



EMPATHY AND SERVANT-LEADERSHIP

The Complementary Nature of Simulation Theory and Theory of Mind in Education

—FAITH VALENTE

Every teacher should attempt to guide the personal and social development of his or her students (Wilson 2011, 246). The effectiveness and efficiency with which such elucidation takes place, however, may depend to a great extent on the empathetic understanding between pupil and instructor (208). The discernment that teachers and students exhibit regarding their own lives and the realities experienced by other persons will affect what can be taught and learned. Constructive development theory suggests that to be most effective, teachers who are leaders must understand how students think and feel about themselves (McCauley et al. 2006). Several studies have shown that such empathetic understanding is a critical antecedent of student learning (Black and Phillips 1982; Cooper 2004; Immordino-Yang 2011; Uddin et al. 2007).

In this paper, I briefly discuss empathy before introducing two empathetic models. An examination of how each theory can contribute to more effective teaching through servant-leadership follows. I demonstrate how the two theories complement and inform each other to provide unique pedagogical insights. An understanding of empathy in the context of servant-leadership may also provide important tools to help teachers become more effective and efficient (Bowman 2005). The conclusion relates how the use of such tools may lead to the creation of more just, creative, and vibrant communities to which all members contribute.

EMPATHY

Empathy is understanding and identifying with the thoughts and feelings of another person (Davis 1983). Empathy includes a range of social phenomena, such as feeling concern for another person's situation, internalizing the



perceived emotions of other people, discerning and accepting other people's motives, and adopting what others are perceived to believe (Hoffman 2000). This broad view of empathy is consistent with an umbrella construct that includes or subsumes all phenomena that share the same mental processes and therefore cannot be distinguished from it, such as emotional contagion and prosocial helping behaviors (Preston and de Waal 2002). A lack of empathy has been cited as characteristic of autism and other developmental disorders in which individuals are unable to share the feelings of people in a social environment (Decety and Meyer 2008).

Empathy is a fundamental means by which we comprehend and interact with the world (Adolphs 2009). How well we make rapid and accurate inferences about the feelings, goals, attitudes, and beliefs of other people will determine, in part, what we are able to contribute in a specific situation and our intrinsic value to another human being (Mitchell 2008). Furthermore, the public benefits available to everyone living in a social group exist only to the extent that we are able to coordinate our collective activities (Adolphs 2009). All such interpersonal relationships are mediated by the empathetic knowledge structures people hold about themselves or infer about others (Nakao and Itakura 2009). Empathy is a cornerstone of human social interaction (Decety et al. 2012).

Empathetic processes and structures in the human brain have evolved over millions of years (Decety 2011). During this time the human brain has developed some unique, as far as we know, abilities in terms of social interaction that distinguish it from that of other animals. Although other species may be aware of basic emotive expressions in others of their kind, they do not share our higher-level cognitive functions (Adolphs 2009). The development of more elaborate mental capabilities does not eliminate or subjugate human instinctive and automatic responses to others. Instead, humans' higher-order cognitions appear to mediate and augment the basic empathetic processes and structures (Decety et al. 2012).

There are many forms of empathetic understanding and response. Motor mimicry in young children, mirroring, shared experience, simulation, and perspective-taking are just a few examples (Decety and Batson 2007). Affective empathetic responses dominate early in life and are involuntary. Newborn babies, for example, become distressed when they hear another baby cry (Dondi and Simion 1999). Infant mimicry of parental facial expressions is another early form of emotional sharing that is thought to help develop empathy prior to speech development (Lamm et al. 2008). The



more complex cognitive knowledge structures associated with higher-level empathetic processes suggest that these responses to others are learned with age and enculturation (Decety and Michalska 2010).

Although two people can share emotion without cognition, the preverbal and involuntary form of empathetic arousal does not explain empathetic processes such as simulation or perspective taking (Decety et al. 2012). At least some thoughtful evaluation must take place when imagining what another person may feel. The evolution of the human cerebral cortex and limbic system allows most people to take advantage of an experience-based knowledge structure and advanced information-processing capacity (Decety et al. 2012). According to Decety (2011), human empathy relies on a large number of brain structures and processes that regulate our social affiliation, ranging from the autonomic nervous system and endocrine systems to the cerebral cortex. Empathy is often not reflexive, but instead may depend on a variety of cognitive factors that influence the accuracy and the internalization of other people's thoughts and feelings. Humans, unlike other animals, can imagine how other members of their species feel or think and may do so very intentionally (Adolphs 2009). As a consequence, people often intercede on behalf of others whose knowledge structures may be quite different from their own (Batson et al. 1991).

