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Social Interaction

Video-Based Studies of Human Sociality

Forms of Touch during Medical Encounters with an Advanced Heart Failure (AdHF) Doctor who Practices Relational Medicine

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Abstract

Within a participatory research project, we investigate how forms of touch we call caring touch are enacted in AdHF medical encounters. Through the theoretical lens of Relational Ontology (Raia, 2018), grounding multimodality in phenomenology, we identify various forms of caring touch. When occurring in conjunction with medical/diagnostic touch, especially in situations of a perceived patient's vulnerability, caring touch facilitates passages from the person level to the organ, tissue, and gene levels and then back to the whole-person level in an uninterrupted movement, maintaining the person-person relation between doctor and patient. Gentle shepherding (Cekaite, 2010) is used to guide the patient body, and comforting touch (Goodwin & Cekaite, 2018) accompanies invitations to enter a space where death is part of living. We show the existential grounding power of caring touch, which constitutes forms of reciprocal sharing of existential experiences in caring-for-the-Other. All these forms of caring touch are employed by an AdHF doctor whose work centers on the practice of Relational Medicine (Raia and Deng, 2015b), in which the starting and returning point is the patient in his/her life. While providing a single case analysis, the

research builds from a corpus of 500 hours of recorded medical encounters with 125 patients in high-tech medicine.

Keywords: Caring touch, relational medicine, caring for the other, death as part of living.

1. Introduction

In this article we explore the role of touch in the study of interactions in the institutional context of high-tech medicine for Advanced Heart Failure (AdHF). Specifically, we show how touch is enacted and embedded in the existential context of care-for-the-Other (Raia 2018) during physical examination and planning for the future.

Similar to other high-tech medical practices such as oncology (Beach, 2018; Lutfey & Maynard, 1998; Rindstedt & Aronsson, 2012; Sterponi, Zucchermaglio, Fatigante, & Alby, 2019), in AdHF patients, family caregivers, and healthcare practitioners collaborate closely in a life-long relationship, needing to confront complex decisions regarding treatments and death. Ethnographic and phenomenological research on AdHF practice (Mauthner et al., 2015; Raia & Deng, 2015b; Shildrick, McKeever, Abbey, Poole, & Ross, 2009) shows how patients, caregivers, as well as healthcare professionals deal with a disease with an unpredictable course, uncertain prognosis, and continuously evolving high-tech therapeutic options that include heart transplantation or mechanical circulatory support devices (e.g., a total artificial heart). This complexity intrudes upon patients' and caregivers' lives, drastically changing them forever. The experiences of people in interaction with high-tech medicine, unthinkable fifty years ago, "are novel to patients and their family caregivers and unknown to healthcare professionals" (Raia and Deng, 2015b, p. 9). Raia and Deng (2015b) recruit Dante Alighieri's metaphor of being astray in the tenebrous forest to describe the experience of AdHF patients feeling lost when facing the dramatic life changes

imposed by the disease. In this “land of dissimilitude” (*ibid.*, p. 32) no direct correspondence exists between things, their appearance, and their meaning. The question for patients “is not how to get out of the forest but how to make it one’s own” (2015b, p. 48). In *The Divine Comedy*, Virgil appears to Dante in the dark forest and, introducing himself as a person with all his irreducible professional and personal identities and historicity, guides Dante in the space where time is suspended and nothing makes sense as before: “There is only shared human experience, resonating humanity that allows the one who is lost and the Other to recognize one another” (*ibid.*, p.48).

In the following excerpt, Figure 1, Mr. Goldsmith (a pseudonym) evokes this same metaphor of Dante guided by Virgil to describe the way in which his doctor, Dr. D, has been helping him to face death. This interaction occurs as Mr. Goldsmith and his wife are meeting with Mr. Goldsmith’s AdHF doctor, Dr. D.

Figure 1 _ Note that the transcription system is reported in Appendix A.

1 Mr. G: And I **realize** I'm taking you **beyond** (.)
2 What's- **required** for you as a **heart** doctor.=
3 =**You're**- you're becoming more a **general- med**--
4 =I mean the **metaphor** I **had** is not so **bad**.
5 It's like a **Virgil** (.) in the Divine **Comedy**.
6 Uhh guiding **Da(hh)nite** (.) through(hh) this-
7 Ho(hh)rrible **voy(hh)age** into hell.



In an outpatient AdHF clinic examination room, Mr. Goldsmith lies on the exam table with Dr. D sitting next to him. As Mr. Goldsmith is talking (lines 1-7), Dr. D holds his hand while listening. Mrs. Goldsmith takes her cellphone from her purse and starts recording the scene. “There was something so special in Dr. D’s touch,” she reported afterwards in our video-reviewing sessions. The nurse stands at the foot of the table, following Mr. Goldsmith’s and Dr. D’s conversation. Mr. Goldsmith evokes the metaphor of Dante guided by Virgil from *The Divine Comedy* to describe the way in which his doctor, Dr. D, has been helping him to face death.

In this article, we examine forms of touch to help us understand the following questions: How did Dr. D become a guide for Mr. Goldsmith toward owning his own death? How does the doctor enter into discussion about the existential demands of having to approach death? What was special about the touch shown in Figure 1 that solicited Mrs. Goldsmith's videotaping of that moment? What forms of touch can we identify in the practice of high-tech medicine for AdHF? What is the role of touch in high-tech medicine for AdHF? We address these questions by utilizing a microethnographic multimodal approach (C. Goodwin, 2018; Streeck & Mehus, 2005), informed by the relational ontology and phenomenology of practice lens (Raia, 2018; in press) to show how touch is enacted and embedded in the existential context of care-for-the-Other (Raia, 2018) during physical examination and planning for the future, even when it encompasses facing death.

2. Theoretical framing

In examining medical encounters between AdHF doctors and their patients, Raia (2018; 2020) expands Heidegger's ontological understanding of *being-in-the-world* (1962) into a *relational ontological* theory to study practice. Specifically, she examines the practice of *caring-for-the-Other* who needs to develop a new sense of *being-in-the-world*.

