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DANIEL B. LEE*

COMMUNICATING MINDS: SUBJECTIVITY, OBJECTIVITY, AND UNDERSTANDING

If each person represents a black box of subjectivity inside of which a meaningful world is independently constructed, how do different people understand each other? This paper evaluates sociological, psychological, and biological constructions of intersubjectivity that appear to answer this question. For some scholars, intersubjectivity appears to imply that a common form of consciousness exists between or among different actors and that "our mind" provides us with a mutually accessible source of meaningful information. Other writers even assert that there is a social or biological basis for sharing or reading minds. Developing Niklas Luhmann's argument that society is communication and that it excludes people, the author rejects intersubjectivity and explains how communication objectively coordinates the independent minds of its participants. The operative closure of conscious systems does not lead to social chaos because subjects teach themselves to condition private thoughts, intentions, tastes, and behaviors with interobjective, self-referential forms of meaning established in society.

Keywords: cognitive coordination, intentionality, interobjectivity, social systems theory, symbolic interactionism, mirror neurons.

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1. Introduction

Peter Gay, the interpreter of Freud and psychohistorian who taught at Columbia and Yale, once wrote an article about thinking and feeling in the modern world. His piece begins with an extraordinary question:

When did our minds become "our" minds? Our fears of overpopulation, of race riots, of wasted resources, of extinction through nuclear war, are recent in origin, at least in their acute form. But the minds that furnished our minds reach farther back: practically all the ideas that determine our vocabulary, direct our taste, dominate our lives, were generated or revived in the years between 1890 and 1914. (Gay 1973: 10)

Professor Gay goes on to eloquently describe the powerful philosophical, scientific, and artistic currents that marked the brief period of time before the First World War. As marvelous as it may have been, the *Zeitgeist* of that period is not as extraordinary as Gay's assumption that "our minds" have anything at all in common. Indeed, how could one mind furnish another mind with anything? Common sense seems to suggest that each person's consciousness is a completely confidential affair and that each subject thinks with their own mind on their own terms.

From his vantage point as a philosopher of mind, John Searle argues that "consciousness is a biological phenomenon," "part of our ordinary biological history, along with digestion, growth, mitosis, and meiosis." However, as Searle asserts, consciousness has an important feature that other biological phenomena do not have: "subjectivity." He continues: "There is a sense in which each person's consciousness is private to that person, a sense in which he is related to his pains, tickles, itches, thoughts, and feelings in a way that is quite unlike the way that others are related to those pains, tickles, itches, thoughts, and feelings" (Searle 1993: 4).

The author of this paper adopts the position that each person represents a black box of subjectivity, inside of which a meaningful world is independently constructed in a cognitive process that is hidden from others. An actor may observe another's behavior, but not the mental processing that motivates, executes, and connects that behavior with subjective meaning. The veiled consciousness of independent subjects should logically lead *away* from any orderly association of minds, shared meaning, or

mutual understanding. Nevertheless, as this paper demonstrates, scholars in various disciplines have repeatedly turned to notions of "intersubjectivity," "group mind," or "collective conscious" to explain how isolated subjects are mentally and behaviorally coordinated. Sometimes intersubjectivity is used in a merely figurative sense, with a claim that individuals understand one another as if they possessed a single, mutually accessible mind. In other instances, intersubjectivity is used in a literal manner, with the assertion that individuals may actually read one another's thoughts. This paper distinguishes between various ways the concept has been used and evaluates the potential of intersubjectivity to inform and order the thoughts of individuals.

The concept of intersubjectivity typically implies that a common form of consciousness exists between or among different actors and that "our mind" provides us with a mutually or reciprocally accessible source of meaningful information. Conditioning our private thoughts with intersubjectivity, as it were, we simultaneously think with and for one another, jointly informing ourselves with the same cognitive resource. It makes sense, along these lines, to inquire about the collective psychology of a historical epoch. Intersubjectivity is a familiar notion within the disciplines of sociology and psychology, two fields that share a central interest in describing how individuals make sense of one another. More recently, the discovery of "mind reading neurons" has incited intense research activity among neuroscientists. After considering some of the most influential positions on intersubjectivity, the author of this paper concludes that the concept should be rejected. Those who propose it fail to take the subjectivity or the intentionality of individual actors seriously, they confuse perceiving another person's behavior with understanding its meaning, or they propose that actors have clairvoyant powers of extrasensory perception that are not documented. The author suggests that sociology's traditional attraction to the notion of intersubjectivity results from its struggle to develop a scientific concept of society that adequately accounts for the social organization of autonomously thinking subjects. Building on two enlightening insights from Niklas Luhmann, that society is communication and that society excludes subjectivity (1997), the author explains how communication coordinates the independent minds of its participants. The operative closure of conscious systems does not lead to

social chaos as a result of the unlikely coordination produced by society. Subjects teach themselves to condition their private thoughts, intentions, tastes, and behaviors with interobjective, self-referential forms of meaning that are established in communication. The subjectivity of each participant in society remains sovereign, intransparent, and closed.

2. Social Order and Empathy: Subjectivity as a Problem

In the familiar humanistic tradition, subjectivity is attributed to each individual person and is typically described as the mental capacity for reflexive thought, self-awareness, or self-consciousness. In the Phenomenology of the Spirit, for example, Hegel (1977) describes the subject's longing for and alienation from objects in the external world. His "biography of the spirit" is a story about the subject's eventual reconciliation with the "discipline of reason." To grossly simplify Hegel's conclusion, the reasonable subject is the one who resolves all contradictions between personal and communal goals, conditioning subjectivity with culture, morality, religion, science, and political ideology. The image of individual people working in harmony to make a common home in the world is appealing, but what power can guarantee that different subjects will experience the same spiritual biography? Hegel's readers seem to have struggled between two possibilities. On the one hand, the state might organize and enforce social order, negatively sanctioning any unreasonable subjects. On the other hand, the social process of mutual recognition and reciprocal selfdetermination might lead individuals to voluntarily fall into spiritual alignment. Perhaps all will simply recognize the truth that one's own freedom depends on the freedom of others, and that one must internally want to do only what others expect one to do. One way or another, the problem of organizing independently thinking subjects is covered up by Hegel's assumption of a common human consciousness, a subjectivity of the reasonable herd that grazes through history. Subjects either lose themselves in the external identity of the state, or they are internally guided by the same state of absolute truth.

