Episode 036: How Empathy Works And How To Improve It

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There are no conflicts of interest for this episode.

This series is dedicated to my mentor, Dr. John D Tarr.

What is Empathy?

Empathy is the ability to understand another's state of mind or emotions. It is also is being able to feel, understand and share with someone else in what they are saying, their meaning of life, their motivations and values.

In research there are 3 types of empathy that are commonly described: **cognitive, affective, and compassionate**.

Cognitive Empathy

Cognitive empathy is also known as perspective taking, and it can help someone understand another's personal experience. It also tends to reduce interpersonal aggression. Cognitive empathy is exactly what it sounds like—cognitively understanding someone's situation, emotions, and motivations. When we understand someone else, we are more likely to view their behavior as similar to our own.

- One study of Asperger syndrome showed they had lower cognitive empathy but NOT affective empathy. (Dziobek, 2008)

Affective Empathy

Affective empathy is about a shared emotional experience, one of feeling together. It uses the mirror neuron system, which I will discuss later on in the article. Affective empathy forms powerful emotional relationships.

Episode 036: How Empathy Works And How To Improve It

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- Boys with higher aggression had ½ the affective empathy, but the same level of cognitive empathy, as the non aggressive control group (Schechtman, 2002)

Compassionate Empathy

The third form of empathy is **compassionate empathy**, which is also called **empathic motivation**, prosocial concern, or sympathy. This is when you feel moved to help another from how to experience their reality.

The Science of Empathy

Mirror Neurons are Sharing Neurons

Our brain has neurons solely designed to mirror other people. From birth, when we focus on another's movements, emotions and intentions, our brain lights up automatically, and largely unconsciously, around 10% the same way. Our own body-state can be derived from someone else outside of us. We can therefore understand and map out the mind of others by placing ourselves in a comparable body state. This process is important for empathy, intuition, transference, countertransference, enactment, projection, internalization and intersubjectivity.

The Discovery of Mirror Neurons:

In 1992, while studying a monkey's brain with electrodes attached to the motor area (the area that lights up when movements by the body are made), researchers accidentally discovered that not only would the neurons become activated by the monkey reaching out to pick up a piece of food, *but also when the researchers made a similar movement*. Later, the same team published a paper that showed that there were mirror neurons responding to mouth actions and facial expressions. Further studies confirmed that around 10% of neurons in certain areas of a monkey's brain had mirror abilities. Later, these studies were expanded to humans.

Episode 036: How Empathy Works And How To Improve It

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Current Research:

A recent study summarizing the data of 125 fMRI studies of humans (brain imaging that shows what is active), found that there were many areas of the brain with this capacity. (Molenberghs, 2012) Beyond seeing actions performed by others and having them represented in our brain, there are 3 other areas of the brain that are activated in a similar fashion:

- Ever wonder why watching people embrace enthusiastically at an airport is fun? When you observe someone being touched, a similar area in your brain (the secondary somatosensory cortex) activates in a similar way as the person being touched. (Keysers, 2004)
- When you only hear something, like someone cracking open a peanut, how do you know what is occurring? Another study showed that there was a similar brain circuit firing in both doing the action and hearing it, *and* just hearing it. This study also showed that those with higher scores on perspective taking (ability to slip into another's shoes) had stronger activation of mirror areas! (Gazzola, 2006)
- When we watch someone grieve at a funeral, ever wonder why we feel their sadness? **When you feel emotion, you experience the emotion in your brain, like they are to a lesser extent.** (Gaag, 2007)
    - When normal college students looked at photographs depicting emotions, out of their awareness their own face muscles depicted the same emotion on an EMG.
    - "We are hard-wired to feel what other experience as if it were happening to us." (Marco Lacoboni)
    - We used to say, metaphorically, that 'I can feel another's pain.' But now we know that my mirror neurons can literally feel your pain.
    - "Mirror neurons dissolve the barrier between you and someone else." (Vilayanur Ramachandran)

Now researchers are saying that the mirror neuron system is involved with:

- Understanding another's actions and intentions
- Neural basis for the human capacity of empathy
- Learning new skills by imitation and rehearsing

Episode 036: How Empathy Works And How To Improve It

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Non-Empathic Types—The Dark Triad

The "Dark Triad" refers to three types of disorders that cause people to have low empathy for others. **The big common denominator for these people is a deficit in affective empathy, but after matching for primary psychopathy, the others are no longer predictors of low affective empathy** (Wai 2012). The Dark Triad consists of: narcissists, Machiavellians and psychopaths. People who have narcissistic traits and machiavellian traits often have some primary psychopathy traits as well.

