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Running Head: ACTING AND SOCIAL COGNITION

A New Lens on the Development of Social Cognition: The Study of Acting

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## ABSTRACT

All cultures watch performances, whether through religious rituals, or stories enacted on stage for the pleasure of the audience. We pretend to be another person without any intent to deceive, and for the enjoyment and edification of ourselves and others, and call it “acting”. Despite the widespread involvement of humans in acting either as performers or audience members, psychologists know very little about the cognitive and affective underpinnings of acting. Yet acting may provide a powerful lens through which to understand the mind. In this chapter, we review the history of Western theatre and how it has led to the two approaches to the teaching of acting. We then discuss how acting can shed light on three aspects of social cognition: 1) theory of mind, or the ability to read another’s beliefs, desires, intentions, and emotions 2) empathy, or the ability to congruously feel the emotion of another person, and 3) emotion regulation, or the ability to understand and exert control over ones’ emotions. We review the scant literature on acting and these topics, and suggest future directions for research on the intersection of acting and social cognition.

It is an odd fact about *homo sapiens* that we pretend to be another person without any intent to deceive, and for the enjoyment and edification of ourselves and others. This activity goes by the name of “acting,” “drama,” or “theatre.” Acting has been described as the ability to “live truthfully under false circumstances” (i.e. conveying something deeply true through conveying a fiction) for the enjoyment and knowledge of others (Noice & Noice, 2006a). We could not act on stage without the ability to pretend and without the ability to imitate, both skills that develop in the second year of life (Piaget, 1962). Yet clearly pretense and imitation cannot be sufficient to allow us to act: while researchers have observed pretense and imitation in non-human primates (Byrne & Whiten, 1988), no evidence of dramatic acting has ever been reported in non-humans.

Most people today are somehow involved in the world of acting, typically as audience members. Yet psychologists have not studied acting, and we therefore know little about the psychological components of acting—the prerequisite skills required, the developmental course of acting talent, and the cognitive and affective effects of engaging in acting. This stands in contrast to how much psychologists have learned about the psychological components of engagement in the visual arts (e.g., Arnheim, 1974; Freeman, 1980; Gardner, 1980; Golomb, 2004; Hagen, 1980; Zeki, 1999; for a review see Winner, 2006) and music (e.g., Bamberger, 1991; Deutsch, 1982; Sloboda, 1986; Trehub, 2003; for a review see Winner, 2006). In this chapter, we review the scant amount of research on the psychology of acting, and we describe our own program of research, newly initiated, and designed to probe the psychological components of acting. Our argument throughout is that acting is only possible because of humans’ skills in social-

cognition; an understanding of how actors learn to act can provide a powerful lens through which to understand human social-cognition – its normative development in childhood, and its advanced development in adults trained in acting.

It will be useful first to begin with a brief history of Western acting and a discussion of the two major approaches to acting training in the United States and England today, the “Technique” and the “Method” schools.

## HISTORY OF WESTERN THEATRE

Pre-formal theatre in the form of enacted rituals is probably as old as the earliest humans (Frazer, 1993). All cultures watch performances, whether rituals in which actors tell stories in the voice of impersonated characters, or performances of written dramatic texts (Benedetti, 2007). Religious rituals and the telling of myths, many of which take on the air of theatrical performance, are also a central part of most cultures (Malinowski, 1992). The main function of these early human performances was religious rather than for entertainment. The ‘actors’ in these pieces bear little relation to actors we see in the theatre, movies, and on television today.

Western theatre is said to have begun in ancient Greece in the 6<sup>th</sup> century B.C. when a chorus member, Thespis, separated himself from the chorus and began to act out the story as a character within the story, rather than tell it as a narrator (Brown, 1995). The Greek plays are the oldest Western plays still in existence and continue to be performed today.

Until the plays produced in Elizabethan England, Greek plays were the most important and prolific form of Western theatre (Brown, 1995). However, ancient Greek acting was not realistic, and would not be recognized today as great. Greek acting was formalized and ritualized, and adhered closely to the rules of rhetoric. The plot and action were more important than the characters, who were assigned inflexible personalities which determined all their actions (Benedetti, 2007). Instead of a realistic portrayal of the inner psychology of a character, which is today regarded as essential to great acting (Stanislavski, 1950), Greek actors used body parts to symbolize psychological reality, such as showing a diseased foot to portray inner suffering (Easterling & Hall, 2002).

Until the Elizabethans in England at the beginning of the 17<sup>th</sup> century, acting remained closely related to the work of orators, with the art of theatre defined as a species of rhetoric (Roach, 1985), and tied closely to the church (Hayman, 1969). Because of the size of Elizabethan stages and audiences, as well as the lack of footlights, gestures and actions in Shakespeare's time had to be exaggerated (Hayman, 1969). However, the characterizations were based on real life for the first time, and the actors strove to "become" the characters they portrayed. Richard Burbidge, the most famous actor of Shakespeare's time, was said to be so immersed in his part that he would not come out of character in his dressing room in between scenes (Hayman, 1969).

Acting theory may have begun with the work of the 18<sup>th</sup> century French philosopher, Denis Diderot, who wrote *The Actor's Paradox* (1770/1957). Diderot believed that acting

involved a three stage process in which the actor first observes the “passions” (fear, rage, awe, joy, etc), then reflects on emotional behavior and its expression, and finally experiments with the appropriate tone and gestures until hitting the right “mark” for a moment onstage. The greatest artist-actors, he argued, continue to experiment with these three steps throughout rehearsal and performance and arrive at true realism without any personal emotional involvement (Roach, 1985). For Diderot the ultimate goal for the actor is to produce real tears without feeling real emotion. Emotion and cognition were meant to split apart (Benedetti, 2007).