The sociological pioneers seem to have followed closely in Hegel's footsteps. Karl Marx, for example, claimed to recognize the difference between true and false consciousness. Every truly conscious subject iden-

tifies with the working class. Marx knew the needs of all workers, enlightened as he was, so he also knew the needs of every truly human subject. The dictatorship of the proletariat will be replaced by a common internal discipline, a shared realization that class consciousness is the only authentic consciousness for the species-being. As "reformers of consciousness," Marxists "only show the world what it is fighting for, and consciousness is something that the world must acquire, like it or not" (Marx 1978: 15). As truly conscious subjects, workers will know that they want to consume only what they absolutely need, while contributing to the community as much as they possibly can. The smooth organization of communist society is assured, it seems, by laws of nature. There is simply no stopping history's rush toward peace and harmony. Jürgen Habermas (1984), sustaining this familiar vision, asserts that individual subjects can talk their way into agreement with an appeal to "communicative rationality." Whenever participants in communication mutually acknowledge one another's human dignity and right to freely express subjective opinions, the "ideal speech situation" leads the group to consensus. When subjects are nice to each other and talk long enough, reason descends upon them and social order prevails. If the world cannot stop itself from acquiring true consciousness and if communicative rationality cannot fail to achieve understanding, why worry about convincing subjects to join the ideal speech revolution? The consciousness reformers claim that those who cling to their own subjectivity lack revolutionary zeal and communal spirit. They lament that many individuals are still guilty of falsely thinking for themselves, irrationally resisting the laws of nature and the forward march of history. However, if subjectivity is taken seriously, is not the difference between true and false consciousness a purely psychological, aesthetic, or introspective concern?

Emile Durkheim took the problem of maintaining social order very seriously, as is evident in his *Rules of Sociological Method* (1938) and other works. Individuals will do whatever they want unless they are constrained by a disciplining moral community. In a quasi-behaviorist fashion, "social facts" condition individual behavior because members of the community expect that deviants will be publicly punished and conformists will be rewarded. Social facts determine the actions, thoughts, and even feelings of individual subjects, as Durkheim maintained:

[Social facts belong to] a category of facts with very distinctive characteristics: it consists of ways of acting, thinking, and feeling, external to the individual, and endowed with a power of coercion, by reason of which they control him. These ways of thinking could not be confused with biological phenomena, since they consist of representations and of actions; nor with psychological phenomena, which exist only in the individual consciousness and through it. They constitute, thus, a new variety of phenomena; and it is to them exclusively that the term "social" ought to be applied. (1938: 60)

When behavioral norms are no longer enforced by sanctions, a pathological condition of anomie results and members lose the ability to predict one another's behaviors. Durkheim recognized that subjectivity exists, that it implies independence for members of society, and that this independence presents a challenge to social solidarity and order. In his theoretical account (1964), mechanical solidarity works as a source of order in primitive society because the individuality or subjectivity of each member is very weak and social differentiation is very low. The common denominator appears to be provincialism, for each member of the primitive community knows only as much as every other member (see Redfield 1953). For its part, organic solidarity works in modern society because subjectivity is restrained and informed by membership within differentiated, specialized social networks. With both forms of Durkheim's social solidarity, subjectivity is shaped by a "moral community" that is inspired by a "collective consciousness." A common awareness of sanctions is what appears to establish the social facts that constrain actors, but Durkheim does not explain how the collective consciousness informs each actor's consciousness of either one. One of the first sociologists in the United States, Franklin Henry Giddings, integrates Durkheim's reasoning in his own conception of "the social mind." He asserts:

The social mind is a concrete thing. It is more than any individual mind and dominates every individual will. Yet it exists only in individual minds, and we have no knowledge of any consciousness but that of individuals... The social mind is the phenomenon of many individual minds in interaction, so playing upon one another that they simultaneously feel the same sensation or emotion, arrive at one judgment and perhaps act

in concert. It is, in short, the mental unity of many individuals or of a crowd. (1896: 134)

Giddings observes that the social mind takes deliberate action to "impose its standards, codes, policies, faiths, and creeds upon individuals" (1896: 152). With a Hegelian twist, he claims that when "the group of associated persons becomes a community," there emerges "a comprehension by each mind of some portion of thought and feeling of all other minds. In this phenomenon lies the possibility of a perfect social coordination without the sacrifice of individual freedom" (1896: 390). It is not clear whether individuals conform to the social mind because they commonly recognize its higher morality or reason, or because they feel pressured to join the crowd. Durkheim's description of a community of morals also informs Talcott Parsons theory of normative consensus (Parsons et al. 1951). If a community appears to be functioning, we may presume that its members share an underlying sense of morality. But is there not ample evidence that common immorality can also organize individuals? (Alexander 2001; Schneider 2001; Kingma 2008; Brents & Hausbeck 2001). When associated in moral or immoral communities, how do individuals mutually order themselves if each one thinks alone?

While differences between them should not be ignored, the writers mentioned above attempt to describe an imposing super-individual power that organizes the chaos produced from a multitude of subjectivities. There is a common sense of the need, attributed to society itself, to order and coordinate the behavior of individuals. The world spirit, class consciousness, collective consciousness, the social mind, normative consensus, and other devices were used as names for the intersubjective force that ordered the behavior of subjects. Subjects who refused to properly orient themselves could be described as irrational, pathological, immoral, or alienated. Those who accepted the social order were liberated by the forces of reason and solidarity; the collective consciousness literally became their own.

If the problem of how society orders and restricts the practices of subjects was central for many writers, Max Weber shifted attention to the problem of how subjects can develop the empathy required to understand one another's intentions and psychological motivations. Perhaps more than any other pioneering social scientist, Weber directed his attention to the

sociological implications of subjectivity. His notion of sociology's project, "to explain and understand social action," explicitly pursues intentionality or the meaning subjects attach to their actions (Weber 1980). Actors connect means and goals with subjective meaning; they select behaviors that they expect will lead to selected ends. As a sociologist, Weber sought to understand the causes of behavior in terms of the subjective motivations of actors, as opposed to the laws of nature, universal reason, or history. The motivations themselves appeared more or less predictable, common, and immanent: physical well being, psychological comfort, economic success, political power, scientific insight, etc. Nonetheless, Weber's key insight is that the connection between behaviors and motivations is subjectively determined. On one hand, multiple participants in the same social action may be moved by different motivations. On the other hand, the same "ideal-typical" motivation may lead participants to engage in different types of action. In other words, knowing a subject's motivation does not enable the sociologist to predict behavior, and seeing a subject's actions reveals nothing about internal motivation. For Weber, subjectivity is a wild card that draws its own values. To explain how subjects ever come to value the same associations between means and ends, he turns to Nietzschean metaphors of struggle, battle, and competition between charismatic prophets and heroes who invent meaningful lifestyles for other people to lead (see Fleischman 1964). The modern subject either decides how to act so that life gains meaning, creating a personal god; or else decides to find meaning in accepting another subject's commands. In any case, it is up to an individual to choose the meaning of life and a corresponding lifestyle. How will Weber reach the subjective world of another, how will he understand it? Apparently, his methodology is to reduce the motivations of other subjects to his own ideal-typical constructions, filtering away any unrefined idiosyncrasies. Alfred Schutz (1967: 234–235) draws attention to this problem of Weber's methodology:

