Appendix C: Whisper Workshop Data

movement and gament workshops pandary os
[] movement workshop 01
[] movement workshop 02
[] movement workshop 03
winter residency [rotterdam] - january 03
[] space as it is
[] lines strings flow
[] windows pools dome
[] LED garment movement
[] garment design ref
[] garment sketches
[] device
[] DEAF Festival garment preparation
experience modelling workshops [autumn 02]
[] workshop 'listen'
[] workshop 'between'
[] workshop 'extend'
[] workshop 'mutate'
[] workshop 'phase'
[] workshop data

Figure II-4. whisper workshops are also online at http://whisper.iat.sfu.ca/process.html

This Appendix includes workshop data for the whisper experience workshops conducted during November of 2002. These workshops resulted in the design of the interaction model, garment functionality and technological hardware and software design and implementation. There were five workshops conducted with the following names:

Listen, Between, Extend, Mutate, and Phase. Each workshop had a script and props, and was documented with video and digital photography. Exit response cards were filled out by the participants, and used to develop the interaction model.

This appendix presents the following documentation:

whisper design process

The whisper design process included two residencies in Rotterdam (July 2002 and January 2003). Between these two residencies a series of 5 experience workshops were conducted. These processes marked the development phase of whisper including design of the wearable kimono jacket garment, and design strategies for the hardware and software implementation.

- Design Document summer intensive: A Design Document was produced as
 a result of the four-week summer residency in July 2002. The design outlined
 initial concepts regarding interaction, materials, communication, technology and
 experience. The design document summarized design strategies for
 implementation based on initial brainstorming and ideation.
- Interaction Model following workshops: An interaction model document
 was produced as a result of the workshops. This document outlined the
 interaction model as it was developed from the workshop data. The design
 document outlined the interaction modes (self-to-self, self-to-other, self-togroup), and was used to develop the working art installation.

Individual workshops

For each of the five individual workshops the following data is presented:

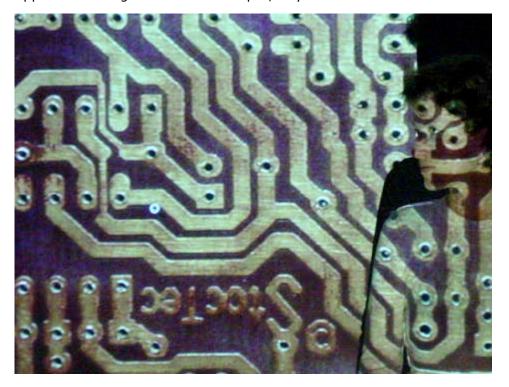
- Workshop Script: Used by the narrator to direct workshop participants to explore various aspects of their experience.
- Workshop Response Card: The design of the workshop response card enabled workshop participants to give a hand-written account of their experience.
- Workshop Response Card Data: The hand-written response of the participants for each workshop.
- Workshop Response Card Transcriptions: Transcriptions of the handwritten responses from the workshops.

design document: whisper

\sim work in progress \sim

draft July 2002

Grammar:	22
A grammar over input, output, transformers, filters and relations hips	22
Sensors	22
Actuators	22
Transformers and filters	22
Relationship / scale:	23
The space:	24
Layout:	24
Environmental objects / reach:	24
Body architectures	25
Hands	25
Arms	26
Torso	26
Spine	27
Head	27
Materiality	28
Wires	28
Antennas	28
Sensors	29
Scale	30
Skin	30
Garment	30
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Devices	33
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Grammar:

A grammar over input, output, transformers, filters and relationships.

Sensors

affordancies scale control vital/non-vital

Heart rate / pulse Temperature Brain waves Galvanic skin response Accelerometers Distance Touch

Actuators

affordancies scale control modalities

Light Heat Sound Wind Electric impact

Transformers and filters

Transformers and filters need to be explored in the context of the experience of the user.

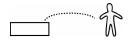
Relationship / scale:



I can see what I do Body scale: direct feedback



I can see what you do Inter personal scale: communication



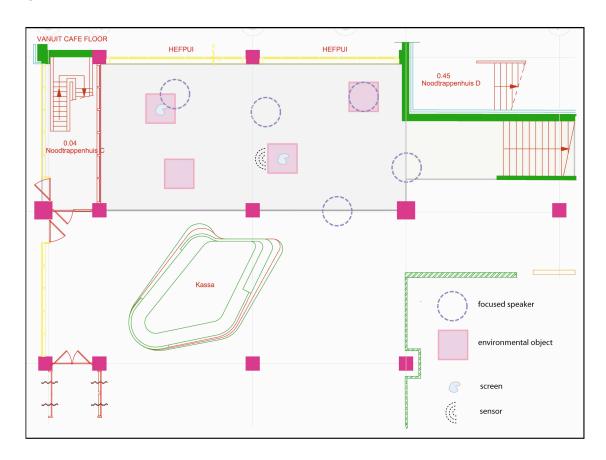
I influence the object / the object influences me... Body in environment scale: feedback / instrument



I broadcast One to many / many to many: transmission

The space:

Layout:



Environmental objects / reach:

Scale of environmental objects
Affords: sitting / observing / being in the space

Input: sensors: proximity, touch



Output: focused sound

Output: screen / visualizations



Body architectures

Rings



Plasters



Watches, bracelets



Sleeves



Fabric bands



Torso



Breathe / Pulse band





Appendix C design document: whisper, July 2002 Spine

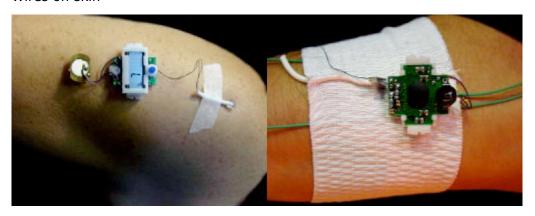


Headband

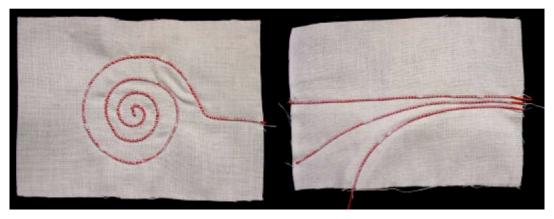


Materiality

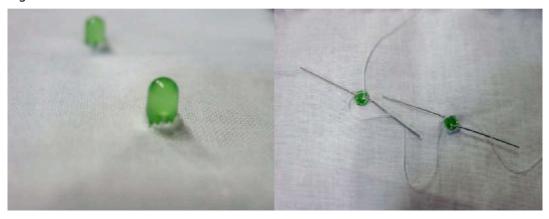
Wires on skin



Antennas

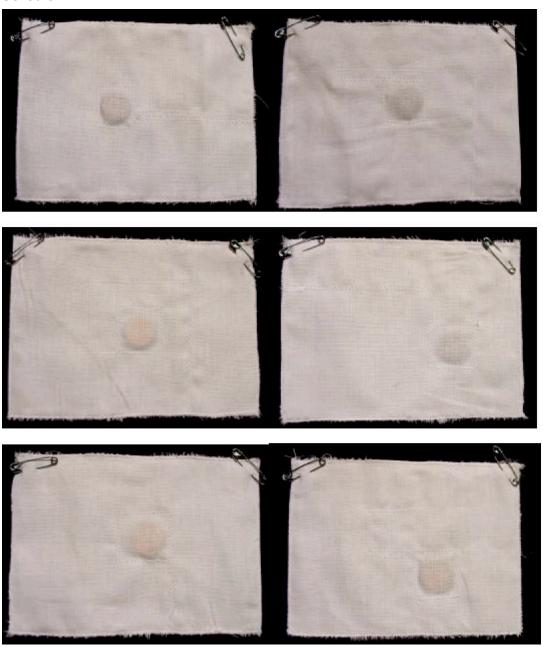


Lights

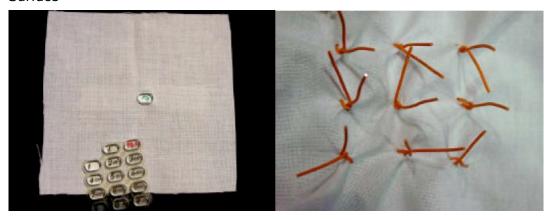


Appendix C design document: whisper, July 2002

Sensors



Surface

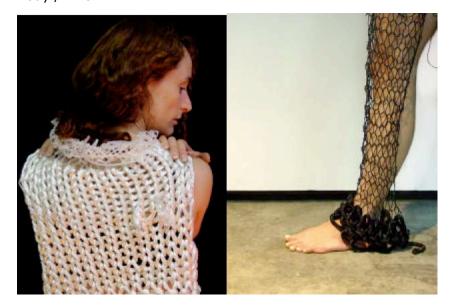


Scale

Skin



Appendix C design document: whisper, July 2002 Body / knit



Body / display



Hands / device



Neck / face



Wrist thing



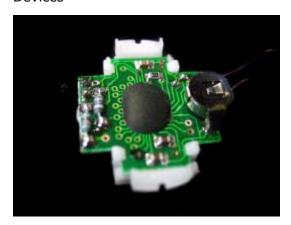
Armband



Zipped up



Devices



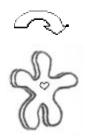
Environmental objects

We need to ask:

What is the object? Is it in contrast to the body as 'the other'? or is it an extension of a 'data-leaking' body?

whisper interaction models

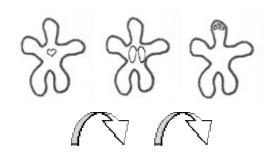
a: self to self



self to self

1. me
who am I?
I am a self
I pay attention to my self
I have a garment
I have data
my data is displayed
my data is changing
I can share my data with myself

2. my data



what is my data?

my data is local to me

my data is my heart

my data is my breath

my data is my brain

Appendix C whisper interaction models

my data has relationships with me
I can play with my data
my data is my heart + my brain
my data is my breath + my heart
my data is my heart + my breath
my data is my heart + my breath + my brain
my data changes me and changes my space

3. my display

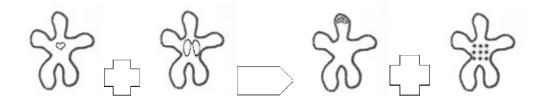


I can display my data on myself [local display]

I can play with my display [display attributes and characteristics]

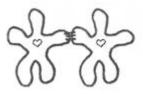
I can select the data I display [?]

