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Co-constructing presence through shared VR gameplay

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1 Introduction

This study analyzes how participants playing virtual reality (VR) games co-construct presence in a form of shared gameplay. Originally, approaches to understanding presence have focused on 'perceptual illusion of nonmediation' being produced by certain factors, such as realism in the environment, and the degree of immersiveness created by the interface (Lombard/Ditton 1997). The focus in such cases has typically been on the experience of the individual. Our analysis, in contrast, concentrates on the social aspect of presence and play – the observable practices through which participants construct presence in shared play-situations using VR equipment. With the help of a close inspection of recordings of instances of play, we illustrate how participants negotiate gameplay, and how various layers of presence may coexist and overlap when playing VR games.

The data for this study come from instances of play where one person is in charge of the controllers and wearing the VR equipment, and other participants are located nearby – sitting or standing in the same room with a view into the game world through an external screen, but without the ability to directly interact with the game. The participants thus have differential rights and possibilities to act and influence the game. In previous research, the term 'player' is often used only to refer to the participant who is directly interacting with the game, while other participants are referred to with more passive terms, such as nonplayers or

spectators. However, there is a body of literature suggesting that these 'spectators' are not just passive observers. They engage in different forms of participation ranging from silent viewing to actively taking part in gameplay (e.g. Isbister 2010, Tekin/Reeves 2017, Baldauf/Colón de Carvajal, this issue). This paper adds to this work by examining different forms of participation through which co-located members without direct control over the game contribute to the social organization of gaming by commenting on the way the game is being played, and helping the active player navigate the virtual space. In our data these participants thus can be seen as *co-playing* the game in the sense that their actions may be consequential for how the game unfolds.

To this end, we adopt an action-based approach to gaming as multimodal interaction in technosocial space (see e.g. Keating/Sunakawa 2011, 2011, Arminen/Koskela/Vaajala 2008). From this point of view, presence is seen as a social entity, i.e. as an interactively achieved state that participants accomplish multimodally. The analysis focuses on the multimodal constitution of presence: how participants use multimodal resources to construct and make presence relevant to each other, and how presence is consequential for the social actions that contribute to shared play. We also draw on Goodwin's (2000, see also 2007, 2013) notion of contextual configuration as an entrypoint into understanding how presence is a 'product' of locally negotiated, linguistic, and material structures. Here, material structures refer to the way the VR technology shapes the organization of action and creates affordances for social interaction. The analysis details how the participants use multimodal resources to achieve shared play across the physical and virtual spaces. We aim to show how the player wearing the VR headset uses the tools, language and bodily resources to display simultaneous presence in the virtual and physical space. The other participants are involved in interaction with the game through their actions achieved through talk and visible embodied displays. These actions contribute to the organization and sociability of the play event in a continuous movement between different orientations towards the game as well as the other participants.

2 Single-player games as sites for co-constructed gameplay

Researchers, as well as game designers and players, typically separate single player games and multiplayer games into different categories (Joseph/Knuttila 2014). Possibly due to this distinction, until so far studies that have looked at social interaction between players have concentrated especially on online multiplayer games (e.g. Chen/Sun/Hsieh 2008, Ducheneaut/Moore 2005, Williams/Kirschner 2012). Multiplayer games that are played in situ with other players have also received some attention in the past, for example looking at competitive or cooperative aspects of multiplayer video games (Schmierbach et al. 2012), and how players address the avatars they control as well as their co-players while playing (Baldauf-Quilliatre/Colón de Carvajal 2015).

Single-player games are rarely looked at from the viewpoint of multiple participants playing them, even though the possibility of social play is brought up by some scholars in relation to co-location. Here, we follow Isbister (2010: 12) in seeing social play as "active engagement with a game (through use of its controls or through observation and attention to ongoing game play) by more than one person at once."

The implications and effects of social play can be manifold. Earlier research has indicated that co-located play adds to the fun, challenge, as well as perceived competence in the game (Gajadhar/de Kort/IJsselstejn 2008). On the other hand, in some cases, the presence of other people is seen as a possible interruption or distraction to gameplay (Sweetser/Wyeth 2005). Social play may also tie in play as performance (Stenros/Paavilainen/Mäyrä 2009; Baldauf-Quilliatre/Colón de Carvajal 2015). Finally, social play may be seen as related to sociability at a broader level or so-called meta-gaming, that is, how players construct a kind of social reality around a given game that ends up impacting it in unpredictable ways that are not related to the game rules (Boluk/LeMieux 2017).

In studying games and gameplay, especially within the context of single-player games, there exists a long tradition where researchers have analyzed games by playing them themselves, often utilizing some form of structuralist analysis (Mäyrä 2008). Another popular choice has been to observe and interview individual players in order to understand their

subjective experiences with game systems (Jørgensen 2012). In this study, we adapt and follow a recent theoretization of gameplay that tries to bridge the gap between the aforementioned approaches, namely, game formalism and player centrism. Larsen and Walther (2019: 2) describe gameplay as arising from "the constant and rather subtle toggle between 'here' and 'there'." This definition draws on Heidegger's notion of *Dasein* (1996 [1927]) and sees gameplay as coming about from the tension between play and game, and of their dimensions of being-here and being-there. This means that there is a temporal orientation to all gameplay, a kind of continuous dialectical tension – or, in Larsen and Walther's words, oscillating dynamic – between freely playful and more structured modes of participation. This understanding highlights the need to approach gameplay as a continuously evolving process. It also resonates with Goodwin's (2000: 1517) viewpoint on how human action is constructed in a kind of a "temporally unfolding juxtaposition of multiple semiotic fields." Our study contributes to the theoretization offered by Larsen and Walther (2019) by illustrating how multiple participants jointly co-construct gameplay moment by moment by drawing on talk, bodily action and the semiotic and material resources of the environment.

3 Gaming as interactional activity

Studies anchored in an ethnomethodological or conversation analytic perspective on games investigate gaming as a practical accomplishment and draw attention to the sequentially and temporally organized activities that constitute gameplay. This involves close analysis of naturally occurring gaming activities paying attention to the players' engagements with technologies and the mechanics of gameplay as well as the methods of action through which social aspects of play are accomplished. Most studies taking this approach focus on joint play activities in diverse material environments, such as the home (Mondada 2012, 2013, Piirainen-Marsh 2012) or spaces dedicated to gaming (e.g. LAN parties, internet cafes) (Keating/Sunakawa 2010, 2011, Sjöblom 2011). As Reeves et al. (2017) observe, one group of

studies mainly focuses on the verbal and bodily actions by players around the game and pay attention to the game and on-screen activities as resources for talk, while others specifically investigate the organization of in-game actions as they become visible on the screen (e.g. Laurier/Reeves 2014).

A number of studies show how video gaming activities involve different forms of participation and shifts from one type of activity to another (e.g. Keating/Sunakawa 2010, Mondada 2012, 2013), such that they can be characterized as multiactivity settings (Haddington et al. 2014, Reeves/Greiffenhagen/Laurier 2017). Recently, increasing attention has been paid to the diverse forms of participation through which the activities of spectators contribute to playful activity. Tekin/Reeves (2017) provide a detailed analysis of the interactional work that players and participants watching the play do to make their activities recognizable and accountable to the organization of play. Even when only one participant has agency over the technology, playing a video game is emergent, orderly action between different participants (see also Baldauf/Colón de Carvajal, this issue). In situations involving multiple participants, only one of whom is in control of the game, identifying appropriate moments to intervene and enter into interaction with the active player or other participants is a practical concern. Forms of participation are sensitive to what happens in the game and how the players' verbal and bodily actions display their stance towards it moment-by-moment (c.f. Mondada 2012).

