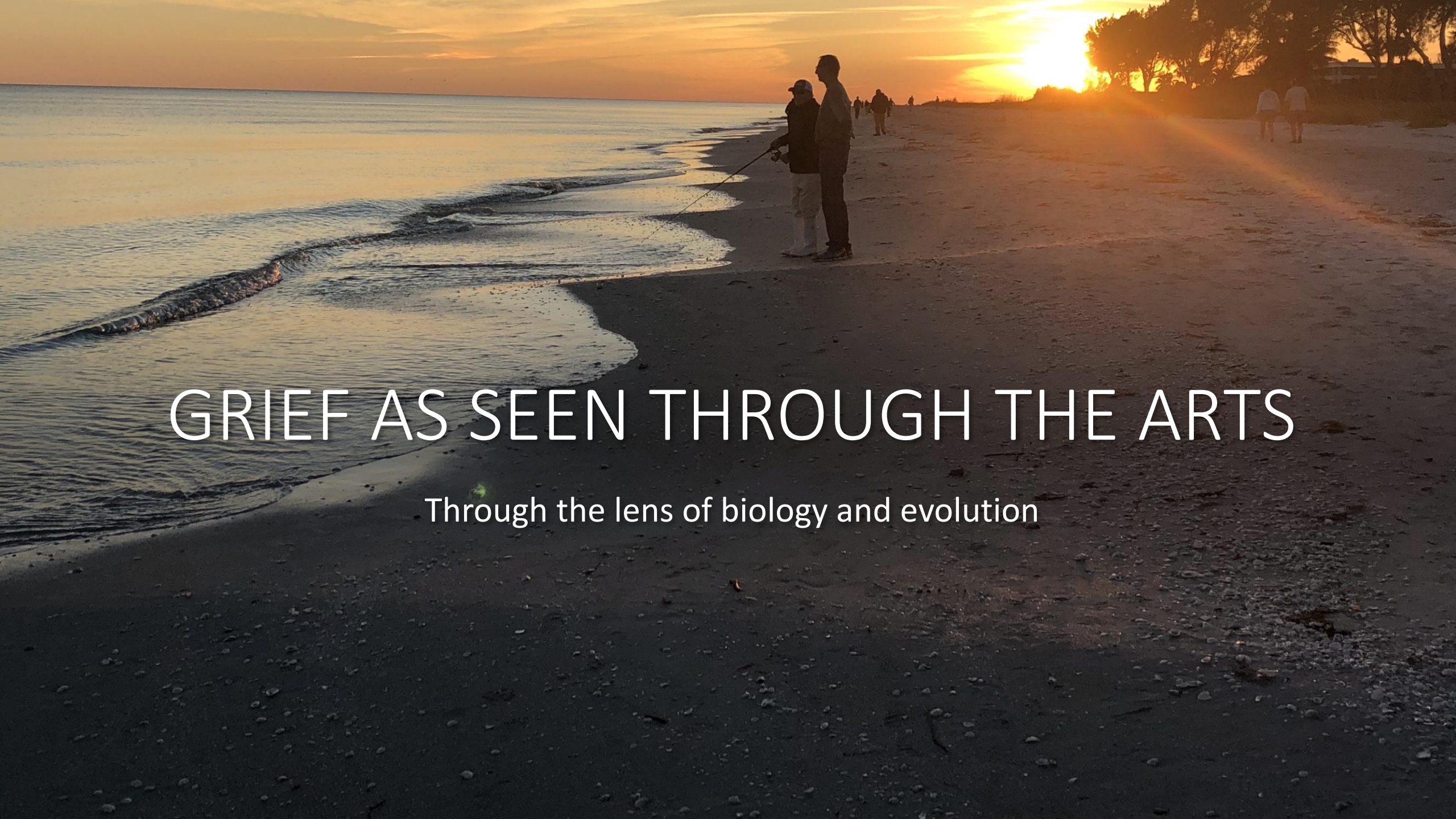


A serene sunset scene on a beach. The sun is low on the horizon, casting a warm, golden glow across the sky and reflecting on the water. In the foreground, two people are standing on the sandy beach, looking out at the ocean. One person is holding a fishing rod. Further down the beach, other people can be seen walking. The water is calm, with gentle waves lapping at the shore. The overall mood is peaceful and contemplative.

GRIEF AS SEEN THROUGH THE ARTS

Through the lens of biology and evolution

Grief is built into our DNA

- It involves all levels of brain from brainstem to cortex
- All levels of body through our hormonal system
- It is ancient and evolutionary – constantly changing following its own timeline
- It is inescapable



Music and Mind *by Renee Fleming*





Little fires everywhere

- Emotions that can produce: a deep sense of longing, love, maybe anger, sadness, a sense of connection
- Maybe all at the same time
- The heart is strongly connected to the brain and has a cellular memory. 80% of autonomic nerves in heart go to brain 20% from brain to heart-HR variability



Heart as a little brain

- Collections of ganglia surrounding the outside of the heart— almost a web or a cocoon
- Only partially preserved after heart transplantation
- Heart rate variability returns over time to transplanted heart
- The arts connect with this little brain directly
- Ganglia provide amplifiers of emotion particularly in the heart, throat and gut-similar to the Chakra's of eastern medicine and yoga
- Music evokes hormonal responses similar to grief

Hormones and emotional responses

- Epinephrine (Adrenaline)-anxiety-fight-flight-freeze-faint
- Cortisol- energy-insomnia-agitation-fuel-fatigue
- Oxytocin- connection-meaning- community-longing
- Endorphins-pain relief- escape- alcohol-aloneness
- Dopamine- mood-pleasure
- Prolactin – tears, sorrow
- In your grief, where are you in this mixture right now?