How can we teach ourselves and other people empathy and appropriate social responses? These are important questions for any society (Singer and Lamm 2009). When people volunteer their time or donate money to aid victims of a natural catastrophe, this shouldn't require that they have experienced a similar catastrophe, or even that their efforts have the effect they expect. Empathetic helping behavior can evolve beyond personal experience as people extend benefits to a community of which they are not members (Batson et al. 1991).

Empathy and a range of corresponding positive social behaviors may be taught and expanded using a variety of abstract and higher-level cognitive cues such as language (Lamm, Batson, and Decety 2007). For example, Lamm, Batson, and Decety (2007) reported on a perspective-taking experiment. Participants were told of another person's plight and asked to imagine how that person felt. Empathetic concern was the result. Feelings of distress were elicited, however, when different experimental subjects were asked to imagine how they would feel in the other person's place. Such divergent empathetic responses are expected to result in very different behaviors.



Some of these different behaviors can be explained by two empathy theories, *theory of mind* and *simulation theory*, which provide insight on how empathy might best be taught and on how to bring about desired social outcomes (Adams 2001). It is not yet clear which theory may be most appropriate to apply and under what circumstances (Adolphs 2009). These two somewhat different viewpoints need to be reconciled so that the empathetic response in humans reflects elements of both automatic (emotive) and voluntary (thoughtful) responses to other people (Adolphs 2009). At that point, we will be better able to understand how a student's perceptions of a teacher's thoughts and feelings are internalized and become the framework for what the student learns.

MODELS OF EMPATHY

Social interaction among humans is preceded and accompanied by inferences about the thoughts and feelings of other people (Adolphs 2009). People often make these inferences unconsciously. At other times, people expend a great deal of cognitive effort discerning other people's thoughts and emotions (695). The ability to accurately assess the emotions and cognitions of another person can distinguish us from one another (712). The mechanism behind such empathetic emotions and cognitions is the crucial difference between theory of mind and simulation theory.

Theory of mind is "the ability to explain, predict, and interpret behavior by attributing mental states such as desires, beliefs, intentions and emotions to oneself and to other people" (Decety et al. 2012). Theory of mind suggests that we make attributions regarding the thoughts and emotions of others in a controlled process (Adams 2001). This process is reflective, requires some effort, and relies on language-related reasoning (369). A person's ability to infer what someone else is feeling depends on his or her knowledge of how other people's minds work (369). Theory of mind relies on a systematic framework of knowledge held in common among people (370). In other words, one person is able to understand and predict another person's emotions, thoughts, and behaviors through innate or acquired memories that are shared (370). This level of understanding, it is important to note, may depend in large part on whether people have a common culture, similar experiences, and comparable education (370). For example, consider the empathetic feelings and thoughts of an individual who observes a rock climber fall from a great height to her death (372). Relatively few people can know exactly what the rock climber was thinking or feeling just prior to



and during that descent, to say nothing of her motivation for undertaking the climb. Most people are not members of the rock-climbing subculture, lack corresponding experience and training, and hold different expectations of behavior. Theory of mind may explain how people perceive and internalize the thoughts and emotions of others, but it doesn't ensure that the results rightly reflect how another person's mind works (372).