I can display my heart, my breath or my brainwaves
heart, breath, brainwave on LED array
how do I display?



I display myself
as I move
as I get close to someone else

b: self to other [sharing]



1. my other

I can pay attention to my other

I can move toward my other

I can connect with my other



2. connecting to my other

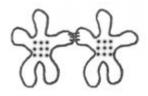
how do I connect to an other?

I can connect by moving closer to my other [proximity]

I can connect my choosing to touch my other [intentional connection gesture] how do I choose?

I can 'snap' or 'stick' on to my other

I can 'touch' my other [hands, fingers]



3. sharing data with my connected other

I can share my data with my connected other

I can share my heart, breath, brainwave

I can give data

I can receive data

Appendix C whisper interaction models

I can choose which type of data I give

I can display the data I receive

I can play with our shared data

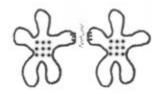
I can display our shared data

I can mix my data with my other's data

I can mix what is currently being displayed on my self

I can see my data seen on my other

On Other's output | display [LED array, speaker, motor]



4. breaking connection with my other

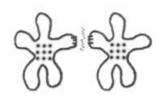
I can break a connection with my other

I can break a connection by moving away

I can break a connection by 'unsnapping'

I can break a connection by passing time

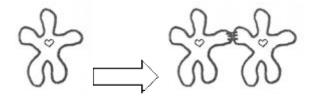
I can break a connection by making another connection



5. displaying others data after breaking connection

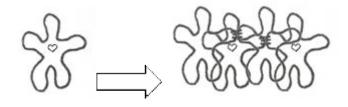
I can continue to display others data after breaking connection if I choose

c: self to others [broadcasting]



for future development

d: self to system [space]

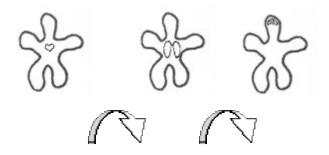


1. me in the space

what is the space? the space is alive the space is intimate the space is milky the space is waiting for me the space is receiving me the space is speaking to me I pay attention to the space I move through the space I am a part of the space I am a part of the data of the space the space has secrets the space has intelligence the space has secret locations the space knows who is in it the space knows the parts that combine to make it alive the space has data
the space displays its data in pools
my data of the space is changing
the space can share its data with me

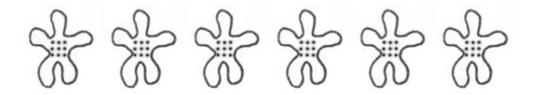


2. the data space



what is the data of the space?
the space's data is global
my space has a heart
my space has breath
my space has a brain
the space has a relationship with me
I can play with the data of the space
space heart + brain
space breath + heart
space heart + breath
space heart + breath + brain

3. ecosystem display



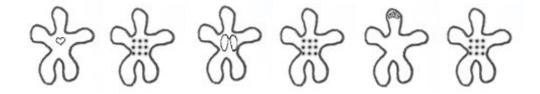
the space reveals its data onto the floor

I can play with the space's display through my position and movement

I can select the data that is displayed in the space

I can display collections of space heart, breath or brainwaves

4. ecosystem sound



the space reveals its sound in intimate pools

I can play with the space's sound through my position and movement

I can select the data that is heard in the space

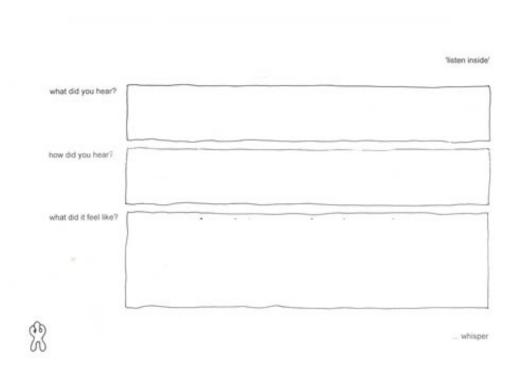
I can listen to collections of space relationships

C.1 Workshop 'listen'

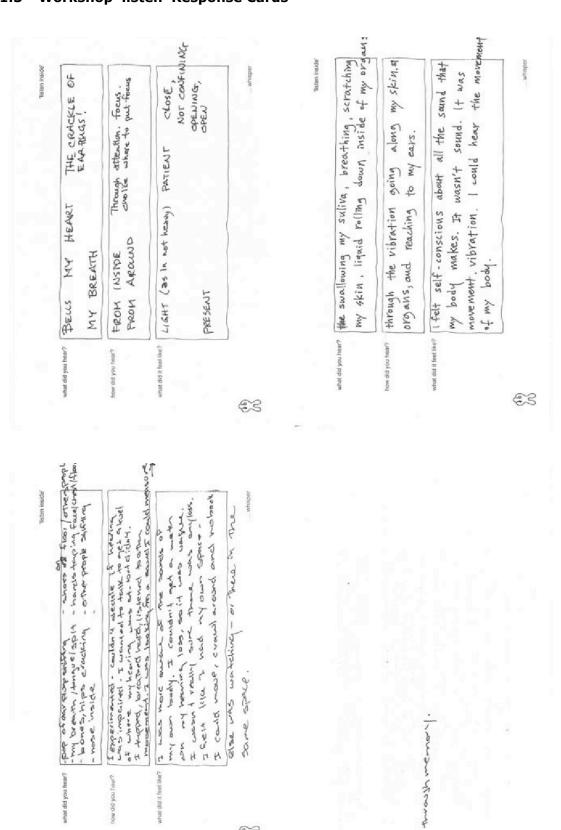
C.1.1 Workshop 'listen' Script

```
after memory... please add
the speach:
welcome to the 'listen' experiment | experience
today we will be listening
this is an experiment | experience in two parts
please find a space for yourself
we will be handing out earplugs for the first part
please take a set and put them on
when you have done so we will ask you to listen
you may choose to move very slowly as you listen
please do not speak
[hands out plugs]
10 - 15 minutes
                    - the first part is over.
                                                         [ please take a
[hands out card I]
                                                                minute to fill
                                                               out a cord ]
[collects card I]
we will now be handing out the props for the second part
please take a blindfold and put it on
when you have done so we will ask you to listen
please do not speak
[hands out blindfolds]
10 - 15 minutes
                 the second pant is over
[hands out card II]
[collects card II]
<end>
cards says:
```