In the sections to follow, we examine how the participants' verbal and bodily practices of meaning-making are intertwined with the emergent actions of playing the game in VR gaming events. We show how the participants position themselves relative to the physical and virtual spaces and thereby co-construct presence and contribute to the dynamic flow of 'here' and 'there' of gameplay.

4 Method

4.1 Data collection

For the empirical study, we recorded instances of VR gaming with multiple participants who were playing a number of different types of games. This choice was motivated by the need to understand the way participants co-construct the play event, rather than to understand the games themselves (i.e. their mechanics, or the way they may be interpreted by players).

VR setups vary significantly in their complexity and style. As a general rule of thumb, a typical consumer-level VR equipment meant for gaming purposes includes some kind of a headset or visor for visuals, a system of loudspeakers or headphones for audio, and hand-held controllers for interacting with the game. While using a visor to block visual feed from the outside reality seems to make the experience more geared towards the individual, the systems are usually designed to allow for a video feed to be transmitted to an external screen. Some VR games even build on this affordance specifically, for example by having one player engage the game via the headset, and the others seeing a different view presented on the external screen and interacting with the game that way.

For this study, we built a temporary game lab with consumer-grade VR equipment available for the general public in 2018. More specifically, we used *PlayStation VR*. The setup of the game lab is illustrated in Figure 1. One person was in charge of the controllers and wearing the VR equipment. They were located in the middle of the room, either standing or sitting down (depending on the game). Other participants, as well as the researchers, were located on chairs nearby the player. In addition to the VR equipment, we had a large screen where the video feed coming from the console was being presented – similar to a TV setup in a living room. We also used loudspeakers for the game sound, enabling everyone in the room to hear the soundscape of the game. We recorded the gaming situations with a setup involving three video feeds. One feed showed the screen and what was happening in the game. One feed came from a video camera pointed at the player, and another came from a

video camera positioned behind participants. This setup allowed for us to see both what was happening in the game, as well as in the room in general. We recorded both the game audio as well as the conversation between the participants.

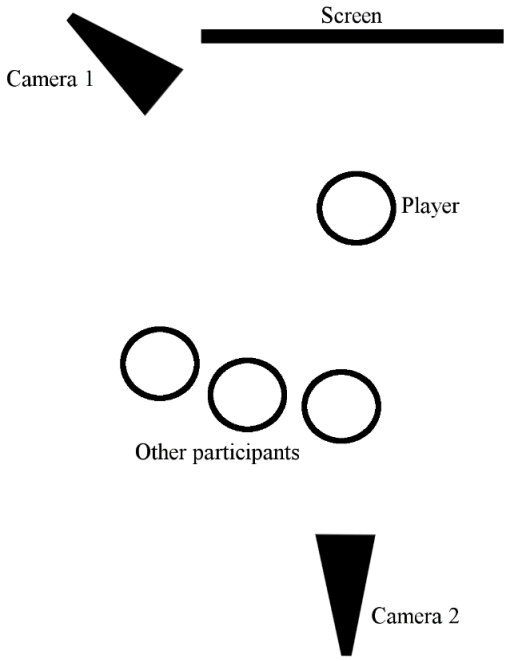


Figure 1: The game lab setup

We collected data on four different occasions in the spring of 2018. Participants were university students with little or no experience in VR gaming. These volunteers received no incentive for participating in the study. Altogether ten students participated in the sessions, five men and five women. Two sessions had three participants, while one session had four participants. The sessions were between 135–155 minutes long.

4.2 Transcription

To enable systematic analysis of the changing dynamics of participation, we have created transcripts of the focal episodes following the principles of Jefferson's transcription conventions and multimodal transcription developed in multimodal CA (Mondada 2014b, 2018).[1] The transcripts represent the multimodal conducts of the participants, i.e. the active player and the co-participants. The aim was to capture

1 For the transcription conventions see appendix.

their (ii) embodied activities and their relation to talk as well as (ii) the active player's in-game actions that become visible on the large screen and are thus available for scrutiny by those participants who were not directly in control of the game. Images are used to show how multimodal actions and visual resources are timed relative to talk.

4.3 Data analysis

Our analysis builds on the ethnomethodological understanding of the participants' talk and action as constituting an analysis of both the unfolding events and scenes in the virtual space and each other's actions in the physical environment. The interactional organization of co-presence and sense of shared play is achieved through emergent courses of action by multiple participants who occupy different positions in the situation and use the resources available to them to contribute to the events.

The analysis traces the multimodal practices through which the active player and the co-players display engagement with the game and build co-presence by using talk, bodily action, visual and material resources for action. The main interest is in moments where the sequential organization of talk and embodied activity are intertwined with the active player's actions that become visible through the screen. We describe two extended cases drawn from the larger data set to illustrate how the game unfolds through a dynamic movement from single player orientation to team-orientation where multiple participants contribute to gameplay in a coordinated way. The cases illustrate how the participants use similar methods to establish interactional opportunities for joint play. First, we show how the active player using the VR equipment draws on talk and embodied activity to signal their presence in the shared physical environment, while simultaneously conducting actions in the virtual space, and thus creates spaces for the other participants to take part in negotiating emerging puzzles of the game. Second, we describe how the co-players draw on the contextual configurations of the moment in displaying co-presence and position themselves as active co-players whose contributions are consequential to unfolding gameplay.

5 Findings – the interactional organization of co-presence

The examples to follow illustrate how the active player's verbal commentary, coordinated with the use of embodied resources (virtual gaze, head pointing and body shifts), works to invoke and sustain co-presence and create opportunities for the co-players to align with the current play activity and move from 'spectators' to active members of a team engaged in play. While the player using the controls has the primary right and responsibility for advancing gameplay, they orient to the others in the shared physical space, whom they cannot see, as co-participants in a multiparty participation framework where they can be recruited (Kendrick/Drew 2016) to assist in solving puzzles of the game.

5.1 Case 1: Confusing contraption

The first extended case shows how the participants establish and sustain co-presence while playing a VR construction game. The game, *Fantastic Contraption*, places the player in a room with colorful materials (e.g. wheels, beams, sticks) that they can use to build machines (see Fig. 1). The active player uses two motion controls to pick up, move and manipulate the materials and tries to fit them together to construct a working machine, in this case a type of car that can drive itself across the virtual play area. The episode below begins when Simo has been working on the task for approximately 2 minutes. The others are monitoring his progress and show their alignment by means of occasional comments and embodied displays (e.g. shared laughter). Moments before the excerpt begins Simo has succeeded in solving the task and now begins a new one. The analysis to follow details how the construction task unfolds temporally as a collective activity, where the multiparty participation framework is mobilized to assist in resolving puzzles that the game creates. At the start of the excerpt, Simo observes new materials that appear in front of him and starts picking them up, while also visually scanning the environment. This is visible to the others through his embodied conduct (head movements from left to right and small adjustments to his body position) and the way these are represented as changing views on the screen. A coparticipant, Matti, draws his attention to the new materials

(lines 2-3), but Simo quickly establishes his primary rights to knowledge (epistemic primacy, Stivers/Mondada/Steensig 2011) (line 4) and launches the new activity with a noticing that displays a new understanding of the task (lines 4-6).