Alternatively, simulation theory posits that our attributions about others' thoughts and emotions are more automatic, reflexive, and spontaneous (Gallese 2005). Rather than theorizing about someone else's point of view, people use simulation routines to replicate those affective and cognitive states in themselves (110). People mimic or mirror what they believe other people may be thinking and feeling (110). Sometimes this process is explicit, such as when imagination is invoked to "step into another person's shoes" (110), and sometimes it is implicit (113). For example, mirror neurons in the brain may be activated when an empathic agent observes something in another person that is also part of his or her own knowledge structure (Decety 2011). The often-emotive nature of simulation theory results in people making relatively faster judgments about the causes of behaviors. Of course, the correspondence of beliefs among empathetic parties will again rely on their psychological makeup and is subject to error. There are important distinctions between the two theories, which can be reconciled; the primary difference is that theory of mind proposes a detached mental activity, whereas simulation theory relies on a person's mimicking the mental state of another. In the latter circumstance, simulation theory would predict an almost immediate emotional response, while theory of mind would suggest a more deliberate cognitive response based on prior experience. Recent research demonstrates that cognitive functions mediate how we perceive others who are not like us. Lamm, Meltzoff, and Decety (2009) demonstrated that automatic emotional responses can be controlled, to some extent, by higher-level brain processes (362). This empathetic process relies on a person's "activation of relevant representations while inhibiting irrelevant ones" (374). Lamm et al. (2007) also showed that the perceived feelings of other people can be mediated with perspective-taking instructions (42). Experimental subjects who were encouraged to make more cognitive appraisals exhibited greater levels of empathetic concern for patients than those who were asked to vicariously feel a patient's pain (56). These findings support the development of an integrated model of empathy and the empathetic process. An integrated model of empathy is one in which an empathetic response could rely on relevant



cognitive structures' being activated while repressing more immediate and potentially destructive emotive structures.

Empathy is a phenomenon that is both bottom up (automatic) and top down (cognitive) (56). One response informs and can regulate the other. Automatic processes are faster, more emotive, and reflexive, and they dominate in early childhood (Adolphs 2009). Cognitive processes are slower and effortful, and often involve learned reflective thinking (697). The reciprocal nature of the empathetic process is an important omission of both theory of mind and simulation theory. Empathy is a critical skill, and neither theory of mind nor simulation theory alone appears to provide an adequate explanation of how we make and internalize attributions. Yet many of our daily social interactions depend on this type of understanding, and the effectiveness of any individual will depend largely on his or her ability to accurately assess and predict the feelings, motives, thoughts, and behaviors of nearby others (698).

Teachers could benefit from an integrated model of how students perceive empathy and respond empathetically, whether they relied on the motivation elements of emotion or imagination and reflection (Sartini, Knight, and Collins 2013). How well a teacher presents information and creates an appropriate empathetic learning environment will determine how efficiently and effectively knowledge is conveyed (Feshbach and Feshbach 1987). There is not any real question that people *do* make and internalize inferences that guide what they learn, but there are many questions regarding *how*. Some of those questions include how people ascribe meaning to what they observe, to what do they attribute their beliefs, and how those beliefs affect their behavior.

To the extent that either the educator's or the learner's perceptions are inaccurate, knowledge acquisition will be handicapped. Learning happens best when there is correspondence between what a teacher perceives and what the student perceives (Cornelius-White 2007; Skinner and Belmont 1993). When either person misinterprets the thoughts and feelings of the other, higher-order cognitive abilities are impaired and knowledge acquisition is reduced.

We learn in relation to our own beliefs and to the vicarious thoughts and feelings of others as we apprehend them (Good 1981). For example, a teacher who believes his or her students understand the importance of a concept may be very surprised by their performance on an exam covering that topic when pupils never grasped the concept's importance to the instructor. The ability of an instructor to accurately gauge the emotions and thoughts of students is critical to successful learning outcomes (415).



The empathetic understanding of any teacher, the leader, in an educational endeavor is therefore of paramount importance. Not only will a teacher's understanding of student emotion and cognition facilitate student learning, it can increase the likelihood that the knowledge students acquire will be consistent with socially desirable consequences and enhance public welfare.

EMPATHY IN EDUCATION

Humans learn differently from infancy to adulthood. More specifically, children move from simple cognitive and affective processes to more complex processes as their experiences become more extensive. The ability to teach effectively, therefore, depends on teachers' understanding of what is going on in the minds of students as well as themselves (Tinberg and Weisberger 1998).

The role of any teacher is to help students grow, to ensure that students, as a consequence of being taught, become more capable and more likely to contribute to their communities (Lauermaann and Karabenick 2013). Empathy is a vital component servant-leaders who are teachers must incorporate in the classroom (Herman and Marlowe 2005). Although empathy has been shown to mediate the effectiveness of teachers, relatively little attention has been paid to how student perceptions of a teacher's empathetic understanding affect the learning process, or to how a teacher may better convey empathetic understanding to students (Choi and Yang 2011). The concept of empathy and conforming empathetic processes therefore deserve much greater exploration in an educational setting.