Individuals high in narcissism **had positive feelings when looking at sad faces** and were accurate at recognizing anger (higher cognitive empathy may be bias at grandiose self reporting). Individuals higher in primary psychopathy (they can usually maintain cool composure and carefully execute planned behaviors with a lack of morality, whereas those with secondary psychopathy respond to their negative emotion when they harm others) felt positive when looking at sad, angry or fearful images and more negative when looking at happy images, and were rather inaccurate at identifying all emotions.

Machiavellians felt negatively with happy images and positively with sad images, while they tended to inaccurately identify happy or sad emotions.

Empathy and the Medical Field

- Studies show that empathy declines in third year of medical school (both for men and women, but women are higher in empathy in general) (Hojat, 2009) but that doctors can also increase their empathy through certain practices. (Riess, 2012)

- In a study of 20,961 patients, primary care providers with high empathy have been shown to have lower rates of metabolic complications compared to moderate to low scores (4.0 per 1,000 patients vs 7.1 and 6.5 respectively) (Canale, 2012).
- There have been many studies that show both cognitive and affective empathies ability to change patient care when high and low empathy are demonstrated. For example, there is a correlation to a doctor's ability to more accurately diagnose depression and anxiety, understanding interactions, more positive patient

outcomes, increased therapeutic alliance, more patient satisfaction, and fewer malpractice claims. Doctors who showed higher empathy were more likely to have their HIV patients take their medications (Flichinger 2015).

Research on "Therapist Effect"

- Some doctors or therapists have better outcomes. Empathy seems to be important in therapist effectiveness and can be increased.
- Different studies show outcomes vary between patients, of which 5-12% can be attributed to a particular therapist.
- One study of 91 therapists over 2.5 years: the best therapist showed a change of 10 times the average mean, the worst showed the an average increase in symptoms. (Okiishi, 2003)
- Higher interpersonal skills has been linked to better outcomes when studying therapist effect. (Anderson, 2009)
- Higher-empathy therapists have higher success regardless of theoretical orientation. Lower-empathy therapists linked to higher dropout rates, relapse rates, and weaker therapeutic alliance. Empathy was shown to have an effect size of 1.22-1.43 when independent observers rated empathy for substance use outcomes. (Moyers, 2013)
- In a big study on therapist effect (69 therapists, 4,580 patients), they found that years of experience, gender, age, profession, highest qualifications, caseload, degree of theoretical integration did not predict outcome. The amount of time spent targeting improving specific skills and reviewing therapy recordings predicted client outcome.

Can We Improve our Empathy?

Studies show that we can. Here are some things that can improve your ability to empathize:

Episode 036: How Empathy Works And How To Improve It

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- Optimize your sensorium—keep yourself healthy. When you are tired, hungry, chronically stressed and with poor focus, it will be harder to enter into the experience of another.
- Try to understand the person's emotions that you are with.
    - A study showed by trying to pay attention to emotion mimicry was increased (linked to affective empathy)
- Read fiction (Bal, 2013) allow yourself to be transported into the book.
    - Do not play violent video games (Anderson, 2010)
- Work through our "countertransference"
    - Talk through difficult situations
    - Patients have different ways of relating—learning to understand others, to see their way of being as "adaptive," can be empathy promoting.
- Learning to read emotions and body language more accurately
- Learning to accept feedback
- Calming your own hyperarousal through practices like mindfulness
- Tuning your mirror neurons
- Noticing when connection or disconnection is occurring
- Practice empathy towards viewpoints that are not your own
    - Becoming mindful of the emotion, the distress, the meaning behind the distress

Can Therapists Lose our Empathy?

Studies show we can experience empathic strain and rupture. Empathic failure may lead to aggression. It is hard to empathize when we feel subjected to powerful influences from patients: complaints, requests, accusations, subtle seductions, bits of blackmail, challenges. Throughout history, rulers have decreased empathy in their warriors and people by stirring up disgust towards those they seek to kill.