Heidegger understands *being-in-the-world* to be organized by an existential temporal horizon. Ochs and Capps (2001) show how a temporal horizon is enacted in storytelling, "developing a narrative logic that tethers the present to what has been and what is yet to come" (p.161). They make sense of Heidegger's temporality in situations

in which concern with present and future experience organizes how co-tellers remember the past.

Raia (2018; 2020) follows Blattner (2005) and Dreyfus (1991), and points to the importance of understanding the non-linearity of the existential temporal horizon as a cohesive sense of a person's *past* and *future* possibilities, both necessary for making sense of who we are and our actions in the *present*. She (Raia, 2020) shows that the existential positioning manifested in every moment in our way of being, of acting, and of meaning-in-action, in the *present* emerges from an existential past of being already socialized into – and already attuned to – shared accumulated practices, and the future of being always pressing into possibilities of being *this person*.

Within her relational ontological perspective of *care-for-the-Other*, Raia (2018) discusses how issues of existential positioning arise in multiactivity practices of teaching/learning and patient care. She demonstrates how the passage from one activity to another positions participants differently to one another, e.g. teacher/learner, doctor/patient. In her approach, rather than parallel streams of action (Mondada, 2011), these activities emerge as existential spaces, and accountability varies. For example, in the multiactivity practice of teaching/learning and patient care, during an invasive procedure in which the patient is awake, the Attending AdHF doctor – as a teacher – shows concern through his embodied actions (e.g., his self-repairing gestures), for the passage of the Fellow (AdHF cardiologist in training) from one existential positioning to another: from being a doctor caring for the patient to being a learner in training with the Attending. In framing participants' actions within the temporal horizon, Raia shows that

the Attending doctor's action emerges from a) the existential past constituting an attunement to what matters to him: "salient moments of transition for the Other" (Raia, 2018, p. 89) and b) engaging in what makes sense to do to continue being this person (*future*): safeguarding the Fellow's becoming an AdHF doctor during these transitions. In the present paper, we utilize this approach to show how *caring touch* (see also Raudaskoski, this issue) facilitates maintaining the person-to-person level relation during physical examination of the patient's body that would otherwise privilege the person-to-organ level relation.

In situations in which *caring-for-the-Other* means caring for someone catapulted into the "land of dissimilitude," (e.g., facing a life-changing illness) the physician engages in building a temporal horizon *with* and *for* the Other (Raia, 2020). Specifically, the physician makes use of talk to ground the patient in inhabiting a meaningful present by revealing *past* events as salient in the patient's present life, and projecting the patient into the possibilities of being this person (*future*). In the second part of this article, we use this approach to show how touch (see also Raudaskoski, this issue) facilitates Dr. D's engagement in pragmatic actions of *caring-for-the-Other*. In such moments, Mr. Goldsmith's existential crisis (Figure 1) of confronting death shatters his projection into *future* possibilities of existing. A cohesive sense of the existential horizon of being is fragmented, as is Mr. Goldsmith's sense of meaningful engagement in activities with others in the current situation (*present*). *Caring for Goldsmith* gives meaning to what it means to be an AdHF practitioner, offering an ontological meaning to the concept of professional vision (C. Goodwin, 1994).

3. The role of touch in caring-for-the-Other

The study of multimodality is comparatively recent with respect to the study of spoken words. As Streeck (2009, p. 71) shows, an “audience can infer invisible features” from “the visible property of an act.” Here we show that an audience can infer invisible features from haptic interactions. Touch in particular can reveal fundamental features of human interactions, such as the communication of emotion (Hertenstein, 2002; see also papers by Burdelski and Raudaskoski, this issue) or the establishment and negotiation of intimate and caring social relationships in the family (M. H. Goodwin & Cekaite, 2018).

Studies using multimodal conversation analysis to examine touch in medical contexts span different medical disciplines. In primary care, Heath and Luff (2013) show the importance of touch for diagnostic purposes, such as to “get pain on the table” (McArthur, 2018) to determine its precise location (Heath, 1989). In orthopedic surgery visits, Greco et al. (2019) show that doctors’ tactile stimulation of the patient’s limb varies in exerted pressure and pace of stimulation. In prenatal consultation, touch is combined with vision (Nishizaka, 2011; 2017; this issue) for the purpose of reference; for example, healthcare professionals touch a particular place on the pregnant mother’s abdomen near the transducer while referencing the monitor screen and when wanting to change the position of the baby.

All these studies privilege an epistemological approach, with a focus on how knowledge is produced and validated. However, if we follow phenomenologists such as Heidegger and Merleau-Ponty, we can make an ontological claim, inhabiting our

action and making sense of who we are and who we are becoming. Indeed, Merleau-Ponty (1962) argues that what defines “what is doable” – the affordances and solicitations to respond to – is the bodily perception of *being-in-the-world*.

A relational ontological approach (Raia, 2018; in 2020) to understanding touch as caring is particularly relevant in institutional contexts of high-tech medicine, where living with diseases with an unpredictable course, uncertain prognosis, and continuously evolving high-tech therapeutic options is part of the healthcare “professional vision.”

4. The study

This work is part of an ongoing ethnographic-participatory research project studying the practices of teaching, learning, and patient care in an AdHF program in a large US university hospital (Raia & Deng, 2015b; Raia, 2018) with more than 500 hours of recorded medical encounters between Healthcare Professionals (n>25) and Patients (n> 125).

Although our analysis is based on collections encompassing multiple encounters from our corpus, here we present a “single-case analysis” (Lutfey and Maynard, 1998:323) in which the participants are co-researcher and co-authors. As argued by Schegloff (1987:101), in single-case analysis a range of phenomena from a larger corpus of “talk-in-interaction are brought to bear on the analytic explication of a single fragment of talk.”