It seems contradictory to set up the sociologist as judge of what is meaning-adequate, unless we mean by (Weber's) 'knowledge of average habits of thought and feeling' the knowledge the social sciences have of all conceivable subjective experiences whatsoever. It is enough for the mean-

ingful interpretation of another's behavior that I assume that my ideal construct stands in the context of meaning for him.

The possibility of adequately understanding the meaning behind another actor's behavior is not only the central task of interpretive sociology, it is a task set before every participant in every social interaction. The burning question for every actor is: how can I assume that the same ideal construct frames meaning in both my mind and that of my partner? With Weber, we face the possibility of different subjects smoothly ordering their collective practices with respect to the same social norms and behavioral rules, even while each conforming subject is guided by idiosyncratic intentions that would not be understood by any other subject. While their behavior may be coordinated, organizing the intentions of subjects is a separate problem.

Sociology has developed an increasing awareness that subjects are subjects because they have intentions: they make decisions. One mind at a time, they decide to join the revolution and share true consciousness; they decide to accept social facts and are guided by the collective conscious; they decide to choose connections between means and ends and thus give their lives meaning. As human subjects are attributed more and more responsibility for making their own decisions and defining their own situations, both social order and the possibility of empathy appear to be increasingly improbable and difficult to explain. In a variety of forms, the concept of intersubjectivity is eventually introduced as a possible solution by several influential writers.

3. Intersubjectivity as a Solution: Sociological, Psychological, and Biological Perspectives

From Max Scheler's perspective, a subject may understand another by directly perceiving the other's mental and emotional states:

For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing, with his entreaty in his outstretched hands, with his love in his look of affection, with his rage in the gnashing of his

teeth, with his threats in the clenching of his fist, and with the tenor of his thoughts in the sound of his words. (1954: 254)

In their much acclaimed treatise on the sociology of knowledge, *The Social Construction of Reality*, Peter Berger and Thomas Luckmann reiterate Scheler's position:

Human expressivity is capable of objectivation, that is, it manifests itself in products of human activity that are available to both producers and to other men as elements of a common world. Such objectivations serve as more or less enduring indices of the subjective processes of their producers [...] For instance, a subjective attitude of anger is directly expressed in the face-to-face situation by a variety of bodily indices – facial mien, general stance of the body, specific movements of arms and feet, and so on. These indices are continuously available in the face-to-face situation, which is precisely why it affords me the optimal situation for gaining access to another's subjectivity. (1966: 34)

Subjects can perceive one another's thoughts and inner states because they recognize expressive "objectivations." *The body reveals the mind.* If there is any doubt about the meaning behind a display of another's body, we may turn to the "tenor of his thoughts in the sound of his words." The thoughts are *in* the expression, or so it seems.

Edmund Husserl's work on intersubjectivity and empathy encouraged sociologists such as Alfred Schutz, Peter Berger, and Thomas Luckmann, to emphasize the Lifeworld's ordering influence on the consciousness of subjects. Primarily through their use of language, subjects "internalize" a "symbolic universe" of social structures, institutions, and legitimations in the course of organizing everyday life with others. As Berger & Luckmann argue (1966: 98):

This nomic function of the symbolic universe for individual experience may be described quite simply by saying that it "puts everything in its right place." What is more, whenever one strays from the consciousness of this order (that is, when one finds oneself in the marginal situations of experience), the symbolic universe allows one to "return to reality" – namely, to the reality of everyday life. Since this is, of course, the sphere to which

all forms of institutional conduct and roles belong, the symbolic universe provides the ultimate legitimation of the institutional order by bestowing upon it the primacy in the hierarchy of human experience.

From the phenomenological perspective, intersubjectivity is produced when subjects internalize the humanly created objective social reality of their shared "Lifeworld," inform themselves with a "social stock of knowledge," and guide themselves with the same "public definition of being." The onus of this position is to explain how the process of internalization works: how does the ordering consciousness of the symbolic universe that "puts everything in its right place" get inside multiple subjects? It would be tempting to accept Berger & Luckmann's claim that socialization is the key; but this only describes the same problem with another word. How does society get inside subjects, how do subjects become internally social? The following discussion explores a range of sociological, psychological, and biological approaches to intersubjectivity and its ability to produce social order and empathy. Although this discussion is by no means exhaustive, it demonstrates that the concept of intersubjectivity is widely appreciated in different disciplines.

3.1. Sociological Perspectives

The early symbolic interactionist school developed a notion of intersubjectivity that seems close to mind reading (Scheff 2006). In the case of George Herbert Mead, for instance, intersubjectivity is suggested by the capacity to "take the role of the other." According to Mead, thinking "is nothing but the response of the individual to the attitude of the other in the wide social process in which both are involved, and the directing of one's anticipatory action by these attitudes of the others that one does assume. Since that is what the process of thinking consists in, it cannot simply run by itself" (1934: 260). Mead emphatically rejects the idea that a subject can create its own meaning: "Our symbols are all universal. You cannot say anything that is absolutely particular; anything you say that has any meaning at all is universal" (1934: 146). Mead positions the subject in a state of complete dependence on society:

The individual enters as such into his own experience only as an object, not as a subject; and he can enter as an object only on the basis of social relations and interactions, only by means of his experiential transactions with other individuals in an organized social environment [...] the existence of private or "subjective" contents of experience does not alter the fact that self-consciousness involves the individual's becoming an object to himself by taking the attitudes of other individuals toward himself within an organized setting of social relationships, and that unless the individual had thus become an object to himself he would not be self-conscious or have a self at all. (1934: 225)

Mead demonstrates an initial awareness of the function communication plays in the production of meaning and understanding. Communication using significant symbols, as he describes it, is a process of "putting one's self in the place of the other person's attitude." In a remarkable passage, Mead writes (1934: 327):

Remember that what is essential to a significant symbol is that the gesture which affects others should affect the individual himself in the same way [...] If that system of communication could be made theoretically perfect, the individual would affect himself as he affects others in every way. That would be the ideal of communication, an ideal attained in logical discourse wherever it is understood. The meaning of that which is said is here the same to one as it is to everybody else. Universal discourse is then the formal ideal of communication. If communication can be carried through and made perfect, then there would exist the kind of democracy to which we have referred, in which each individual would carry just the response in himself that he knows he calls out in the community. That is what makes communication in the significant sense the organizing process in the community.