Like Diderot, the late 19<sup>th</sup> century French actor Constant Coquelin asserted that an actor’s job was to understand the psychology of the character from the outside. Coquelin agreed with Diderot that actors must stay in full control of their feelings and thereby avoid taking on the emotions of the character. The actor must not feel the character’s emotions but rather must pull “the strings that make his characters run the gamut of human emotions” (Cole & Chinoy, 1949, p.192).

Writing at the same time as Coquelin, the Scottish critic and author, William Archer, opposed these views, arguing that actors must genuinely feel what they are acting if they are to be effective actors (Archer, 1888/1957). We see this same disagreement between the 19<sup>th</sup> century Russian acting theorist, Konstantin Stanislavski and the 20<sup>th</sup> century German playwright Bertold Brecht. Stanislavski (1950) taught that realism onstage could only be attained by recognizing and actually experiencing the emotions and memories of the characters. In contrast, Brecht believed that the actor must remain emotionally

detached from the character. This detachment, he argued, would cause audience members to think about the relationship of the play to their own lives rather than merely to empathize. Only in this way would audience members react by *thinking* (deeply) about their own emotional lives and come away “purged” of emotion (Benedetti, 2007; Roach, 1985).

#### MODERN THEORIES OF ACTING: TECHNIQUE VERSUS METHOD

These two competing positions about what it takes to be a good actor – immersion in vs. detachment from the character’s emotions -- can be found again in the two major contemporary western acting theories. “Technique” is sometimes referred to as formalized, external, “outside in” acting training (Mamet, 1997; Olivier, 1986). The most influential modern American proponents of Technique-based acting are the playwright and acting theorist David Mamet (1997) and his students (Bruder, Cohn, Olnek, Pollack, Previto & Zigler, 1986). This approach grows out of the concepts of character and actor emotional separation put forth by Diderot, physical acting put forth by Coquelin, (Benedetti, 2007) and emotional detachment put forth by Brecht (Benedetti, 2007; Wooster, 2004). This view dates back to ancient Greek theatre, with its basis on physicality and rhetoric (Easterling & Hall, 2002), and is mainly used in England today.

“Method” acting, in contrast, is referred to as presentational, internal, “inside out” training (Chekhov, 1991; Hagen & Frankel, 1973; Hull, 1985; Meisner & Longwell, 1987; Stanislavski, 1950). Method acting originated with Konstantin Stanislavski at the

Moscow Art Theatre in Russia. In direct contrast to the Technique approach, Method actors learn to feel the emotions of their characters (Bruder et al., 1986). This view dates back to Aristotle (trans. 1999) and continued with Archer (1888/1957) who believed that to be effective, actors must express real emotions on stage.

Some have insisted that the distinction between these two approaches is a false one (Hayman, 1969), and others argue that there is no sharp distinction between these two approaches because they exist along a continuum (Burgoyne, Poulin, & Rearden, 1999). While there is some overlap today between these two approaches, a distinction remains. Method acting was established in the United States through the Actor's Studio in the 1940s and 1950s (Hull, 1985; Stanislavski, 1950) and is the predominant approach in the United States today (Verducci, 2000). Most actors in the United States over the past half century, including Marlon Brando, Robert DeNiro, and Katherine Hepburn, have been trained in a variation of the original Stanislavskiy "System," the basis for Method Acting (Hull, 1985). In contrast, most British acting training is really closer to the Technique approach, with an emphasis on physicality and the outer portrayal of a character (Olivier, 1986).

There are three related areas in which the Technique and Method approaches diverge, and each of these areas has a strong psychological component: (1) the relation of the actor to the character's mental world; (2) the importance of actually feeling the character's emotions; (3) and the importance of exerting control over one's own emotions. Because of the very different emphases these two approaches take on these three issues, and the

relationship between these issues and social cognition, actors trained in the Technique approach may develop quite different social-cognitive skills than those trained in the Method approach, and all actors, regardless of training, may develop different social-cognitive skills than nonactors.

### Relationship of the Actor to the Character's Mental World

When Oscar winning actor Peter O'Toole was recently asked by interviewer Charlie Rose to analyze the basis of the gift of acting, he hesitated, protesting that he did not know. But pressed by Rose, O'Toole finally said that the gift of acting, which he acknowledged to be rare, was allied "to the human gift of mimicry" (Rose, 2008, March 24). That Peter O'Toole, a British actor trained in the Technique approach, stressed the importance of mimicry is not surprising, given that Technique actors are taught to learn their characters from the outside in.

According to the Technique-based approach, the first step for an actor learning a role is to feel and understand the external physicality of the character being enacted – how the character looks, moves, speaks, dresses, styles his hair, etc (Bruder, et al., 1986; Burgoyne, Poulin & Rearden, 1999; Hayman, 1969). The most important job for an actor who uses Technique is to develop a clear voice and a workable body in order to overcome his or her own physicality and replace it with the physicality of the character (Bruder, et al., 1986). Lawrence Olivier, perhaps the world's most celebrated Technique actor, had a deep interest in the voices, mannerisms and other physical characteristics of

people he met, and he copied these and stored them in his memory so he could use them in later portrayals (Olivier, 1986). According to the Technique approach, a complete understanding of the external physicality of the character will allow the actor to convey the character's inner psychological reality.

While proponents of Technique acting theory believe that acting is above all “the art and craft of presenting a personality to an audience,” most of the actor's grasp of the character's personality must come directly from the script rather than via independent analysis of the character done by the actor (Olivier, 1986, p. 357). It is not the job of the Technique actor to predict what Hamlet would do in every different kind of situation. Instead the actor must simply focus on the lines for the particular scene. A deep psychological analysis of the character is not necessary (Bruder, et al., 1986). The Technique approach trains the actor to discover how characters are motivated to act in the specific and immediate situations in the play, rather than to come up with a theory of the characters' enduring, stable personalities. Thus the Technique actor must grasp what psychologists refer to as *situational* rather than *dispositional* traits (Ross, 1977).