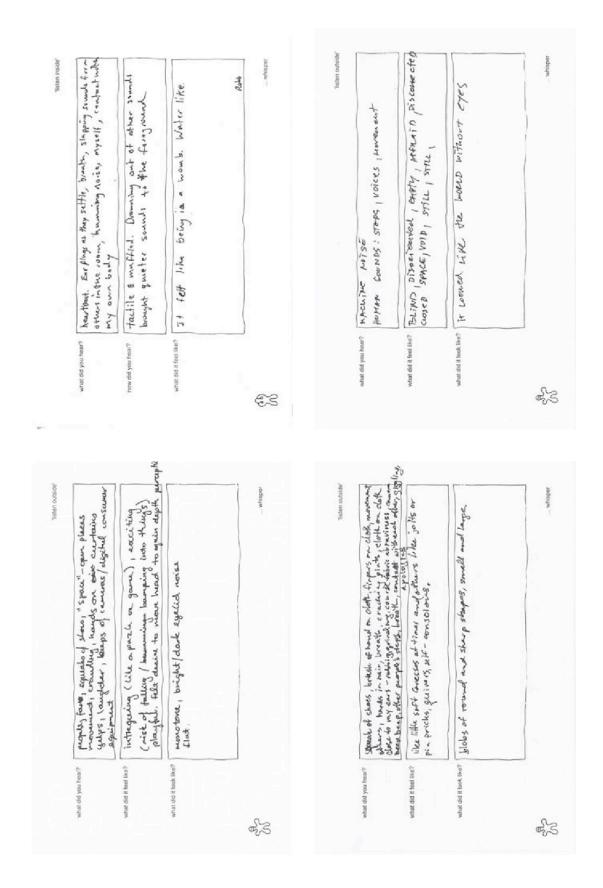
C.1.2 Workshop 'listen' Response Card

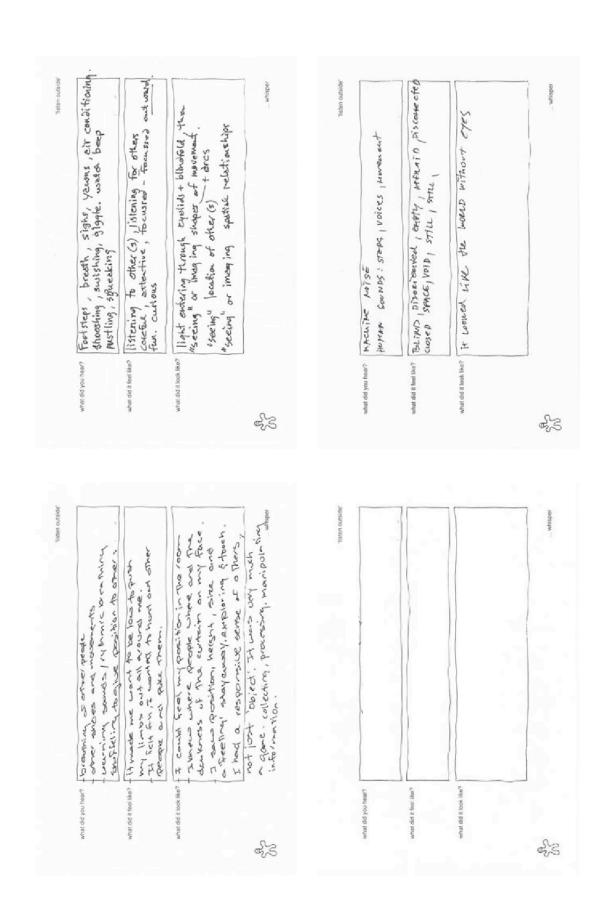


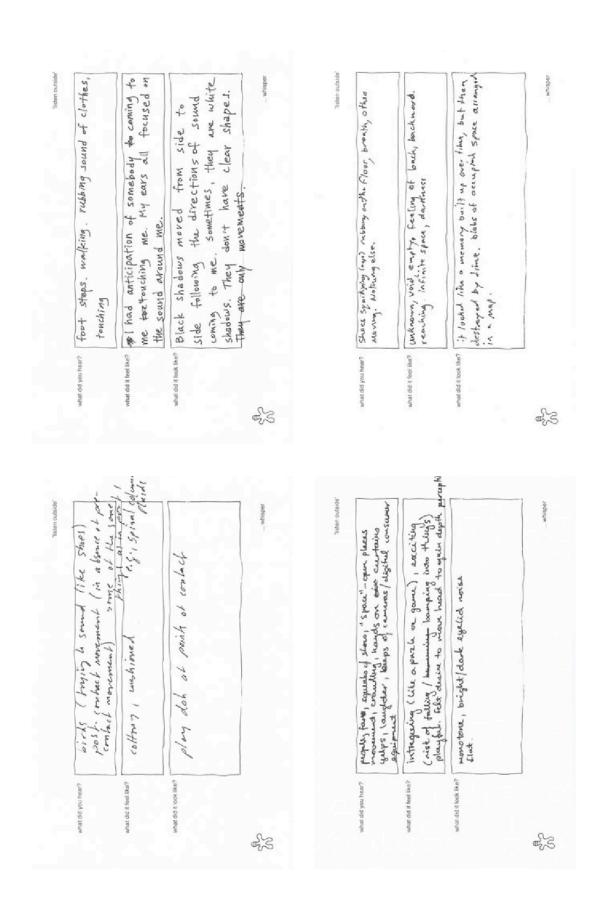
C.1.3 Workshop 'listen' Response Cards



ES









C.1.4 Workshop 'listen' Response Cards Transcription

Part A: 'listen inside'

[earplugs]; do not speak

WHAT DID YOU HEAR?

- o bells; my heart; my breath; the crackle of earplugs!
- ° swallowing my saliva; breathing; scratching my skin; liquid rolling down inside my organs
- o pop of earplug shifting; my breath, tongue, spit; bones, hips cracking; nose inside; shoes on floor, other people; hands tapping face, chest, floor; other people shifting
- heartbeat; earplugs as they settle, breath, slapping sounds from others in the room;
 humming noise; myself; contact with my own body
- o white noise; building noise; roar of my spinal column fluids; body thumping [pumping?]; the earplugs themselves; my neck cracking
- ° relative conduction of different body parts as taps, heart beat, blood flow, squeaks of shoes, claps, body air cavity; pops and stretches of connective tissue; movement of clothes over skin
- ° my breath; in, out, deep, shallow, loud, soft, congested, clear, my heart muffled, quiet beneath the breath and outside sounds; the hum of the building and other people's activity

HOW DID YOU HEAR?

- o From inside; from around; through attention, focus, choice where to put focus
- Through the vibration going along my skin, organs, and reaching to my ears
- ° I experimented; couldn't decide if hearing was impaired; I wanted to talk to get a level of where my hearing was at but didn't; I tapped, breathed hard, listened to others; I was looking for a sound I could measure through memory
- ° Tactile and muffled; drowning out of other sounds brought quieter sounds to the foreground

Appendix C workshop 'listen'

- Physically; direct or indirect contact; internally; body fluids; antenna; directionality;
 body attitude, posture; relation to other objects including people
- ° With less tonal variation; with more percussive sense; internally via conduction along bones to inner ear | mandible, bone jaw
- ° With my ears even though some of what they were hearing were more through vibrations within, some was unblocked from without. I also "heard" / felt my inner rhythms pulsing, vibrating

WHAT DID IT FEEL LIKE?

- Light [as in not heavy], patient, close, not confining, opening, open, present
- ° I felt self-consciousness about all the sound that body makes; it wasn't sound; it was movement, vibration. I could hear the movement of my body
- ° I was more aware of the sounds of my own body; I couldn't get a meter on my hearing loss, so it was vague. I wasn't really sure there was any loss. I felt like I had my own space, I could move, crawl around, and nobody else was watching or there on the same space.
- ° It felt like being in a womb water like.
- ° Calming; like an autonomic sense suddenly needed to be directed, paid attention, tried on for fit, a bit like 'trying to listen to' music instead of just background processing it
- ° Ceremonial, relaxing, repeating, variable focus, between sounds and some 'internal dialogue'; it felt like being under water
- Onormal, I'm alive; Invigorating breath going in and out with "normal" rhythm, and changing properties; meditation, soothing, flowing; the outside sound was less welcome or smooth, more jarring, interruptive, invasive

Part B: 'listen outside'

[blindfolds]; do not speak

WHAT DID YOU HEAR?

- ° Footsteps, breath, sighs, yawns, air conditioning, shooshing, swishing, giggle, watch beep, rustling, squeaking
- ° Breathing of other people; other noise and movements; warning sounds; rhythmic breathing; shuffling to give position to others
- ° Footsteps, walking, rubbing sounds of clothes, touching
- Shoes squeaking, rubbing on the floor, breath, other moving, nothing else
- ° Birds (trying to sound like shoes); post-contact movement (in absence of precontact movement); some of the something (a) in part 1; e.g., spinal column fluids
- ° Fan; squeak of shoes, "space" open places, movement, crawling, hands on curtains, yelps, laughter, beeps of cameras/digital consumer equipment
- ° Squeak of shoes, breath of hand on cloth, fingers on cloth, movement others, hands in hair, breath, cracking plats, cloth on cloth, close to my ears --- robbing, grinding, course fabric abrasiveness, camera beep-beep, other people's steps, breath, contact with another, giggling, apologies
- o Machine noise, human sounds, steps, voices, movement

WHAT DID IT FEEL LIKE?

- ° Listening to other(s), listening for others, careful, attentive, focused outward, fun, curious
- ° It made me want to be low to push my limbs out all around me; it felt fun, I wanted to hunt out other people and poke them
- ° I had anticipation of somebody coming to me 'touching' me. My ears all focused on the sound around me.
- Ounknown, void, empty, feeling of back, backward, reaching, infinite space, darkness
- ° Cottony, cushioned

Appendix C workshop 'listen'

- ° Interesting (like a puzzle or game), exciting (mist of falling/humming, bumping into things), playful; felt desire to move head to gain depth of perception
- ° Like little soft caresses at times and others like jolts or pin pricks, quivers, self-conscious
- ° Blind, dissociated, empty, afflicted, disconnected, closed space, void, still, still

WHAT DID IT LOOK LIKE?