In the perfect society, it appears that subjects will communicate without experiencing information loss, deficits in logic, or unexpected misunderstandings. The commonly available significant symbols will entirely satisfy the particular concerns of every subject.

In Charles Horton Cooley's formulation, each subject lives "in the minds of others without knowing it, just as we daily walk the solid ground without thinking how it holds us up" (Cooley 1922: 208). In his view, "all

mind hangs together in a vital whole, from which the individual is never really separate;" "every thought we have is linked with the thought of our ancestors and associates, and through them with that of society at large" (1907: 97). Cooley suggests that one individual may understand another through "sympathetic introspection" or by adopting the other's perspective of the world. He directly grounds understanding in communication, by asserting that sympathy "denotes the sharing of any mental state that can be communicated" (1922: 136). He describes communication as "a system of standard symbols existing for the mere purpose of conveying thought." If one does not participate in communication, he states, "the mind does not develop a true human nature, but remains in an abnormal and nondescript state neither human nor properly brutal" (1909: 62). One's "mind is a microcosm of the society" to which one belongs (1922: 144). For Cooley,

society is an interweaving and interworking of mental selves. I imagine your mind, and especially what your mind thinks about my mind, and what your mind thinks about what my mind thinks about your mind. I dress my mind before yours and expect that you will dress yours before mine. Whoever cannot or will not perform these feats is not properly in the game. (1927: 200–201)

In Cooley's writing, one may recognize a precursor to Erving Goffman's account of the self in everyday life, a self that actively and strategically manages the impressions it seeks to create in the minds of others (1959). Goffman's dramaturgical approach to the presentation of the self in everyday life seems to extend Cooley's metaphor of the "Looking-Glass Self." In Cooley's words:

As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be, so in imagination we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it. (1902: 184)

Mead, Cooley, and Goffman shared a sense that actors expect and look for feedback on their performance from an audience of other subjects.

Describing how actors do this, they used metaphors that imply mind reading; but they did not assert that subjects may actually access one another's thoughts. If taking the role of the other is a private guessing game that yields only a more or less approximate model of another's mind, exactly how does information make its appearance in the Looking-Glass? The realization that intersubjectivity is impossible led symbolic interactionists to appreciate the importance of the mutually accessible symbols one can see others also observe, such as those used in communication. Even without access to the thoughts of one's audience members, one may detect whether they are clapping, booing, or throwing tomatoes. Despite the attention they devoted to the organizing power of communication, symbolic interactionists were unable to identify and differentiate its unity as society. With their creative use of concepts such as social consciousness and social mind, they confounded the difference between private and public meaning. The words they used to describe communication indicated subjective qualities of mind and consciousness, diverting sociology's attention away from the objective resources of society and towards the inner experience of the individual.

3.2. Psychological Perspectives

With perhaps more desperation than sociologists can experience in their work, mental health professionals must cope with the "subjectivity gap" between themselves and clients when providing therapy. Sigmund Freud, of course, understood that interpreting the dreams of others is difficult because there is no fixed or common vocabulary of symbols in use. The same content may mean different things to different dreamers (Freud 1987: 96). From another vantage point, Carl Jung (1959) suggests that the *same* fixed primordial images or "archetypes" appear in dreams and fantasies because individuals have inherited a common human psyche, a "collective unconscious" or "objective psyche." "If we had to interpret dreams in an exhaustive way according to scientific principles," Jung contends, "we would have to refer every such symbol to an archetype." In a therapeutic situation, in careful consideration of the patient's psychological state, the meaning of symbols in a dream should be treated "as if they were not fixed" (Jung 1955: 178). It seems that the consequences of the

subjectivity gap are exacerbated by the therapist knowing more about the patient's subjectivity than the patient.

Their differences aside, Freud and Jung agree that psychoanalysis cannot proceed unless clients and therapists are willing to engage in communication. Building on this insight, contemporary psychoanalysts have recently proposed a new form of therapy that is rooted in an "intersubjective perspective" (Stolorow 1994, 2000; Stolorow & Atwood 1992; Bradfield & Knight 2008). According to Robert D. Stolorow, a psychiatrist at UCLA's School of Medicine (2000: 149–150):

Clinical phenomena, such as psychopathological states, transferences, resistances, and negative therapeutic reactions are grasped, not as products of intrapsychic mechanisms originating within the interior of the patient's isolated mind, but as taking form at the interface of the interacting experiential worlds of patient and therapist. Even the very boundary between conscious and unconscious – the so-called repression barrier – is understood, both developmentally and in the therapeutic situation, not as a fixed intrapsychic structure, but as a fluidly shifting property of an ongoing intersubjective system.

Stolorow's "contextual psychology" recognizes the "constitutive role of relatedness in the making of all experience." Empowered with this insight, he argues that, "the Cartesian bifurcation is mended and inner and outer are seen to interweave seamlessly. We believe that this post-Cartesian vision will, in the new millennium, enable therapists and clients to continue exploring hitherto uncharted regions of intersubjective space" (2000: 150). There remains at least one serious problem with charting the vast frontier of intersubjective space. From Sigmund Freud's work we know that subjects may not know "the true" motivations behind their behavior; mysterious drives of the unconscious mind, illusions, fears, and self-deceptions make it impossible for the subject to understand and order its own psychology. As Stolorow himself points out (2000: 150), "One is always organizing one's emotional and relational experiences so as to exclude whatever feels unacceptable, intolerable, or too dangerous in a particular context." If a client cannot access their own subjectivity, if they simply exclude the emotions and experiences they cannot organize, what can a therapist learn about them by taking an intersubjective perspective?