In sharp contrast, Method actors are taught to grasp the inner state of the character first; becoming like the character physically will then follow. An understanding of the full physicality of a character is not necessary in Method acting. Rather, the actor is taught to select only a few key physical characteristics and to use these as a basis on which to layer the character's emotions, motivations, and personality (Meisner & Longwell, 1987). Understanding the character's body is a way to understand the character, but this kind of

understanding is not considered primary, and is useful only to prevent the actor's own physical characteristics from getting in the way of capturing the character, which would create a "violation of physical truth" onstage (Hagen & Frankel, 1973, p. 52).

The 'father' of Method acting, Konstantin Stanislavski (1950) argued that good acting means understanding and creating the entire inner life of a character, which means having a well-developed ability to understand and build up the mental states of another. The actor must grasp the character's enduring dispositions, life purpose and overall objectives, and then use this understanding of what motivates the character throughout the play and in each moment (Noice & Noice, 2006a).

The strongest proponent of this kind of cognitive understanding and subsequent perspective taking is the Method acting teacher and theorist Michael Chekhov (1991), who believes in using the imagination to find the subtext behind every line of the character -- what the character wants and intends, and how his mental state differs from that of the actor's mental state. In Chekhov's Method approach, actors must combine their knowledge of the character's behavior over the course of the play with their knowledge of the character's underlying feelings and mental states to create a "Psychological Gesture," which forms the basis of the character's personality. Only by understanding the intricacies of the character's underlying psychology can the actor avoid clichés, which are never believed by the audience. Method actors try to develop a deep understanding of the mind of their characters and in each of the situations in which their characters find themselves, through active imaginary participation in the life behind the

words of the script. In Method acting, actors must work to close the gap between their personal cognitions and emotions and those of their character (they strive to become more and more like their character while onstage), through constant analysis of their character's cognitions, always asking themselves (as the character) "who am I?" (Hagen & Frankel, 1973).

The Method actor is also taught to go beyond the boundaries of the script and develop an understanding of the stable and enduring dispositions of their character—their typical likes and dislikes, and their 'back story'—what happened before the play began. The constant use of the questions "what does the character want?" (Hagen & Frankel, p. 142), "what would motivate me to behave as the character is behaving?" (p. 161), and knowing the character's attitude towards the world (Hull, 1985) probably leads a Method actor to a deeper conscious understanding of the mental and emotional state of the character, compared to the understanding developed by a Technique actor.

Method actors are also taught to evaluate other characters through the minds of the character they are playing, rather than from the perspective of the outsider or audience member. They are taught to imagine the entire history of their relationship with others onstage rather than just the interactions in a particular moment. Acting is seen as a direct response to the other persons on stage, so that the actor can have the appropriate impulsive response as the character, based on the character's (unscripted) history with the other characters onstage (Meisner & Longwell, 1987). Actors must make themselves well-defined mentally, but also must make the other characters on stage specific and

complex (Hagen & Frankel, 1973). Actors must define the mental and emotional aspects of their character's relationship with the other characters, using their imagination as well as their understanding of their own relationships in real life, combining the two to create new relationships with each different character in each play.

The Method approach thus emphasizes the development of what in psychological terms has come to be called "theory of mind." We will return to a discussion of theory of mind from the perspective of psychology later on.

### The Actor's Feeling of the Character's Emotions

The Technique and Method approaches differ in the importance placed on actors' feeling the emotions of their characters. In the Technique approach, actually feeling the emotions of a character while rehearsing and playing that character must be avoided. Creating and feeling the emotions of the character is not the job of the actor, and doing so is seen as an unpredictable way to create realism on stage (Bruder et al., 1986). It is only the illusion of feeling which is important (Mamet, 1997), and there is no need to "whip yourself into a generalized emotional frenzy" (Bruder et al., p. 72). For Technique actors, feeling the same emotions as the character only serves as a distraction or gives the impression of falsity on stage (Mamet, 1997; Olivier, 1986).

In contrast, Method actors are taught that feeling the emotions of the character is critical to playing that character fully. Not only must they understand the character's mental life;

they must also feel the character's feelings. Mere understanding of the character's cognitions without matching those emotions is believed to create detachment, and the characterization will not feel alive (Hayman, 1969); to live and exist in a character, to feel his or her emotions, is how real characterizations are built (Stanislavski, 1950). Method acting involves the fusion of an actor's action with the experience of the heightened emotions of the character (Murray, 1996).

In order to feel the character's emotions, Method actors begin studying the script by going through and finding the specific emotions and reactions that occur in each moment, or "beat." They must be able to understand those emotions and reactions and be able to see them through the perspective of the character. Subsequently, actors create the emotional cues that will allow them to generate and experience the same emotions as their character (Chekhov, 1991). However, the actor cannot just pick an emotion and then use it in the play at large, but must focus on the emotions that apply to each moment, determining how they occur, and how to use those emotions to understand what is happening to the character (Chekhov, 1991).

In preparation for a character, Method actors can spend rehearsal time finding small objects onstage that remind them of a previous emotion that relates to the emotion of their character and can trigger that emotion whenever they think about it. This ensures that the actor is in the same affective state as the character (Hagen & Frankel, 1973).

Working on the emotion ahead of time so that in the moment of the play it is fresh and

ready to go is the cornerstone of skilled Method acting (Hull, 1985). A sensitivity to emotion and a developed concentration on affective matters is extremely important.

The Method acting theorist who was the strongest promoter of feeling the same emotions as a character is Stanislavski's closest disciple Lee Strasberg (Hull, 1985). Strasberg claimed that focusing entirely on a momentary objective (as recommended by the Technique approach) would cut off affective perspective taking and prevent the actor from understanding and playing the emotion of a role (Hull, 1985). Therefore, the emotional must take precedence over the cognitive. Lawrence Olivier, who relied solely on language and cognition to create a realistic portrayal, was criticized by Method theorists as an actor who cannot 'bring down the house' or cause the audience to feel overwhelming emotion because of his lack of "real" emotion on stage (Meisner & Longwell, 1987). Method theorists claim that by recalling an emotional memory and then connecting it to the experience of the character, the actor is able to recreate this feeling personally on stage, thereby moving the audience as well.