Figure 2: Screen view of Fantastic Contraption

Excerpt 1: Formulating understanding of the task

```
1  Simo   ihan kohta
          very soon

2  Matti  niin siitä kasvaa kato (.)
          yes there's more of them growing

3         jatkuvasti lisää ni[itä.]
          all the time

4  Simo                       [I kn]ow.

5         *nyt mie huomaanki=
          now I notice
          *turns head right

6         oho *tonne pitää         *lingota se.
          oh  that's where I need to sling it.
              *head point (Fig. 3) *head down L (Fig. 4)
```

Figure 3: Virtual gaze and headpointing **Figure 4:** Head down

```
7          ja °nä*in tässä pyöreä.°
           and so here's a round one
                 *picks up 'wheel'

8          (0.5)

9          mitä nää *on (.) nuppineuloja.*
           what are these pins
                    *picks up 'pin',     *puts it down

10 Hannu   *onko ne koristeita
           are they decorations
           *S turns head to right, down

11         (3.0) ((gong noise))

12 Simo    *m[itäs ihmet*tä.
           what on earth.
           *head right  *points with controller (Fig. 5)
```

Figure 5: Pointing with controller

```
13 Matti     [nii::n#]=
              ye::a
                    #turns gaze left towards S and H

14 Simo    *=pitäs päästä tonne ylös. mun pitää niinkun
           should get up there.       I need to like
           *turns head right, then back down

15         *(2.0)
           *S looks around, head down, left, down (Fig. 6)
```

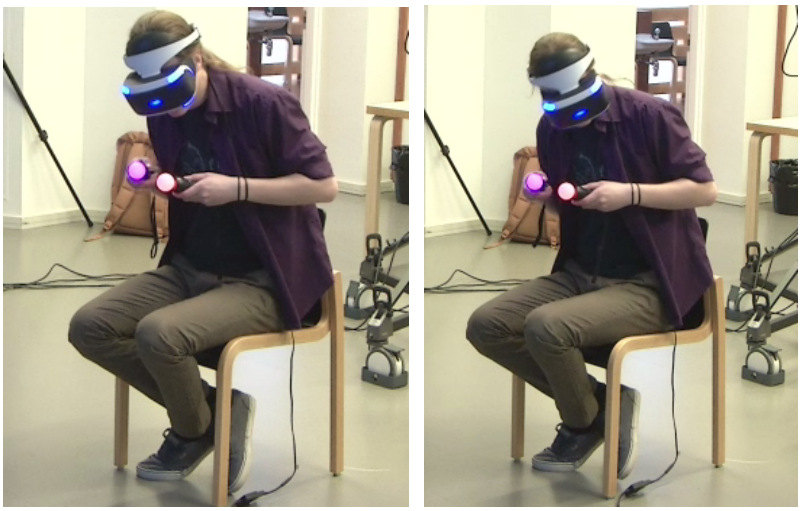


Figure 6: Visible searching

Simo's noticing (lines 4–6) displays simultaneous presence in both the virtual space and the physical environment. A verbal metacomment ('now I notice'), followed by a change of state token ('oho') are finely coordinated with head movement, visible as a virtual gaze shift, which shows change of attentional focus to a specific part of the play area. These actions show the player's simultaneous orientation to the here and now of the virtual space and the shared physical space, where the others are following his actions via the screen.

As the utterance continues, the emergent and forward-orienting nature of gameplay becomes evident when Simo produces a verbal formulation that projects the goal of the task. He refers to the direction of movement where the new car needs to move and uses a visible head point to index the deictic reference ('that's where') (line 6, Fig. 3). Following this, Simo continues to scan the environment, picks up objects and provides on-line commentary on the items that are visible (lines 7–9). The question in line 9, which is co-produced with the action of picking up a 'pin' and putting it down again,

occasions an aligning response from Hannu (line 10), but does not lead to further participation by others. Instead, Simo continues to manipulate the materials and the others observe this in silence (line 11). In line 12, Simo shifts his attention to the right side of the play area, which shows a large wall, an obstacle for the car that he is building. This new challenge occasions a display of surprise (line 12). Concurrently with the end of the verbal turn, Simo begins a virtual pointing gesture (Fig. 5) and then formulates his evolving understanding of the task ahead by referring to the direction where he needs to get the car to move ('up there', line 14). The verbal utterance is syntactically incomplete and followed by a visible search in the virtual space (Fig. 6), displayed by Simo's embodied actions (head movements, changes on the screen showing changing direction of gaze). The search continues for 2.0 seconds during which the others watch the screen in silence. This moment of task trouble creates an opportunity for two other participants to team up with Simo and assist him in solving the problem, as the following excerpt shows.

Excerpt 2: Possible solution 1: assembly line

```
16 Hannu  *siihen ¤pitäs tehdä
          should make there
                  ¤raises R hand --->
          *S starts moving objects on screen --->

17        semmoinen ¤liukuhihnahomma=
          a kind of assembly line thing
                    ¤gestures --->

18 Kari   niin¤ mäkin (miet-)
          yea I was also(think)
          <---¤

19 Simo   liukuhihna*. ai niinkun näistä semmon*en eh
          assembly line. oh like from these a kind of
                <---*                          *turns head

20 Kari   (tää kestää vaan) viiskytkaheksan (tuntia)
          (this only takes) fifty eight (hours)

21 Hannu  #£nih£
          yeh
          #M smiles
```

The silence is broken by Hannu, who offers a possible solution (line 16-17) to the trouble and suggests that what is needed is a 'kind of assembly line', which would enable the machine to climb over the wall. Through its linguistic design

– hedging and reusing resources from Simo's turn ('pitäs tehdä' / should make, 'semmonen' / a kind of) – the utterance is designed as a helpful suggestion, which is sensitive to Simo's observable efforts to find a way to proceed. The turn aligns with the forward orienting actions of the player and claims some degree of knowledge that is relevant to solving the problem. At the same time, it attends to the social positioning of the participants by showing orientation to Simo's primary right to make decisions about gameplay.

Hannu's verbal characterization of the imagined object ('assembly line thing') is accompanied by a gesture, a linear movement of his right hand followed by a circling movement. The gesture that depicts the imagined virtual object that is referred to in talk and traces the movement of the vehicle towards the wall on the righthand side of the play area. Although not visible to the player Simo, the gesture is interactionally meaningful: it displays Hannu's close monitoring of the virtual space and builds co-presence with Simo. Further, it is extended beyond the end of the turn unit, which marks the ongoing relevance of his action, i.e. suggestion to other co-participants (Streeck/Haartge 1992). These actions occasion an aligning comment from Kari, the participant who is sitting next to Hannu (line 18). The suggestion is quickly picked up by the player Simo, who repeats the key term and formulates a situated understanding of what it means in the moment (line 19). While repeating the word 'assembly line' he stops manipulating the objects: he puts down a yellow cylinder that he had picked up and shifts his gaze from the objects towards the obstacle on the right. Ceasing the on-screen activity and the hesitations towards the end of the utterance indicate he has not yet worked out what he needs to do. At this point the other two participants form a two-party interactional team, as Kari makes an ironic comment referring to the time-consuming task and Hannu agrees with a smile (lines 20–21). Next Kari offers another suggestion, building a ramp (lines 22–23):