3.3. Biological Perspectives

Neuroscientists have lately discovered "the mirror neuron system," what some claim provides a biological substrate for intersubjective understanding or mind-reading. A team of Italian neuroscientists including Giacomo Rizzolatti and Vittorio Gallese (Rizzolatti 1992 et al.; Gallese et al. 1996) serendipitously discovered that certain "monkey-see-monkey-do" neurons in the frontal lobe of a laboratory monkey's brain respond both when the animal performs an action (picking up a peanut) and when the monkey observes another individual perform the same action. In brief, the mirror effect describes the coordinated nervous excitement that can be detected and topographically localized in the brains of both a performer and an observer. Subsequent research has discovered the same phenomenon in human brains, leading many different commentators to assert that the mirror neuron system "blurs the distinction between first and third person activity" (Schilhab 2007); enabling observers to mentally access the intentions and experiences of others by watching their actions (Iacoboni et al. 1999, 2005; Gallese et al. 2004; Gallese & Goldman 1999), hearing others act (Kohler et al. 2002; Rizzolatti & Craighero 2004), and observing others use language (Aziz-Zadeh et al. 2006; Fogassi & Ferrari 2007). Mirror neurons appear to help subjects directly take part in the emotional states of others (Schulte-Rüther et al. 2007; Enticott et al. 2008), join in their erotic excitement (Mouras et al. 2008), feel when they are touched (Keysers et al. 2004), share in their taste of disgust (Wicker et al. 2003), and even commune with them spiritually (Hogue 2006).

Intentionality is commonly described as one of the defining attributes of subjectivity or consciousness (Searle 1993: 9–10; Luijpen 1960: 92–93). Thus, the proposition that mirror neurons in an observer's brain are able to immediately inform themselves of an actor's intentions is nothing short of shocking. Iacoboni and his team focused on the role mirror neurons play in assessing the intentions of actors:

Mary is grasping an apple. Why is she grasping it? Does she want to eat it, or give it to her brother, or maybe throw it away? The aim of the present study is to investigate the neural basis of *intention* understanding in this sense and, more specifically, the role played by the human mirror

neuron system in this type of *intention understanding*. The term "*intention*" will be always used in this specific sense, to indicate the "why" of an action. (2005: 78–79, emphasis added)

"Mirror neurons," as Rizzolatti asserts, "provide a direct internal experience, and therefore understanding, of another person's act, *intention* or emotion" (2006: 56; emphasis added). He explains:

Given that humans and monkeys are social species, it is not difficult to see the potential survival advantage of a mechanism, based on mirror neurons, that locks basic motor acts onto a larger motor semantic network, permitting the *direct and immediate comprehension* of others' behavior without complex cognitive machinery. In social life, however, understanding others' emotions is equally important. Indeed, emotion is often a key contextual element that signals the *intent* of an action. That is why we and other research groups have also been exploring whether the mirror system allows us to understand what others feel in addition to what they do. (Rizzolatti 2006: 59–60; emphasis added)

The intention-reading power of mirror neurons is perhaps most strongly asserted by Vittorio Gallese and Alvin Goldman, in an article on "Mirror Neurons and the Simulation Theory of Mind-Reading." Without reservation, the two researchers claim that mirror neurons enable an observer to accurately understand another agent's goals and/or inner states and anticipate another's future actions (1998: 496). The "action-goal understanding" that mirror neurons support, as Gallese and Goldman conclude (1998: 500), "constitutes a necessary phylogenetical stage within the evolutionary path leading to the fully developed mind-reading abilities of human beings."

The psychologist Vilayanur S. Ramachandran speculates that the discovery of mirror neurons is the "single most important 'unreported' (or at least, unpublicized) story of the decade. I predict that mirror neurons will do for psychology what DNA did for biology: they will provide a unifying framework and help explain a host of mental abilities that have hitherto remained mysterious and inaccessible to experiments" (2000). Ramachandran maintains that "mind-reading neurons" afford "a neural substrate for figuring out another person's intentions," and that they "may

have played a crucial role in many quintessentially human abilities such as empathy, learning through *imitation* (rather than trial and error), and the rapid transmission of what we call 'culture'" (2007).

The mirror neuron system, as described by many of the neuroscientists cited above, seems to contribute to social order by enabling one mind to immediately grasp the intentions of another. Thanks to this newly discovered biological resource, it appears that an observer of Mary "grasping an apple" will know what she intends to do with it as quickly and clearly as Mary herself knows. As Iacoboni and his collaborators suggest (2005), we do not have to guess if she will eat it or throw it away, our neurons will know that she intends to give it to her brother. Sociologists have long appreciated the value of observing actors, but they have had trouble feeling perfectly secure about attributing meaning and intentions to the behavior of those they observe. If mirror neurons give observers the capacity to know the intentions of others just by watching them, will the interpretive methods of neuroscience soon replace those of ethnography? The central question becomes: is observing the same as understanding?

When it comes to research on mirror neurons, there is a common feature in the design of most experiments that is of crucial importance. Monkey or human, the subjects attached to brain-monitoring electrodes or being observed with functional Magnetic Resonance Imaging devices are expected to *perceive* another's action. They see an actor grasp or smell an object – and then the mirror neurons fire. They may watch a film clip of actors engaging in a practice, hear a sound that can easily be linked to a recognizable action, or they may hear someone speak – and then the mirror neurons fire. If mirror neurons can read the minds of others or permit access to another's intentions, why do they not fire independently of perceptions? If we can already read her mind, why do we need to wait until we see Mary grasp the apple before we know that she will do so and for what intention?

4. Assessing Perceptions, Managing Understanding

Whether they are neuroscientists or social scientists, it is worth noting that many of those who use the concept of intersubjectivity to suggest that participants in society "share mind" also point to the role communi-

cation plays in the genesis and development of both subjectivity and the negotiation of understanding between people (Aziz-Zadeh et al. 2006; Bradfield & Knight 2008). Participation in communication implies that one engages in conspicuous behavior that is as perceivable as, for instance, Mary grasping an apple. According to Berger & Luckmann:

I speak as I think; so does my partner in the conversation. Both of us hear what each says at virtually the same instant, which makes possible a continuous, synchronized, reciprocal access to our two subjectivities, an intersubjective closeness in the face-to-face situation that no other sign system can duplicate. What is more, I hear *myself* as I speak; my own subjective meanings are made objectively and continuously available to me and *ipso facto* become "more real" to me. (1966: 38)

The activity of saying and hearing, writing and reading, has the potential to make subjectivity "more real" because communicative behavior can be perceived. In order to think, it appears that one must internally "hear" oneself talking (Mead 1934: 47). To gain insight into another's thoughts, one must hear the other speak. To understand the members of a group, ethnographers must observe collective behavior. For mirror neurons to access another's subjectivity, one must first perceive the other's actions. Whenever it comes to understanding the intentions of another, the *perception of behavior* seems to be the critical factor. This does not mean that subjectivity itself can be perceived; only that perception is a necessary, but not sufficient, condition for interpreting another subject's intentions.