The Method approach thus emphasizes the development of empathy. We will return to a discussion of empathy from the perspective of psychology later on.

### Exerting Control over One's Own Emotions

The Technique and Method approaches make very different demands on the actors in terms of how they must learn to generate, shape, and control their own emotions. While

Technique actors must learn to ignore their own emotions, Method actors must learn to create emotions in themselves. The only way in which Technique actors try to exert control over their emotions is in not allowing their emotions to get in the way (Bruder et al, 1986). Technique actors must learn how to communicate but not recreate emotions effectively, regardless of whether they feel or have ever felt those emotions (Mamet, 1997).

Technique theorists claim that creating and controlling real emotions on stage is impossible and even irresponsible (Mamet, 1997), and are Technique actors are therefore trained to focus on the outward expressions of the character, ignoring any personal emotion which may arise on stage. Technique theorists believe that an emotion which arises while onstage can be used within the course of the scene, but should not be prepared for or relied on. Emotions should be seen as temporary states that are not necessarily adjusted to. Rather, they are accepted and allowed to run their course.

Instead of trying to alter their own emotions, Technique actors are trained to focus on how to increase their emotional impact on the audience. They are encouraged to ignore any personal emotion that comes up on stage, and to suppress its expression. Since there is no such thing as the one correct emotion for any one scene, and emotions are not seen as fully within the control of the actor, having an outward-directed focus and continually monitoring how the audience is reacting should keep the actor from becoming weighed down with feeling emotions.

Because Method theorists believe in feeling the emotions of the character, Method actors must learn how to create, craft, and control whatever emotion they need at a particular moment. The emotion is achieved through the use of affective memory (Hagen & Frankel, 1973). The trick is to relive an emotion the actor has felt at another time. The job of the other senses is to prepare the actor to use his or her emotion memory (Stanislavski, 1948a). Emotions excited by the imagination are believed to result in realistic emotion on stage (Roach, 1985) although there is debate on this point. True emotion on stage, equivalent to what we actually experience off-stage, is extremely difficult to achieve and is considered the most “elusive” aspect of acting (Meisner & Longwell, 1987). However, either imagination or the atmosphere of the play can and should be allowed to create emotion within the actor, and the actor must use that emotion to serve the portrayal (Chekhov, 1991). According to Method theorists, great acting has roots in true emotion, and no matter how talented, actors cannot convincingly portray an emotion they do not really feel (Meisner & Longwell, 1987). Consequently, great acting requires stimulating emotions by whatever means necessary and using the result onstage.

There is an enduring question within Method theory about the extent to which the character’s emotions and the actor’s emotions can co-exist within the actor during a performance. External indication of emotion may cause the internal aspects of emotion to arise, which then makes it impossible for the actor’s emotion to differ from that of the character (Metcalf, 1931). However, even when playing the most emotional of characters, the actor still must keep a level of control on stage in order to keep from devolving into ‘hysteria’ (Hagen & Frankel, 1973). Diderot (1770/1957) wrote extensively about the

dual consciousness that an actor must inhabit: that of himself, and that of his character. However, Hull (1985) points out that an actor who is looking at his character while playing his character at the same time cannot be effective. Actors must learn to use their emotions so that they can feel and express a character's emotional state without forgetting their lines or position on stage. Actors should be more knowledgeable and more accepting of their emotions, a skill analogous to adaptive forms of "emotion regulation" as discussed below.

Both schools of acting emphasize, but in different ways, the development of what in psychological terms has come to be called "emotion regulation" We will return to a discussion of emotion regulation from the perspective of psychology below.

#### ACTING AS A LENS ON SOCIAL COGNITION: THEORY AND EVIDENCE

The domain of acting can provide a fertile means by which to study advanced levels of theory of mind, empathy, and emotion regulation, as well as other forms of cognition which have a particularly important role in acting. By studying the kinds of social-cognitive and emotional skills that acting fosters, we can learn about expertise in these skills as well as about how these skills can be trained. Despite this rich psychological territory of acting, few psychologists have tried to study the psychological components and consequences of acting. The research that has been conducted on the psychology of acting has focused primarily on the effect of acting on verbal memory and literacy skills (see Noice & Noice, 2006; Podzlony, 2000 for reviews).

We examine here what psychologists have discovered, and what they might still discover, about the social cognitive components of acting: (1) the ability to understand the subtle mental qualities of the character (intentions, desires, motivations, emotions, and beliefs, which we refer to as the having of “a theory of mind”) a skill emphasized differently by Method and Technique acting; (2) the ability to feel the character’s emotions and have a concurrent emotional reaction, which we refer to as “empathy,” a skill emphasized most by Method acting; and (3) the ability to control one’s personal emotions so as to be able to take on whatever emotion is required, which we refer to as “emotion regulation,” a skill also emphasized differently by Method and Technique acting. Our goal is to demonstrate how the study of actors can shed light on our understanding of the development of expertise in these three components of social cognition: theory of mind, empathy, and emotion regulation.

### Psychological Research on Theory of Mind and Acting

Actors must be able to grasp subtle aspects of their character’s intentions, desires, motivations, beliefs, and emotions in order to create a realistic portrayal of a complex human onstage or screen. This “cold” understanding of the character’s mental states is what allows the actor to adopt the perspective of the character and see the world through the character’s eyes. We use the term “cold” because one can understand another’s mental states, including feeling states, without oneself experiencing the other’s emotions. In the psychological literature, this is referred to having a ‘theory of mind’ (see Wellman,

Cross & Watson, 2001), ‘mentalising’ (Morton, Frith & Leslie, 1991), ‘mind reading’ (Whiten, 1991), or ‘social intelligence’ (Baron-Cohen, Jolliffe, Mortimore, & Robertson, 1997), all of which we will refer to below by the umbrella term “theory of mind.”

