

Chapter 9

Social skills outcomes of arts education

In this chapter we review the evidence for the impact of multi-arts education and education in specific art forms on social skills: self-concept and general self-esteem, social behaviour, empathy for others, emotion regulation, and perspective taking (understanding of others). The only evidence thus far that arts education improves some form of social behaviour/social understanding comes from the domain of theatre. There is some quasi-experimental evidence that theatre education improves empathy, perspective taking, and emotion regulation. We can explain such findings by pointing to the fact that theatre education asks children to step into the shoes of others, feel their feelings, and understand their mental states. In addition, theatre education teaches children to express emotions. More research is needed before we can draw firm conclusions about the power of theatre to affect these very important kinds of social skills.

Arts advocates often claim that the arts are important because they “save” children – especially the difficult child who does not thrive in standard academic classrooms, who has low self-esteem, who is at risk for dropping out of school, etc. We hear that the arts gives them purpose, self-esteem, and social competence. We also hear that the arts strengthen children’s empathy for others as well as their understanding of others (which we refer to here as perspective taking, and which in the psychological literature is often referred to as having a “theory of mind”).

Social skills are important for well-being but also for success in the labour market. They are key skills in innovative societies, which require team work, good communication, including the ability to present its ideas in a persuasive way and to understand and adjust to other people's perspective and emotion. For example, entrepreneurial skills typically include strong social skills as entrepreneurs must convince others to support their projects, mobilise their energies, or understand their needs.

There is as yet no theoretical reason that has been advanced to show why gaining competence in an art form should have greater social benefits on average than gaining competence in an academic subject matter. Do we have any evidence that the arts are uniquely good at promoting social skills?

In this chapter we review what is known about the social outcomes of arts education. We review studies examining the effects of the arts on students' self-concepts, their ability to regulate their emotions, their perspective taking skills, their empathy for others, and their social competence.

Multi-arts education and academic self-concept

Correlational studies

We identified three correlational studies investigating the relationship between multi-arts education and academic self-concept, summarised in Table 9.1.

Table 9.1. **Three correlational studies assessing whether multi-arts education improves self-concept**

Study	Positive findings	Negative or inconclusive findings
Burton, Horowitz and Abeles (2000)	X	
Catterall (1998)	X	
Catterall, Chapleau and Iwanaga (1999)		X

Burton, Horowitz and Abeles (2000) found that children exposed to the arts (whether integrated or stand-alone) scored higher on some subscales of an academic self-concept test than students not exposed to the arts. Self-concept was measured by questions about how much they value themselves, their abilities, their achievements.

Catterall (1998) found that children in the US National Education Longitudinal Study of 1988 with high arts involvement had a more positive academic self-concept. The study followed longitudinally a representative sample of eighth-graders.

Catterall, Chapleau and Iwanaga (1999) tested students in 12th grade, they reported no difference in academic self- concept in those involved vs. not involved in music or theatre.

There is no strong, clear, or consistent evidence thus far that multi-arts education affects students' academic self-concepts. However, very little research has examined this question.

Music education and social skills outcomes

Music, and in particular collective practice in orchestra or choir, is often seen as a means to develop social skills: this would be derived from being part of a band or collective group, communicating musical emotions, or just playing in public and having opportunities to see one's work applauded and valued. On a more personal level, students could also gain confidence and better master their emotions as they go through the process of learning a musical piece or overcoming stage fright.

The most intensive music education programme we know of was founded in 1975 by musician and economist Jose Antonio Abreu in Venezuela. It is called "El Sistema," or "The System".¹ Funded primarily by the Venezuelan government, this programme is considered to be a social programme – its goal is to transform the lives of children living in poverty. Children spend up to four hours a day, six afternoons a week, studying music; and from the very beginning they learn to play in an orchestra. The orchestra is seen as a way of empowering the community.

El Sistema has now reached 400 000 Venezuelan children, 70% of whom live in poverty, and immerses them in music. One of the graduates of this programme is the brilliant young conductor Gustavo Dudamel, now conducting the Los Angeles Philharmonic. Music educators all over the world are trying to import *El Sistema's* methods (Box 9.1).²

Music education and self-concept

The *El Sistema* music programme described earlier certainly aims to fundamentally alter children's self-concept. We know of no evaluation of this programme or of any similar programme.

Correlational studies

We found one correlational study examining the relationship between self-esteem and music education (Table 9.2). Lynch (1994) reported no differences in self-esteem between high school students participating in instrumental music programme and those not participating.

Box 9.1. *El Sistema* viewed by its founder

In his TED talk in 2009, Abreu stated as follows:

“The structure of *El Sistema* is based on a new and flexible managing style adapted to the features of each community and region, and today attends to 300 000 children of the lower and middle class all over Venezuela. It’s a program of social rescue and deep cultural transformation designed to the whole Venezuelan society with absolutely no distinctions whatsoever, but emphasising on the vulnerable and endangered social groups”.