The research model (Raia & Deng, 2015b) proceeds iteratively in three stages of

data collection and analysis, each generating resources and structures necessary for the following stages to emerge:

Stage 1: Encounter Recordings of AdHF encounters are longitudinally audio/videotaped for a period of 1–4 years.

Stage 2: Co-generative dialoguing (cogen). Weekly audio/video-taped sessions with participating healthcare practitioners, patients, and family caregivers whose interactions were recorded in Stage 1. Together we review their taped interactions to make sense of the encounters and discuss the emerging elements and themes. The insights of those present on the scene richly inform the interpretation of encounters, from a member's perspective. Here, we report parts of these weekly reviewing sessions with the two participants and co-authors Mrs. Goldsmith and Dr. D (Mr. Goldsmith's AdHF doctor).

Stage 3: Multimodal analysis of the practice recordings informed by relational ontology and phenomenology of practice is used to make sense of the AdHF practice.

5. Beyond diagnostic touch

The systematic organ-system-focused physical examination sequence is about to start. Dr. D moves toward the examination table where Mr. Goldsmith sits (Figure 2 sequence). While doing so, he jokes and laughs, while providing pats and rubs on the shoulder of the patient.

Figure 2a.

1 Dr. D: So, in other words,
 2 Cheese is good.
 3 [For- in your-
 4 Mr. G: Okay.
 5 Dr. D: Situation right now-
 6 Little piece that--
 7 That **builds** already- as a
 8 And I can relate to this,
 9 Mr. G: Yeah,
 10 Dr. D: Uh the idea of uh, "Okay.
 11 Now I'm going to have
 #figure (a)
 12 A piece of *cheese.*" heee
 13 ((moves up the shoulder laughing))
 14 Mr. G: Yeah. [heh
 15 Dr. D: Heh [heh! ((laughing))
 16 Mr. G: [YEah! Heh
 #figure (b)
 17 Dr. D: ((talk inaudible through laughter))
 #figure (c)
 18 Mrs.G: Hah-hah-hah!
 #figure (d)



(a)



(b)



(d)



(c)

Dr. D and Mr. Goldsmith love cheese, a food generally restricted for AdHF patients because of its high salt and fat content. Dr. D is telling Mr. Goldsmith that it is okay, now and then, to sneak a piece of cheese, as he also does (lines 8-12). Dr. D's, Mr. and

Mrs. Goldsmith's laughter are filled with irrepressible mischief (lines 13-18). In moving toward Mr. Goldsmith, Dr. D's right hand reaches for Mr. Goldsmith's back (lines 12-17, Figure 2a).

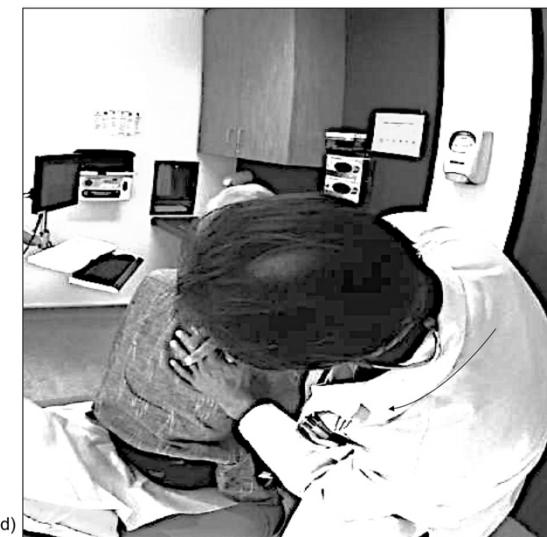
Dr. D strokes Mr. Goldsmith's back (lines 20-25, Figure 2b). This touch is light in pressure and encompasses six fast back-and-forth movements of the doctor's right hand. Performed within the simultaneous production of participants' laughter (lines 14-25), it reflects the playful mood, as if commenting on it by touch, summarizing, and moving to the next phase. From line 19, Dr. D and Mr. Goldsmith collaboratively construct a mutual agreement: While Mr. Goldsmith expresses an assessment uttering words (lines 19, 21, 23), Dr. D expresses the playful assessment while signaling transition using touch (lines 20, 22, 24).

Dr. D's touch marks a passage from a playful discussion of lifeworld to physical examination (Figure 2b, lines 25-27) – that is, a passage from relating-to-the-Other, a person-person level of interaction, into auscultating the organs for Dr. D and into “patient’s body” for Mr. Goldsmith. From a relational ontology approach, this transition existentially positions the participants with respect to one another (Raia, 2018). Rather than initiating an abrupt interruption of participation from one existential space to another, the caring touch maintains the person-person relation in the background as a substrate upon which transformative operations can create new actions (Goodwin, 2018) to continue the encounter and as a point of return. This interpretation is consistent with Dr. D's reaction in cogen reviewing the video segment shown in

Figures 2b-2c: "It is a strange moment here. We go from talking about our life to 'doctor listens to the organs,' that can exclude a person–person relation."

Figure 2b

- 19 Mr. G: Okay..
 20 Dr. D: haha
 ((rubs back and forth
 Mr. G's upper right back))
 #figure (a) #figure (b)
 21 Mr. G: That's **great**.
 22 Dr. D: ((rubs back and forth
 Mr. G's upper right back))
 23 Mr. G: That's **great**.
 24 Dr. D: Heh-heh!
 25 ((rubs back and forth
 Mr. G's upper right back))
 26 Mr. G: °Wow.^o
 27 Dr. D: ((taps Mr. G's back diagnostically)) (a)
 #figure (c) #figure (d)



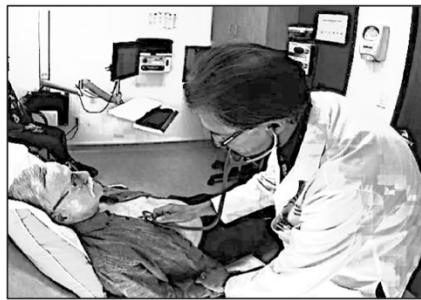
Dr. D percusses Mr. Goldsmith's back to check for liquid inside the lungs (line 27). He continues to auscultate the lungs (Figure 2c, lines 28-35), then the heart (line 38), with the stethoscope in his right hand, while with his left he holds Mr. Goldsmith's wrist.