Because Method actors spend far more time in long-term and background psychological analysis of their characters than do Technique actors, we would expect them to become more psychologically astute, better able to analyze the stable personality and inner worlds of others. However, we would also expect Technique actors and Method actors to have an advantage over those without acting training in the analysis and understanding of others’ mental and emotional states.

We hypothesize that actors (both Technique and Method) are drawn to acting because of a heightened ability to infer others mental states, and that this initial gift is further strengthened into expertise by the continual experience of become others. However, Technique actors are likely to focusing more on the understanding of others’ *situational* mental states, while Method actors are likely to focus more on the understanding of others’ *dispositional* mental states. Training in either theory should increase the ability to understanding and read others’ mental states.

The study of actors can thus become a way for psychologists to understand expertise in theory of mind. We know a great deal about the normative development of theory of mind. The most investigated major milestone in theory of mind is the recognition that a belief is just a representation of external reality, and as such it can be a false

representation. The acquisition of a representational understanding of mind is demonstrated by the child's understanding of false belief, which emerges somewhere between the ages of three and four (Gopnik & Astington, 1988; Wimmer & Perner, 1983). This kind of understanding is considered to be a social-cognitive aspect of theory of mind because it is based on the ability to infer what someone knows and does not know on the basis of what that person has seen or not seen (Tager-Flusberg & Sullivan, 2000).

Understanding false belief entails the realization that someone not only lacks access to the truth, but has a false belief about the truth. A later more sophisticated social-cognitive understanding of subjectivity, referred to as "interpretive theory of mind," emerges by the age of seven or eight, when children realize that two people can have different interpretations of the same reality (Carpendale & Chandler, 1996).

In contrast to social-cognitive theory of mind, social-perceptual theory of mind involves understanding what another person thinks and feels by attending to that person's facial or bodily expression (Tager-Flusberg & Sullivan, 2000). This kind of ability has been assessed most commonly in adults by the Reading the Mind in the Eyes test (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001), in which one is shown pictures of individuals' eyes taken from movies, television and magazines and presented with four possible mental/ emotional state labels. This measure shows age related changes through adolescence, and adults do not reach ceiling on this test. Individuals with Asperger's syndrome and autism perform poorly on this test.

While normative and pathological theory of mind development has been heavily studied, very little research has investigated the possibility of the development of advanced levels of theory of mind past the age of eight. Children reach ceiling levels on false belief and interpretive theory of mind tasks by four and eight, respectively, and psychologists seem to have assumed that development of theory of mind stops by age eight. While it is possible that the kinds of basic theory of mind skills reviewed above may reach ceiling in middle childhood, little thought has been given to the possibility that more subtle forms of theory of mind ability may continue to develop through adolescence, and to the possibility that there may be individual differences in the levels of theory of mind ability reached in adulthood, with some individuals becoming true experts at theory of mind. If one thinks about the kinds of skills required by a psychotherapist, for example, or by a literary critic who analyzes the phenomenology of fictional characters, it is not difficult to conceive of what it might mean to be an expert at making judgments about the inner worlds of others.

There is reason to believe that theory of mind skills continue to develop, at least into adolescence. To begin with, the prefrontal cortex areas underlying social cognition continue to develop in adolescence (Blakemore & Choudhury, 2006). This neural development, combined with hormonal changes and new social interaction changes, makes it plausible to hypothesize that perspective taking and theory of mind are not fully developed by middle childhood. We have been able to locate a few studies showing that theory of mind is a graded ability even in adults, and we review each of these below.

Adults with more close friends show higher levels of theory of mind than those with fewer friend, as measured by the “Imposing Memory Task” in which many mental states must be held in mind at once, referred to as “multiple theory of mind” (Stiller and Dunbar, 2007). Participants heard stories of the following kind:

“Sam wanted to find a Post Office so he could buy a Tax Disc for his car. He asked Henry if he could tell him where to get one. Henry told him that he thought there was a Post Office in Elm Street. When Sam got to Elm Street, he found it was closed. A notice on the door said that it had moved to the new premises in Bold Street. So Sam went to Bold Street and found the new Post Office. When he got to the counter, he discovered that he had left his MOT certificate at home. He realized that, without an MOT certificate, he could not get a Tax Disc, so he went home empty-handed”.

They were then asked to make a judgment between two options such as:

- 1) (a) Henry thought Sam would find the Post Office in Elm Street  
(b) Henry thought Sam would find the Post Office in Bold Street
- 2) (a) Sam thought that Henry knew the Post Office was in Bold Street  
(b) Sam thought that Henry knew the Post Office was in Elm Street
- 3) (a) Sam thought that Henry believed that Sam wanted to buy a Tax Disc  
(b) Sam thought that Henry did not know that Sam wanted to buy a Tax Disc

This theory of mind task is one that seems to us to be confounded with working memory: to solve the most complex tasks requires holding in mind nine mental states at a time. Hence it is not clear whether this study tells us about advanced theory of mind, or about high level working memory skills.

Dysphoric adolescents show higher levels of than do those without dysphoria, and were better able to identify both positively valenced and negatively valenced mental states of others (Harkness, Sabbagh, Jacobson, Chowdrey, and Chen, 2005). High levels of perceptual theory of mind in depression may be due to the kind of ruminative introspection that so often accompanies depression (Nolen-Hoeksema, Morrow, & Fredrickson, 1993).