Black and Phillips (1982) identified three dimensions of teaching behavior that students use to form perceptions of teacher empathy:

1. Attention—the degree of mutual respect that a teacher demonstrates
2. Experiential—the ability of a teacher to assume the perspective of the student
3. Communication—the capacity of a teacher to express empathetic thoughts

Wilson (2011) found that teachers who communicate a positive attitude and empathetic understanding toward students facilitated students' academic achievement. The composition of teacher attitudes toward students, however, was unclear. Was the perceived value teachers placed on students centered on them as persons, or on their behaviors or viewpoints? In addition, were



students' perceptions of teacher emotions or beliefs accurate, and if not, could they be better communicated through either verbal or nonverbal behavior, or through some combination of the two?

Learning almost always involves internalizing attributions about what other people think and feel (Adolphs 2009). We often automatically, and sometimes quite consciously, reflect on or imagine what other people are feeling and thinking. How we interpret the perceived emotions and cognitions of others, in conjunction with the particular situation, affects our learning (Bernhardt and Singer 2012). The specific processes people go through that result in their reacting empathetically, however, vary a great deal (15).

Systems of body regulation, such as blood pressure and heart rate, influence how we think and feel in predictable ways; we are likely to experience a flight impulse, for example, in response to fear, or openness to people who are happy (Decety 2011). In many circumstances, the emotions of others are seen in nonverbal cues, such as facial expressions or posture (Balconi and Canavesio 2013). One question is whether teachers' nonverbal cues about their interest in a topic are more meaningful than what they say or write in conveying their empathy to students. Students who perceive an instructor as empathetic may be accepting of the teacher's conveyed knowledge and motivated to respond to the teacher's perceived desires and explicit instructions (Cornelius-White 2013).

A range of factors might influence whether students intuitively perceive teachers' empathetic understanding and internalize those thoughts and feelings in their actions. *Simulation theory* suggests that perceived similarities in age, gender, and cultures are but a few examples (Gallese 2005). Young people could have difficulty imagining that an older teacher shares or understands their concerns. Differences in gender could affect a student's ability to recognize that an instructor identifies with his or her emotions. Differences in culture or race could affect student ability to perceive teacher empathy. Do perceptions of teacher empathy help enhance student motivation or other factors that increase student satisfaction and perceptions of success?

Theory of mind suggests that differences between the knowledge structure of students and of their teachers influence students' perceptions of teacher empathy and subsequent student learning (Immordino-Yang 2011). Students may not understand the importance of a concept unless a teacher clarifies its relevance. What may seem self-evident to an instructor could have little or no obvious connection for students and vice versa. Would clearly communicating the usefulness of learning objectives and the



relevance of activities related to their acquisition enhance student satisfaction and perceptions of teacher empathy and learning?

The ability to learn from the vicariously experienced beliefs of a teacher is a uniquely human capacity (Adolphs 2009). Effectively framing information so it is more likely to be assimilated and integrated with existing knowledge depends, in part, on student perceptions of instructor empathy (Sezen-Balcikanli 2009). People acquire new knowledge by internalizing what they perceive in others, contingent on their own experience and education (79). A number of empathetic processes are relevant when a student decides to master a particular skill. The student may desire to please the teacher or to pass an examination. Emotions and cognitions motivate a student to study and to investigate the nature and relevance of the topic, as well as to independently ascertain the likelihood of success. Perceptions of efficient and effective learning require that a student recognize teacher empathy, discern the thoughts and feelings of the other, and thereby conclude that the teacher cares about them (Jaasma and Koper 1999).

SERVANT-LEADERSHIP IN EDUCATION

Teachers have a responsibility to convey knowledge and to ensure that the wisdom they impart benefits both their students and the communities in which they live. This conceptualization of a teacher is consistent with the definition of a servant-leader (Bowman 2005; Herman and Marlowe 2005). According to Greenleaf (2002), the test of whether someone is a servant-leader is to ask, does the person help “those served [to] grow as persons: do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?” (6). Servant-leaders must accomplish this task with an explicit understanding that the less privileged in a society should also benefit or be no worse off as a consequence of their efforts (6).