Figure 2c

28 Dr. D: Take a **deep** breath.
 29 **Hold,**
 30 **And** continue breathing,
 31 #figure (a)
 32 **Deep** breath again,
 33 ((auscultation continues in
 34 various parts of back))
 35 Another one,
 36 **And** another one,
 37 And **another** one.
 38 Good. And **lean** back please for me.
 39 Mr. G: **Okay.**
 40 #figure (b)
 41 Dr. D: ((listens to Mr. G's heart))
 42 [((moves stethoscope to Mr. G's chest))
 43 [((holds Mr. G's wrist))
 44 ((moves stethoscope))
 45 [Sorry
 46 [((moves stethoscope toward
 47 Mr. G's neck))
 48 ((moves left hand to move shirt))
 49 ((positions stethoscope on the neck))
 50 [((lightly touches Mr. G's shoulder))
 51 #figure (c) #figure (d)
 52 [((move stethoscope to Mr. G's groin
 53 maintaining **left hand** touch
 54 on Mr. G's shoulder))
 55 ((moves to check the ankle swelling
 56 #figure (e)



(a)



(b)



(c)



(e)



(d)

Dr. D uses both hands, one feeling the pulse, the other using a mediating tool, the stethoscope. At line 39, the diagnostic touch is accompanied by another form of touch that has no diagnostic purpose: Dr. D's left hand rests lightly on Mr. Goldsmith's arm. Thus, simultaneously two different forms of touch are performed on the patient's body. We consider the positioning of the doctor's hand on Mr. Goldsmith's arm a "caring, gentle touch" because it carries more than light pressure. It accompanies diagnostic touch when the doctor auscultates areas of Mr. Goldsmith's body that are either exposed (the chest) or intimate (the groin) (line 40); and as such it is protective of the Other's vulnerability. Here, the person–person relation level is foregrounded by touch.

Diagnostic touch occurs in what follows with the physical exam as Dr. D examines Mr. Goldsmith's ankles for swelling (line 40). Then, turning back to face Mr. Goldsmith, Dr. D asks him to squeeze his hands. Dr. D crosses his hands at the wrist and reaches toward Mr. Goldsmith's hands, inviting him to do the same (line 41 Figure 2d).

Figure 2d

41 Dr. D: Please squeeze my hands as **hard**
 #figure (a)
 42 As [you can,
 43 Mr. G: [Oh. **Right**.
 44 Dr. D: **Don't** be shy,
 #figure (b)
 45 (0.4)
 46 Tha::nk **you**.
 47 Mr. G: Okay.



(a)



(b)

48 Mr. G: Okay.
 49 Dr. D: And your weight has been-
 50 Mr. G: [Pretty constant.
 51 Dr. D: [Good?
 52 ((Reaches for Mr. G's back))
 53 ((assists in Mr. G's
 getting up))
 #figure (c)



(c)

In previous cogen sessions (Raia & Deng, 2015b), Dr. D explained that the hand squeeze serves diverse functions: (1) assessing the patient's neurological competence;

(2) testing the patient's muscular strength versus frailty, which also informs on the potential to fight a health crisis, and emotional preparedness to live; and (3), as Dr. D states metaphorically (utilizing scare quotes): "enacting the patient's agency 'squeezing' the healthcare system in support of personal care" (Raia and Deng, 2015b, p. 87). Again, touch during physical examination is not only diagnostic at the organ system level, but also affective, showing that touch can have multiple functions.

In a move of gentle "shepherding" (Cekaite, 2010; see also Guo, Katila, and Streeck, this issue), Dr. D places his hand on Mr. Goldsmith's shoulder with a light pressure, guiding the patient from a supine to sitting (Figure 2d line 52-53) to an upright position. As in Figure 2a, this touch also initiates a transition (Raia, 2018) – this time from the exam table to the seat – with haptic actions demonstrating care: while the asymmetry of power distribution allows the doctor to control the patient's movement, similar to family haptic sociality (Goodwin & Cekaite, 2018), accompanying the patient in the transition provides a caring touch based on the patient's existential needs.

As shown here, during the physical examination, the use of touch for diagnostic purposes is very often associated with other forms of touch. Thus, the abstract standardized "textbook" sequence of physical examination that prompts a standardized pattern of the doctor touching the patient for basic diagnostic purposes here gets continuously enacted and embedded in the context of care-for-the-Other shaped by the existential meaning for the patient and the doctor "in this moment."

6. Touch facilitates talking about death

A few months later, Mr. Goldsmith is diagnosed with metastasizing cancer. The existential meaning of touch “in this moment” for the patient and his AdHF doctor comes to mean facing-dying-as-part-of-living: Dr. D and Mr. Goldsmith are talking about death. Dr. D builds on Mr. Goldsmith’s sense of being in the “land of dissimilitude,” alone. Dr. D does not discard Mr. Goldsmith’s perspective (“yes and” line 1), but adds another possibility, an opening in a new space with another person (lines 8-18).