- ° Light entering through eyelids + blindfold, then "seeing" or imaging shapes of movement; "seeing" location of other(s); "seeing" or imaging spatial relationships
- ° I could feel my position in the room; I knew where people were and the darkness of the curtain on my face; I saw partition, height, size and a "feeling" stay away, exploring & touch; I had a responsive sense of others, not just 'object'. It was very much a game collecting, processing, manipulating, information.
- ° Black shadows moved from side to side, following the directions of sound coming to me. Sometimes, they are white shadows. They don't have clear shapes; they are only movements.
- ° It looked like a memory built up over times, but then destroyed by time, blobs of occupied space arranged in a map.
- Playdoh at point of contact
- ° Monotone, bright/dark eyelid noise flat.
- o Blobs of sound and sharp shapes, small and large.

C.2 Workshop 'between'

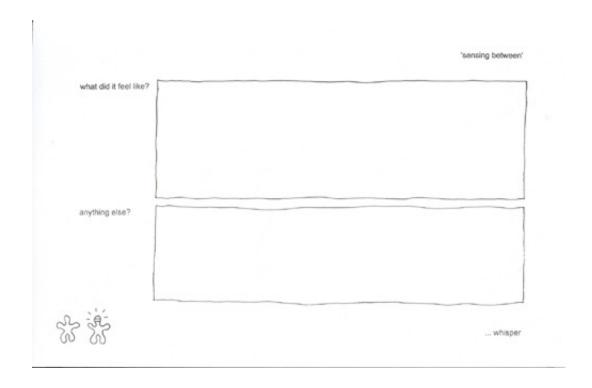
C.2.1 Workshop 'between' Script

```
'between':
 welcome to the 'between' experience
today we will explore in between
 between has three parts
 let us begin the first part the fut pand
 <part a: slowly between dout read</pre>
. the first part is called "slowly between"
 begin by finding a space for your self
please do not speak
 slowly
 slowly slow down your movement SIMPh
 now begin to move into the space
 as slowly as you are able,
 breathing, seeing, sensing and moving as slowly as you are able, moving slowly between
 as you move within the space, you slowly find some one between
 move along with and between this some one
 find a space for both of your selves
 this is the end of part 1: slowly between
```

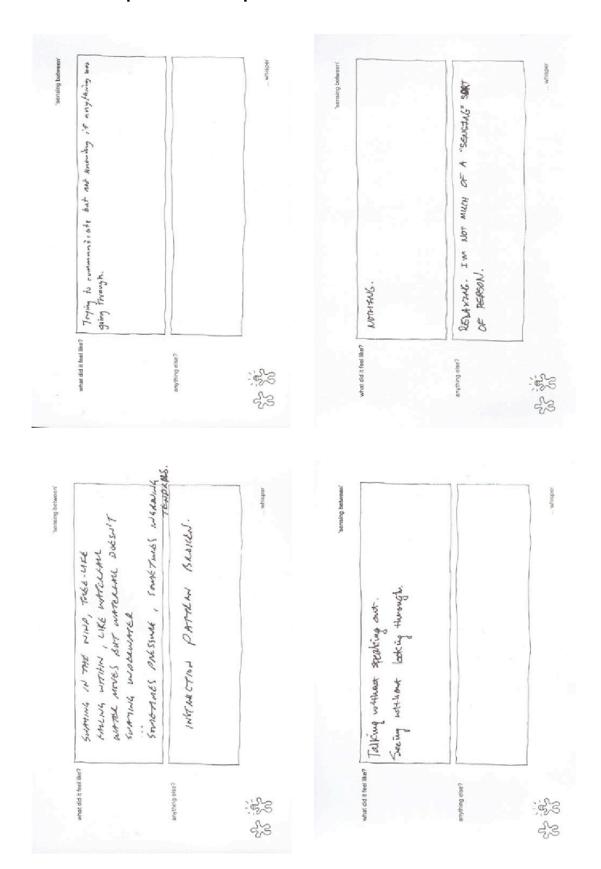
```
spart b: sending attention >
    the second part is 'sensing between'
    please turn to face me
    please do not speak
    choose one of you to stand directly in front of the other
   . facing me
    [ we physically help here if they do not understand ]
    now please sit down
    the person in front will be the receiver | the person behind will be the sender
    make sure that the sender can see me
    we will now hand out a piece of cord and a blind to the receivers [hands out]
    receivers: please put on the blindfold, and place the cord on the floor in front
    of you
    we will be repeating a set of -- 'sensing betweens' we will randomly select between
'focus your attention directly on the receiver' [ show card ] or 'de-focus your attention away' [ show card ]
                    receivers:
    let us begin
                                                   at you will the a knot in
                                                                           the string
    [count]
    one < > end.
                                                                         if you sensed.
    three <...>
    up to a max of
twenty <_>
    <experiment 10 min>
  , part one sensing between in over
    please take a moment to fill out the cards [hands out]
```

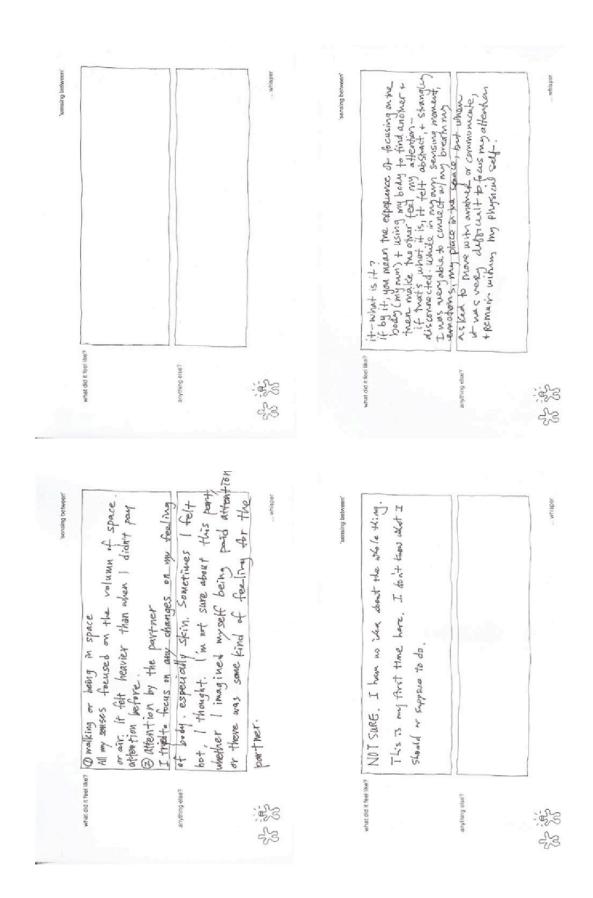
```
part two is sending between
 sit so thet you are facing one another change roles so that the sender is now the reciever
Sin this experience we would like the senders to send an image to the receiver we will give you time to create the image, and then to send the image of please wait for the the senders to send the image.
                                                                                                      send signal before you
  <2 min>
  senders: now start sending the image receivers: now recieve the image
  senders: finish sending the message
  this is the end of part two
  please fill out the cards we hand out [hands out]
  take a moment to write down any additional comments or thoughts you might have
  this is the end of the 'between' experience
  thank you for taking part
  [end]
```