Excerpt 3: Possible solution 2: building a ramp

```
22 Kari    *tai ^mä mietin että sillä tikulla
           or I was thinking that the stick
                ^leans back on chair
           *S picks up, stretches blue stick (Fig. 7)-->

23         vois tehdä semmonen ramppi.
           could be used to make a kind of ramp.
```

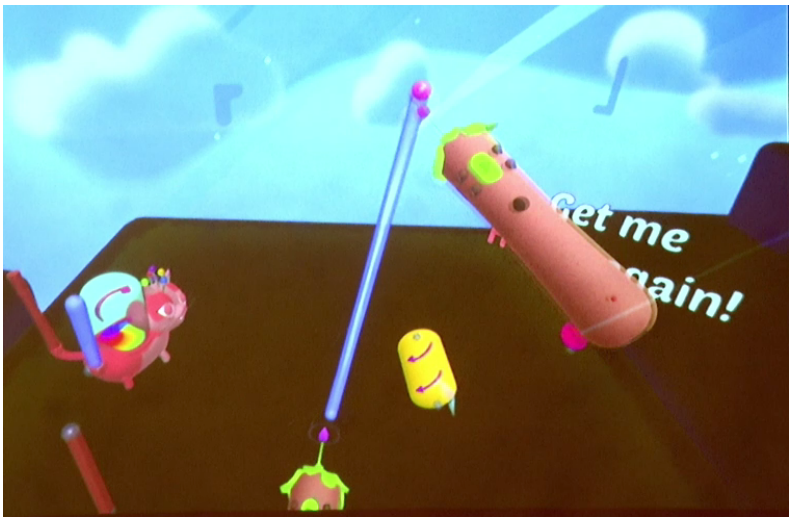


Figure 7: Player stretches blue stick.

```
24 Hannu   onko? to[ssa semmonen *portai[kko vielä]
           is there a sort of staircase there as well
                                <---*

25 Matti           [↑u:h hh
                   smiles

26 Anna                                [cool     ]

27 Hannu   mitä pääsis ylös
           that you could go up

28         *(4.0)
           *Simo manipulates blue stick

29 Kari    *eiks tos oo tommonen kynnys.
           isn't there a sort of threshold.
           *S adjusts blue stick

30 Hannu   joo kynnys.*
           yea threshold
           (.)      <--*

31 Simo    *ai mitä että,=
           ah what,
           *S lowers hands, turns head to right

32 Kari    *oliks siinä se kynnys ku mä aloin jotenkin
           was there a threshold cos I started somehow
```

```
          *S shifts body, visible searching -->

33        sen yli yrittää päästä
          try to get over that

34        mä en tiedä pääseekö toi port- tonne
          I don't know if you can get stair- there

35        (0.4)

36        reen kanssa (.) itessään sitä *[yli.=
          with the sled   over it by itself
                                     <---*

37 Simo                                   [>niin joo<=
                                          ok yea
                                          gaze down

38 Kari   =sä voit *kokeilla tietenkin.
          you can try it of course
                   *S picks up and moves blue stick,
             moves it --->
```

Kari's turn shows close monitoring of the player's actions in the virtual space: it is temporally coordinated with Simo's actions and refers to the specific object (a blue stick) that Simo is currently "touching" in the virtual space (Fig. 7). It also suggests a new solution to the task: using the stick to build 'a kind of ramp' (line 23). Next Hannu draws attention to another feature of the virtual environment – a staircase (lines 24, 27). Concurrently with this, Simo continues to manipulate the virtual object: he lengthens the blue stick he has been working on, which occasions affective displays from Matti and Anna (lines 25–26).

Kari's turn in line 29 seems to offer an alternative way of seeing and interpreting the feature that Hannu referred to as a 'staircase': it requests confirmation for identifying the visible feature as a 'threshold'. His turn receives a confirming response from Hannu (line 30). Kari and Hannu's alternative ways of referring to features of the virtual space contribute to co-constructing the shared interactional space where they help Simo to make sense of the environment and identify those materials and features that are relevant for advancing the task. While Simo is busy with the objects, he is also attentive to their verbal contributions and adjusts his actions accordingly. He stops handling the blue stick and, concurrently with a verbal initiation of repair, lowers his hands and shifts his gaze again towards the righthand side of the play area. He then continues to scan the environment,

while Kari launches into an extended account where he describes how the threshold might be crossed with the vehicle (lines 32–36). The turn expresses his view of a possible solution in a highly tentative way: it contains several uncertainty-markers and is elaborated with a suggestion that Simo 'can try' (line 38). The player Simo then picks up the blue stick again and begins to move it. In the next few moments he picks up another stick, which he moves next to the first one to form a kind of 'ramp', thus following Kari's earlier suggestion.

The final example further illustrates how the gameplay unfolds as a collaborative activity between the same three participants. Here Simo's verbal and visible display of difficulty (lines 60–61) after a failed attempt to build working 'ramp' creates an occasion for both Kari and Hannu to offer assistance by suggesting objects that could be used to build a support structure (lines 62–63, 65–67, 71–73).

Excerpt 4: Possible solution 3: small sticks across the ramp.

```
60 Simo    *[£niin kyllä tässä vähän vaikea
            [yea well it is a bit hard here
           *moves yellow cylinder and sticks -->

61         ei    [oo (iha ei oo hel-)
           it's [not (quite so eas-)

62 Kari         [et #semmoiset pik- pienet tikut
                [so like lit- small sticks

63         ton rampin yli
           across that ramp (Fig. 8)
```

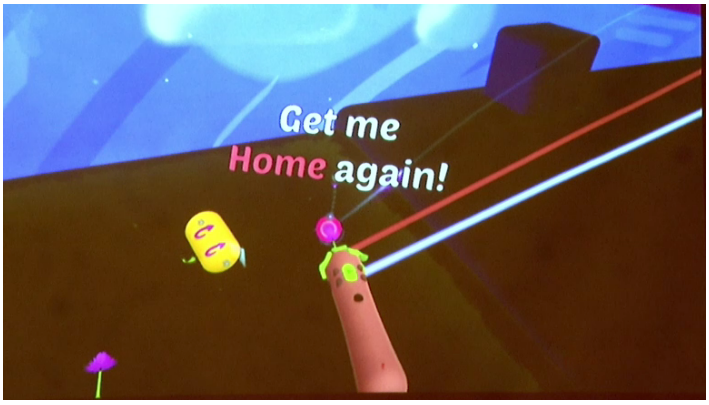


Figure 8: The ramp

```
64 Simo   *niin pienet,
          yea small
          *stops, gaze R

65 Hannu  *niin (ennemmin) pienemmät tikut että
          so (rather) smaller sticks so that
          *S shifts gaze from R to L, tow. threshold

66        se pääsee kato porraks- kynnyksen yli
          it can get over the ste- threshold

67        *sieltä.=
          there
          *S points L with controller-->

68 Simo   mutta miten se *pääsee tonne
          but how can it get there
                         *raises hand

69        *kun tuo on tolleen ilma[ssa
          when that's in the air like that
          *'touches' pink rectangle

70 Hannu                          [pitäskö
                                  should

71        *siihen laittaa semmosen
          there be a kind of
          *S moves blue stick -->

72        ^tuki: ¤(.) jotai pilari.
          support     some pillar
          ^K shifts gaze to H
                 ¤gesture
```

After Simo's attempt at using two long sticks to build a ramp for the vehicle fails, all participants join in shared laughter (not shown). Following this and a short side comment by Hannu, Simo comments on the difficulty of the task (lines 60–61) with a laughing voice. Kari then steps in and makes a new suggestion: placing small sticks across the ramp (lines 62–63, Fig. 8). Simo immediately acknowledges the suggestion and stops moving the objects he has been handling (line 64). Hannu also joins the team by reformulating the suggestion in a more explicit way: smaller sticks (placed across the two longer sticks that form the 'ramp') would help the vehicle cross the threshold (l. 65–67). During Hannu's turn Simo peruses the virtual space, shifting his gaze from the right back to the left. He seems to be considering the proposal but does not take action to follow it immediately. Instead, he asks a question and uses the controller to point to and touch a virtual object that he refers to in his turn (lines

68–69). In response to this, Hannu makes another suggestion of making a supporting pillar. The vague verbal reference to the supporting structure is produced with a co-occurring depictive gesture that traces the form of a pillar. From here onwards the activity continues with Simo's manipulation of the objects following suggestions offered by Hannu and Kari.