Figure 3a

1 D. D: Yes and that is where the question
 2 becomes What is the-
 #figure (a)
 3 What are the entities of (.) importance in **our**
 4 Living in this world, being in this world, (a)
 5 It's on **one** hand, **o:neness** in the
 6 Ehh **absence** of the potential land of living
 7 On the other hand,
 8 It's the dyadic oneness of **two.=**
 9 Mr. G: Right.
 10 D. D: In which: all our (.) transitional being is-
 11 In a way eternalized.
 12 Mr. G: Uh huh.
 13 D. D: Because that other person (.) carries me.
 14 Mr. G: Yeah.
 15 As a dyadic unit.
 16 Mr. G: Yeah
 17 Dr.D: I am being in that other [person.
 18 Mr. G: [Right. right.
 19 Dr. D: And that is a strange phenomenon
 20 Why do I conceive myself in my last hours
 21 In ((wife's name))'s arms
 #figure (b)
 22 Mr. G: [Yeah.
 23 Dr. D: [Under the trees,
 24 Mr. G: Yes.
 25 Dr. D: In Nowita Place,
 26 Mr. G: Yeah.
 27 Dr. D: Just fading away,
 #figure (c)
 28 Mr. G: Yeah.
 29 Dr. D: In her arms,
 30 Mr. G: Yeah.
 31 Dr. D: Because there's something that is uhm
 32 Making my temporary being here
 33 part of a (.) **BI:Gger** (.) **who:le**,
 #figure (d)
 34 Mr. G: Yeah(hh).=
 35 Dr. D: Where it persists in a transformed way.
 36 Mr. G: Yea(hh)h. Yea(hhh)h. Yes. Yes. And it does
 37 Dr. D: ((massages Mr. G's hand))



Just before this segment, Mr. Goldsmith expresses fear of the irreversible loss of the possibility-of-being. In response Dr. D (Figure 3a) addresses this fear as “a strange phenomenon” (line 19) that is alleviated by the possibility of continuing to exist through the Other. He moves his right hand as if drawing in the air an imaginary space co-

inhabited with the Other and marking the existence and importance of this space. Dr. D is opening a space with – and for – Mr. Goldsmith to be able to imagine a move toward his own death where Mr. Goldsmith is not alone and not nonexistent. He does so while continuing to hold Mr. Goldsmith’s hand with his left hand throughout the conversation. In cogen sessions, Dr. D described this as a very fragile moment that can be ruptured at any time by the intrusion of more mundane concerns. Here he engages in caring touch by holding Mr. Goldsmith’s hand, grounding Mr. Goldsmith in this existential human contact. In this ephemeral space they talk about the unknown moments of death. Mr. Goldsmith’s love for his wife is well-known by Dr. D and guides Dr. D’s own image of his own death in the arms of his loved one (line 21). His smile seems to be intended to share with Mr. Goldsmith the exciting understanding and the beauty of such imaginary existential space. The nurse shares the same smile. There is beauty in dying in a shared existential space and feeling “part of a (.) **BI:Gger** (.) **who:le**.” It is a space that Mr. Goldsmith can make his own and inhabit with Mrs. Goldsmith and where his doctor, his Virgil on the path to his death, “recognizes him” (Raia & Deng, 2015b, p. 48).

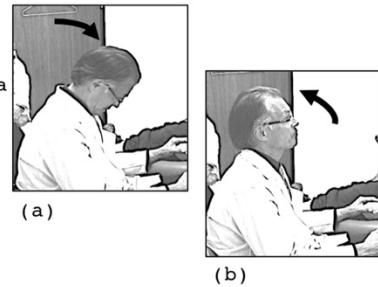
Eight minutes later, in this encounter Mr. Goldsmith uses as his point of departure the relational aspect of living toward death provided by Dr. D to make sense of the transformative operation of making this idea his own, connecting it to his love for his wife (Figure 3b, lines 4-18), and his own work (Figure 3b, lines 21-27).

Figure 3b Dr. D’s nodding movements are indicated in Figure 3b by arrows: the head going up (\uparrow) and down (\downarrow). The nods are located under the utterance they are overlapping. Very pronounced nods, such as those at lines 2-5 and 11, are indicated by a single arrow.

1 Mr. G: Right Right Yeah
 2 And it's- it also requires, the other person
 3 Dr. D: ↓
 4 I mean it would be [horrible if I loved ((Mrs.G)) #figure (a)
 5 Dr. D: ↑ [Right. ↓ ↑
 6 Mr. G: and she didn't love me.
 7 it's this mu(h)tual thing.=that's making-
 8 Dr. D: ↑ ↓
 9 Mr. G: and th-that's why I think I'm- I'm lucky and special
 10 because that may not be the case for everybody.=
 11 Dr. D: [=°Right
 12 ↑ ↓
 13 Mr. G: [But I think that- ya(h) kno(hh)w
 14 M(h)y li(h)fe has- co(h)me who I am. From-
 15 Being with ((Mrs.G)). And- and loving her. And things.
 16 Dr. D: ↓ ↑ ↑ ↓
 ((Nurse nods with continuous brief head movements))
 17 Mr. G: And that's- That's bee(h)n so central to my- whole life.
 18 Dr. D: ↑ ↓ ↑ ↓
 ((Nurse continues to nod and smiles))
 19 Mr. G: And uhh, so- that's- that's- that's it.=
 20 Dr. D: ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓
 21 Mr. G: I mean- And my own theory,
 22 It's something I say in- in my book several times,
 23 Is we inhabit each other's actions.
 24 And I really (.) uh- feel that (.) in a certain sense.
 25 And I- it's- it's away from, against-
 26 But we don't have to get into this.
 27 Against a lot of the psychology. And a Cartesian picture.
 28 Dr. D: ↑ ↓
 29 Mr. G: That takes everybody- as though
 30 It's the individual as your point of departure.
 31 Instead of the ways we're involved
 32 in all these activities actions with other people.
 33 Dr. D: ↑↓ ↑↓ ↑↓ ↑↓
 34 Mr. G: And the things they are doing are shaping
 35 Dr. D: ↑↓
 36 Mr. G: what we can do as well.
 37 Dr. D: ↓ ↑



(d)



(a)



(b)



(c)

Doctor and Patient are in agreement. Dr. D utters only the word “Right” in lines 5 and 1 and nods. His nods display differentiated forms of assessment and engagement with the activity in progress (M. H. Goodwin, 1980) following the division of the syllables (e.g. lines 2 and 19); some nods are pronounced, slow and deep (e.g. lines 2, 4, 11), whereas others are vigorous. Dr. D rhythmically nods, tracing Mr. Goldsmith’s talk, falling into the rhythm of speech and never releasing Mr. Goldsmith’s hand. Nodding in medical encounters is often studied from an epistemic perspective of knowledge access and moral affiliation in asymmetric relations (e.g. Stivers, Mondada, & Steensig, 2011). In our relational ontological approach (Raia, 2018), nodding in addition shows the existential meaning of what it means to experience living toward death with the associated emotional affiliation. Dr. D’s touch grounds Mr. Goldsmith with him in this existential space.