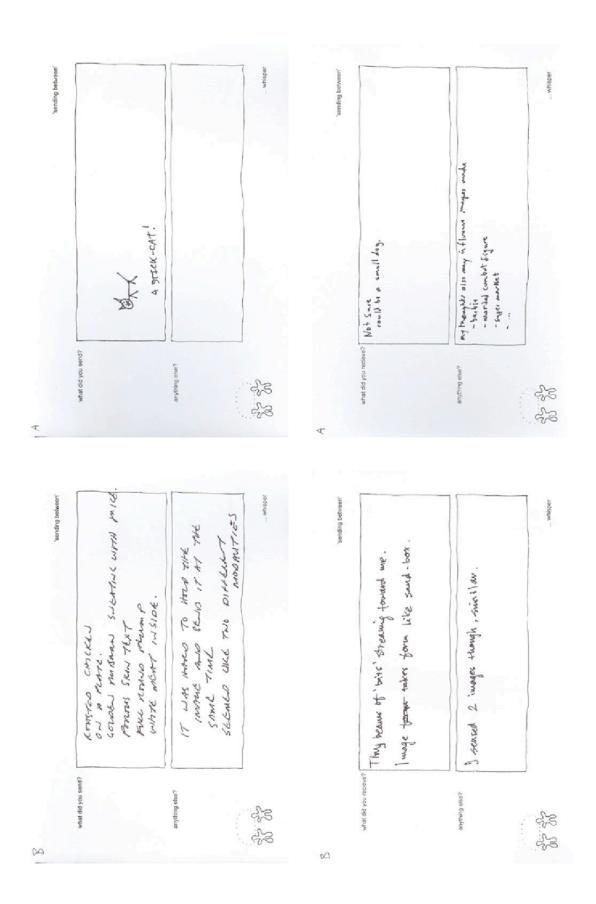
C.2.2 Workshop 'between' Response Card

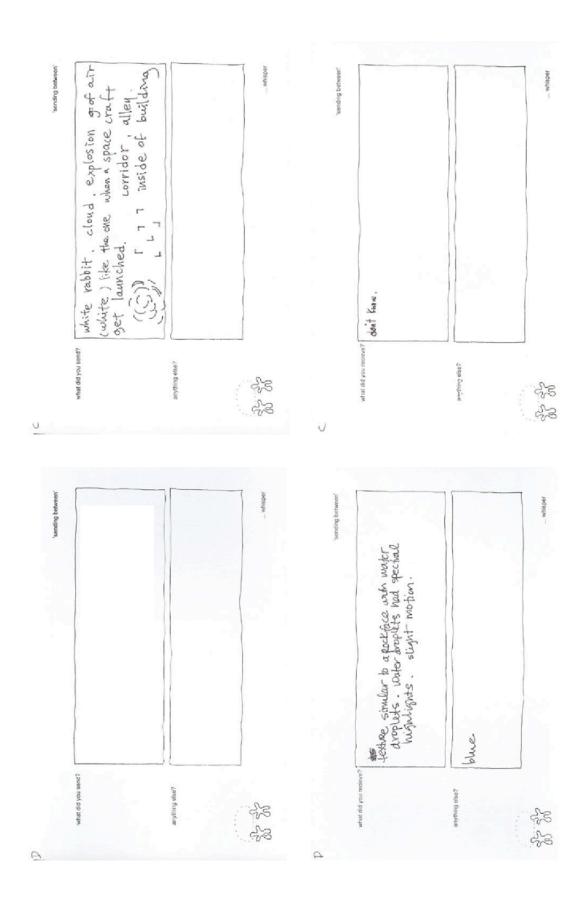


C.2.3 Workshop 'between' Response Cards









C.2.4 Workshop 'between' Response Cards Transcription

Part A: 'sensing between'

[blindfolds and cords to receiver]; do not speak

WHAT DID IT FEEL LIKE?

- ° Trying to communicate but not knowing if anything was going through
- Nothing
- ^o Swimming in the wind; tree-like falling within, like waterfall, water moves but waterfall doesn't swaying underwater; sometimes pressure, sometimes ingrowing temples
- O Talking without speaking out; seeing without looking through
- $^{\rm o}$ It, what is it? If by it, you mean the experience of focusing on the body (my own) + using my body to find another + then make the other feel my attention if that's what it is, it felt abstract + strangely disconnected while my own sensing moment, I was very able to connect w/my breath my emotions, my place in the space, but when asked to move with another or communicate, it was very difficult to focus my attention + remain within my physical self
- ° 1) Walking or being in space: all my senses focused on the volume of space, or air. It felt heavier than when I didn't pay attention before; 2) attention by the partner: I tried to focus on any changes on my feeling of body. Especially skin, sometimes I felt hot, I thought. I'm not sure about this part, whether I imagined myself being paid attention or there was some kind of feeling for the partner
- o not sure, I have no idea about the whole thing, this is my first time here, I don't know what I should or am supposed to do.

ANYTHING ELSE?

- o relaxing. I'm not much of a "sensing" sort of person.
- Interaction pattern broken

Part B: 'sending between'

facing each other; do not speak

WHAT DID YOU SEND? WHAT DID YOU RECEIVE?

- ^o A stick cat!
- ° Not sure, could be a small dog.
- ° Roasted chicken on a plate; golden sweating with juice; potato skin text; full round plump white meat inside
- ° Tiny beams of 'bits' streaming toward me; image takes form of a sand-box; I sensed two images though, similar
- ^o White rabbit; cloud, explosion of air (white) like the one when a space craft gets launched, corridor, alley, inside of a building
- ° Texture similar to a rock face with water droplets, water droplets had special highlights, slight motion; blue

C.3 Workshop 'extend'

C.3.1 Workshop 'extend' Script

first draft:

welcome to the extend experience today we will be extending ourselves

this is an experience in two parts

for the first part we will ask you to put on the shirts that we bandout

- find a partner

you can help each other buttoning up it is ok to talk and make noise

please work together with your partner to explore the space

sit stand jump walk run

<15 min?>

we will now release you from each other please take a moment to fill out the cards [hands out card I] ___ leave 5 min to full out card. [collects card I]

we will now be handing out stethoscopes for the second part

stethoscopes are good for listening to the inside. you can listen to your blood, your heartbeat or your vocal cords, or bones.

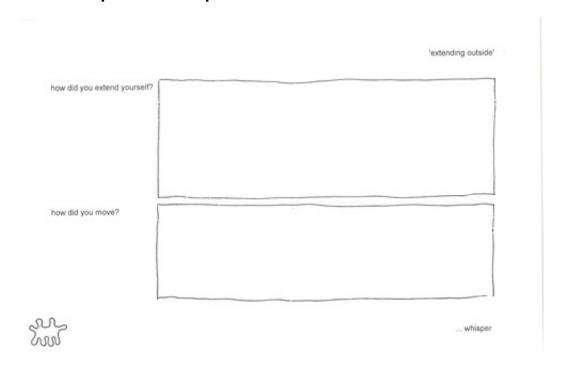
take the stethoscope and familiarize yourself with it. if you have a black is double-sided stethoscope you will need to cover the hole with your finger for it to work.

listen to yourself.

when you find a good sound you can offer the earpieces to someone else if you want - so that they can hear it too. [show this]

every time you have experienced a sound from your self or someone else please take a moment to make a note in the notebook. [15 min?]

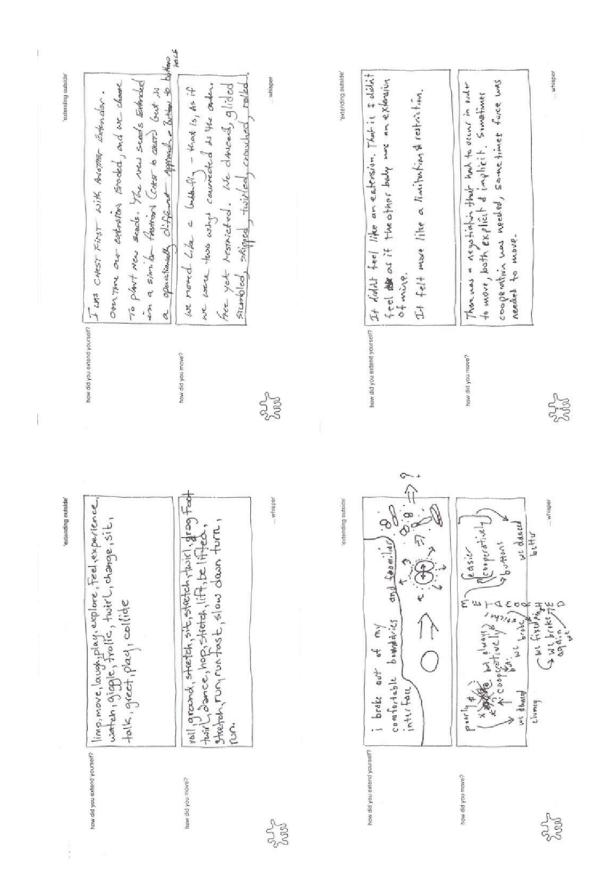
C.3.2 Workshop 'extend' Response Card

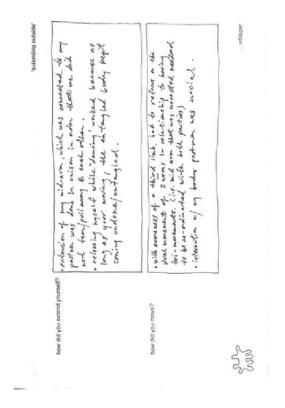




C.3.3 Workshop 'extend' Response Cards

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	hew did you extend yourself?	haw did vou move?	Sound	-	haw did you extend yoursell?	how did you move?	200%
"aprietos Siupuspo»,	1 Source systelf thirthe of one. 1 Sody as a consecte unstrainty had there orther piece I was it wontherether The ATTACHED along the contract under	more planned. I felt like I Had to consider where I was sind in relation to my term, the boundaries of some addition my self expanded the foundaries of some	Jedsum	, upper or desposition of the control of the contro			audisuw
	how did you extend yourself?	how did you move?	John		how did you existed yourself?		Sarah Sarah

















































































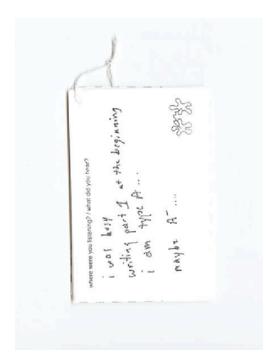












C.3.4 Workshop 'extend' Response Cards Transcription

Part A: 'extending outside'

[shirts sewn together]; you may speak

HOW DID YOU EXTEND YOURSELF?

- O Hold hands with someone other than my husband; became silly; enjoyed the unusual and unknown; became aware of another's movement
- ^o I was no longer just myself, I had to extend myself to become a part of a whale; as a whole we had to work together when we failed it was almost disappointing because we were apart
- ° I found myself thinking of out 'body' as a complete unit it just had this other piece I wasn't controlling; the attached arm felt very unusual once I got complete control back
- ^o I was chest first with another extender; overtime our extension eroded, and we choose to plant new seeds. The new seeds extended in a similar fashion (chest to chest) but in a operationally different approach; button to button hole.
- ° I didn't feel like an extension. That is I didn't feel as if the other body as an extension of mine. It felt more like a limitation & restriction
- ^o Limp, move, laugh, play, explore, feel, experience, watch, giggle, frolic, twirl, change, sit, talk, greet, play, collide
- ° I broke out of my comfortable boundaries and familiar interface [lots of images | drawings here] movement
- ° I extended through my arms, becoming one half of a larger body. I extended out of (and into) my own body, becoming part of Eric's body as well. I extended my understanding over movement through space, allowing myself to give up some control and just to flow.
- O Extension of my mid-arm, which was connected to my partner was done in unison in order that we did not turn/pull away at each other; releasing myself while "dancing" worked because as long as your moving, the entangled body kept coming undone/untangled.