The examples from our first case illustrate how several participants establish co-presence in a shared interactional space and contribute to the process of gameplay. Simo's online commentary and visible, embodied conduct show double orientation to the virtual space, in which only he has full access to the environment and ability to manipulate objects and materials, and to the shared physical space where the others can follow his actions via the screen. Simo's temporally unfolding multimodal conduct makes relevant the different but intertwined temporal orientations of gameplay. It displays his here-and-now, online perceptions and evolving understandings of the virtual play area, its properties and emerging puzzles. In addition, it shows progressive orientation to the overarching goals (constructing a vehicle) and actions that potentially advance gameplay towards the goal. Five other participants closely monitor Simo's efforts, and offer verbal commentary and embodied displays in response to the actions as they become visible on the screen. While two of the participants position themselves as 'spectators' (Laurier/Reeves 2014), three take a more active role and two, Hannu and Kari, align together and form an interactional team with Simo to assist him with the task. They offer verbal noticings, suggestions and formulations that are temporally fitted to Simo's gameplay actions, draw attention to specific features of the environment and propose possible solutions to puzzles of the moment. The contributions from these two participants do not challenge Simo's epistemic primacy (Stivers/Mondada/Steensig 2011, Heritage 2012), that is his relative authority of knowledge, nor his entitlement in performing gameplay actions. The verbal proposals are typically initiated at moments where Simo is visibly having trouble with the task, as indicated by silent embodied and virtual actions (e.g. gaze shifts, visible searching) as verbal expressions indicating difficulty. Further, the utterances are typically formulated as questions or tentative solutions, which

show orientation to Simo's right to make the final decisions and perform actions of his choice.

5.2 Case 2: Mouse in trouble

The second extended instance comes from a game called *Moss* (Polyarc Inc, 2018). The player is in control of the main character, a small mouse, as well as an orb that allows them to interact with objects in the game and assist the main character e.g. by opening doors, moving heavy items and holding down enemies. Also in this case, the main participants are Kari, Simo, and Hannu, only this time Kari is operating the VR-equipment, while Simo and Hannu closely monitor his gameplay and join the game out of the physical space. The excerpt begins with the mouse entering a new room containing a puzzle that needs to be solved in order to unlock a path forward on to the next room.

The setup of the room is as follows (Fig. 9): there are stairs to the left (where the mouse entered the scene), a plaza in the middle with a hollow, barrel-like device that contains four closed gates, and a hallway and balcony to the right (where the mouse will exit the room once the puzzle has been solved). Left and right of the barrel are floor-switches that react to weight and keep the barrel's gates open for as long as the switches stay activated. With the help of the controller/orb, the player can turn the barrel around to change the direction of the gates. In addition, an armored insect is walking around on the left side. The player can interact with the insect, dragging it around or holding it in place. The barrel – in combination with the floor-switches – is the actual puzzle, as the player needs to find a way to navigate the mouse into (and inside) the barrel and through the different gates so that it eventually may reach the balcony on the upper righthand side of the room.

Similar to our first case, also the following example illustrates a double orientation of the primary player as he is acting in the virtual world while mobilizing multiple resources that make his gameplay accountable in the physical space – his actions open up spaces for the others to participate as co-players. However, this case exhibits clear tensions between team- and single-player orientations, as Kari begins to reject suggestions and instructions that align

with his gameplay and with his increasing displays of uncertainty and trouble. The example thus reveals an understanding and recognition of different participation rights in this set-up and for maintaining and drawing on co-presence as an interactive resource.

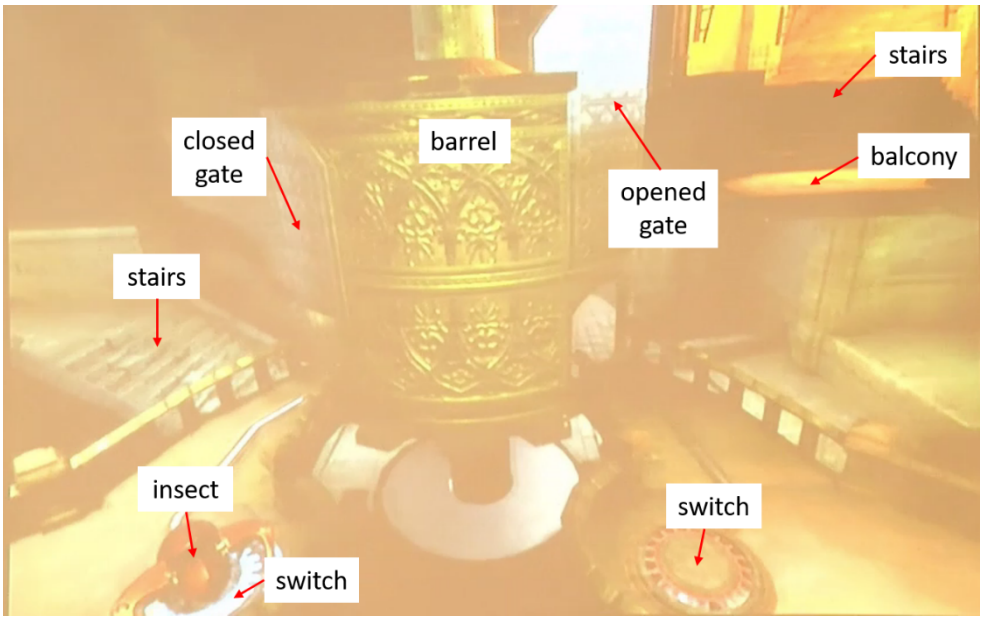


Figure 9: Set-up of the barrel room in Moss

Immediately after the mouse entered the new room, the player, Kari, directs his gaze to the armored insect sitting in the lower left-hand corner and begins to talk, while moving the orb first to the insect and then to the right to the nearby floor-switch: 'ok, now this goes here¿' (line 1).[2] His 'ok, now' marks a clear orientation to the beginning of a new task. Kari finely coordinates the movement of the orb with his talk in such a way that it reaches the insect at 'now this' and then arrives at the floor-switch precisely at 'here' (Figs. 10 and 11):

Excerpt 5: Entering the puzzle: co-constructing joint gameplay

```
1  Kari  okei, ^nyt tää menee tähän¿
         ok, now this (Fig. 10) goes here¿ (Fig. 11)
               ^points w orb from insect to floor-switch
```