7. Passage from dying-as-part-of-living to medical science

As talk proceeds from how one wants to approach death to a discussion of forms of medical practice, Dr. D’s haptic engagement changes with the shift in topic and mood. Initially, while Mr. Goldsmith is lying on the examination table, Dr. D holds Mr. Goldsmith’s hand with a caring touch that provides grounding in an existential human contact for talking about death. Mr. Goldsmith elaborates his own vision (Figure 4a) of what it means to live fully. He states he wants to live facing death as he has lived his life – without prolonging it uselessly. He feels all has to be part of his sense of life – his life “horizon” (line 5). The choices he will be facing will result in different treatments (chemotherapy, etc.), and will result in different life experiences towards death. The

genetic tests, as will be seen in example 4b, can make some of these choices either completely good or irrelevant (Figure 4b, lines 11-14).

Figure 4a

1 Mr. G: And I'm **not** gonna be looking-
2 I don't wanna go and just-
3 Prolong my life- uh- **uselessly**.
4 But I wanna **know**:
5 What the **horizon** is. (.)
6 For **choices**.
7 And I'd **rather** know that-
8 **Myself** as I get in.
9 And it can also be: **obviously**
10 That there **may** be something from the **genetic** tests.

#figure (a)



Mr. Goldsmith's mentioning of the genetic test (line 10) marks a change in the conversation from talking about the existential experiences of dying to the consideration of the medical choices and available treatments. This move is not initiated by the doctor, but by the patient.

Figure 4b The arrows show Dr. D's thumb movements up and down the patient's hand. The rubbing of the thumb on the patient's hand forms a caress.

11 Mr. G: that would make some of these other choices

Dr. D: ↓↑ ↓↑ ↓↑ ↓↑ ↓↑ ↓↑

#figure (a)



(a)

12 Mr. G: either good or maybe [completely

13 Dr. D: [right

↓↑ ↓↑ ↓↑

[thumb movement up caress

#figure (b)

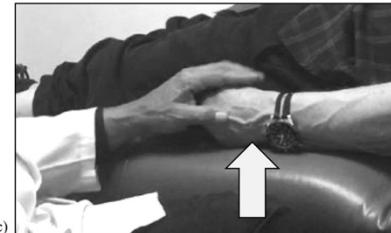


(b)

14 Mr. G: [irrelevant.

[Dr. D prepares to release

#figure (c)



(c)

The disengagement from talking about death into a transition into a medical frame, evolves in three movements.

Movement 1 (Figure 4b) starts on line 13 of Figure 4b (Frame 2) with a thumb caress as a recognition of the complexity of dealing with genetic results that can be fairly final (excluding some of the treatment, or making them “irrelevant”). The nods and the thumb caress provide an understanding of the impact of the results of genetic testing that could exclude a series of treatments that could save Mr. Goldsmith’s life. When the patient begins to disengage from talk about death and transition to a medical frame, at that moment (line 14), Dr. D releases Mr. Goldsmith’s hand, gently backing away. These movements allow the shared existential space to retreat and sediment

into the background. There is first a space where a person, Mr. Goldsmith, is facing imminent death and needs to be with the Other; simultaneously the Other, Dr. D, as a human being, will face death, and as a doctor needs to care and recognize the Other. The space then transitions to one in which one, as a professional doctor, facilitates the conversation about genetic testing. The doctor can provide information, all the while with the assurance that the existential framework is available at any time should the conversation on dying-as-part-of-living require it; it is just one “gentle touch” away. Here it is not a body turning to leave a physical space, but rather a hand (touch) leaving the medical-compassionate care frame and transitioning into a more medical-science frame. Throughout the encounter, the existential space of “dying-as-part-of-living” remains part of the sedimented background to which they both can return at any time. Dr. D does this in several movements.

C. Goodwin (1979) discussed the way in which a speaker can add new segments to his talk as his sentence emerges; forms of participation change from one speaker to another with the addition of vocal segments. In a similar fashion, here the complex coordination of touch and nods makes visible the doctor’s attunement to the emerging sequence of actions, concluding forms of talk about living toward death and initiating forms of medical talk. On the word “irrelevant” (line 14, Figure 4b) the doctor initiates a move to release Mr. Goldsmith’s hand. In his second hand movement, Dr. D releases the grip (Figure 4c, Frame a, line 15), moves the hand up, and then quickly down (Figure 4c, Frame b, line 15), touching Mr. Goldsmith’s hand again, marking closure of the previous conversation and setting up an agreement to move out of the

previous conversation to genetic testing. The sequence continues with movement 3.

Dr. D gently releases Mr. Goldsmith's hand with a touch that looks like a caressⁱ (Figure 4c, Frame c, line 16). Here, the caress, maintaining the person–person relation as a substrate, heralds departure from the engagement about existential matters, just a touch away.

Figure 4c

15 Dr. D: Yes.. And [this [is
[hand up [hand down
((a)) ((b))



16 Dr. D: [exactly what [I'm uhm,
[caress [finger up
((c)) ((d))



17 Also [feeling
18 Mr. G: [uh huh.



This transition (Figure 4c, Frame d) ends with the doctor providing an explanation about genetic testing (Figure 4d). The doctor starts using the left hand that previously has been holding Mr. G's hand.

Figure 4d.