HOW DID YOU MOVE?

- o awkwardly; enthusiastically; carefully; socially
- ° pushing and pulling; each movement was followed by a reaction from my partner; therefore, our movements had to be in synchronized to do that, we had to communicate
- o move planned; I felt like I had to co-ordinate where I was going to relation to my 'twin'; the boundaries of my 'self' expanded; taking up some additionally space
- ^o we moved like a butterfly that is, as if we were two wings connected in the center; free yet restricted; we danced, glided, stumbled, skipped, twirled, crouched, rolled
- ^o There was a negotiation that had to occur in order to move, both explicitly and implicit. Sometimes cooperation was needed, sometimes force was needed to move.
- ° Roll, ground, stretch, sit, stretch, twirl, drag foot, twirl, dance, hop, stretch, lift, be lifted, stretch, run, run fast, slow down turn, run.
- O Poorly, we danced, clumsy, but always cooperatively, but we broke stitches, we fixed ping, we broke again we meta-morphed buttons, easier, co-operatively, we danced better [lots of images!]
- ^o Movement was fun; lots of gyrations and circular motions, movement was shared, it flowed, sometimes I followed and other times I led, it was balanced, I was supporting and also supported.
- O With awareness of a third limb, had to refocus on the oval movement of 2 arms in relationship to having tri-movements. (i.e. mid-arm that was connected needed to be coordinated with both parties); interaction of my body partner was avoided [?]

Part B: 'extending inside'

facing each other; stethoscopes; booklets

WHERE WERE YOU LISTENING? WHAT DID YOU HEAR?

- O Neck over jugular: strong, deep, rhythmic pounding
- Ohest, over heart: steady beating, with slight gurgling in background
- ° Stomach, just below diaphragm: low gurgle, distant thumping
- o Base of skull: white noise
- o Inside of leg, just below ankle: bubbling, boiling, w/low rumble in background
- o Trachea: rush of wind
- ^o My heart: regularity, strength, pulsing, drums
- Ounder my neck: waterfall, blood flowing, roaring
- Over a voice of the control of th
- o Calves: tensing of muscles
- o neck: my breath, raspy sounding, the best place to hear it! I'm surprised!
- o Stomach: its gurgling apparently, I can't hear or feel throat
- O Neck: pulse, voice (w less bone resxxx louder), blood: low rumble
- O Wrist: blood moving pulse;
- ° Sternum: heart pumping, blood flowing, voice (through bone loud action); bone resonance
- O Upper back: low rumble of blood flow; some voice
- O Lower back: something bubbly, sounds like a heat motor idling
- O Bicep: gurgling, increased tempo w/flex
- O Top of foot: bones and tissue as I extended and retracted toes; blood flowing
- O Calf muscles while fast moved [images]
- O Back of the hand while finger moved [images]; sounded like someone walking

Appendix C workshop 'extend'

- O Knee cap, just above the knee: pops every once in awhile, crunching too [images]
- o Heartbeat: slow rumble, deep.
- o Third eye: no sound [images]
- Eye lashes: brushing against drum [images]
- o Throat: sounded like a distant rushing river
- $^{\rm o}$ Fingertip [by sealing off the small end + placing my fingertip on the wide end, I heard uneasy shivering
- Moving body, pulsing, thumping, creaking
- ° Mouth: rather than feeling organic and soft my mouth/touch "felt" hard and foreign
- ° On body while moving: I felt like I was inside myself the pounding amplified my perception of myself, yet my breathing made me feel close
- ° Closer to the heart, the steady beating, ta-dump ta-dump [image]
- O Voice | mouth | used like a microphone [image]
- O Wrist towards mid-arm: rambling ocean like noises; oncoming roam of thunder [image]
- o Throat-area: roaring liquid with beating in background [image]
- ° I was busy writing at the beginning, I am type A, maybe A"
- ° My friend stood up and tried to hear my heart, it was hard, I heard my heart, I heard low voice
- o I heard Thecla's voice through the scope, it was cool
- $^{\rm o}$ I ran, "the dog trots freely in the street ..." I worked the boundary the magic circle, I left, I stayed, I ran, I ...
- o [images of running around curtains, circles]

C.4 Workshop 'mutate'

C.4.1 Workshop 'mutate' Script

first draft:

welcome to the mutate experience

this is an experience in two parts

for the first part we will ask you to put on the shirts that we handout

you can help each other buttoning up it is ok to talk and make noise [as needed] Speak

please work together with your partner to explore the space

now detach yourself yourself from each other using the Velcro tabs

We are handing out additional Velcro Tabs
Use these to find ways to attach yourself to yourself or to others in 'mutated' ways

explore the space together <15 min?>

please take a moment to fill out the cards
[hands out card I]
[collects card I]

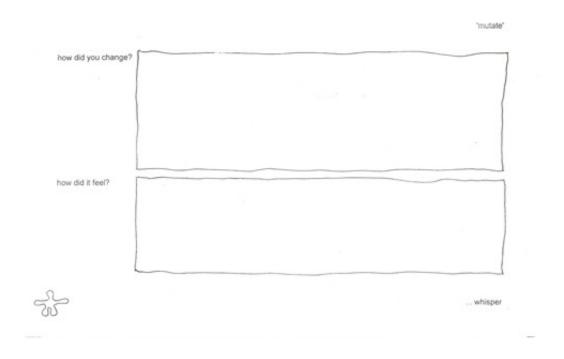
we will now be handing out gsr's for the second part. GSR means Galvanic Skin Response. We will help you fit these on.

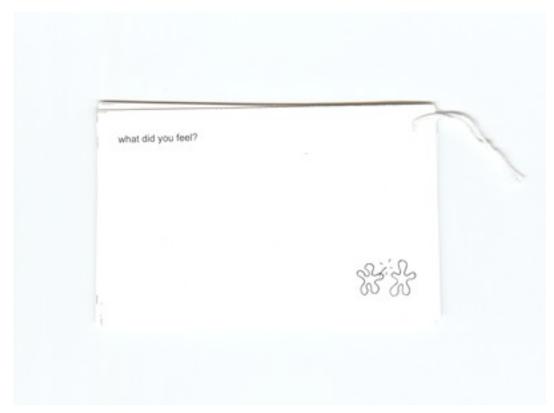
GSR's are good for listening to the inside, through your skin. You can listen to your affect, your reaction your emotional state.

Listen to yourself listen to the other

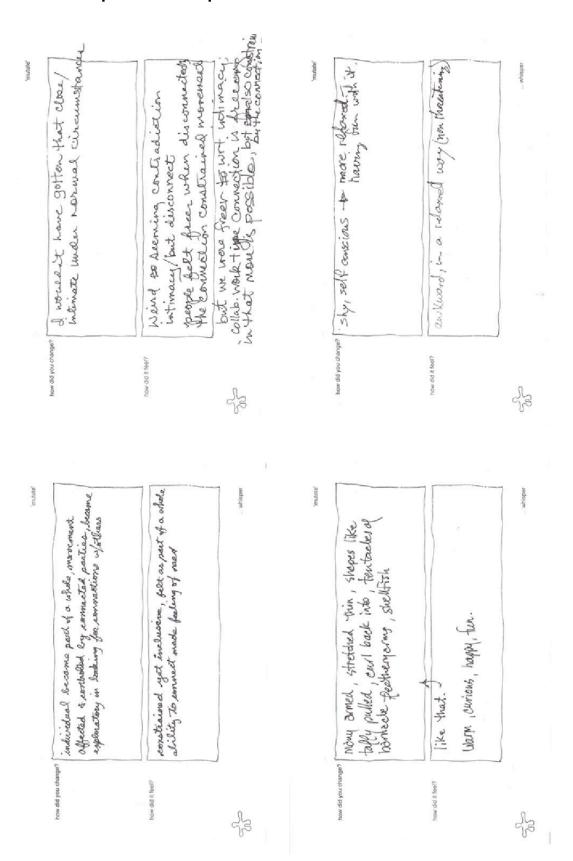
Please take a moment to make notes in the notebook, as you experience.
[15 min?]