He went on to describe what his view of the effects of this programme on children:

“The effect of *El Sistema* is felt in three fundamental circles – in the personal/social circle, in the family circle and in the community. In the personal/social circle, the children in the orchestras and choirs develop their intellectual and emotional side. The music becomes a source for developing the dimensions of the human being, thus elevating the spirit and leading man to a full development of his personality. So, the emotional and intellectual profits are huge – the acquisition of leadership, teaching and training principles, the sense of commitment, responsibility, generosity and dedication to others, and the individual contribution to achieve great collective goals. All this leads to the development of self-esteem and confidence... the child’s development in the orchestra and the choir provides him with a noble identity and makes him a role model for his family and community. It makes him a better student at school because it inspires in him a sense of responsibility, perseverance and punctuality that will greatly help him at school.

Within the family, the parents’ support is unconditional. The child becomes a role model for both his parents, and this is very important for a poor child. Once the child discovers he is important for his family, he begins to seek new ways of improving himself and hopes better for himself and his community. Also, he hopes for social and economic improvements for his own family. All this makes up a constructive and ascending social dynamic. The large majority of our children belong, as I already mentioned, to the most vulnerable strata of the Venezuelan population. That encourages them to embrace new dreams, new goals, and progress in the various opportunities that music has to offer.

Finally, in the circle of the community, the orchestras prove to be the creative spaces of culture and sources of exchange and new meanings. The spontaneity music has excludes it as a luxury item and makes it a patrimony of society. It’s what makes a child play a violin at home, while his father works in his carpentry. It’s what makes a little girl play the clarinet at home, while her mother does the housework. The idea is that the families join with pride and joy in the activities of the orchestras and the choirs their children belong to. The huge spiritual world that music produces in itself, which also lies within itself, ends up overcoming material poverty. From the minute a child’s taught how to play an instrument, he’s no longer poor. He becomes a child in progress heading for a professional level, who’ll later become a full citizen. Needless to say that music is the number one prevention against prostitution, violence, bad habits, and everything degrading in the life of a child.”

Source: http://blog.ted.com/2009/02/_weve_transcrib.php;
www.ted.com/talks/jose_abreu_on_kids_transformed_by_music.html.

Table 9.2. **One correlational study examining relation between music education and self-esteem**

Study	Positive findings	Negative or inconclusive findings
Linch (1994)		X

Experimental studies

We found one experimental study on the effects of music instruction on self-concept, summarised in Table 9.3.

Kennedy (1998) examined the effects of 30 minutes weekly guitar instruction in a group of 45 males aged 8 to 19 who were living in residential homes and juvenile detention centres for at-risk youth. Some had been in trouble with the law. All received the weekly guitar instruction. Two subgroups were also given 30 minutes of various kinds of instruction in how to perform including mental instructions for dealing with performance anxiety and were then allowed to give a solo performance to their peers. One group was given the same kinds of instruction but had no chance to give a solo performance. And one group was given no special performance instruction and instead was shown 30 minutes of performances by others followed by discussion evaluating the performances. Participants were pre-and post-tested in self-esteem using the Rosenberg Self-Esteem Scale. On this test, students indicate the strength of their agreement with statements such as “I feel that I do not have much to be proud of,” “On the whole I am satisfied with myself,” etc. Students who had been given instruction in music performance and also had experience giving a solo performance improved significantly in self-esteem. Those who did not have a chance to practice giving a solo performance did not improve. This study shows that guitar training coupled with repeated performance experiences can improve self-esteem. However, it seems reasonable to assume that the effects shown here are not specific to guitar instruction but would extend to any kind of training, including non-arts training, where students gain skill and perform publicly.

Table 9.3. **One experimental study assessing effect of music education on self-esteem**

Study	Positive findings	Negative or inconclusive findings
Kennedy (1998)	X	

There is far too little evidence on the question of the effect of music on children’s self-concept to draw any conclusions.

We speculate however that any effects from music would be due to an increasing sense of competence and/or the confidence that comes from public performance.

The former could occur from any kind of training in which one gains competence; the latter from any kind of training, arts or otherwise, in which public performances are a part of the instruction.

Music education and empathy

Quasi-experimental studies

While we found no studies of music and empathy, we did find two quasi-experimental studies assessing social outcomes likely related to empathy, summarised in Table 9.4.

In the Bastian (2000, 2008) study described in Chapter 3, in which German children receiving six years of music instruction in school twice a week were compared to those not receiving such instruction, it was reported that those in the music classes had fewer socially isolated pupils. In addition, a social measure was administered in which students were asked to vote on how they felt about other classmates. Children who had received with extended music education cast and received more positive votes than did control children. Bastian concludes that music education improves the social climate in the classroom. While this study did not measure empathy directly, these outcomes are sufficiently related to empathy that we include them here.

Weber, Spychiger and Patry (1993) studied Swiss children receiving intensive music instruction and compared them to a control group. They reported that classes receiving music instruction achieved higher scores in social group cohesiveness (as measured by a sociogram), and that children in the music classes had more positive social interconnectedness and were less competitive. In addition, children who at the beginning of the study were outsiders became increasingly more integrated throughout the three years. And classroom climate in the music group gained in “team spirit” after the second assessment.

Table 9.4. **Two quasi-experimental studies assessing effects of music instruction on empathy-like outcomes**

Study	Positive findings	Negative or inconclusive findings
Bastian (2000, 2008)	X	
Weber, Spychiger and Patry (1993)	X	

Given that we have only two studies on this topic, with neither directly assessing empathy, we conclude that there is insufficient evidence to support the conclusion that music education increases empathy. This is still a question fully open for research.