During a lengthy career with American Telephone & Telegraph, Greenleaf (2002) discerned the need for more person-centered leadership. Greenleaf found that the traditional top-down, pyramid style of leadership was not a particularly effective method for inspiring and developing healthy leader-led relationships and organizational communities. The theory of servant-leadership was a consequence of this dissatisfaction. Eschewing the type of autocratic leadership he had witnessed, Greenleaf embraced a model of leadership in which the desire to serve others superseded a desire to be in charge. This empathetic, human-centered servant-leadership



model was created with the intention of ennobling the human spirit, of lifting up all community members and imbuing them with the desire to serve others and to create healthy, thriving relationships, organizations, and communities (5).

Greenleaf's seminal work, *Servant-leadership* (2002), was first published in 1977 and posed the following questions: "For those who follow—and this is everyone, including those who lead—the really critical question is: Who is this moral individual we would see as a leader? Who is the servant?" (56). A conceptual model proposed by Spears (2010) provides some guidance on how to identify or develop servant-leaders (27). The ten characteristics of servant-leadership Spears found to be prevalent in Greenleaf's writings are listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community (27). Crippen (2005) contributed to the discussion of these characteristics by suggesting an explicit hierarchy of effects (11). For example, since the traits of a servant-leader are relational, a servant-leader must first be a skilled listener to empathize and understand how he or she may best help others. Personal reflection and understanding are integral elements of this listening process (Spears 2010).

Accurately discerning and identifying with the needs of another will be difficult, perhaps impossible, if a person is unable to first achieve self-understanding. Although empathy is among the most powerful tools an effective leader can develop (Whitelaw 2012), a servant-leader must first be a good listener. Only then will the person be able to accurately reflect the thoughts and feelings of other people, which is a prerequisite for supporting them in their activities (Spears 2010).

Buchen (1998), Russell and Stone (2002), Sendjaya and Sarros (2002), and Sendjaya, Sarros, and Santora (2008) all summarized the characteristics of servant-leadership in conceptual models. As I reviewed these studies, I noticed that they all suggest three dimensions of servant-leadership: motivation, self-concept, and dynamic capability. All of these factors may be taught effectively (Lamm et al. 2007).

Stewardship, commitment to the growth of people, and building community, which according to Spears (2010) are all characteristics of servant-leadership, can be described as intrinsic motives. For example, teaching people how to help each other identify and achieve their goals becomes a means to develop the quality of the community. Motives are defined as enduring predispositions that direct behavior toward specific



goals (Peter and Olsen 2007). They are learned in childhood and reinforced thereafter; as a result, they are often culturally shared. For example, in many cultures young people are taught to be honest so that other people will be more likely to trust what they say. This enculturation conveys that individuals who are known to tell the truth will be believed; such lessons can facilitate social cooperation and build communities even when people disagree.

Healing, awareness (what you think you know), and conceptualization can be related to the idea of the self-concept. What you understand about yourself and think you know will influence not only what you choose to undertake and how you do so, but also how others relate to you and to the goals you espouse. Self-image is the totality of the thoughts and feelings a person has about him- or herself as an object (Peter and Olsen 2007). Self-concept is subject to enhancement. Ego strength is an example of a characteristic related to self-image. People learn from their prior successes and failures. Individuals whose decisions have had positive outcomes gain confidence and expect success. A person need not be successful to have a positive perspective on the future, but a history of success can help reinforce persistence in the face of repeated failure, leading to greater servant-leadership capability.

Dynamic capability is the capacity of individuals and organizations to achieve sustainable goals by successfully applying or developing resources that take advantage of opportunities and avoid threats (Jui-Mei et al. 2011). Listening, empathy, awareness (objective knowledge), persuasion, and foresight could affect the ability of a servant-leader to facilitate positive outcomes. This dimension of servant-leadership corresponds to obtaining superior knowledge of a subject or situation, developing useful skill sets that can be demonstrated and applied, and having clarity of vision. Servant-leaders will be ineffective, good intentions notwithstanding, if they lack the capability to ensure that the future needs of those they serve will be met (Russell and Stone 2002).

Empathy is an important tool effective servant-leaders must be able to apply across each domain of servant-leadership to enhance the welfare and the future of an individual or the community. Communities and organizations can be only as good as the people who comprise them. One element of effective servant-leaders is their ability to attract, develop, and retain the right people. Servant-leaders work to develop the whole person (Spears 2010).

