# Ted Lasso Meets (not) Lassie

Gary Hill, with Daisy Peel, Chispa,
and Members of the Northcentral Intercollegiate Band

To many of us, Apple TV character, Ted Lasso, embodies much of what it means to be a good human and an effective leader: he is sincere and authentic; he sees the good in others; and he exhibits an eternal optimism – a positive, "winning" attitude, fueled by an unwavering belief in those with whom he works, a hard-earned confidence in his own abilities, insatiable curiosity, and a willingness to remain vulnerable and teachable. Not surprisingly, these same attributes are often used when describing people considered to be master teachers and conductors.

For some of us, the amazing canine, "Lassie," was another such hero! Courage, confidence, and "doing the right thing" were hallmarks of her daily deeds. On-set, the actions of the working dogs who played Lassie, along with the countless other dogs featured on TV shows, in commercials, and in movies were, for the most part, being cued by their off-screen handler – i.e., there was no "magic" involved; rather, countless hours of training and practice, consistent reinforcement of "correct" behavior, and clear, accurate communication by the handler.

Notably, ongoing discoveries in the neurosciences – information being uncovered through cutting-edge, technology-assisted research – are gradually revealing some of the reasons underlying the success of the most influential, inspiring, "Lasso-like" conductors – the Bernsteins, Kleibers, Ozawas, and Dudamels among us – and shedding light on the innate brilliance of other beings, including our beloved canine companions.

What can working with and observing non-human animals – in the case at hand, dogs engaged in the sport of agility – teach us about conducting musical ensembles? A great deal, I believe! It is my premise that the actions of a highly trained canine – well-connected to its handler, executing behavioral chains cued primarily by the handler's body – serve as an accurate proxy for the handler's conscious, as well as unconscious, intents. Consequently, such well cultivated, dog-human relationships carry the potential to illuminate much about the efficacy and depth of human-to-human, nonverbal communication – for our purposes today, the unspoken link between conductor and ensemble. While drawing this parallel may strike some as behavioral "apples and oranges," continuing investigations into mirror neuron systems, involuntary synchronization, unconscious perception, embodied cognition, etc., suggest that these seemingly disparate connections may merely be different branches of the same, neurological tree.

Moreover, the aforementioned explorations in the cognitive sciences add to the burgeoning collection of evidence inferring, among many other things, that an ensemble of musicians is far more attuned to the comprehensive, minutely detailed, conscious and unconscious, nonverbal communication of a conductor than most of us realize. Succinctly put, recent findings suggests that the musicians we lead are perceiving a continuous stream of data from our *entire* body – from our head to our feet – some that is consciously processed and either reacted to or overridden as irrelevant, along with much that is unconsciously acted upon. As a result, it's likely that we vastly underestimate both the influence that our unintended messages have and, most importantly, our untapped potential as inspirators of truly profound musical expression.

This session, then, will look at nonverbal communication in novel and uncommon ways, with the goal of encouraging conductors to consider purposefully enriching their nonverbal vocabulary, in order to more deeply communicate the "gestalt" of the music they express. Concurrently, the role of personal and musical authenticity in conductors' nonverbal communication will be probed. Only the extraordinary generosity of one of the world's most renowned dog trainers, agility coaches, and competitors, Daisy Peel, assisted by her brilliant dog, Chispa, along with the time and musical exuberance of members of the CBDNA Northcentral Intercollegiate Band, make such an exploration possible.

**Background**

Neuroscience is rapidly unlocking many of the brain's "secrets" and helping us understand much about the complex, integrated and context-adaptable networks that comprise our minds. Since the discovery of Mirror Neurons 32 years ago, neuroscientists, and many others, working in related fields, have published the results of nearly two-thousand investigations encompassing the MN mechanism's role in many kinds of cognition, language, perception, motor action, and emotion. The potential impact of this research and related investigations on the field of conducting and its concomitant pedagogy is enormous! Today's session comprises a snapshot of that potential.

Learning as much as possible about the wide-ranging biological mechanics of the art and craft of conducting has been a career-long obsession. Initially, my curiosity was self-serving – I longed to be a more effective and expressive nonverbal communicator for the musicians I served. Once I began teaching conducting, my interest broadened, driven by the additional desire to help student conductors rapidly learn how to maximize their abilities to communicate their musical ideas to ensembles. Finally, my involvement with the sport of dog agility for much of the last 15 years has – thanks to virtuoso teachers and coaches, like Daisy Peel – expanded and clarified my understanding of nonverbal communication, operant conditioning, learning and behavior, and, yes, conducting, in unexpected ways.