Visual arts education and social skills outcomes

Visual arts education and self-concept

Quasi-experimental studies

We identified one quasi-experimental study investigating whether learning in the visual arts improves various aspects of self-concept, summarised in Table 9.5.

Third grade students in inner city Los Angeles and St. Louis schools who received high quality visual arts instruction over the course of 20 and 30 weeks (two groups) were compared to third grade students from the same schools that received no training on surveys assessing self concept, self efficacy, and internal vs. external attributions for success (Catterall and Pepler, 2007). The 13-item global self-concept scale used included statements such as “I am able to do things as well as most other people”. The seven-item self-efficacy scale included statements such as, “When I make plans, I think I can make them work”, “Every time I try to get ahead, someone stops me” and “I have control over my future”. The two-item attribution scale contained items including, “Good luck is more important than hard work.” On the self-efficacy scale, more students in the art group showed gains than those in the comparison group. Both the art and non-art groups gained on the general self-concept scale and the internal attribution of success scale, with no advantages for the art group.

Table 9.5. **One quasi-experimental study assessing whether learning in visual arts improves self-concept**

Study	Positive findings	Negative or inconclusive findings
Catterall and Pepler (2007)		X

We found only one study investigating whether visual art education improves self-concept, and the study reported mixed effects. Thus we must conclude: no evidence so far.

Visual arts education and emotion regulation

Healthy emotion regulation – 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 – is important for positive psychological functioning (Cole, Martin and Dennis, 2004; Gross, 1998, 2002; John and Gross, 2004; Ochsner and Gross, 2005; Saarni, 1999). 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).

Adult correlational studies

We identified one correlational study investigating whether learning in the visual arts improves emotion regulation skills in adults, summarised in Table 9.6. This study compared acting to visual arts students (the visual arts students were the control group) and found that those studying visual arts reported greater use of the unhealthy emotion regulation strategy of suppression. See the first study described in Box 9.2 for more details.

Table 9.6. **One correlational study assessing the relationship between visual arts education and emotion regulation**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Goldstein, Tamir and Winner (2012), Study 1		X

Adult quasi-experimental studies

We found one quasi-experimental study comparing the effects of a year of visual arts vs. theatre training on emotion regulation (Table 9.7). Goldstein, Tamir and Winner (2012) used a visual arts group as a control group for a theatre group to test the hypothesis that learning in theatre fosters positive emotion regulation strategies. This study, the second study described in Box 9.2, showed that as hypothesised, one form of healthy emotion regulation improved in adolescents who were given a year of theatre. However, also as hypothesised, visual education had no effect on emotion regulation. Students in the theatre group but not those in the visual arts group showed less suppression of emotion after a year of training. This study is discussed again in the section on theatre.

Table 9.7. **One quasi-experimental study assessing the relationship between visual arts education and emotion regulation**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Goldstein, Tamir and Winner (2012), Study 2		X

There is no evidence that visual arts education improves emotion regulation skills.

Box 9.2. Learning in theatre, but not visual arts, fosters positive emotion regulation: Actors learn to stop suppressing their emotions

In a correlational study, Goldstein, Tamir and Winner (2012) examined whether emotion regulation strategies used by adolescents trained in acting differ from those used by a matched age group with training in other art forms. Actors need to express their emotions and are trained in the overt expression of emotion. They hypothesised that the actors should suppress their emotions less than do individuals involved in other art forms. Participants were ninth graders at one of two Boston-area schools where students can major in an art form. The actor group consisted of 28 adolescents majoring in theatre. The non-actor group consisted of 25 adolescents aged 13-16 majoring in either visual arts or music. All students had had previous training and/or experience with their art form. Participants were part of a larger study investigating the effects of acting training on a variety of outcomes (discussed later in the section on theatre). The acting and non-actor group were matched in SES and age.

Participants completed the Emotion Regulation Questionnaire (Gross and John, 2003), which assesses use of the two emotion regulation strategies of suppression and cognitive reappraisal. Suppression is assessed by agreement with statements such as: “I keep my emotions to myself”, “When I am feeling positive emotions, I am careful not to express them”, “I control my emotions by not expressing them.” Cognitive reappraisal is assessed by agreement with statements such as: “When I want to feel more positive emotion (such as joy or amusement), I change what I’m thinking about”. Participants completed both subscales using a 7 point scale. The acting students but not the visual art students scored significantly lower on suppression ($M = 3.12$ vs. 3.93). There was no difference between groups in use of the strategy of cognitive reappraisal.

Since this was a correlational study, results could be explained either by a selection factor (individuals who seek out acting are ones with low expressive suppression) or by a training effect (acting training lowers the tendency towards expressive suppression).

To distinguish between these two interpretations, the same researchers conducted a second study, this time quasi-experimental in design. They compared expressive suppression in younger children before and after a year of acting or other arts training. If lower expressive suppression is a function of acting training, one should expect lower expressive suppression scores for the actors but only at Time 2.