Adults readers of fiction also score higher than those who prefer nonfiction on the Reading the Mind in the Eyes Task (Mar, Oatley, Hirsch, de la Paz & Peterson, 2006). This may be due to the kind of interaction with, and comprehension of characters, which occurs when one reads fiction deeply. However, while fiction reading was related to the Reading the Mind in the Eyes task in this study, it was not related to another social-perceptual theory of mind task called the Interpersonal Perception Task (Costanzo & Archer, 1983). On this Interpersonal Perception Task, participants watch a video and then, using prosodic cues, try to determine the mental and emotional states of each character as well as the relationships among the characters. Mar et al. explain this contradiction in terms of the heterogeneity of the concept of empathy, in both its cognitive (theory of mind) and emotional forms.

Choudhury, Blakemore, and Charman (2006) found age related changes between ages 11-14 in an emotional perspective taking study. Participants were told about a hypothetical situation which would cause an emotional reaction from either the first perspective or the third perspective (i.e. You/ A girl are/is not allowed to go to your/ her best friend's party. How do you/she feel(s)?). Participants were then asked to make a judgment between five faces expressing an emotion. All participants responded more quickly when making first person judgments as compared to third person judgments. But, with age, reaction times between first and third person judgments decreased. The fact that adolescent's time delay between first and third person reasoning decreased meant they were getting better at taking the perspective of another, becoming more advanced.

Given the above described studies which have demonstrated individual differences in theory of mind ability in adolescents and adults, we have begun a program of research to examine the possibility that actors, and particular those trained in the Method approach, should have advanced levels of theory of mind. Given the similarities between the comprehension of characters by readers and the comprehension of characters by actors, we would expect actors to show levels of theory of mind skill as high as those of fiction readers. Support for the hypothesis that acting can lead to advanced levels of theory of mind comes from two studies showing that role playing activities increase perspective taking, a skill that follows from an understanding of others' mental states.

Chandler (1973) tested the effect of role playing on perspective taking and social skills in emotionally disturbed, delinquent adolescent boys. Boys in this study were either given experience in role playing different characters in a videotaped skit, or they were taught referential communication skills (the control group). All of the boys began with low social competence and low levels of perspective taking. After ten weeks, those in the role playing but not referential communication group improved significantly in cognitive perspective taking. In addition, level of delinquent behavior declined in the group trained in role playing. This study demonstrated that training in acting (or role playing) improves perspective taking in boys with low social competence.

In a second study, Chandler, Greenspan, and Barenboim (1974) gave another group of delinquent boys a similar role playing task in which they created their own videotaped skits and acted out various characters, thereby adopting different perspectives in the same situation. These boys were compared to a group that created videos but did not act in them. These anti-social children were not good at stepping outside of their own vantage point and taking others' perspectives. However, after 12 months, those who had acted out roles in their videos had higher perspective taking scores and lower rates of delinquency than those who had made but not acted in videos.

In our initial study of acting training and theory of mind, we administered Baron-Cohen et al.'s (2001) Reading the Mind in the Eyes test to two groups of adolescents aged 14-17. One group was involved in acting training intensively at an independent arts high school or through extracurricular theatre at their public high school. The acting group was

compared to a group of adolescents not involved in theatre, but involved in other artistic or other after school activities. Students also completed a control test of visual memory not predicted to be associated with acting experience. Because these students were being trained in the US, we can assume that their training had a strong Method component.

As hypothesized, adolescents involved in theatre show advantages in on the Reading the Mind in the Eyes test, but not on visual memory (Goldstein & Winner, 2007). This skill may have been developed by the training these students received: acting students in the US are taught to think deeply about characters' mental states; and they are taught to think about how to convey cognitive and emotional states through their facial expressions. Experience understanding and then showing emotion may then lead to the ability to recognize emotion.

Research on acting and theory of mind requires better measures of theory of mind, ones that can really measure what it might mean to be an expert at adult levels of theory of mind. We need measures that can capture the kinds of skills in understanding other people possessed by gifted therapists and fiction writers. We need measures that capture the ability to "read" opaque behavior in terms of the cognitive and affective states hidden beneath the surface, but leaking out in subtle cues.

Thus far studies showing individual differences in theory of mind in adolescents and adults have all been correlational, including our own. We are now embarking on a quasi-experimental longitudinal study of children and adolescents involved in acting in order to

determine whether they 1) come to an interest in acting with an advanced level of theory of mind compared to their peers and/or 2) whether acting training leads to advanced levels of theory of mind. Through this study we will explore questions of causality, as well as test new measures of advanced theory of mind

### Psychological Research on Empathy and Acting

Psychologists have sometimes confused empathy with theory of mind, calling the understanding of what another is feeling an indication of empathy (Baron-Cohen, & Wheelwright, 2004; Nettle, 2006). But empathy and theory of mind must be distinguished. Theory of mind refers to the cognitive understanding of what another is thinking or feeling; empathy refers to the tendency to match one's emotions to the emotions perceived in another. While theory of mind which involves 'cold' cognitive understanding of another's beliefs and feelings, empathy requires feeling the other's feelings. Empathy involves actually feeling what someone else is feeling, or being emotionally moved by an understanding of what someone else feels (Verducci, 2000). Empathy must also be distinguished from compassion, which involves feeling the other person's emotion *and* taking action to ease another's emotional suffering (Levy, 1997).

Once children are able to differentiate between their own and others emotions (a form of cognitive perspective taking), they can also begin to empathize with others (Hoffman, 1981). Higher levels of empathy have been associated with higher levels of perspective taking skills (Eisenberg, Fabes, & Spinard, 2006), and empathy cannot exist without

cognitive perspective taking and understanding of emotions (Batson, Lishner, Carpenter, Dulin, Harjusola-Webb, Stocks et.al, 2003).

Skill in theory of mind and in empathy are not necessarily correlated, however these skills certainly do not cohere in bullies (Bosacki & Astington, 1999). Bullies are strong in understanding what others are thinking and feeling, but weak in empathy: they can understand what the victim may be feeling but they do not feel the victim's suffering.