**Important Delimitation!**

In spite of having spent nearly four decades reading thousands of books and scholarly articles from professionals in the fields of Emotional Contagion, Music Cognition, Music Perception, the Neurosciences, Music-related Endocrinology, etc., and taking part in hundreds of conversations with many who are working in those fields, my single claim to "expertise" is as a musician. Since I am NOT a professional scientist – in particular, a neuroscientist – my opinions on music and the human mind, while informed, should be viewed with a degree of skepticism!

**Personal Journey** (for those interested…)

My preoccupation with such matters was provoked by two early-career mentors: my first conducting teacher, Elizabeth Green, and eminent conductor, Frederick Fennell. Ms. Green was fascinated with the operations of the brain and spoke regularly on that topic during classes. In 1985, she spent a few days working with my students (at what is now Texas A&M-Commerce) and, after complimenting me on my teaching, imparted a challenge: "It is up to you and others like you to not only carry on the work, but to further develop the pedagogy." Needless to say, at that juncture, I had no idea how extending her brilliant methodology might be possible! Less than one year later, when Fred Fennell came to town to guest conduct an all-Holst concert with my ensemble, at least one possible "how" began to come into focus.

The first rehearsal with Fred began in typical, Fennell fashion: reading the program from beginning to end. The opening work was Holst's adaptation of Bach's *Fugue a la Gigue*; to help make sure Fred was happy, we had acquired the setting used in the then-recent Tokyo Kosei Wind Orchestra recording of the piece. Additionally, in the weeks leading up to Maestro Fennell's arrival, we had worked diligently to help ensure that every aspect of our playing was, to the best of our abilities, close to what he might wish to hear. On the TKWO recording of the "Fugue," the woodwind timbre heard in the first statement is hauntingly beautiful; consequently, I had done everything possible to conjure that specific color from the players, but to no avail. As you have probably now surmised, Fred stepped onto the podium, gave the downbeat, and that elusive, exquisite sound appeared! A descriptor from the last section of Colgrass's spectacular *Winds of Nagual* – "Carlos leaps into the abyss…and explodes into a thousand views of the world" – perfectly describes the feeling I had at that moment. Indeed, that few seconds of time set into motion what has been a 38-year journey, an exploration that, thanks to the wonders of modern neuroscience, continues.

As is usually the case with serious inquiries of any kind, each discovery has provoked more questions, many which have led to changes in my journey's direction. While the number of turns along the way are too numerous to list, what follows are some key junctures:

February 7, 1986 – the "Fennell Moment"

September, 1986 – Test of Musical Priorities, as revealed through spontaneous movement. (Video-taping of 20+ graduate conducting students at UMKC. The results demonstrated a highly significant correlation between the spontaneous movement of most conductors to five, diverse musical excerpts and comments previously given to them, following the conducting of their ensembles at music festivals, in recitals, etc.)

1987-1999 – teaching undergraduate conducting in a dance studio (surrounded by mirrors); utilizing select, "classroom music" exercises to elicit "natural" musical gestures from the students, prior to introducing time-keeping and, then, tracking observed conducting behavioral correlations over two semesters.

1992 – The initiation of personal research into Emotional Contagion.

1996 – Presentation on Emotional Contagion and its implications for conductors for the CBDNA Southwest Conference: "An Integrated Approach to Conducting and Conducting Pedagogy"

1999-2004 – Explorations into technology-assisted conducting pedagogy, via EMG sensors and motion-capture, supported by $1.2 mil. in Herberger and NSF grants

December 2000 – Presentation on the use of EMG sensors with conductors for the Acoustical Society of America conference: "Quantitative Practice for Students at the Digital Conducting Lab"

2000 – present – exploration concerning the "mind-body loop" and "embodied cognition"

March 2005 – Moderator for a panel discussion with cognitive scientists, Gary Marcus and Petr Janata, and ethnomusicologist, Judith Becker: "Neuroscience and Music," for the CBDNA National Conference

2007 - 2008 – Coinvestigator in pilot studies examining biochemical reactions to music-making

October 2008 – Co-host for the conference "Oxytocin and Music"

July 2009 – Lecture/Demonstration for WASBE's biennial conference: "The Magic of Myelin, Mirrors, and Margins"

2012-2015 – Coinvestigator for a pilot study and subsequent investigations concerning the biochemical responses to participation in musical ensembles. (Some of the research teams' results can be found in the Journal *Hormones and Behavior* ["Cortisol and Testosterone Associations with Social Network Dynamics"] and *The Oxford Handbook of Making Music and Leisure* ["Motivational and Social Dynamics of Ensemble Music Making: A Longitudinal Investigation of a Collegiate Marching Band"])

December 2015 – Presentation, with Serena Weren, for the Midwest Clinic: "Losing Control, Gaining Engagement: Tips and Techniques Inspired by Science for Improving Motivation and Performance in Large Ensembles"

2016-present – Multiple presentations of ongoing discoveries at conducting symposia, music education classes, and graduate conducting seminars.