Participants were children enrolled in either acting classes or visual arts classes after school and on Saturdays. The actor group consisted of 35 8-10-year-olds enrolled in once a week after school acting classes with 31 completing classes due to attrition. The visual arts classes included 40 children matched in age and SES to the actor group enrolled in once a week after school visual arts classes, with 37 completing classes due to attrition. The children studying theatre participated in one sixty minute class per week taught by professional actors, for three nine-week sessions. Those studying visual arts participated in one ninety-minute class per week, taught by professional artists, for three 10-week sessions. All students received free tuition in classes in exchange for their participation. As with those in Study 1, participants were part of a larger study investigating the effects of acting training on social-cognitive outcomes.

(continues...)

Box 9.2. Learning in theatre, but not visual arts, fosters positive emotion regulation: Actors learn to stop suppressing their emotions (continued)

The Coping Strategies Interviews (Saarni, 1997) presented children with five stories chosen randomly for each child from 10 possible stories. In each story, the protagonist undergoes a stressful situation (i.e. her pants rip on the playground for everyone to see and laugh at). The child is then given seven options for what the protagonist could do: support-seeking (i.e. ask the teacher for help), problem-solving/ self-reliance (i.e. pull her sweatshirt down and go find new pants at the lost and found), distancing (i.e. ignoring the laughing and pull her sweatshirt down), internalising (i.e. run home very upset), and externalising (i.e. yell 'Shut up!' at the kids and throw their ball over the fence). To create parallel options with Study 1, we added the options of cognitive reappraisal (think about her pants ripping as a funny joke) and suppression of emotions (hide her face in her hands so no one could see she was blushing) were added for each question. Children were asked to pick the best option for the protagonist, the second best option, and the worst option. Children were tested both before and after 10 months of acting lessons.

Scores for the unhealthy strategy of suppression declined significantly for the acting group between Time 1 and Time 2; scores for the visual arts students did not change. These findings show that lower expressive suppression in actors is due to training in acting. However, no effects were found for emotion regulation in the visual arts group.

Visual arts education and empathy

It has sometimes been suggested that the visual arts enhance empathy with no clear reason why. But we can speculate that as students learn to express their emotions in their visual art, they may also learn to feel the emotions of others in other's art. This kind of practice in feeling emotions may lead to enhanced empathy – but we admit that this reasoning is a stretch.

Quasi-experimental studies

We identified one quasi-experimental study investigating whether learning in the visual arts improves empathy, summarised in Table 9.8. Goldstein and Winner (2012) compared empathy levels in children aged 8-10 and 13-15 both before and after receiving 10 months of visual arts training (this was the control group for their study on the effects of theatre on empathy). The measure used was a standard and widely used self-report empathy scale. Children in the visual arts training did not increase their empathy.

Table 9.8. **One quasi-experimental study assessing whether learning in visual arts improves empathy**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Goldstein and Winner (2012)		X

There is no evidence that visual arts education improves empathy.

Theatre education and social outcomes

In July of 2010, 50 fellows at the World Economic Forum came to New York's Columbia University to learn how theatre could help them become leaders of countries or in business.³ The programme aims to teach the fellows the techniques that actors use to capture the attention of their audience and to shape their audience's perceptions. The goal was also to get the fellows to use their bodies rather than just words to express themselves. One of the exercises these future leaders were given was to take on the role of an oppressed person or an oppressor and to improvise a dialogue. After the class, one of the fellows said that the exercises "opened a little room in myself to think about the intentions of other people" and to think about their motivations. He went on to say that this was about "understanding ourselves and expressing our thoughts."

There are some new findings suggesting that instruction in theatre may help children and adolescents to regulate their emotions, to develop a more positive self concept, to empathise with others by feeling their pain, and to take others' perspectives. These are the three social-cognitive areas that have been investigated in the area of theatre education. We found no research asking whether training in theatre improves self-expression or the power to influence others, two of the motivations of the Columbia University programme, and these are areas ripe for investigation. However it seems reasonable to expect that training in theatre would improve communication and presentation skills.

The domain of acting can provide a fertile means by which to study these kinds of social-cognitive and emotional skills. But few psychologists have studied 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 and Noice, 2006; Podzlon, 2000 for reviews), as reviewed earlier.

There are theoretical reasons to expect that theatre training might improve certain social-cognitive skills. Acting requires students to analyse characters, and hence acting training might help students become more psychologically astute, and more able to understand the minds of others. Acting also requires students to create and control and express their emotions and hence might help students develop better emotion regulation strategies in which they express rather than suppress. And acting requires students to feel the emotions of the characters they enact, and hence might help students to become more empathetic. For a review of the theoretical reasons why acting may affect social-cognitive skills, and for a review of the research conducted in this area, see Goldstein and Winner (2010).

Theatre education and social behaviour

Quasi-experimental and experimental studies

We found no studies assessing whether theatre training helps students to gain a better understanding of themselves (one of the goals of the Columbia University programme). We did however locate five quasi-experimental and experimental studies examining whether involvement in theatre improves positive social behaviour (Table 9.10).

Chandler (1973) tested the effect of role playing on 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. After ten weeks, those in the role playing but not referential communication group showed lowered levels of delinquent behaviour.

Chandler, Greenspan and Barenboim (1973) 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 lower rates of delinquency than those who had made but not acted in videos.

In the experimental study that we described above in the section on music education and IQ, we reported a study by Schellenberg (2004) who used as his control groups children taking drama classes. Children were assessed in level of adaptive social skills – probably as a control measure as the focus of this study was on music's effect on IQ. Students who had a year of drama classes improved significantly more than those who had a year of music lessons in their level of social skills, as reported by their parents.

