detailed presentation of this study and Meltzoff and Moore, "Infants' Understanding," pp. 50–51 for a summary and evaluation of this study.
8. Field, Tiffany M., Robert Woodson, Reena Greenberg, and Debra Cohen, "Discrimination and Imitation of Facial Expressions by Neonates," *Science* 218 (Oct. 8, 1982), 179–181.
9. Meltzoff and Moore, "Newborn Infants Imitate Adult Facial Gestures," *Child Development* 54 (1983), 702–709.
10. For citations of confirmatory studies by researchers other than Meltzoff and Moore, see Meltzoff and Moore, "Newborn Infants," p. 703; Meltzoff and Moore, "Early Imitation Within a Functional Framework," p. 480; Meltzoff, "The Centrality of Motor Coordination and Proprioception in Social and Cognitive Development: From Shared Actions to Shared Minds," *The Development of Coordination in Infancy*, ed. Geert J.P. Savelsbergh (Amsterdam: Elsevier Science Publishers B.V., 1993), p. 469; Meltzoff and Moore, "Imitation in Newborn Infants: Exploring the Range of Gestures Imitated and the Underlying Mechanisms," *Developmental Psychology* 25 (1989), p. 954; Colwyn Trevarthen, "The Self Born in Intersubjectivity: The Psychology of an Infant Communicating," *The Perceived Self*, ed. Ulric Neisser (Cambridge: Cambridge University Press, 1993).
11. In addition to the ability of infants to imitate after a short delay as demonstrated in the 1977 study of Meltzoff and Moore discussed above, later studies showed that infants at six weeks of age could imitate after a twenty-four hour delay [Meltzoff and Moore, "Imitation, Memory, and the Representation of Persons," *Infant Behavior and Development* 17 (1994), p. 85]. Also fourteen month old infants could imitate multiple acts after a one week delay, including a novel act which was defined as one which had zero probability of occurring in spontaneous play [Meltzoff, "Infant Imitation After a 1-Week Delay: Long-Term Memory for Novel Acts and Multiple Stimuli," *Developmental Psychology* 24 (1988)]. These findings were replicated with nine month old infants [Meltzoff, "Foundations for Developing a Concept of Self," p. 149]. Meltzoff also found that fourteen to sixteen month old infants could imitate actions even after a four month delay. Meltzoff

- concludes that such studies show that infants can guide their actions by long-term memory as well as by present perceptual input [Meltzoff, "The Centrality of Motor Coordination," pp. 474–475].
12. Meltzoff and Moore, "Infants' Understanding," p. 51; Meltzoff and Moore, "Newborn Infants," p. 707; Meltzoff and Moore, "Imitation, Memory".
 13. "Infants' Understanding," p. 52; Meltzoff, "Infant Imitation".
 14. "Infants' Understanding," p. 61.
 15. pp. 60–61.
 16. Alison Gopnik and Meltzoff, "Minds, Bodies, and Persons: Young Children's Understanding of the Self and Others as Reflected in Imitation and Theory of Mind Research," *Self-Awareness in Animals and Humans*, ed. Sue Taylor Parker, Robert W. Mitchell, and Maria L. Boccia (Cambridge: Cambridge University Press, 1994), p. 174.
 17. Meltzoff, "The Centrality of Motor Coordination".
 18. Gallagher and Meltzoff, p. 227.
 19. Trevarthen, p. 145.
 20. Meltzoff, "The Centrality of Motor Coordination," p. 479.
 21. Michael Tomasello, "On the Interpersonal Origins of Self-Concept," *The Perceived Self*, p. 174.
 22. I am not addressing his later views on this relationship. It should also be noted that Meltzoff and Moore draw many conclusions from their ground breaking research, especially with regard to the mechanisms which mediate early and in particular invisible imitation. They contend that there is a supramodal representational system which the infant uses to map the behavior he sees and to match it with an action he performs but can only feel proprioceptively. "We are thus proposing that early imitation is mediated by a process of *active intermodal mapping* (AIM) . . . and that imitation is but one manifestation of an underlying representational system that unites the perception and production of human acts within the same framework" [Meltzoff and Moore, "Imitation in Newborn Infants," p. 961]. See also Meltzoff, "The Centrality of Motor Coordination," p. 470; Meltzoff and Moore, "Newborn Infants," p. 708; Meltzoff, "Foundations for Developing a Concept of Self," pp. 157–158.
 23. Jean-Paul Sartre, *Being and Nothingness [L'etre et Le Neant, 1943]*, Hazel E. Barnes (New York: Philosophical Library, 1956). All future references to this work will be noted in the text with BN and the page number.
 24. Butterworth, "The Ontogeny and Phylogeny of Joint Visual Attention," *Natural Theories of the Mind*, ed. Andrew Whiten (Cambridge, MA: Basil Blackwell, 1991).
 25. I don't deny that there can be situations in which infants are treated by adults as objects and not persons. Such lack of healthy interaction distorts the development of the personhood of the child and of course in extreme cases can lead to the death of the child. But it is hardly to be counted as part of the basic, primordial relation between self and other. Indeed, without the kind of positive forms of interaction with others that I have been discussing in this paper, no self develops to have the kind of relation Sartre envisions as primary between self and other.

26. In his posthumously published *Notebooks For an Ethics* [*Cahiers pour une morale*, 1983], trans. David Pellauer (Chicago: University of Chicago Press, 1992), Sartre in a comment about love remarks “No love without that sadistic-masochistic dialectic of subjugation of freedoms that I have described” (in the “Concrete Relations with Others” section of *Being and Nothingness*). But he follows this remark immediately with this qualification of his view: “No love without deeper recognition and reciprocal comprehension of freedoms (a missing dimension in *B[eing and] N[othingness]*)”, p. 414.
27. This discussion of whether being-*with*-others or being-*for*-others is more primary is of course part of Sartre’s ongoing argument with Heidegger and Heidegger’s analysis of the *mitsein*. While acknowledging Heidegger’s contribution to this topic, Sartre raises objections to Heidegger’s analysis. Heidegger’s view of our relations with others forms the backdrop for the entire discussion of our existence for others in *Being and Nothingness*. To show how this is so would require a lengthy discussion and would repeat the work of others.
28. Adrian Mirvish, “Sartre on Embodied Minds, Authenticity and Childhood,” *Man and World* 29 (1996), 19–41. I make a point similar to Mirvish’s in my book, *The Bodily Nature of Consciousness: Sartre and Contemporary Philosophy of Mind* (Ithaca, NY: Cornell University Press, 1997), pp. 130–131.
29. In *The Bodily Nature of Consciousness*, I argue that bodily self-awareness is our most primitive form of self-consciousness upon which all other, more sophisticated forms are based.