The value of perception for gaining information about one's world and the intentions of other people cannot be underestimated. However, such self-constructed information must not be confused with that which is perceived. Heinz von Foerster mentions the "principle of undifferentiated coding" to make this point clear. The body's nerves may relay a greater or lesser intensity of localized excitement, but it is up to consciousness to code perceptions with differentiated meaning (von Foerster 1985: 58). If one sees Mary grasp an apple, one has already privately coded the excitement of optical nerves; cells that are limited to registering energy in the form of light (Heider 1959). Perceiving only light, one may still expect to identify self-constructed unities such as Mary, apples, tables, and many other things. If one can see that Mary is grasping an apple to eat it and

not to give it away, the difference must be visible in the symbolically coded form of her grasp.

Mary's thoughts, her behavior, and indeed every aspect of her world remains outside of every other observer's consciousness. Nonetheless, Mary may selectively perform behavior with her audience of observers in mind. If she believes her observers have been culturally prepared to make sense of different patterns of behavior, she may deliberately play to their expectations and perform her grasping in a way that strategically leads her audience to a particular assessment of her intentions. This account positions Mary as a "manager" of observers that she recognizes as "assessors" of her behavior (Owings & Morton 1998). According to ethnologists Donald Owings and Eugene Morton, communicative systems emerge from "the dynamic interplay" between two *equally active* roles, that of manager and assessor:

All individuals play both types of roles in communication, and the logic of natural selection indicates that individuals should be selected for their effectiveness in both. As managers, they should be able to use communication to achieve fitness-enhancing ends by influencing the behavior of others, in part by exploiting their assessment systems. As assessors, they should be capable of making adaptive behavioral adjustments through selective attention to the most reliable cues available appraising individuals and situations, whether or not these cues arise from signals. (1998: 29)

To manage others in this manner, Mary must be conscious that others perceive her and that they inform themselves with what they see. Niklas Luhmann describes the way in which the "perception of perception" enables subjects to strategically manage the information processing of others:

Perception is primarily a psychic acquisition of information, but it becomes a social phenomenon, that is, an articulation of double contingency, when one can perceive that one is perceived. In social situations ego can perceive that alter sees, and can perhaps also see what alter sees. Explicit communication can link onto this reflexive perceiving, thereby supplementing, clarifying, and delimiting, and it builds itself into this reflexive perceptual nexus because of course it depends on perception and on the perception of perception. (1995: 412)

Perceiving another's behavior and making sense of what they intend or mean by it are two different mental operations. Behavior that is perceived has no meaning until it is symbolically interpreted by an observer. However, both the performer and the observer may interpret what they perceive with the same cultured frames of reference, and both may know this of each other.

Despite their operational closure, psychic systems may be structurally coupled in the course of participating in communication. The structural and semantic resources of a social system (language, codes, symbolic generalizations, themes, programs) have the potential to inform autonomously thinking subjects because they may be perceived by subjects as anticipated, socially organized forms of noise and because the perception of such symbolically charged noise may itself be perceived (von Foerster 2003). Domenico Tosini describes the subject's capacity to associate meaning with perceptions as follows:

A property of the processes of consciousness is *symbolic perceiving*, which can be understood as the capacity to associate symbolic contents with operations located in the nervous system. Consequently one can conceptualize psychic systems (consciousnesses) as being systems whose operative closure consists of the production of symbolic perceptions referring to, and generated on the basis of, other symbolic perceptions. (2006: 546)

For anything that is perceived to be coded with meaning, the subject must self-referentially imagine a symbolic connection that is not immediately available in the world of material things, bodies, brain cells, and energy waves. Mutual participation in communication provides subjects with the ability to expect one another to imagine approximately the same – functionally equivalent – symbolic connections between perceptions and meaning. As Luhmann maintains: "[E]xpectations acquire social relevance and thus suitability only if, on their part, they can be anticipated [...] Ego must be able to anticipate what alter anticipates of him to make his own anticipations and behavior agree with alter's anticipation" (1995: 303). There is no direct connection between alter and ego, no intersubjectivity or sharing of minds. Instead, operationally closed subjects mutually allow society to condition their own meaning-

making activity. Aware that society presents a shared reference point, subjects turn to communication when they desire to assess and manage one another.

This sociological conception of how individuals consolidate their own private versions of reality appears as a basic proposition in the much appreciated client-centered therapy developed by psychologist Carl Rogers. The "private world of the individual," Rogers writes, "can only be known, in any genuine or complete sense, to the individual himself." "For social purposes," Rogers reasons, "reality consists of those perceptions which have a high degree of commonality among various individuals. Thus this desk is 'real' because most people in our culture would have a perception of it which is very similar to my own" (1951: 485). As Rogers talks and listens with a client in order to understand the latter's subjectivity, he presumes that "communication is at all times faulty and imperfect." Yet, despite its "cloudy fashion," "increasing communication gradually brings more of experience into the realm of awareness, and thus a more accurate and total picture" of the client's private world (1951: 495–496).

5. Self-Reference and Interobjectivity

Constructivist Ernst von Glasersfeld emphasizes the "essential and inescapable subjectivity of linguistic meaning" and the importance of trial and error in "the process of accommodating and tuning the meaning of words and linguistic expressions." Glasersfeld asserts (2008: 62):

[T]he basic elements from which an individual's conceptual structures are composed and the relations by means of which they are held together cannot be transferred from one language user to another, let alone from a proficient speaker to an infant. These building blocks must be abstracted from individual experience. And their interpersonal fit, which makes possible that which we call "communication," can arise only in the course of protracted interaction with others, through mutual orientation and adaptation [...] [U]nderstanding is a matter of fit rather than match. Put in the simplest way, to understand what someone has said or written means no less but also no more than to have built up a conceptual structure that, in the given context, appears to be compatible with the structure the speaker had in mind. And this compatibility, as a rule, manifests

itself in no otherway than that the receiver says and does nothing that contravenes the speaker's expectations.