In an experimental study, Freeman, Sullivan, Fulton and Ray (2003) assessed the effects of 40 minutes per week of drama instruction over 18 weeks. Students were randomly assigned either to a drama instruction group or to a control group. No differences were found between groups in problem behaviour and social skills.

An international, quasi-experimental study found that theatre education improved many social and behavioural outcomes such as communication. This study is described in Box 9.3.

Box 9.3. A quasi-experimental study of theatre education on some of the European commission's key competences for lifelong learning

The DICE (Drama Improves Lisbon Key Competences in Education) project has examined whether theatre (and drama) education has a positive effect on five of the eight key competences defined by the 2006 Recommendation of the European Parliament and of the Council on key competences for lifelong learning (18 December 2006). These five competences are: communication in the mother tongue; learning to learn; interpersonal, intercultural and social competences, civic competence; entrepreneurship; and cultural expression. A preview of the project's findings are summarised in two reports (DICE Consortium, 2010).

The research team has followed about 5 000 students aged between 13 and 16 from 12 countries (Czech Republic, Hungary, Netherlands, Norway, Palestine, Poland, Portugal, Romania, Serbia, Slovenia, Sweden and United Kingdom), who have altogether participated in 111 different types of educational theatre and drama programmes. The project adopted a quasi-experimental design, with two treatment groups (shorter or longer theatre/drama programmes) and a control group, and a pre- and post-assessment of these skills. The current reports do not explain how students were assigned to the different groups, but it was likely not randomised. Although students in the control group (with no theatre education) were meant to be similar to students in the treatment group (with theatre and drama education), the report notes that the research group includes most of the 20% of the students who had regular theatre activities before DICE, which makes it unlikely that a good match between control and treatment groups was achieved.

Students who participated in the theatre and drama programmes improved more than those not in such programmes (as measured by self-report in verbal skills, as well as in communicating (expressing one's views), humour, creativity, school enjoyment, perspective taking, problem solving, stress control, tolerance towards minorities and foreigners, interest in civic participation, and entrepreneurship competences. The students' perceptions were corroborated by their teachers, who also assessed all these competences before and after the intervention and noted more improvement in the groups with theatre education than in the group with no theatre education.

Some of these findings are aligned with other findings reviewed in our report. However, all of these findings rely on self-report measures. This is often the case for outcomes such as self-efficacy or self-concept, but some of these outcomes could have also been measured more objectively (verbal skills, problem solving, creativity, etc.). For this reason, the evidence from this study is suggestive but does not allow strong conclusions.

These studies present an inconsistent picture, but the majority of the studies (all of which are experimental in design) suggest that theatre education can improve social skills, understood as an appropriate behaviour with respect to social norms.

Table 9.10. **Four quasi-experimental and experimental studies assessing whether learning in theatre improves self-concept and social skills**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Chandler (1973)	X	
Chandler, Greenspan and Barenboim (1973)	X	
DICE Consortium (2010)	X	
Schellenberg (2004)*	X	
Freeman, Sullivan, Fulton and Ray (2003)*		X

Note: The experimental studies are asterisked.

Theatre education and self-concept

We found four quasi-experimental and experimental studies assessing the effect of theatre education on self-concept (Table 9.11).

In a quasi-experimental study, Catterall (2007) studied children in an urban middle school in Los Angeles participating in a 24 week after-school drama programme in which they worked together to stage plays, and compared them to a matched group not participating. The research question was whether the drama students improved more than control students in self-esteem and in positive social interactions, including conflict resolution. Drama students gained significantly more than the control group in self-efficacy, as measured by questions such as “I make my own decisions”, “I imagine being in control of my own life in the future”, “I am patient in getting what I want”. They also improved more than the control group in problem resolution skills, as measured by questions such as “I have found new ways to deal with my problems” and “I am good at figuring solutions to my problems”.

In an experimental study, Warger and Kleman (1986) assessed the effects of drama education on positive self-concept in typical and atypical populations. They worked with four groups of 6-10 year-olds: typical children, behaviour disordered institutionalised children, behaviour disordered non-institutionalised children, and non-behaviour disordered, institutionalised children (institutionalised so they could be removed from unstable home environments). Each group was randomly assigned to 30-45 minutes per day of creative dramatics for two weeks, or to a control group that received no creative dramatics training. Creative drama refers to activities that involve enacting stories without the goal of creating a formal performance. For the most at risk group (behaviour disordered institutionalised children), drama training was associated with gains in self concept (as measured by the Piers-Harris Children’s Self Concept Scale), a scale which assesses, through self-ratings, children’s happiness, adjustment, anxiety, feelings about school, etc. The other groups were not differentially affected in self-concept by drama training.

In what we believe to be an experimental study (the methodology was not made explicit), Beales and Zemel (1990) assigned high school students to either a drama or visual arts group. Students in the drama group received 70 hours of in-class

dramatic activity, including role playing and improvisation; the authors provide no description of the art programme. No group differences in self-esteem were found after the programmes. Unfortunately the authors do not report whether students in both groups remained stable or grew in self-esteem. Thus we cannot tell whether neither kind of art class improved self-esteem or whether both improved self-esteem at an equal level.