Increasing individual and social welfare is the common objective of servant-leaders. Empathetic understanding is a means by which this goal can



be achieved. Students develop relationships with their teachers gradually. The quality of this relationship influences how much and how quickly they learn (Mahsud, Yukl, and Prussia 2010). Students are likely to work harder if they trust the teacher than if they don't, and what they work on should better reflect instructor priorities because their empathetic thoughts are more accurate (561). When there is a low level of trust, a student is more likely to do as little as possible due to a lack of motivation, and the student's perception of what is required is also probably wrong (Jaasma and Koper 1999). A servant-leader should have explicit knowledge of how people will respond empathetically, whether the leader relies on the motivational elements of emotion or on those of imagination and reflection. Knowing how to frame information and create an appropriate environment will determine how efficiently and effectively student learning takes place.

CONCLUSION

Teachers are and should be servant-leaders (Bowman 2005; Crippen 2005). The role of any teacher is to help students grow as people — to ensure that students, as a consequence of being taught, become healthier, wiser, freer, more capable, and likely to contribute to their communities (Bowman 2005). Although empathy has been shown to mediate the effectiveness of servant-leaders who are teachers, more attention needs to be paid to how a teacher's empathetic understanding of students can enhance the learning process, as well as to how a student's empathy for a teacher facilitates the student's learning. The concepts of empathy and empathetic processes deserve much greater exploration in educational settings.

Education takes place in a social environment. Teachers and their students comprise a community embedded in a larger cultural context. The emotional, intellectual, and social experience each participant in the learning process brings to the learning environment affects what may be achieved. A teacher's understanding of him- or herself also forms the basis of how the teacher relates to students and of the teacher's ability to understand them. A teacher must be perceived to empathize with student behaviors, thoughts, and emotions for optimal learning to take place. Learning will be less than optimal when students struggle to reconstruct and understand a teacher's behavior. Knowledge acquisition is always a subjective process grounded in a person's prior background and predispositions. If a teacher focuses on empathy and its relationship to education, the results should enhance student learning (Immordino-Yang 2011).



Both theory of mind and simulation theory can contribute to the practice of teaching. Students who enter a new classroom environment are often unfamiliar with their teacher, and quickly establishing perceptions of empathy with those students is an important determinant of their ultimate success and satisfaction. More explicit instruction in a course syllabus, for example, could help them understand what the instructor believes is important and provide a clear explanation so that relevance will not be misunderstood. Similarly, teacher interest in students could help set a helpful empathetic perception among students.

Integrating theory of mind and simulation theory in an empathetic process theory may be an important step in creating such education environments. Both theories can and do contribute to the practice of servant-leadership through education. Future research could investigate the theoretical and practical implications of empathy in the realm of education. Servant-leaders who are teachers have not only an opportunity to incorporate what is known about empathy in their teaching, but also a responsibility to expand this knowledge base. A greater understanding of empathy could present opportunities to advance the educational attainment of students and thereby benefit the communities of which those students are an integral part.

REFERENCES

- Adams, F. (2001). Empathy, neural imaging and the theory versus simulation debate. *Mind and Language* 16(4), 368–392. doi:10.1111/1468-0017.00176.
- Adolphs, R. (2009). The social brain: Neural basis of social knowledge. *Annual Review of Psychology* 60(1), 693–716. doi:10.1146/annurev.psych.60.110707.163514.
- Batson, C. D., Batson, J. G., Slingsby, J. K., Harrel, K. L., Peekna, H. M., and Todd, R. M. (1991). Empathic joy and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology* 61(3), 413–426. doi:10.1037/0022-3514.61.3.413.
- Bernhardt, B. C., and Singer, T. (2012). The neural basis of empathy. *Annual Review of Neuroscience* 35, 1–23. doi:10.1146/annurev-neuro-062111-150536.
- Black, H., and Phillips, S. (1982). An intervention program for the development of empathy in student teachers. *The Journal of Psychology* 112, 159–168. doi:10.1080/00223980.1982.9915373.
- Bowman, R. F. (2005). Teacher as servant-leader. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 78(6), 257–260.