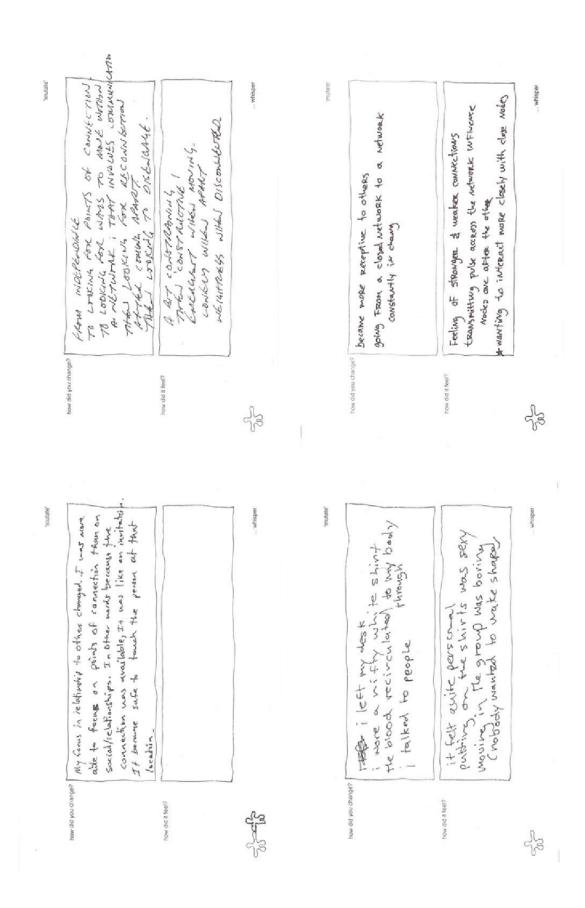
C.4.2 Workshop 'mutate' Response Card





C.4.3 Workshop 'mutate' Response Cards







































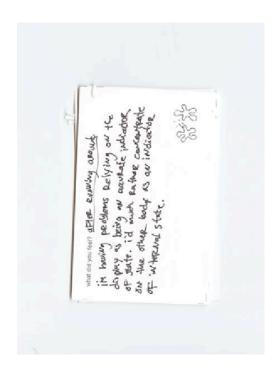








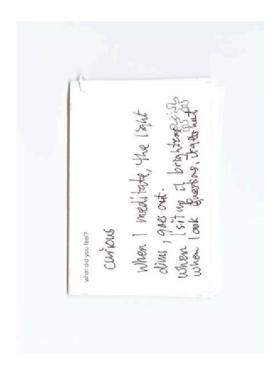




















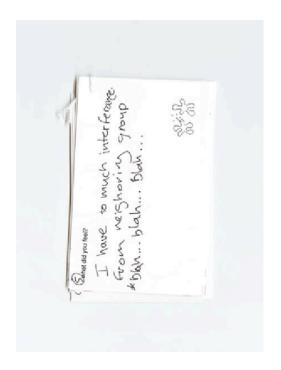


















C.4.4 Workshop 'mutate' Response Cards Transcription

Part A: 'mutate outside'

[shirts Velcroed together] hand out extra Velcro tabs to explore space together; you may speak

HOW DID YOU CHANGE?

- o I wouldn't have gotten that close/intimate under normal circumstances
- o Shy, self-conscious ----- > > more relaxed having fun with it
- o Individual became part of whole, movement affected and controlled by connected parties, became exploratory in looking for connections w/others
- " from independence to looking for points of connection, to looking for ways to move within a network, that involves communication, then looking for reconnection coming apart, then looking to disengage
- o became more receptive to others; going from a closed network to a network constantly in change
- o my focus in relationship to others changed. I was more able to focus on points of connection than on social/relationships. In other words because the connection was available, it was like an invitation, it became safe to touch the person at that location
- o I left my desk, I wore a nifty white shirt, the blood re-circulated through to my body; I talked to people
- o Alone vs connected; Connected to 1 | connected to 2+ persons; Different parts of body connected; connected spaced difference positions in space, different: moved/ stayed still
- o May armed, stretched thin, shapes like taffy pulled, curl back into, tentacles of barnacle feathery arms, shellfish

HOW DID IT FEEL?

o Weird seeming contradiction intimacy | but disconnected; the connection constrained movement but we were freer with intimacy; collaborative work type connection Is freeing in the more is possible, but also constrained by the connection

Appendix C workshop 'mutate'

- o Awkward, in a relaxed way (non-threatening)
- o Constrained yet inclusive, felt as part of a whole, ability to connect made feeling of need
- o A bit constraining then constructive, emergent when moving, lonely when apart, weightless when disconnected
- o Feeling of stronger + weaker connections transmitting pulse across the network influence; knocks one after the other; wanting to interact more closely with close nodes
- o it felt quite personal; putting on the shirts was sexy; moving in the group was boring [nobody wanted to make shapes]
- o great! Felt connected"; yet, felt need to be free", "unconnected"; enjoyed movement, relaxing
- o like that [many armed, stretch thin etc]; warm, curious, happy, fun

Part B: 'mutate inside'

shared gsr; booklets

WHAT DID YOU FEEL?

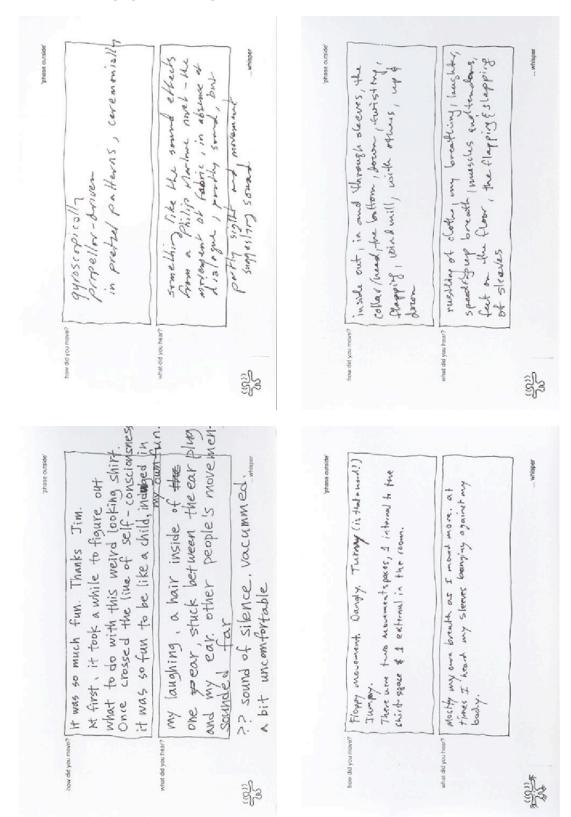
- $^{\rm o}$ Unsure about whether or not the sensor was working correctly: I couldn't rely on the information I was receiving
- ° Couldn't get it to change thru internal maybe no internal changes? Only changes thru kinesthetic movement
- O Making connection w partner thru discussion + being wired"
- o Mention of 'techweek' brought immediate brightness
- Vocal interaction illuminates
- Lying brightens [works as a lie detector)
- o Focusing on a single point; dims light: blocking out others
- O Dim while waiting
- O Using (focusing on) inside; voice dims light; talking brightens
- ^o Shallow breathing dims; deep breath immediately brightens
- o I didn't have a problem seeing my heart worn on someone else's sleeve (ie, see the indicator of my body activity on another's arm)
- Relatively under control when moving quickly but aware of increased sweat on skin
- ^o After stepping (external) and at tempting to slow down (internal) heart-rate went through the roof
- $^{\rm o}$ Not a feeling an observation; Dominic was accurate at picking up my focus, though there was some time ... both coming in and xxx of that state I wanted the diode to reflect this state change, but didn't perceive it doing so [so maybe there is some feeling' here as well as 'observation'
- o Speeded up burning with a hard gem-like flame
- ^o The connection between us seems to be difficult to get at. I find the display on myself really disturbing. I'm having problems focusing both inward and outward to detect state

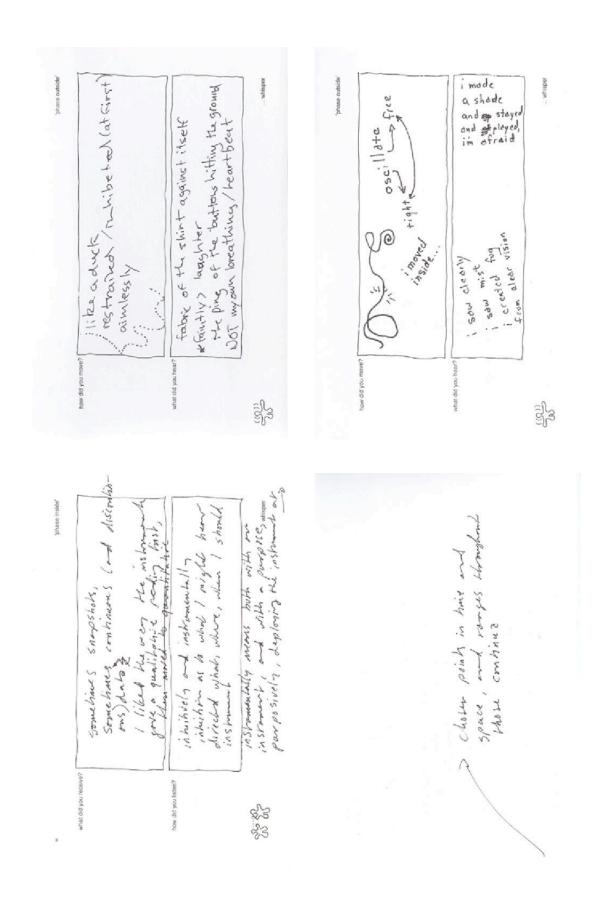
Appendix C workshop 'mutate'