19 Dr. D: [That's exactly why I'm- uh::
#figure (a)
20 Mr. G: [Yeah.
21 Dr. D: Right now reading into-



(a)

While talking about the scientific/medical issue of genetic testing the doctor does not hold Mr. Goldsmith's hand. There is at this time no longer a need for the doctor to ground Mr. Goldsmith with him by physical touch. The existential space of *dying-as-part-of-living*, now in the sedimented background, can be returned to at any time as needed, initiated by the next touch.

8. Concluding the encounter

Dr. D and Mr. Goldsmith continue their discussion, coordinating various procedures to be accomplished before they meet next time. Everything seems clear. Dr. D and Mr. Goldsmith have a plan. Dr. D waits. Mr. Goldsmith makes clear to Dr. D that he is on board (line 1–6). A long silence (line 5), not interrupted by the physician, as seen in other encounters (Raia & Deng, 2015b), is followed by an emotional breathy conclusion: “Oka(h)y.”

Figure 5a

1 Mr. G: **Alright** yeah I know
2 **That's** good
3 **That's** good (.8)
4 Oka(h)y
5 (2.5)
6 Oka(h)y=

Then, Dr. D refers to the conversation they had as “this” (Figure 5b, line 7 and 8). But which part? The cancer plan; the cardiovascular plan; the image of dying in the arms of the loved one; feeling “part of a (.) **Bl:Gger** (.) **who:le?**” “This” is open for Mr. Goldsmith to decide.

Figure 5b

7 Dr. D: =So **this** was-
 8 [**This** was important.
 9 Mr. G: [°Kay.°
 10 Dr. D: [**This** was good.
 11 Mr. G: [Yeah.
 12 Yeah. Yeah. Oka(h)y.
 13 Yes. Yes. (2.0) Oka(h)y.
 14 Yes Mario. It **was** good. Yeah. It **was**.(..)
 15 It **was**.=
 16 Dr. D: =**Every** aspect.
 #figure (a)
 17 Mr. G: Yeah. Yeah. (0.6) Yea(h)h. (1.2)
 18 °Yeah.° (0.8) °Yeah.°
 19 (1.0)
 #figure (b)
 20 It's a hard place to **live**.
 21 But I've got to-
 22 Find a way to- **do** it.
 23 (2.0)
 24 But **that's-** the operative **word**.
 25 To **live**. (.) For the **ti(h)me** I(h) ha(h)ve.
 26 Yeah. Yea(h)h.
 27 Dr. D: Yes
 28 Mr. G: Yea(h)h. (0.4) AH HHH
 #figure (c)
 29 [°And-°
 30 °Kay. °
 31 Okay.
 32 Dr. D: [((caresses Mr. G's hand))
 #figure (d)
 33 Mr. G: [**Thank** you Dr. D.
 34 Dr. D: ((slides back his chair removing
 his hand caressing Mr. G's))
 #figure (e) #figure (f)



(a)



(b)



(c)



(d)



(e)



(f)

But Mr. Goldsmith does not choose. “**Every aspect**” (line 16), the doctor inquires, holding Mr. Goldsmith’s hand again, and then moving back and releasing it. And then

Mr. Goldsmith chooses: “To *li:ve.* (.) For the *ti(h)me* I(h) ha(h)ve.” Mr. Goldsmith utters these words with a breathy voice (line 25). Dr. D reaches for his hand. He holds it (Figure 5b, line 27) and caresses it (line 32), as he has done before. It is a bodily participation as a reminder Mr. Goldsmith is not alone (line 32). “**Thank** you, Dr. D” Mr. Goldsmith concludes. Dr. D releases his hold and pushes his chair back. The encounter is concluding. A few moments later Dr. D exits the room.

9 Conclusion

In this study, we explored the use of what we call caring touch (Table 1) during the moment-to-moment interactions in the institutional context of high-tech AdHF medical practice. We build on Raia’s Relational Ontology to understand the complexity of the relational ability of *caring-for-the-Other* in the AdHF practice where healthcare providers, patients and families face constant uncertainty and death (Raia & Deng, 2015b). We show that *caring-for-the-Other* in AdHF practice (Raia, 2018; 2020) is embodied through *caring touch* and identify various forms of what we call *caring touch* summarized in Table 1.

Table 1. Summary of data presented

Figure	Lines	Activity	Caring-touch	Function	Existentially positioning
1	1-7	Talking about death	Holding hand	Dr. D's touch grounds Mr. Goldsmith within an existential human contact	Relating-to-the-Other
2	16-25	Preparing for next phase	Stroking	Summarizing	Relating-to-the-Other
2	26-27	<i>Transition: Lifeworld to Physical Examination</i>	Keeping human contact	Maintaining the person-person relation in the background	Relating-to-the-Other Doctor-patient's body
2	39-40	Physical Examination	Lightly touching Mr. G's harm	Foregrounding the person-person level relation	Relating-to-the-Other Doctor-patient's body
2	42-46	Physical Examination	Hands Squeezing	Multiple: assessing patient's (1) neurological competence; (2) muscular strength/frailty; (3) potential to fight a health crisis and emotional preparedness to live; and (4) "enacting the patient's agency" (Raia & Deng 2015, p.87).	Relating-to-the-Other Doctor-patient's body
2	49-50	Physical Examination	Gentle shepherding	Guiding the patient from a supine to a sitting position	Relating-to-the-Other Doctor-patient's body
3	1-27	Talking about death	Holding hand	Dr. D's touch grounds Mr. Goldsmith within an existential human contact	Relating-to-the-Other
4	1-10	Talking about death	Holding hand	Dr. D's touch grounds Mr. Goldsmith within an existential human contact	Relating-to-the-Other
4	11-14	<i>Transition: Death-as-part-of-living TO Medical Science</i>	Thumb caressing	Backgrounding shared existential space	Relating-to-the-Other
4	14-18	Death-as-part-of-living TO Medical Science	Caressing	Transitioning in medical-science space	Relating-to-the-Other Knower-Learner
5	27-33	Concluding the encounter	Taking hold of Mr. G's hand	Reminding Mr. Goldsmith he is not alone	Relating-to-the-Other