Neither watching an actor perform a behavior, nor listening to them describe their intentions can achieve intersubjectivity between the actor and the observer. Observers must interpret the meaning of what they perceive with reference to their own cultured expectations. Yet, as they participate in society, subjects learn to expect that other subjects will expect them to attach certain "socially constructed" meanings to what they perceive. They learn that they cannot impose their private self-reference on socially significant gestures because the social world of meaning is, as Mead put it, "objective" and independent of their consciousness. No matter what participants intend, communication produces meaning according to its own self-reference. In Mead's words:

Awareness or consciousness is not necessary for meaning in the process of social experience [...] The social process relates the responses of one individual to the gestures of another, as the meanings of the latter, and is thus responsible for the rise and existence of new objects in the social situation, objects dependent upon or constituted by these meanings. Meaning is thus not to be conceived, fundamentally, as a state of consciousness or as a set of organized relations existing or subsisting mentally outside the field of experience into which they enter; on the contrary, it should be conceived objectively, as having its existence entirely within this field itself. (1934: 77)

The self-reference of communication conditions the way participating subjects connect what they can see, hear, and sense with meaning. Although no subject can directly perceive meaning, subjects may learn to anticipate how others will refer to "objective" social rules and conventions in order to associate what they perceive with meaning.

Alfred Schutz explains that participants in face-to-face situations understand the meaning of one another's behavior by interpreting what is immediately perceived in terms of a "We-relationship" that frames any given encounter. In his own formula: "I can live in your subjective meaning-contexts only to the extent that I directly experience you within an actualized content-filled We-relationship" (1967: 166). Like Mead,

Schutz points to a socially prepared vocabulary of signs and behaviors that have "objective" meaning outside of any given interaction involving subjects. On the one hand, this objective frame of reference enables subjects to imagine the same symbolic connections between what they perceive actors do and the meaning of that behavior. "I get to your subjective meaning in the first place," Schutz writes, "only by starting out with your spoken words as given and then by asking how you came to use those words" (1967: 166). On the other hand, it is this same objective frame of reference that enables social scientists to interpret the meaning of the behavior they observe in the field. As Schutz argues: "All social sciences are objective meaning-contexts of subjective meaning-contexts [...] All scientific knowledge of the social world is indirect. It is knowledge of the world of contemporaries and the world of predecessors, never of the world of immediate social reality" (Schutz 1967: 241). Schutz concludes, therefore, that "it can hardly be the function [of the social sciences] to understand the subjective meaning of human action." Both ordinary interpreters of everyday behavior and social scientific observers grasp the meaning of what they see by "stipulating the typical and invariant subjective experiences" within an "objective meaning-configuration" (Schutz 1967: 245). If we want to know Mary's intention when we see her grasp the apple, we must not explore her subjectivity. To the extent that understanding Mary is possible at all, her behavior must be interpreted within the objective context of the "We-relationship" that conditions her subjective experiences as well as our own. This interobjective meaning-configuration is the self-reference of society, the system of communication that presents itself on equal terms to all of its participating subjects.

6. Communication, Conventions, and Cognitive Coordination

The linguist Arie Verhagen, in his book, *Constructions of Intersubjectivity* (2005: 76), correctly asserts that "All language, when actively put to use, involves the coordination of one cognitive system with another." In Verhagen's appraisal of intersubjectivity, linguistic expressions are "primarily cues for making inferences" according to social conventions. As Verhagen puts it:

Human languages – whether they have some hard-wired structural features (as generative linguists tend to believe) or not – are very basic systems of conventions: all words (links of sound and meaning) are conventional, and at least a substantial part of patterns of usage is conventional as well. Conventions are mutually shared rules – your behaving in a particular way (driving on a specific side of the road, making a specific sound in order to produce a specific effect) is conventional because its motivation only consists in your expectation that others will do the same in similar circumstances, as for exactly the same reason, namely that they expect others to do so. Therefore, knowledge of language is indeed mutually shared, and cannot be transmitted otherwise than by social learning. (2005: 3)

The mirror neuron system discussed above represents exactly the kind of "hard-wired structural feature" that some claim enables one subject to directly access another subject's intentions. Extending Verhagen's argument, neither mirror neurons nor any other biological mechanism can physically produce cognitive coordination between subjects, because such coordination results only when observers mutually (but autonomously!) interpret their own perceptions with reference to the same learned social conventions.

Cognitive coordination is improbable because of the operative closure of psychic systems. However, because language appears in the world as a form of noise, it may be perceived by different subjects who also perceive that other subjects perceive it. In this sense, the nerve-stimulating power of language has the potential to structurally couple different psychic systems. The noise of communication captivates attention and invites subjects to recognize its organized variety, anticipate its redundancies, and make use of its conventions; whatever their own intentions may be. Understanding another's subjective intentions or experiencing cognitive coordination depends, therefore, on a reciprocal awareness that one exists in the world with others. Though subjects cannot make an impression on one another as subjects, they can do so with their bodies. In his memorable discussion of how to interpret the intentions of a woodcutter, one who may be keeping warm, exercising, sublimating anger, or showing off his strength, Alfred Schutz observes: "we know nothing about our woodcutter except what we see before our eyes. By subjecting our own perceptions to interpretation, we know that we are in the presence of a

fellow human being and that his bodily movements indicate he is engaged in an action which we recognize as that of cutting wood" (1967: 114). The bodies of our "fellow human beings" catch our attention by stimulating our body's senses. When one sees Mary reaching for an apple, it is possible that one's own mirror neuron system works along with her body. In the same way that our optical nerves register light without interpreting what they see, mirror neurons may get excited without knowing why. Pierre Jacob (2008) convincingly argues that mirror neurons do not demonstrate mind-reading abilities. Nonetheless, he suggests that mirror neurons may inversely help one predict another individual's future movements under the condition that one has previously attributed intentions to the actor. If perceptions of Mary lead one to imagine that she intends to eat an apple, for instance, one's mirror neurons might present a sympathetic representation of her anticipated motor commands, "an internal model of action," required to grasp and bite the fruit.