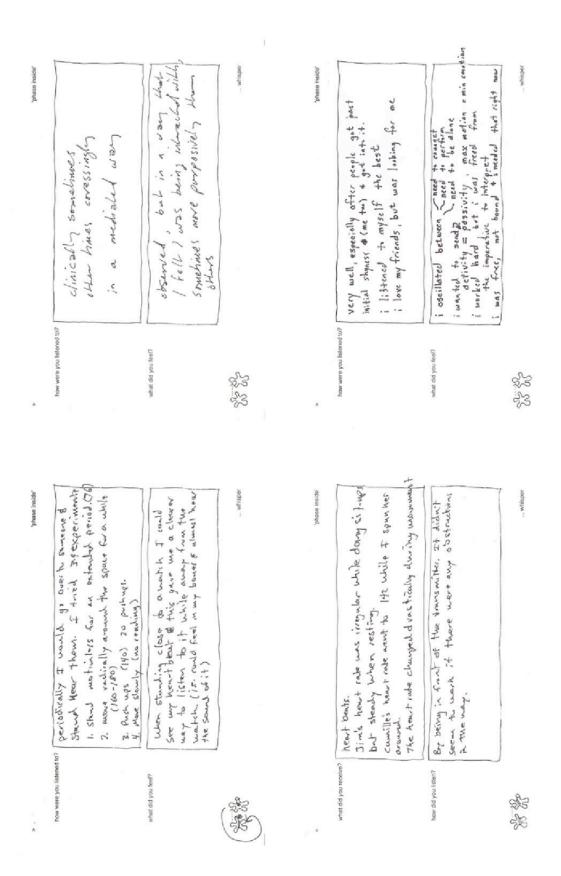
- ^o After running around I'm having problems relying the display as begin an accurate indicator of state. I'd much rather concentrate on the other body as an indicator on internal state.
- ^o I'm trying to see the light as an indicator of internal state. The brighter would mean more vibrant/ more receptive; the less bright = little receptivity; but there's very little change in the range, it is mind puzzling
- ^o The light could help to distinguish a subtle shift in the internal state when there's too many noises around
- ° Wired!; on display; writing makes light go on ; stronger contacts? Open hand does opposite
- ° LED adjusted to be more secure; light does not change; feel relaxed; feel stressed -4 same reaction on LED
- O Wires switched to other person; inside LED from view (no feedback)
- ° Can't seem to focus on inside ... light does not seem to react; lots of interest in accuracy of feedback through lights I wires; need more stable connection to fingers
- ^o As an observer, a recorder, an instigator, responsible
- ^o There is no response, we broke it, "subject appears to be in a state of mental activity"
- ° I have no response, no response, no response, no response, no response, RESPONSE YES! The subject lives. When asked the question "are you enjoying yourself?" subject replied, but exhibited no response, no response
- ^o Subject says "cyborg", and keeps wiggling my connection. When asked "are you bored" subject replies affirmatively and begins writing in notebook. I have a response, response ... response interference coming in from neighboring pair. Time to switch
- ° I do not know, Dennis is not showing me my output, I will attempt to limit my input to nil, to avoid detection
- o I have too much interference from neighboring group; blah, blah, blah
- ° [images]
- ° responsive; I have infected the device with a virus, my cold virus which will most certainly pass to the next person to use it. The pen fumes are making me dizzy and we should turn off the other "pairs unless they give us data
- o performance another is very red
- $^{\rm o}$ curious, when I meditate the light dims, goes out; when I sit up, it brightens, when I look interested it goes hot [out?]
- o when I'm thinking about my cats, I'm calm, warm, lot of little lights
- o I thought that laying down would slow it, but not always

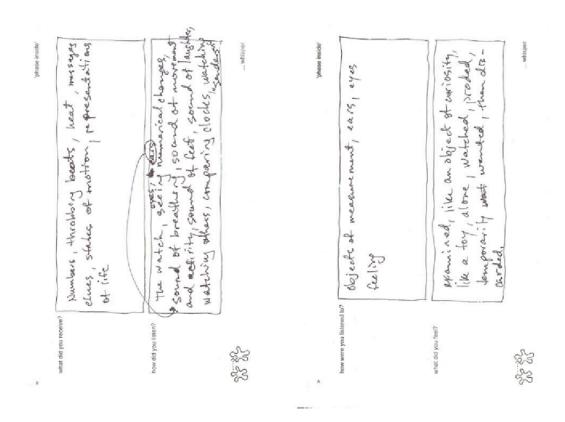
C.5 Workshop `phase'

C.5.1 Workshop 'phase' Response Cards









C.5.2 Workshop Response Cards Transcription

Part A: 'phase outside'

[shirts w long sleeves + ear plugs] explore how to move; please do not speak

HOW DID YOU MOVE?

- o I moved inside ..; oscillate 'tight' free [images of path flows space]
- Like a duck; restrained | inhibited (at first); aimlessly [image of path flow w dots]
- ^o Floppy movement; dangly; turny (is that a word?); jumpy; there were two movement spaces: 1 internal to the shirt space + I external in the room.
- ° Inside out, in and through sleeves, the collar (head, the bottom, down, twisting, flapping, windmill, with others, up + down
- O Gyroscopically; propeller-driven; in pretzel patterns, ceremonially

WHAT DID YOU HEAR?

- ° I saw clearly; I saw mist; I created fog; from clear vision; I made a shad and stayed and played I'm afraid [written sideways on card]
- $^{\rm o}$ Fabric of the shirt against itself * faintly > laughter; the ping of the buttons hitting the ground NOT my own breathing | heartbeat
- ° Mostly my own breath as I moved more, at times I heard my sleeves banging against my body
- ^o My laughing, a hair inside of one ear, stuck between the ear plug and my ear, other people's movement, sounded far; ?? sound of silence, vacuumed, a bit uncomfortable
- ^o Rustling of clothes, my breathing, laughter, speeding up breath | muscles and tendons, feet on the floor, the flapping & slapping of sleeves
- O Something like the sound effects from a Philip Marlowe novel the movement the movement of fabric, in absence of dialogue, partly sound, but partly sight and movement suggesting sound.

Part B: 'phase inside'

heart rate monitors; [chest bands and watches]

SENDERS

HOW WERE YOU LISTENED TO?

- My breathing
- o I was provoked to respond scientifically; playfully; not at all
- ° Clinically sometimes, other times caressingly in a mediated way
- ^o Very well, especially after people got past initial shyness (me too) + got into it; I listened to myself the best; I love my friends, but was looking for me
- $^{\circ}$ Periodically I would go over to someone + stand near them. I tried 3-4 experiments: 1. stand motionless for an extended period [> 6] 2. move radically around the space for awhile (160 180) 3. push ups (140) 20 pushups. 4. move slowly (no reading)
- Objects of measurement, ears, eyes, feeling

WHAT DID YOU FEEL?

- ° [image heart empty ' heart full ' hear empty' heart full ' . . .]
- o those under-wires were a little snug; fear that 'my secret' would be out; no great loss
- $^{\rm o}$ observed, but in a way that I felt was being interact with, sometimes more purposefully than others
- $^{\circ}$ I oscillated between: need to connect; need to perform; need to be alone; I wanted to send `activity = passivity, max motion = min emotion; I worked hard, but I was freed from the imperative to interpret; I was free, not bound + I needed that right now
- $^{\rm o}$ When standing close to a watch I could see my heartbeat + this gave me a clearer way to listen to it while away from the watch. (i.e. could feel in my bones + almost hear the sound of it)
- ° Examined, like an object of curiosity, like a toy, alone, watched, prodded, temporarily wanted, then discarded

RECEIVERS

WHAT DID YOU RECEIVE?

- O Numbers; flickering of icons on the watch; pumping of vein at Rob's neck
- Oumerical data of biofeedback responses; insight into 'the others' body; some great ideas; part of the experience of the others body
- ° Sometimes snapshots; sometimes continuous (and discontinuous) data; I liked the way the instruments gave a qualitative reading first, then moved to quantitative
- ^o Heart beats: Jim's heart rate was irregular while doing sit-ups but steady when resting; Camille's heart rate went to 142 while I spun her around; the heart rate changed drastically curing movement
- ^o Numbers, throbbing beats, heat, messages, clues, states of motion, representation of life

HOW DID YOU LISTEN?

- ° Beep sound, maybe (electronic indication of the watch device)
- o I didn't listen, I watched with an ear to hear
- ^o Intuitively and instrumentally; intuition as to what I might hear directed what, where, when I would instrument; instrumentally means both with an instrument, and with a purpose, purposively, deploying the instrument at chosen points in time and space, and ranges throughout those continue
- $^{\rm o}$ By being in front of the transmitter: It didn't seem to work if there were any obstructions in the way.
- ^o The watch, seeing numerical changes, eyes, ears sound of breathing, so and at movement and activity, sound of feet, sound of laughter, watching others, comparing clocks, watching "senders"