We are more likely to empathize with those we interact with frequently, find similar to us, or find thoughtful and kind. We need to humanize people's actions and see them like us, to not lose the part of us that could consider that we too could be in their situation.

Episode 036: How Empathy Works And How To Improve It

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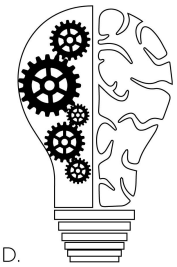

Consider the Stages of Empathy:

I think of empathy in terms of 3 categories: **the moment to moment emotional experience, the meaning and context of the emotion in their life, and the subjective experience evoked and created by the unique connection I am having in the here and now with the person.**

Level 1: There are moment to moment flashes of emotion on someone's face, changes in body language, and current distress. Empathy can be experienced by just witnessing a flash of emotion and allowing the person to know you see it and that you hear them. During this, we can try to understand the person's emotions, and ask them to verify what they are feeling, if we are correct in our questions, such as if they are feeling sad or angry about something.

Tuning into their experiential state and then asking if you are on the right track: (note if the patient gives a different word then do not contradict) can be helpful.

- Ask them a few questions to clarify:
    - Perhaps you feel happy?
    - Perhaps you feel frustrated?
    - Perhaps you feel sadness?
    - Perhaps you feel disgusted?
    - Perhaps you feel concern or fear?
    - Perhaps you feel a sense of pride?
    - Perhaps you feel disconnected or numb?
    - Perhaps you feel a sense of embarrassment or shame?
- Use their own words and repeat what you hear from them:
    - Patient: "I just feel so tired and sad all the time."
    - Doctor: "It makes sense you feel tired because you have been so busy with your new jobs. In light of your recent losses your sadness also makes sense."
- Matching rhythm of voice, tonality, emotionality.
    - Matching an infant's cry rhythm (but not intensity) calms and regulates the infant
- Imitation
- Recognition of what the patient hopes for:

Episode 036: How Empathy Works And How To Improve It

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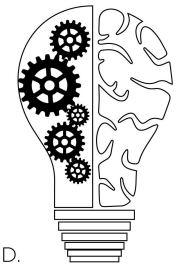

    - I hear you have hopes for… desires for… dreams for… aspirations for...

Level 2: This is where we try to know the context of the flash of emotion, the distress either in the distant past (how early relationships informed it) or recent life situations. Sometimes the quantity of distress is only as high as it is because it is linked to prior loss or prior trauma. We can find the context of the emotion by matching their emotionality, their demonstration of emotions on a level that we feel is appropriate. We can look at the meaning of the emotion and the context of the meaning of that emotion in their lives. We can also empathize with the meaning of the emotion once they've identified its context.

Even if they flash anger towards themselves, but maybe they in doing that are not accomplishing the energy of the emotion, and they are missing how the anger can help them accomplish their goals. Thus when the anger is pointed at themselves, we can explain that the anger should be pointed outward, and give energy to action.

- Example: anger towards self looks like, "I am worthless" instead of anger towards abuser: "he should not treat me like that, I will set up a boundary." The empathic statement can be "it must be hard to feel the anger pointed at yourself, telling you that you are worthless, and perhaps although it was adaptive to do this growing up, makes it hard to set boundaries now."

Level 3: This level is when the person is having emotion that occurs because of their relationship with you. It is the interpersonal, and commenting and empathizing with any distress (or positive emotion) that your relationship is creating is a level 3 empathic statement. When a patient demonstrates anger towards their therapist, it's helpful to ask if they are feeling anger towards you and if they feel comfortable talking about that emotion.

We can create psychological safety for a patient to give feedback to us by telling them we like to hear what they are feeling towards us. For example, my mentor, Dr. Tarr, tells his patients:

"I very much want to hear your positive and negative feelings, particularly about me, and particularly negative ones. It will be helpful for you to share any feelings of disappointment, feelings of not being understood, feelings of not being responded to or

criticized, or mannerisms or things I say that affect you undesirably. I hope you can understand that this is not a usual social situation, where you don't tell people negative thoughts, here I hope you have the courage to say them out loud. It will be very helpful to say it has it is happening; we can learn much more than if it comes out later; we know it'll be hard—but this kind of a laboratory where we discover what goes on between us."