In the experimental study discussed above in the section on social behaviour, Freeman, Sullivan, Fulton and Ray (2003) also assessed the effects of 40 minutes per week of drama instruction over 18 weeks on self-concept. No effects of theatre education on self-concept were found.

Table 9.11. **Four quasi-experimental and experimental studies assessing whether learning in theatre improves self-concept and social skills**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Catterall (2007)	X	
Warger and Kleman (1986)*		X
Beales and Zemel (1990)*		?
Freeman, Sullivan, Fulton and Ray (2003)*		X

Note: The experimental studies are asterisked.

The three experimental studies on this question reported no effects. We conclude that there is no clear evidence thus far that learning in theatre improves students' self-concept and social skills.

Theatre education and emotion regulation

Actors must have knowledge of and control over their emotions in order to portray a character's emotions on stage. Because actors must not show their own emotions on stage and must either replace or blend their emotions with those of their character, they have to be using emotion regulation strategies.

There are two major contemporary western acting theories. The "Technique" approach teaches actors to display emotions without feeling them. The "Method" approach, which originated with Stanislavski (1950) in Russia, asks actors to feel the emotions of their characters. These two approaches are likely to have very different effects on emotion regulation (and empathy) (Goldstein and Winner, 2010). 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 non-actors 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 on stage, 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 become 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 and 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).

Several studies have used 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 and Friesen, 1983), physiological (Futterman, Kemeny, Shapiro and Fahey, 1994), and neurological (Pelletier, Bouthillier, Levesque, Carrier, Breault, Paquette, Mensour, Leroux, Beaudion, Bourgouin and 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 and Brown 2007). Larson and Brown reported that the adolescents’ experiences with emotions in the context of acting helped them learn about regulating and understanding emotions in general. However, there was no control group comparison (and thus this study is not listed in Table 9.12 below), and results were 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.

As described above in Box 9.2, Goldstein, Tamir and Winner (2012) conducted one correlational and one quasi-experimental study testing whether learning in theatre is associated with positive emotion regulation. Both of these studies showed a positive association between theatre training and positive emotion regulation, as summarised in Table 9.12.

The DICE study described in Box 9.3 also finds better stress control among theatre education students compared to the control group.

There is quasi-experimental evidence that theatre education fosters positive emotion regulation, but this is based on only two studies. Clearly more research is called for.

Table 9.12. **Three studies assessing whether learning in theatre improves emotion regulation**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
DICE Consortium (2010)*	X	
Goldstein, Tamir and Winner (2012), Study 1	X	
Goldstein, Tamir and Winner (2012), Study 2 *	X	

Note: The asterisked studies are quasi-experimental. The “Study 1” is correlational.

Theatre education and empathy

Empathy is to be distinguished from perspective taking. While perspective taking involves understanding what others are thinking and feeling, empathy entails the taking on of others feelings – feeling joy in others’ joy, sorrow in others’ pain. As mentioned earlier, empathy is a centrally important human ability that makes possible understanding among people.

Adult actors

Although many researchers have suggested that acting training should lead to increases in empathy (Levy, 1997; Metcalf, 1931; Verducci, 2000), there has been little empirical investigation into this question. Two studies with adult actors have shown higher levels of empathy in actors than non-actors. One unpublished dissertation examined whether adults involved in acting had high empathy levels (Collum, 1976). In this study, empathy was assessed 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) hypothesised 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 theatre may lead to a decline in empathy.

More recently, using Baron-Cohen and Wheelwright's (2004) Empathising Quotient (EQ), Nettle (2006) found that professional actors scored higher than a control group on this measure of empathy. Nettle hypothesised that acting attracts people with high empathy to begin with, rather than fostering growth in empathy as a function of acting experience.

Correlational and quasi-experimental studies

We found two studies investigating the effect of acting training on children and adolescents, one correlational and one quasi-experimental, summarised in Table 9.13.

Goldstein, Wu and Winner (2009-2010) (study described earlier) found that students studying acting in high school scored higher on self-report standard empathy scales than students not majoring in acting. However, this was only a moderate correlational finding. In Study 2 they report that college students majoring in acting had the same level of empathy as those majoring in psychology.

In the longitudinal study described earlier, Goldstein and Winner (2010) found that after one year of training, both children and adolescents in acting classes increased their empathy above and beyond both children and adolescents involved in the other arts classes.

Table 9.13. **Two studies assessing whether learning in theatre improves empathy**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Goldstein, Wu and Winner (2009-2010)		X
Goldstein and Winner (2012)*	X	

Note: The asterisked study is quasi-experimental. The other one is correlational.

While more research is called for, we conclude here that there is a small amount of evidence supporting the hypothesis that theatre training improves empathy.

Theatre education and perspective taking

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 on stage 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 and Watson, 2001), "mentalising" (Morton, Frith and Leslie, 1991), "mind reading" (Whiten, 1991), or "social intelligence" (Baron-Cohen, Jolliffe, Mortimore and Robertson, 1997), all of which we refer to below by the umbrella term "theory of mind". Having a good theory of mind is critically important in a wide variety of professions where it pays to understand others and be able to predict their behaviour: clinical psychologists, teachers, lawyers, and leaders are all likely to be more successful if equipped with a strong theory of mind.