- Buchen, I. H. (1998). Servant-leadership: A model for future faculty and future institutions. *Journal of Leadership and Organizational Studies* 5(1), 125–134. doi:10.1177/107179199800500111.
- Choi, H., and Yang, M. (2011). The effect of problem-based video instruction on student satisfaction, empathy, and learning achievement in the Korean teacher education context. *Higher Education* 62(5), 551–561. doi:10.1007/s10734-010-9403-x.
- Cooper, B. (2004). Empathy, interaction and caring: Teachers' roles in a constrained environment. *Pastoral Care* 22(3), 12–21. doi:10.1111/j.0264-3944.2004.00299.x.
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research* 77(1), 113–143. doi:10.3102/003465430298563.
- Crippen, C. (2005). Effective model for educational leadership and management: First to serve, then to lead. *Management in Education*, 18(5), 11–16. doi:10.1177/089202060501800503.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology* 44(1), 113–126. doi:10.1037/0022-3514.44.1.113.
- Decety, J. (2011). The neuroevolution of empathy. *Annals of the New York Academy of Sciences* 20(1), 35–45. doi:10.1111/j.1749-6632.2011.06027.x.
- Decety, J., and Batson, C. D. (2007). Social neuroscience approaches to interpersonal sensitivity. *Social Neuroscience* 2(3), 151–157. doi:10.1080/17470910701506060.
- Decety, J., and Meyer, M. (2008). From emotion resonance to empathic understanding: A social developmental neuroscience account. *Development and Psychopathology* 20(4), 1053–1080. doi:10.1017/S0954579408000503.
- Decety, J., and Michalska, K. J. (2010). Neurodevelopmental changes in the circuits underlying empathy and sympathy from childhood to adulthood. *Developmental Science* 13(6), 886–899. doi:10.1111/j.1467-7687.2009.00940.x.
- Decety, J., Norman, G. J., Berntson, G. G., and Cacioppo, J. T. (2012). A neurobehavioral evolutionary perspective on the mechanisms underlying empathy. *Progress in Neurobiology* 98(1), 38–48. doi:10.1016/j.pneurobio.2012.05.001.
- Dondi, M., and Simion, F. (1999). Can newborns discriminate between their own cry and the cry of another newborn infant? *Developmental Psychology* 35(2), 418–427. doi:10.1037/0012-1649.35.2.418.
- Feshbach, N., and Feshbach, S. (1987). Affective processes and academic achievement. *Child Development* 58(5), 1335. doi:10.1111/1467-8624.ep8591313.



- Gallese, V. (2005). Being like me: Self-other identity, mirror neurons, and empathy. In S. Hurley and N. Chater (Eds.), *Perspectives on imitation* (pp. 101–118). Cambridge, MA: MIT Press.
- Good, T. L. (1981). Teacher expectations and student perceptions: A decade of research. *Educational Leadership* 38(5), 415–22.
- Greenleaf, R. K. (2002). *Servant-leadership: A journey into the nature of legitimate power and greatness* (25th Anniv. Ed.). New York: Paulist Press.
- Herman, D. V., and Marlowe, M. (2005). Modeling meaning in life: The teacher as servant-leader. *Reclaim Children and Youth: The Journal of Strength-based Interventions* 14(3), 175–178.
- Hoffman, M. L. (2000). *Empathy and moral development*. Cambridge, UK: Cambridge University Press.
- Immordino-Yang, M. H. (2011). Implications of affective and social neuroscience for education theory. *Educational Philosophy and Theory* 43(1), 98–103. doi:10.1111/j.1469-5812.2010.00713.x.
- Jaasma, M. A., and Koper, R. J. (1999). The relationship of student-faculty out-of-class communication to instructor immediacy and trust and to student motivation. *Communication Education* 48(1), 41–47. doi:10.1080/03634529909379151.
- Jui-Mei, Y., Kuo-Hsiung, C., Kai-Ping, H., and Chien-Jung, H. (2011). Managerial decision and resource reallocation: A dynamic capability perspective. *Journal of Social Sciences* 7(4), 632–634. doi:10.3844/ajssp.2011.632.634.
- Lamm, C., Batson, C. D., and Decety, J. (2007). The neural substrate of human empathy: Effects of perspective-taking and cognitive appraisal. *Journal of Cognitive Neuroscience* 19(1), 42–58. doi:10.1162/jocn.2007.19.1.42.
- Lamm, C., Meltzoff, A. N., and Decety, J. (2010). How do we empathize with someone who is not like us? A functional magnetic resonance imaging study. *Journal of Cognitive Neuroscience* 22(2), 362–376. doi:10.1162/jocn.2009.21186.
- Lamm, C. C., Porges, E. C., Cacioppo, J. T., and Decety, J. J. (2008). Perspective taking is associated with specific facial responses during empathy for pain. *Brain Research* 12(27), 153–161. doi:10.1016/j.brainres.2008.06.066.
- Lauermann, F., and Karabenick, S. A. (2013). The meaning and measure of teachers' sense of responsibility for educational outcomes. *Teaching and Teacher Education* 30(13)–26. doi:10.1016/j.tate.2012.10.001.
- Mahsud, R., Yukl, G., and Prussia, G. (2010). Leader empathy, ethical leadership, and relations-oriented behaviors as antecedents of leader-member exchange quality. *Journal of Managerial Psychology* 25(6), 561–277. doi:10.1108/02683941011056932.