2 Kari's simultaneous on-screen actions are marked with ^.

Figures 10 and 11: Pointing with the orb

```
2          (0.5) [vai,     ]
           (0.5) [or,      ]

3   Simo         [aivan.   ] [noin       ]
                 [exactly.] [like so    ]

4   Kari                     [^entäs jos ] mä laitan sen
                             [and what if] I put it
                              ^moves orb back to the bug

5           siihen.
            there.

6   Simo    ^(.) pistä          ^sen siihen. joo.
            (.) put             it there. yes.
            ^K selects the bug ^drags it to the right

7   Kari    ^(2.0)
            ^drags the bug and looks around

8           (vielä.)
            (still.)

9           ^(2.0)
            ^looks around and directs the hero
```

Thus, Kari uses the orb for pointing at the referents of his talk (line 1): the indexicals ‘this’ and ‘here’ attain meaning through this form of virtual deictic reference. However, his on-screen activities also indicate movement and project possible action in the game. Similar to Knoblauch (2008: 83), who found for a certain set of pointing practices in powerpoint presentations that “these movements turn the static elements and the parts of the talk into a dynamic process,” here an anticipated

process (i.e. the bug moving to the floor-switch) is made observable. By doing so, Kari – blind to the physical space and immediate surround – displays an orientation to the public visibility of the unfolding game as well as an expectation of the other participants monitoring the ongoing in-game/on-screen actions and following his commentary. While his understanding is ratified by Simo (line 3), Kari continues by bringing up another option, which he now clearly designs as a question (lines 4–5: 'and what if I put it there.').

At 'there', Kari has brought the orb back to the bug, where it stays hovering for a moment. In close coordination with Simo's alignment (line 6), he next selects the bug and begins dragging it towards the switch. Thus, he mobilizes a response by observably awaiting and preparing for an affirmation, before actually selecting the bug and beginning to drag it to the right. His actions and public pondering, then, can be seen and are taken by the other participants as an invitation of sorts for them to align with and contribute to the gaming experience – to team up with him – by attending to the puzzle together with him and to confirm his choices. However, as Kari moves on, the participants swiftly transition back to a single-player orientation, where only Kari is in control. At the same time, he continues to verbalize and project (possible) actions, by which he observably treats the others as "still there" and their presence as relevant (lines 10–16):

Excerpt 6: Exploring: publicly experiencing the room

```
10 Kari   ^voin mennä samalla itse (.) seikkailemaan.
          I can go wander around myself (.) at the same
          time.
          ^moves the mouse toward the bug

11        (0.5) ^(mut hetkinen)
          (but wait a second)
                ^stops moving the mouse

12        (0.5) okei,
          okay,
```

Figures 12 and 13: Shift in gaze direction from switch to barrel gates

```
13          ^et se ^vielä tarvii ^sitä ^tähä^n.
            so it still needs this (Fig. 12) for that. (Fig.
            13)
            ^gaze moves right
                   ^moves the mouse to the right into barrel
                                 ^gaze to right floor switch
                                       ^looks up at barrel
                                            ^points w orb at
                                            barrel

14          ^(1.5)        ja.
            ^looks around

15          ^(3.0)
            ^directs mouse further to the right,
```

Figures 14 and 15: Leaving the bug behind

```
16          ^pysyt              ^siinä ja (.) mä
            you stay (Fig. 14) there (Fig. 15) and (.) I
            ^shifts gaze to bug
                                ^gaze back to mouse running
                                to the right --->

17          meen ite (tähän toiselle).^
            myself go (here to the other).
                                   --->^
```

As can be seen from the transcript, Kari comments on and even explains his game-play: 'I can go wander around myself (.) at the same time.' (line 10) or 'you stay [*gaze at the bug*] there and (.) I myself go (here to the other).' (lines 16–17, Figs. 14 and 15), while directing the mouse through the room. He also uses gaze and orb-pointing in this passage (line 13),

namely after voicing and executing a full stop ('but wait a second', line 11), indicating that he ran into or became aware of a problem. He first produces a short 'okay' (line 12), after which he moves his gaze first to the right floor-switch and then to the center (the barrel), while concluding, 'so it still needs this for that.' (line 13, Figs. 12 and 13). More precisely, Kari's gaze is finely tuned with his ongoing talk, as it reaches the right floor-switch exactly at 'this' (Fig. 12) and the barrel at 'that' (Fig. 13). In addition, towards the end of 'that' he shortly moves the orb to the barrel, pointing at it before focusing on the mouse on the righthand side again. These deictic practices that are – like in the passage further above – tied to the ecology of action (Mondada, 2014a, 2016), contribute to establishing reference for Kari's progress and his considerations. Mobilizing multimodal resources, then, Kari not only makes his actions and (different) foci understandable, but he also displays his own understanding of the room's hidden puzzle (publicly detecting the role of the right floor-switch as another aspect of the riddle that has not been tackled yet). By doing so, he clearly continues to treat the other participants as present, available for collaboration.

Indeed, as Kari proceeds in the game, he is beginning to display task trouble, which increasingly becomes more explicit, prompting the others to step in and gradually reinforce their engagement, i.e. through verbal commentary and suggestions, up to giving distinct instructions. Thus, as we will show in our analysis of the following passage, Kari's public deliberations occasion a transition back from single player- to mutual team-orientation, where the player in control works as an executor with certain rights that grant him, for example, the final say and allow him to disregard others' propositions (at least temporarily). In terms of co-presence, these instances are interesting, because they demonstrate how the participants construct and contextualize availability and involvement, and how they make different prerequisites regarding participation and access relevant.

In the beginning of the extract, Kari continues to direct the mouse through the room and onto the right floor-switch, which – now activated – opens two more gates in the barrel. However, he immediately treats the resulting outcome in the game as insufficient (line 19), removes the mouse from the

switch (causing the gates to close), moves it first into and then back out of the barrel, and finally into the barrel again (line 20). With the help of the orb, he then selects the barrel, turns it (with the mouse in it, Fig. 16) leftwards and moves the mouse to the left out of the barrel (line 22). His commentary and gameplay further elicit responses by the others that clearly show an orientation towards support and mutual problem solving, i.e. aligning as a team in the presence of Kari's verbal and nonverbal (bodily as well as on-screen) displays of uncertainty (lines 21–27):

Excerpt 7: Rejection of assistance I

```
18 Kari    ^(7.5)
           ^directs hero to the right switch, two more
           gates open up

19         eiku,^
           or no,
                ^shakes head

20         ^(6.0)
           ^moves the hero in and out of barrel, into
           barrel, turns barrel left (Fig. 16)
```

Figure 16: Kari interacts with the barrel and turns it left

```
21 Simo    ^kato.
           look.
           ^K turns barrel left

22         ^(2.0)
           ^Kari directs the hero out of the barrel to the
           left, looks left

23         ai:ka hienosti.
           quite nicely.

24 Hannu   (ja mä luulen et siin vois tehä ensin
           (and I think that there one could do first

25         ¤et mennä sisälle)
           like go inside)
           ¤pointing movements w hand--->

26         ^(ja se näkee siit et täs on ötökkä.)¤
           (and it sees from there that here is a bug)
                                              --->¤
           ^K looks into the barrel (Fig. 17)
```