The embodiment of subjectivity, of physically being in a world that is shared by others whose eyes we perceive to be looking back at us, led Martin Heidegger to consider intersubjectivity (1996). For Heidegger, intersubjectivity appears to suggest an impossible, hopelessly idealized subject-to-subject relationship in which neither subject views the other as an object or thing. We may choose to care for the other, imagining that the other faces the same existential struggles we face, but the other remains an external object. This condition of being-in-the-world-withothers is what Schutz describes as the "face-to-face situation" or the "We-relationship," in which subjects "share a community of space and a community of time" (1967: 163-167). Communication leads to cognitive coordination between people because its resources are objectified. On the one hand, language works because its operating conventions are external to its users. To make sense together, participants in communication must learn to conform and adapt to the same rules of expression. On the other hand, communication can structurally couple different subjects because utterances take form as externalized energy that has a physical impact on bodies. As Luhmann explained, structural couplings are effective, because they have a basis in reality, in "a continuum of material or energy" that humans can and must depend on as they participate in communicative practices (1997: 102-103). Cognitive coordination through communication is possible because subjects are objects for one another and each realizes this fact. Each is embodied and, for this reason, open and vulnerable to the same physical irritations, whether or not their perceptions are socially organized as meaning.

7. Communication and Understanding

This paper began by identifying the operational closure of consciousness as a source of uncertainty that hinders mutual understanding between people. If everyone thinks alone, in secret and according to their own selfconstructed terms; how is "our mind" produced? If each subject thinks for themselves, how can one explain the organization or association of different subjects? Intersubjectivity, as proposed by a diverse group of voices, was evaluated as a possible source of mutually accessible information or consciousness. Although they are not equivalent concepts, Hegel's world spirit, Marx's class consciousness, Durkheim's collective representations, and Gidding's consciousness of kind represent early attempts to articulate a transcendent, mutually available form of subjectivity. Mead and Cooley suggested that human intuition or sympathetic introspection could explain understanding between individuals in society; but they fell short of claiming that "social consciousness" was anything more than an imaginary accomplishment of each actor. Interpretive sociologists such as Weber, Schutz, Goffmann, and Berger & Luckmann came very close to asserting the existence of intersubjectivity, but they each found a theoretical technique (ideal types, objectivations, objective meaning-contexts, frames) to retreat from the idiosyncratic intentions and endless complexity of actual subjects. The strongest claims of intersubjectivity's ordering power come from psychologists and neuroscientists, particularly those reacting to the discovery, by Rizzolatti and Gallese, of the mirror neuron system. The mirror neuron system appears to be stimulated by one's perception of the behavior of another person. Our mirror neurons get excited when we perceive other actors, but they cannot impart an understanding of subjectivity or intentions. In its conclusion, this paper returns to communication's contribution to interobjective understanding.

Mirror neurons are part of the human biological system, and therefore cannot inform meaning as it is self-referentially constructed by psychic and social systems. Making this point clear, when John Searle claims that consciousness is a biological phenomenon, he carefully differentiates "lower level biological processes in the brain" from "higher level features of consciousness." Consciousness depends on brain cells, but it is not informed by biological mechanisms. Searle writes:

All the stimuli we receive from the external world are converted by the nervous system into one medium, namely, variable rates of neuron firings at synapses. And equally remarkably, these variable rates of neuron firings cause all of the color and variety of our conscious life. The smell of the flower, the sound of the symphony, the thoughts of theorems in Euclidian geometry – all are caused by lower level biological processes in the brain; and as far as we know, the crucial functional elements are neurons and synapses. (1993: 6)

Neurons and synapses may indeed be the crucial functional elements of consciousness, but they cannot provide meaning to perceptions. One of the most enduring contributions of symbolic interactionism is the idea that the self arises only in the course of negotiating the meaning of symbols with others. Participation in communication is what enables a subject to inform itself with the meaning of what it perceives in the world. This social interaction takes place without violating the operational closure of biological, psychic, and social systems. The body's nervous system processes irritations, the psychic system processes thoughts, and the social system processes communication; all three operating with their own exclusive medium. If perceptions have meaning for an observer, it is because consciousness has attached symbolic meaning to them. This symbolic meaning may be accessible to other subjects only indirectly, interobjectively, as the self-reference of communication. Giddings, in his Principles of Sociology (1896: 132), already recognized that "by means of language the individual shares in the general fund [the social mind], which thus becomes for him an impersonal objective influence."

Adopting the words used by Alfred Schutz, understanding between subjects is possible because different psychic systems learn to condition their own "subjective meaning-contexts" with the "objective meaning-contexts" made available in the "We-relationship." With its abundant forms of objective meaning, the We-relationship confronts psychic

systems as the self-reference of society. Luhmann asserts that as elements of communication reproduce themselves, they create "an emergent reality sui generis." The reality of communication, he points out, *is society* (1995: 408). Excluding the subjectivity of people from society, Luhmann argues that only communication communicates:

In the same fashion as communication systems, systems of consciousness (and on their other side, brains and cells, etc. ...) are also operationally closed systems which cannot entertain contact with one another. There is no non-socially mediated communication from consciousness to consciousness, and there is no communication between the individual and society. Every adequately precise conception of communication excludes such possibilities [...] (1997: 105)

The emergent, objective reality of society is as external to individual subjects as the "real world" sources of their perceptions. Every experience of reality is fundamentally a subjective experience, and therefore every subjective experience is meaningless for society. Each subject senses the physical world with their own nerves, and each also makes sense of the social world on their own. Nonetheless, when subjects mutually inform and condition themselves with the same social conventions, cognitive coordination becomes as likely as two people shivering together on a cold day. Two different people can suffer from the same icy wind although they do not share the same nervous system. Along the same lines, "our minds" may attach the same meaning to Mary's grasping of an apple, without anyone sharing consciousness.

It is hard to imagine anyone being overly concerned with Mary's intentions regarding her apple, but it is easy to imagine how she could inform an audience of her intentions if she wished to do so. Her grasping the apple to throw it in anger, as a conspicuous performance, might be recognized as one selection among many other socially established types of grasping. Grinding her teeth and aiming narrowed eyes at her brother, Mary grasps the apple and raises it behind her head. Though her brother has no awareness of his trembling mirror neurons, he is already ducking behind his hands. The probability of reaching such an interobjective understanding depends on the social resources for representing meaning within the Werelationship. More than anything else, if Mary hopes her grasp will express

a certain intention, she must be able to expect the cultured expectations of her audience. Socially established expectations, regardless of their depth or complexity, have a genealogy that can be identified and traced within the history of society. In his psychohistorical analysis of "our modern mind," Peter Gay traces social resources for representing and associating meaning to a particularly innovative era. Participants in modern society, he suggests, "are children of that quarter century, 1890 to 1914, crowded as it was with men of genius, and with radical innovations in literary and artistic techniques" (1973: 10). The subjectivity of a genius, in the same manner as that of any other thinker, reveals its intentions only vicariously: through the interobjective self-reference of society.

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