- McCauley, C. D., Drath, W. H., Palus, C. J., O'Connor, P., and Baker, B. A. (2006). The constructive-developmental theory to advance understanding of leadership. *The Leadership Quarterly* 17, 634–653. doi:10.1016/j.leaqua.2006.10.006.
- Mitchell, J. P. (2008). Contributions of functional neuroimaging to the study of social cognition. *Current Directions in Psychological Science* 17(2), 142–146. doi:10.1111/j.1467-8721.2008.00564.x.
- Nakao, H., and Itakura, S. (2009). An integrated view of empathy: psychology, philosophy, and neuroscience. *Integrative Psychological and Behavioral Science* 43(1), 42–52. doi:10.1007/s12124-008-9066-7.
- Peter, J. P., and Olsen, J. C. (2007). *Consumer behavior*. New York: McGraw-Hill.
- Preston, S. D., and de Waal, B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences* 25, 1–72. doi:10.1017/S0140525X02000018.
- Russell, R. F., and Stone, G. (2002). A review of servant-leadership attributes: Developing a practical model. *Leadership and Organization Development Journal* 23(3), 145–157. doi:10.1108/01437730210424.
- Sartini, E. C., Knight, V. F., and Collins, B. C. (2013). Ten guidelines to facilitate social groups for students with complex special needs. *Teaching Exceptional Children* 45(3), 54–62.
- Sendjaya, S., and Sarros, J. C. (2002). Servant-leadership: Its origin, development, and application in organizations. *Journal of Leadership and Organizational Studies* 9(2), 57–64. doi:10.1177/107179190200900205.
- Sendjaya, S., Sarros, J. C., and Santora, J. C. (2008). Defining and measuring servant-leadership behaviour in organizations. *Journal of Management Studies* 45(2), 402–424. doi:10.1111/j.1467-6486.2007.00761.x.
- Sezen-Balcikanli, G. (2009). Fair play and empathy: A research study with student teachers. *Journal of US-China Public Administration* 6(4), 79–84.
- Singer, T., and Lamm, C. (2009). The social neuroscience of empathy. *Annals of the New York Academy of Sciences* 1156, 81–96. doi:10.1111/j.1749-6632.2009.04418.x.
- Skinner, E. A., and Belmont, E. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology* 85(4), 571–581. doi:10.1037/0022-0663.85.4.571.
- Spears, L. C. (2010). Character and servant-leadership: Ten characteristics of effective, caring leaders. *The Journal of Virtues and Leadership* 1(1), 25–30.
- Tinberg, H., and Weisberger, R. (1998). In over our heads: applying Kegan's theory of development to community college students. *Community College Review* 26(2), 43–56.



- Uddin, L. Q., Iacoboni, M., Lange, C., and Keenan, J. P. (2007). The self and social cognition: The role of cortical midline structures and mirror neurons. *Trends in Cognitive Sciences* 11(4), 153–157. doi:10.1016/j.tics.2007.01.001.
- Whitelaw, G. (2012). *The Zen leader: 10 ways to go from barely managing to leading fearlessly*. Pompton Plains, NJ: Career Press.
- Wilson, J. C. (2011). Service-learning and the development of empathy in US college students. *Education Training* 53(2/3), 207–217. doi:10.1108/00400911111115735.

ABOUT THE AUTHOR

Faith Valente is a doctoral student in leadership studies. She currently teaches undergraduate communication classes in the College of Arts and Sciences at Gonzaga University. She previously started, owned, and operated a successful business that was subsequently acquired by a large competitor.