Figure 17: Kari looks into the barrel, Hannu points at the screen

```
27 Simo    nii.
           yeah.

28 Kari    ^mut,
           but,
           ^hand to mouth--->>
((lines 29-46 omitted))
```

Simo observably affiliates with the on-screen actions, he shows engagement and monitoring ('look', line 21) as well as encouragement ('quite nicely', line 23) (Baldauf/Colón de

Carvajal 2020) in close coordination with Kari's choices. Hannu, in turn, provides a strategic description of how to possibly proceed with the puzzle (lines 24–26), which is immediately ratified by Simo (line 27). He thereby makes a future orientation visible that corroborates the current issue in the game as 'still not solved', reflecting Kari's ongoing search for a path through the barrel up to the balcony. The design of Hannu's turn marks it as a proposal, publicly displaying an idea rather than certainty: it is characterized by careful hedging ('I think', 'there one could'), thereby aligning with Kari's exploring activities. Similar to example 1, Hannu also begins to gesture with his right hand, lifting it up and pointing at the screen with all fingers extended, while moving the hand clockwise in oval-circling motions twice (lines 25–26). From the observer's perspective, it is impossible to determine whom he addresses with the gesture. It is invisible to Kari, but clearly situated in Simo's visual field. Yet, Hannu's gesture – closely coordinated with his talk – is interesting, as it simulates anticipated movement of the mouse in the game and clearly is oriented to the architecture of the virtual space. Thus, Hannu can be seen as a highly engaged, even briefly assuming an active player's position by "directing" the mouse through the room himself.

Kari can be seen looking into the barrel in close coordination with Hannu's turn, thereby observably aligning with Hannu's comment (line 26, Fig. 17). Yet, he does not take up the proposition, but instead initiates some contradiction ('but', line 28) and moves on to explore the room, looking around and interacting with the barrel, while commenting on what he sees and does in the game (omitted). At the same time, he gradually enhances his verbal, embodied and in-game displays of uncertainty, involving full stops, question formats, headshakes, and aimless gameplay (e.g. turning the barrel back and forth, looking around). These actions occasion several responses by the other participants, which take on the form of aligned pondering and suggestions, similar to Hannu's turn in lines 24–26. Interestingly, in addition to this observable team-orientation, where mutual gameplay and group participation are jointly constructed by all three active participants, Kari also keeps up a single player orientation, rejecting his peers' comments by not implementing their suggestions in his on-screen actions and

witnessably trying to proceed "on his own". He thus positions himself as team member on the one hand, while clearly holding on to being in control on the other hand, displaying an orientation to solving the puzzle alone eventually. As we will show next, Kari even maintains this double orientation after Hannu upgrades his responses in reaction to him exhibiting clear defeat:

Excerpt 8: Rejection of assistance II

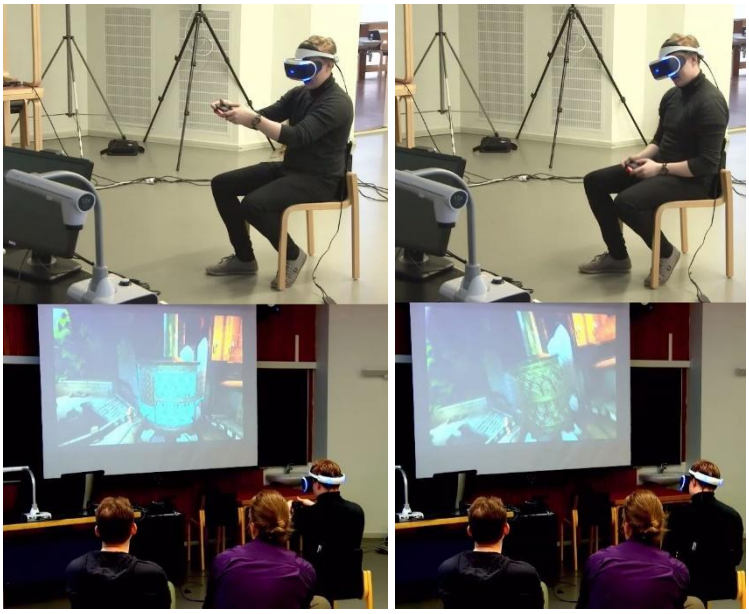
```
((lines 29-46 omitted))
47 Kari    ^(1.0)
           ^looks into the barrel

48         ah:. ^(5.0)
                ^turns the barrel to the right, stops and
                directs mouse out of barrel to the left

49         (^pitääkö mun nyt tehdä näin.)
            ^turns barrel to the right--->
           (do I now have to do like this.)

50         (3.0)^ ^tästä avaudu tää. ((left gates closed))
            --->^ ^stops and holds the orb in place
                   (pointing at barrel)--->
                   from here opens this. (Fig. 18)

51         (1.0) oh my^ ^GO:D. (Fig. 19)
                  --->^ ^drops hands with controller,
                        twists head
```



Figures 18 and 19: Defeat

```
52 Hannu  käännä se vielä [¤niinku,]
          turn  it  still [like,   ]
                           ¤pointing and circling
                           movements with the right hand
                           --->

53 Kari                    [^JOA,  ] nii:n
                            ^lifts controller and turns
                           barrel left--->
                           [YEAH,  ] yes

54        mun pitää [(vielä),^¤]
          I have to [(still),  ]

55 Hannu            [(        )] (    )
                    [(        )] (    )
                         --->^¤

56 Kari   ^eikun siis mun mielestä mun pitäs (ottaa) (.)
          ^turns barrel right--->
          or actually I think I should (take) (.)

57        ton ylös.
          this up.
          --->

58        (1.5)
          --->

59 Hannu  niin pistä se ötökkä siihen toisen päälle.
          so put the bug there on the other one.
          --->

60 Kari   >↑NIIn NIIn.<
          yes yes.
          --->

61        (1.0)^
           --->^
```

Kari observably continues in pursuit of a solution (lines 47–50): he looks into the barrel (line 47), produces a change of state token ('ah::.', line 48), turns the barrel to the right, stops and directs the mouse out of the barrel to the left side, where he leaves it standing for the time being. Immediately after this, he resumes turning the barrel to the right (line 49). Similar to the earlier passages, these actions are accompanied by commentary that he closely coordinates with what is happening on-screen. Kari notably designs his utterances in the light of the visibility of his gaming actions, drawing on the indexicals 'this' and 'here', and utilizing the orb for deictic reference (lines 49 and 50, Fig. 18). Mobilizing multiple resources, then, he sustains a clear notion of the others'

participation and attentiveness, including them in the gaming experience, projecting a possible path to solving the riddle.