Research on empathy and empathic responses in adolescence is mixed. Measured through facial and gestural indices, empathic response actually decreases with age (Eisenberg, Fabes, & Spinrad, 2006). However, as measured through self-report (which raises the methodological issue of social desirability), empathy increases with age throughout adolescence (Lennon & Eisenberg, 1987).

Levy (1997, p. 70) suggests that theater is a "school for feeling" and that involvement in theatre can help children learn about moral values. As children are involved in theatre, they will learn to experience their own emotions more deeply and fully. Educated emotions, Levy argues, respond more morally than uneducated emotions, leading to increases in empathy.

Although many researchers have suggested that acting training should lead to increases in empathy, and although seems intuitively plausible, there has been little empirical investigation into this question. Metcalf (1931) discussed empathy and acting in a

theoretical paper, proposing that empathy plays a more prominent role in theatre than in any other art form. Actors, according to Metcalf, adopt the emotion and personality of anyone around them, portray that person's emotion just as it would appear in real life and therefore must have a great deal of empathy for all those around them. Verducci (2000) also hypothesized that the experience of acting fosters empathy. Actors must figure out their character's personality by paying special attention to the intricacies of the character's behavior (since the words of the script may not fully reveal the character's inner world), and this heightened attention to details of behavior as a window onto a person's inner world was argued to lead to heightened empathy. But according to the definition of empathy proposed here (the ability to feel another's emotions, not just understand them), what Verducci is really talking about is theory of mind.

Prior to our own newly developing program of research, there have been to our knowledge only two studies on the relation between acting and empathy. One unpublished dissertation examined whether being involved in acting increased empathy levels (Collum, 1976). Although not peer reviewed or published, and indeed with some considerable problems, as mentioned below, this is one of the only attempts at an empirical study of the otherwise theoretically accepted idea that actors are more empathic than non-actors. Collum assessed empathy was measured by the Hogan Empathy Scale (Hogan, 1969), a self-report measure that defines empathy (erroneously, in our view) as an intellectual understanding of another's mind without the experience of that person's feelings (Hogan, 1969). This scale includes items measuring far more than empathy: social confidence (e.g. "I usually take an active part in the entertainment at parties"),

emotion regulation (e.g. “I am usually calm and not easily upset”), emotional sensitivity (e.g. “I have tried my hand at poetry”), and nonconformity (e.g. “It is the duty of a citizen to support his country, right or wrong”), as well as what would normally be considered empathy (e.g. “I easily become impatient with people”). Eighty-three professional actors, MFA students in acting at the University of Florida, and undergraduate theatre majors were compared to a group of 24 non theatre majors at the university.

Actors scored significantly higher on this measure than did non-actors. However, empathy scores declined with age in professional actors, with those professional actors who had worked the most as actors in the previous year showing the lowest overall levels of empathy within the actor population. Actors who made 100% of their previous year’s income from acting actually had negative correlations with their empathy scores. Collum (1976) hypothesized that actors are drawn to acting because of underlying higher levels of empathy. However, as an actor becomes more involved in the business of professional acting, the harsh difficulties of living one’s life in the theater lead to a decline in empathy. Collum’s (1976) study did not distinguish between Technique and Method actors and his findings should be viewed with reservation due to the measure of empathy used.

More recently, using Baron-Cohen & Wheelwright’s (2004) Empathizing Quotient (EQ), Nettle (2006) found that professional actors scored higher than a control group. The control group was from an earlier study conducted in the Baron-Cohen lab, recruited to help validate and normalize the EQ for later testing. The EQ measures affective empathy,

defined as a parallel or reactive emotional response to the emotions of others (i.e. “I tend to get emotionally involved with a friends’ problems”). Actors were recruited and tested via the internet. Nettle also hypothesized that acting attracts people with high empathy to begin with, rather than fostering growth in empathy as a function of acting experience. However, whether acting attracts empathetic individuals to the profession, fosters empathy, or both, could only be determined by an experimental study, and no such study has yet been conducted.

We have investigated the relationship between acting and empathy in one study.

Goldstein and Winner (2007) not only administered the Reading the Eyes in the Mind test to adolescents involved in theater vs. a control group, but also administered a self report empathy scale. The measure used was Bryant’s (1982) Index of Empathy for Adolescents, a common self report measure of empathy. This measure asks people to judge themselves on a 7-point Likert scale in response to statements such as “I can eat all of my cookies even when I see someone looking at me, wanting one.”

We found that the adolescent actors score no higher on this empathy scale than did the adolescent non-actors. We believe this result is explainable as follows. While actors show and perceive a wide variety of emotions on stage, they may well do so without actually feeling these emotions. In other words, they may be using a Technique approach, despite being taught the Method approach. However, another more likely possibility is that actors defend themselves against feeling empathy for their characters in order to avoid emotional exhaustion. Of course, as in previous studies, we relied only on a self report

measure of empathy, which is of course subject to the problems of social desirability, as well as self understanding. Perhaps another kind of empathy measure might demonstrate higher empathy skills in actors. We are now developing a new measure of empathy that does not rely on self report. We will use this measure in our above-mentioned intervention study to determine whether individuals are drawn to acting because of high levels of empathic ability, whether acting training trains empathy. Ultimately we hope to include both Method and Technique students to determine whether Method actors, who spend far more time trying to feel the emotions of their characters than do Technique actors, become better able to feel the emotions of their characters, and hence perhaps better able to feel the emotions of others off-stage

### Psychological Research on Emotion Regulation and Acting

Actors must have knowledge of and control over their emotions in order to portray a character's emotions on stage. Psychologists refer to this skill as emotion regulation (Gross, 1998), and define it as the ability to become conscious of one's emotions, and the ability to create, control and use emotions independent of how or when the emotions were activated (Cole, Martin & Dennis, 2004). Emotion regulation takes different forms at different points during the duration of a single emotion (Gross, 1998). When emotions are not appropriate we must regulate and change our emotions. To change our emotions, we can engage in reappraisal – which means changing the way we view a situation in order to change the emotional impact of the situation (Gross, 2002). Or we can engage in expressive suppression, which means preventing the outward expression of an emotion.