If not stages- how about waves

Visualize where you are feeling your grief









Without love there can be no grief

- We do not grieve without hope
- Often our loved one's are teaching us how to love through grief
- The alchemy of love is an internal process involving both the heart and mind. Trust the process
- 'We actually transform the world from within our hearts'
- Rainer Marie Rilke Jan 10, 1920
- Grief provides an element of immortality to your loss– music too

Good Grief



- GRIEF IS A NATURAL UNIVERSAL RESPONSE TO THE LOSS OF SOMETHING YOU LOVED
- GRIEF IS A PERSONAL RESPONSE TO LOSS
- IT IS A PROCESS, NOT A STATE OF BEING
- MOURNING = THE OUTWARD EXPRESSION OF GRIEF
- Grief-- the emotional, cognitive, functional, behavioral response to the loss

Loss= Wound
Grief=
Healing, the
balm

- There are no stages of grief to go through
- Grief is not something you get over or want to get over
- Grieving is the process of changing grief over time
- Elizabeth Kubler Ross began work on grief in the 1960's with the novel idea of talking to people. She described five things people commonly experience.
- Denial, anger, depression, bargaining, acceptance—I would add guilt. We don't go through them in order, but we experience them. We don't conquer or cure them. They don't occur in isolation

Human tears

- Expressed in joy and sorrow
- Contain oxytocin, cortisol, serotonin: so far we can not predict differences in chemical make up between joy and sorrow
- Or how tears change over time
- Electron microscopic images show differences



How does music effect grief

- Strong effect on hormonal system- mirroring grief
- If you give Naloxone (morphine blocker) before playing music it will block or lessen the effect of pleasure from that music for many people.
- There are measurable hormonal rises in response to music
- There is a “quickenning” of the brain (Henry with Oliver Sachs)
- It is estimated about 3% of humans have no pleasure response to music
- Anthropologists report no society in history without music

Music somehow mixes the good and bad

- The societal effect may change over time
- 4 Dead in Ohio by Crosby/Stills/Nash/Young
- Chiquitita by ABBA combines sadness of loss with hope for change
UNICEF 1979 All proceeds have gone to UNICEF (UN Children
- S Fund
- We are all affected, but with uniquely personal responses
- We have the same basic body structure (size shape of bones and muscles) same hormonal response to music but the meaning for us is variable and yet pulls communities together like nothing else I know

Music and society

- Radio—TV— electronics-cell phone
- The amount of music available has grown immensely
- In the 60's and 70's songs would be recognized by the majority of people in that generation and could easily be sung together. Now, there is more variety, still accompanied by our mega heroes—Taylor Swift
- What is it about classical music that has such endearing qualities-why does Mozart, Bach etc continue to appeal
- Rhythm, rhyme, harmony creating this alchemy that changes grief—sometimes triggering memories positive and negative, usually a mix

Poetry and writing



For When People Ask- by Rosemary Wahtola Trommer

- I want a word that means
- *Ok and Not OK,*
- **More than that; a word that means**
- *Devastated and stunned with joy*
- **I want a word that says;**
- *I feel it all at once*
- **The heart is not like a songbird**
- **singing only one note at a time,**

more like a Tuvan throat singer

- Able to sing both a drone; and simultaneously
- ***Two or three harmonics high above it***
- **A sound, the Tuvans say, that gives the impression**
- *of wind swirling among rocks*
- **The heart understands swirl,**
- *How the churning of opposite feelings*
- *Weaves through us like a constant breeze*
- **Leads us wordlessly deeper into ourselves,**

Blesses us with paradox

- *so that we might walk more openly*
- *Into this world so rife with devastation.*
- *This world so ripe with joy*
- *“Hallelujah” by Leonard Cohen took him five years to write*
- *One of his haunting experiences was playing for the Jewish troops during the Yom Kippur war,. While there, he saw a helicopter land with severely injured young soldiers. He grieved for his lost comrades then found out these were Egyptian soldiers and for a brief moment he experienced joy, and then the horror of what he felt*

poetry

- Evolutionarily ancient like music--- rhythm and rhyme
- Music- seems to have been present since the dawn of man-
- Music has evolved right along with us
- Poetry: Mind > Heart Music: Heart>mind
- The intertwining of the two seems crucial- accepting paradox, the unknown, the universal
- Or as the immortal Buzz Lightyear from Toy Story exclaims:

To Infinity and Back



Simple things to do

- Go for a regular walk, maybe ½ way with your ear-buds playing your favorite music and then returning with them out so you can hear the world around you----You don't have to go 1,000 miles on a unicycle
- Maybe write or journal on your own (*no one needs to read it*) *The measurable response to music:*
 - *Is present when you just listen, increases in a live performance, increases when you sing along, increases even more when you perform it. Do you have an old instrument begging your attention?*
- *Consider reading together, singing together, writing together*
- *Have more than one person read the same poem out loud.*
- *Knit together, draw, make pots*



Dreams @
visions- or
delusions@
Hallucinations

WE HUMANS ARE RESILIENT-like nature



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Hormones of attachment- oxytocin





Medical effects of grief-GRIEF IS

- After age 65 (widowhood) first year after death of spouse- male 70% increase in death rate compared to married peers-27% females
- Increase blood pressure, sympathetic tone (heart rate variability index), pro inflammatory, increased clotting, immune changes, cancer increases, ulcers, insomnia
- However, grief itself is not a disease we can or should cure
- However, being aware of potential complications makes sense
- Trying to minimize: cardiac risk factors, lung disease, clotting risks. Being aware of these increased risks (diet, exercise, alcohol, etc)