As there is virtually no study on the role of touch in high-tech medicine, we started our work by showing the diagnostic physical examination phase in AdHF for comparison with other studies in other medical practices, showing how touch is used for diagnostic purposes and for the determination of the precise location of symptoms or action. We showed that the standardized "textbook" sequence of physical examination, which prompts a standardized pattern of the doctor touching the patient for diagnostic purposes at the organ-system level, is very often associated in AdHF practice with other forms of touch that we call *caring touch*, grounded in the existential aspect of the situation. For example, we have seen the playful summarizing touch

initiating the passage to the physical examination, the gentle caring touch addressing the doctor's perceived vulnerability of the patient and the gentle shepherding (Cekaite, 2010) touch to transition the patient into different positions or spaces. Touch bridges the transitions from an existential medical-compassionate care frame into a biomedical discourse frame, which can be reversed at any time as needed by initiating the next touch. Dr. D zooms in from the person-level to the organ-tissue and molecular-gene levels, and then zooms out again, back to the whole-person level with the Other. Raia and Deng (2015b) defined this approach to medicine as Relational Medicine. Here, the starting and returning point is *this* patient in his life. They argue that it is within this framework that evidence-based medicine makes sense (2015b). In this article we showed that it is the caring touch, in its various forms, that facilitates these passages in one uninterrupted movement, necessary for making diagnostic and therapeutic recommendations for this particular person, Mr. Goldsmith.

When Mr. Goldsmith is diagnosed with a terminal disease, Dr. D, through the coordination of touch and talk, provides Mr. Goldsmith with new ways of understanding the situation by first telling him how he, Dr. D, envisions his own dying. Dr. D's story in Figure 3a (lines 20-19) invites a "second story" (Sacks, 1995, pp. 3-31) from Mr. Goldsmith that displays his own deep understanding of the doctor's image. The importance of Dr. D's story is grounded in the physical bodily experience of touch providing Mr. and Mrs. Goldsmith a possible (and eventually realized) scenario for how to live out one's final hours with one another (dying in one another's arms at home). In the cogen session, Mrs. G described this touch as having a compassionate, healing effect for both her and her husband. They both returned to this moment in the following

months to find comfort in living toward Mr. Goldsmith's death. It was the power of this touch that moved Mrs. Goldsmith to record it with her smartphone.

The role of touch within the larger context of intercorporeality in the study of interactions (Meyer, Streeck, & Jordan, 2017) reveals the importance of reciprocal sharing of bodily experience (Merleau-Ponty, 1962). Merleau-Ponty (1962) discusses how, in response to solicitations, we move our body until a perceptual coherence emerges. He describes this process as feeling a "form of a vague uneasiness" (1962, p.17) that affords a "best hold" (*meilleure prise*) on the world. This is consistent with the neuroscience account of the complex sensory-motor system (Freeman, 2000) responding not directly and linearly to external stimuli but emerging from learning of reliable sequences of goal-directed behaviors. Fuchs (2017, p.3) extends the idea to make sense of how we intuitively "understand others' emotions in our embodied engagement with them", introducing the concept of "bodily resonance." He argues that "the ongoing interaction induces, on a pre-reflective level, a process of mutual modification of bodily and emotional states, thus enabling a primary form of empathy without requiring any representations." To these accounts, we bring to bear the ontological argument because we do not resonate with every Other in the same uniform way, and our "best hold," "what feels right," depends on the possibilities of resolving our "form of a vague uneasiness." As Raia discusses (2018; 2020), our existential temporal horizon organizing *how* things show up in the world as both intelligible and mattering to us, grounds our responses, making it possible for us to engage meaningfully with the Other in the present actions. For Mr. Goldsmith, who is facing death and feeling lost in the land of dissimilitude, what is meaningful is being

seen and recognized by his “Virgil.” What is meaningful for Dr. D, who understands death-as-part-of-living, is to hold and caress Mr. Goldsmith’s hand to ground Mr. Goldsmith with him while facing, not alone, dying-as-part-of-living.

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¹ Levinas (1979) discusses the caress as a particular touch that does not disclose the Other touched *qua* object, but recognizes “the hidden as hidden” (p. 257) and in that sense recognizes what has been shared as not all disclosed.

Appendix A

Transcription system developed by Gail Jefferson and described in Sacks, Schegloff and Jefferson 1974 "A Simplest Systematics for the Organization of Turn-Talking for Conversation", *Language* 50:731-733.

Modified by Marjorie Harness Goodwin's *He-Said-She-Said: Talk as Social Organization Among Black Children* (1990) Indiana University Press, pp. 256-257.

- [Left square bracket, on two successive lines with utterance by different speakers marks the point at which the talk above is overlapped by the other talk a line below
- = Equal signs in pairs indicates that there is no discernable silence between the end of the first and the start of the next utterance, the first is '*latched*' to the following
 - A dash marks a sudden cut-off of the current sound
- (0.5) Number in parentheses indicate silence in seconds
 - A degree sign indicates that talk it precedes is low in volume
 - : Colons indicates that the sound that immediately precedes the colon has been sensibly prolonged or stretched
- word** Bold and italic indicates some kind of stress or emphasis, which maybe signaled by a change in pitch and/or amplitude
- Word Capital letters indicate raised pitch or volume
- (()) Double parentheses enclose comment by the transcriber
 - Intonation: Punctuation symbols are used to mark intonational changes rather than as grammatical symbols:
 - . A period indicates a falling contour
 - , A question mark indicates a rising contour
 - A comma indicates a falling-rising contour.
- (hh) indicates breathiness rather than laughter in the midst of a word; in the cases included it is near sobbing.
The arrows indicate nods:
 - ↑ *the head going up* (↑)
 - ↓ *the head going down* (↓)