Although emotion regulation is typically used to decrease negative and increase positive emotions, instrumental emotion regulation can be used to increase or decrease both positive and negative emotions (Gross, 1999).

Because actors must not show their own emotions onstage and must either replace or blend their emotions with those of their character, they have to be using emotion regulation strategies. Although Method actors spend far more time attempting to create emotions in themselves than do Technique actors, both Method and Technique actors must know and understand emotions in a way that nonactors do not have to. However, the strategies used would seem to differ depending on whether one is trained in Technique or Method.

Technique actors must use emotion regulation to mask their personal emotions. Because technique actors do not need to create emotion onstage, personal emotions may arise that are not helpful or congruous with the emotion of the character. Technique actors must be able to let the emotion “pass through them” (Mamet, 1997), to suppress any expression of the emotion, and to regulate themselves so that they can continue acting their character.

Method actors are trained to feel the emotions of the character so that they lose their own emotions and only feel those of the character. That is, the emotions of the character must be indistinguishable from the emotions of the actor. Many Method actors engage in memory exercises in which they recall and re-experience a previously felt emotion in order to bring up the appropriate emotion for a scene (Hagen & Frankel, 1973). This strategy is no

different than the kind of emotion regulation technique psychologists refer to as attention deployment, in which one chooses something on which to focus in order to control one's emotions (Gross, 1998).

Although there have been no studies of emotion regulation in actors, there have been several studies that use actors as an "expert" population, assuming that any emotion they create on cue is equivalent to emotions that arise spontaneously. These researchers have asked actors to "create" specific emotions in order to study the facial (Ekman, Levenson & Friesen, 1983), physiological (Futterman, Kemeny, Shapiro & Fahey, 1994), and neurological (Pelletier, Bouthillier, Levesque, Carrier, Breault, Paquette, Mensour, Leroux, Beaudion, Bourgouin & Beauregard, 2003) components of emotional processes.

We were able to locate one study examining the emotional development of adolescents involved in a theatrical show (Larson & Brown 2007). Larson and Brown used grounded theory analysis to show that the adolescents' experiences with emotions in the context of acting helped them learn about regulating and understand emotions in general. However, there was no control group comparison, and measurement of emotion regulation using validated quantitative measures, and the learning about emotions that occurred was attributed to the group leader's openness about emotions. The researchers did not examine how the process of creating a performance and acting in this performance might have brought about emotional development.

We are now beginning a program of research examining how actors emotionally regulate, and whether their ability to emotionally regulate is more advanced than that of the general population, either because acting provides a place for them to practice their advanced emotion regulation, or because acting trains advanced emotion regulation (Goldstein & Tamir, in preparation). Thus far we have found that when Method-trained actors are on stage, instead of minimizing or suppressing emotions that get in the way of their performance, they report that they focus on and actively express, or vent, these emotions. In contrast, when non-actors find themselves in a performance situation (i.e., giving a class presentation), they report that they try to suppress and deny emotions that get in their way. Thus our study demonstrates that actors do not control inconvenient emotions via suppression or denial but instead accept and focus on these emotions, and thereby achieve control over them. A close study of how actors succeed in regulating their emotions could help us understand the processes involved in emotion regulation.

#### CONCLUDING THOUGHTS

*“through understanding the acts of others we come to know their souls”*

*(Meltzoff, 2002 p. 24)*

*“the purpose of playing, ... is, to hold, as 'twere, the mirror up to nature”*

*(Shakespeare, Hamlet, 3.2)*

The number and variety of subject areas in psychology into which the study of acting can provide insight is astonishing. While there is very little literature on the psychology of acting, connections can be drawn to many areas of psychological research. Psychologists can learn a great deal from the major drama theorists: Theater theory is inherently psychological, and psychologists can learn much from both Technique and Method theorists understandings about how actors can be trained to develop a more acute theory of mind, about why acting may not be a training ground for empathy, and about how actors succeed so well in regulating their emotions.

The actor must convincingly become another person and at least seem to be feeling emotions that will not be present once the actor steps off the stage. Clearly this is a daunting task, which is why so few people become successful actors, and why even fewer are considered great actors. Great acting is a very rare gift, as is genius in any area. While verbal skills, memory, mimicry, imagination and pretense are all skills used and developed by actors, we believe that social-cognitive skills are at the heart of acting. Psychological research on how acting trains social-cognitive skills can help us understand the development of these social-cognitive skills, and help us understand what it means to develop expertise in these skills.

If actors have advantages in theory of mind, empathy, or emotion regulation as a result of their extensive training, we can learn how these skills, so important to social interaction, can be acquired. Such findings would have important implications for remediation of individuals deficient in these social-cognitive skills. Theater, we believe, might provide a

means of teaching social-cognitive skills to individuals with autism, (indeed, several books have already been written to this end, even though no research has been conducted!) as well as in individuals with other social problems such as bullies, delinquents, and psychopaths.

In the one piece of acting instruction that is known to have been written by Shakespeare, Hamlet instructs a group of players to “hold ... the mirror up to nature:” to be as truthful and natural as possible. Only through the study of human behavior, mental processes, and emotional states can one possibly understand and replicate the “nature” of a human truthfully. This is the great challenge of acting. Psychology can learn much from the study of theater. It is surprising that this connection has not been studied by psychologists. It is our hope that this chapter will serve as a starting point for a new research area discovering what acting and psychology can learn from each other. For both acting and psychology, at their cores, seek to understand what it means to be human.

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