Table 9.14. **Six studies assessing whether learning in theatre improves perspective taking**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Chandler (1973)**	X	
Chandler, Greenspan and Barenboim (1974)**	X	
DICE Consortium*	X	
Goldstein, Wu and Winner (2009-2010)	X	
Goldstein and Winner (2012): Adolescents*	X	
Goldstein and Winner (2012): Children*		X

Note: The experimental studies are double asterisked and the quasi-experimental studies are asterisked.

We located five studies assessing the relationship between learning in theatre and perspective taking, summarised in Table 9.14.

In the two studies by Chandler described in the section above on theatre and social behaviour (Chandler, 1973; Chandler, Greenspan and Barenboim, 1974), role playing was shown not only to improve problem behaviour but also to improve perspective taking.

Goldstein, Wu and Winner (2009-2010) administered the *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. The *Reading the Mind in the Eyes* test is a measure of perspective taking (called a theory of mind task) (Baron-Cohen, Wheelwright, Hill, Raste and Plumb, 2001). Participants are shown pictures of faces, like the sample item in Figure 9.1, with only the eyes showing, and they are asked to select from four choices the label that best describes what the person is feeling. This is a difficult test on which improvement is seen throughout adolescence, and even adults do not score

perfectly. Individuals with Asperger's syndrome and autism perform poorly on this test, as they have difficulty understanding others. Dysphoric adolescents show higher levels of performance than do those without dysphoria (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 and Fredrickson, 1993). Adults readers of fiction score higher than those who prefer nonfiction (Mar, Oatley, Hirsch, de la Paz and Peterson, 2006), probably due to the kind of interaction with, and comprehension of characters, which occurs when one reads fiction deeply. Students also completed a control test of visual memory not predicted to be associated with acting experience.

Figure 9.1. **Sample item from reading the mind in the eyes test**

apologetic

friendly



uneasy*

dispirited

Note: The correct choice is asterisked.

Source: Baron-Cohen et al. (2001).

As hypothesised, adolescents involved in theatre showed advantages on the *Reading the Mind in the Eyes* test, but not on visual memory. This skill may have been developed by the training these students received: acting students in the United States 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 recognise emotion. Goldstein, Wu and Winner (2009-2010) then administered the *Movie for the Assessment of Social Cognition* to a group of university students studying theatre. This is a series of short scenes in which the participants must judge the mental states behind the actions of the characters in the scenes. The authors found that students studying theatre scored higher than students studying psychology.

The study by Goldstein, Wu and Winner (2009-10) is correlational and cannot tell us whether skill in theory of mind is a preexisting ability that draws students to acting, or whether acting training actually develops this skill. To answer this question about causality, Goldstein and Winner (2012) conducted a quasi-experimental longitudinal study comparing two age groups of children involved in acting over a year. They compared a group of 8-10 year olds receiving after school acting classes to a matched age group receiving drawing lessons, and a group of 13-16 year olds majoring in acting at an arts high school to a matched age group majoring in another art form. Various measures of theory of mind were administered before and after a year of theatre/other arts instruction. The 8-10 year olds were given the *Reading the Mind in the Eyes* test, and two tasks assessing understanding of story characters' motivations. The adolescents were also given the *Empathic Accuracy Paradigm* (Ickes, 2001). Here participants view a film which is stopped at various points and they must identify the mental state of the filmed character at each point. This test assesses the ability to infer a person's mental states from moment to moment as that person interacts with another. Unlike the *Reading the Mind in the Eyes* test, this measure assesses the ability to process dynamic cues and is a highly ecologically valid, naturalistic measure of theory of mind. The most dramatic results were revealed by the *Empathic Accuracy Paradigm*: after 10 months, the adolescents receiving acting training improved significantly more than the control group on this measure. No improvements were found on theory of mind measures in the younger age group; and no improvements were found on the other measures for the older group. Nonetheless, the most ecologically valid measure of understanding others did prove sensitive to the effects of acting training. It is possible that the younger group did not improve because the acting training they received was far less intense than that received by the older group. In addition, a qualitative analysis of the teaching at each age group revealed more explicit instruction in perspective taking at the older age group. It is important to note that perspective taking was not increased in the control population who received music or visual arts training.

The DICE study described in Box 9.3 also finds that students taking theatre programmes improved more their perspective taking than students not studying theatre (DICE Consortium, 2010).

There is mounting evidence that learning in theatre helps children to adopt the perspectives of others, and hence increases psychological understanding of others mental states.

Dance education and social outcomes

Dance education and self-concept

Adult dancers

Two correlational studies of adult dancers show an inconsistent picture of the relationship between self-concept and dancing. Carter (2005) reported that dancers

have higher levels of self-concept than do non-dancers. Bettel (2001) reported that dancers have lower body esteem than do non-dancers. What do we know about children involved in dance?

Quasi-experimental and experimental studies

We found one quasi-experimental and two experimental studies testing whether involvement in dance improves self-concept or self-efficacy (Table 9.15).

Seham (1997) reported no relationship between dance involvement and self-assessed competence. Eighty-seven at risk US children, 99% from a racial minority, in fourth and fifth grade (9 and 10 years old) were assigned to either dance or no intervention. Students rated their own competence, and the dance and non-dance group did not differ over the course of the dance training.

In Korea, Lee (2007) randomly assigned 82 first-year middle school female students to two dance and non-dance classes in two schools: students in the dance group significantly outperformed the non-dance group in terms of self-reported educational self-efficacy. While there was no difference in academic interest, the dance group improved more in confidence and self-control than the non-dance group. Another experiment involving 200 female first-year high school students in Suwan (Korea) compared two randomly assigned groups: a creative dance programme vs. traditional physical education (Lee, 2006). The dance group had a higher score in self-reported self-concept (general, social and emotional), but as there was no pre-test it is difficult to assess whether there was any difference in the growth.

Table 9.15. **Three quasi-experimental or experimental studies assessing effects of dance education on self-concept**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Lee (2006)*	X	
Lee (2007)*	X	
Seham (1997)		X

Note: The experimental studies are asterisked.

The evidence on the relationship between dance education and self-concept is too weak and inconsistent to yield any conclusions.

Dance education and social skills

Quasi-experimental studies

We identified three quasi-experimental studies assessing the effects of dance education on social competence, summarised in Table 9.16, and both report positive effects for atypical populations.

Greer-Paglia (2006) showed that dance education can improve social competence in non-verbal autistic children. Children with autism participating in dance classes were compared to those participating in “circle time” – an activity with the goal of increasing social competence. Verbal students with autism initially demonstrated a higher level of social competence in the circle-time condition, but improved at a slightly faster rate in the creative dance condition on average, while nonverbal students performed similarly in each condition at first, but also improved at a faster rate in the dance condition on average. The performance gap in social competence between verbal and nonverbal students with autism was smaller in the creative dance condition than in the circle-time condition.

Koshland, Wittaker and Wilson (2004) showed that dance education can reduce aggressive behaviour in low SES (primarily Hispanic) children in a US public school. Children in first, second and third grade classes received 12 consecutive weeks of dance and were compared to older children (fourth, fifth and sixth grade students) who had not received any dance training. As reported by observers, there was a decrease in aggressive behaviours in the (younger) dance group, but no corresponding increase in prosocial behaviours. The report does not make clear whether the decrease in aggression was significantly greater than the somewhat smaller decrease in aggression shown in the control group.

Kim (2001) assigned 60 primary school students to a control group with no treatment and an experimental group taught the “Creative Dancing Learning Program” for 18 4-hour classes during 6 weeks. The dance group showed bigger improvements in self-reported perseverance, attention, positive attitude and partnership, which were recognised as key skills underpinning sociability for first graders.

Table 9.16. **Three quasi-experimental studies assessing whether learning in dance improves social competence**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Greer-Paglia (2006)	X	
Kim (2001)	X	
Koshland et al. (2006)	X	

Experimental studies

We identified two experimental studies assessing the effects of dance education on social competence, summarised in Table 9.17.

Lobo (2006) showed that dance education improved social skills of preschool aged children from low socio-economic background (enrolled in a Head Start programme). Children between the ages of 39-62 months were randomly assigned to either a control group or a dance group, and were tested before and after eight weeks.

Lee (2007) also found that dance education improved the social skills of female first-year middle school students in Korea, with higher growth in the levels of cooperative ability, sympathy, self-control and persistence.

Table 9.17. **Two experimental studies assessing whether learning in dance improves social competence**

Study	Positive findings	Negative or inconclusive or Inconsistent findings
Lee (2007)	X	
Lobo (2006)	X	

The few studies examining the effects of dance on social skills suggest a positive impact for some elementary and secondary school students, but also for non-verbal autistic students and for students from low socio-economic background, pointing to possibly different impacts for different sub-populations. However, few of these studies compared the effects of dance to some other form of treatment. Before we assume that the effects are due to dance education rather than to any special kind of new programme, we need more studies comparing the effects of dance vs. other kinds of arts and non-arts interventions on social skills. We also need more comparable studies. Still, the above reported effects are promising.

Social skills outcomes of arts education: Conclusions

Evidence that any form of arts education improves social skills for children is weak. By social skills or social outcomes, we refer to children's self-esteem, their ability to communicate and get along with others, their empathy for others, their ability to discern what others are thinking and feeling (perspective taking), their ability to regulate their emotions by expressing themselves rather than suppressing their emotions.

The area of most promise is theatre: there is some initial evidence that theatre education improves empathy, perspective taking, and emotion regulation. This is a very plausible finding, since theatre education asks children to step into the shoes of others, feel their feelings, and understand their mental states. In addition, theatre education teaches children to express emotions. In a way, this could be seen as a case of near transfer. But more research is needed before we can draw firm conclusions about the power of theatre to affect these very important kinds of social skills.

Another area to explore further is the differentiated impact of different types of training or art forms for different groups of students as several studies found an effect in atypical populations.

Notes

1. www.boston.com/ae/music/articles/2010/07/11/there_is_magic_in_the_music/.
2. www.boston.com/lifestyle/family/articles/2010/07/18/inspired_by_a_venezuelan_music_program_two_prepare_to_bring_its_benefits_to_boston_kids/.
3. www.nytimes.com/2010/07/10/theatre/10acting.html?_r=1&andscp=3&andsq=training%20for%20leadership%20roles%20patricia%20cohen&andst=cse.

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Art for Art's Sake?
The Impact of Arts Education

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