However, in the game, some of the barrel's gates (now facing to the left) remain closed, which prevents the mouse from entering the barrel again to reach the balcony on the upper righthand side of the room. This prompts a strong, emphasized response by Kari ('oh my GO:D.', line 51), dropping both hands with the controller to his lap and twisting the head to his left at the end of his turn-constructional unit (simultaneously to 'GO:D', Fig. 19). Kari's embodied expression of failure occasions a directive by Hannu ('turn it still like ( )' [*pointing movements*], lines 52 and 55), thereby treating Kari's actions – in both, the game and the physical space – as a display of being lost, an invitation to step in and to offer concrete assistance and guidance. The upgrade (from making suggestions to initiating instructions) is indicative of Hannu positioning himself as a knowing participant, which at the same time corroborates his active engagement with the unfolding gameplay in the virtual space. The use of the imperative here implies close monitoring of the ongoing game and of Kari's prior actions, allowing for a certain understanding of what is going on and how to possibly proceed. However, in overlap with Hannu's turn, Kari produces an affirmative response ('YEAH, yes I have to (still),'), stressing the first words of his utterance (JOA, / 'YEAH,' and nii:n / 'yes'), while quickly lifting up the controller and manipulating the barrel again, thus immediately resuming control and (re)claiming epistemic authority (lines 53–54). Next Kari stops moving the barrel and initiates repair (line 56): he voices a change of course ('or actually I think I should (take) (.) this up'), which he co-produces with the action of turning the barrel to the right, thus changing its direction. This creates a space for Hannu to give more distinct instructions ('so put the bug there on the other switch.', line 59), who in this way addresses Kari's activities as still inadequate. In response, Kari again claims – and strongly highlights (>↑NIIn NIIn.< / 'yes yes.') – competence (line 60). He also explicitly rejects Hannu's imperative and proceeds turning the barrel to the right (omitted). Eventually the puzzle is resolved, after Hannu's instructions become more elaborate, and Kari ultimately accepts and implements his advice in the game.

This episode of negotiating epistemic authority is interactively relevant, as the participants navigate between shared game-play and different rights to making decisions and affecting the course of the game. It demonstrates how the co-players position themselves in different ways through construction of certainty and uncertainty, while displaying availability and engagement in the physical as well as virtual space.

The second case illustrates how co-presence is achieved and made relevant in and through shared gameplay involving persistent task trouble. Presence in the sense of establishing and maintaining engagement and participation is not only accomplished through verbal, embodied and virtual conduct, but also drawn on as a resource as well as negotiated and carefully balanced with respect to access and participation rights. Throughout the example the primary player ensures – through fine-tuned commentary, gaze and virtual gestures – accountability and projection of his in-game actions. His activities presuppose careful monitoring by the others, frequently creating opportunities for them to step in and contribute to the course of the game. The participants thus establish a specific participation framework, where Kari is not playing a single-player game alone, but rather can rely on the presence and availability of other people in the room as a resource. At the same time, as the passage develops, the interaction exhibits overlapping (and even contrasting) orientations towards teamplay and co-presence and solving the puzzle alone. While Kari continues to display overt uncertainty and even defeat, he does not take up his co-player's comments and instructions. He observably orients to specific rights as the primary player that allow him to make and implement his own decisions regardless of his co-participants' engagement or commitment to the game.

6 Discussion

This study illustrates how participants interactively construct co-presence across physical and virtual spaces and thereby create moments of shared play. They employ what Mondada (2018) calls 'local geography', such as the material ecology of the setting as well as the participants' spatial organization, in

co-constructing the play event. Through joint efforts between different actors in the situation, each taking on different roles in its creation at different times, a kind of shared gameplay emerges. The analysis reveals a dynamic similar to Larsen and Walther's (2019) definition of gameplay as a kind of oscillation between being-here and being-there. Here, we extend the concept by showing how this oscillation happens as a joint activity between co-located actors/players, and how it involves shifting orientations to multiple spaces as well as temporalities as the game unfolds. Shared gameplay is constituted through multimodal actions that display the participants' shifting orientations to being present in the physical space with one's co-actors, while interpreting and managing the virtual space of the game.

The analysis has focused specifically on those moments where the participants establish, sustain and dissolve a team orientation to resolve puzzles faced in the game. These moments are often initiated by the active player's actions such as noticings and verbal formulations of what is visible on the screen, multimodal expressions of uncertainty or questions addressed to the co-participants. These acts create opportunities for the others to step in and realize their role as co-players by drawing attention to specific features of the virtual game space visible through the external screen, by offering their understandings of potential solutions to problems and making suggestions or even giving instructions.

The co-players' actions are temporally closely coordinated with the unfolding game and sensitive to the social organization of the situation. They are also consequential for gameplay: the player in control may adjust or alter his actions in response to new observations or understandings of a specific puzzle and follow suggestions offered by others. The player may also explicitly reject the attempts to influence his choices, challenge or disagree with them, and make explicit his primary rights to make decisions about gameplay. We argue that in both cases, the co-players work to interactively position themselves in multiple interactional spaces and thereby reconfigure these spaces. This way, they also create new contextual configurations for actions to follow. They simultaneously participate in co-creating gameplay and the game event, and stand outside of it.

The findings illustrate how co-players are sensitive to the active player's primary rights to perform and make decisions about gameplay actions. This is visible both in the sequential environments in which co-players initiate talk, and in the way that their turns are formulated. Occasions for interaction often occur at moments where the active player has expressed some trouble or recruited participation from others through verbal and/or embodied displays. Through their linguistic design, co-players' turns that comment on and aim to influence gameplay are often formulated as tentative suggestions that attend to the active player's epistemic primacy (Stivers/Mondada/Steensig 2011) and align with their efforts to resolve troubles in gameplay.

Our analysis further illustrates that achieving team orientation is not frictionless. The data shows participants engaged in constant negotiation of who has the right to act, when, and how. For example, the active player may become irritated by others giving 'obvious' advice, and co-players may design their turns as overtly tentative or polite when trying to influence the active player. Put simply, shared gameplay requires constant interactional work and is related to the social relations between the players

The findings challenge views of presence that contrast face-to-face and virtual spaces and conceive virtual reality games as immersive and distinct from the physical and material surround in which they are played. Rather, similarly to earlier studies of multimodal interaction in technosocial environments (e.g. Keating/Sunakawa 2010, 2011), the analysis sheds light on the diverse and often creative modes of participation that enable the participants to create coherent play across the 'real world' and virtual game world. In situations where multiple participants come together to play single player games, we argue that it is precisely the dynamic interplay of building presence in multiple spaces that creates occasions for playful enjoyment and sociality around the game.

Finally, the analyzed cases show how there may be an element of performance to constructing gameplay. While a player playing a single-player game alone might spend long moments in silence, pondering on their next move, the fact that there are co-players present creates an expectation of verbalizing what might otherwise be internal thoughts into

speaking, and inviting the other participants to act as co-players.

The impact of spectators, has been seen from different perspectives in earlier literature. Some authors have proposed that having other people present during gameplay could interrupt the flow of the player and "knock players out of their fantasy game worlds" (Sweetser/Wyeth 2005: 10). Others have highlighted how introducing other actors into the setting may boost player enjoyment (Gajadhar/De Kort/Ijsselsteijn 2008) and involvement (Gajadhar/De Kort/Ijsselsteijn 2009). In Gajadhar et al.'s (2009: 14) words: "... co-players do not break the spell of the game, but become a part of the magic circle." Our analysis leans more on the latter kind of effect, where the co-players are not so much of a liability as they are a potential resource – that is, actors that become an integral part of the gameplay experience. Therefore, we propose an approach to understanding gameplay that does not try to construct fixed typologies of different kinds of participants, but rather appreciates the many ways in which multiple participants may jointly create the play event even in instances of playing a game designed for a single player.

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Appendix

The transcripts follow the transcription conventions established by Gail Jefferson. The description of multimodal details complies to the principles of multimodal transcription developed by Lorenza Mondada:

.	falling intonation contour
,	level intonation contour
¿	slightly rising intonation contour
?	rising intonation contour
↑	sharp rise in pitch
↓	sharp fall in pitch
<u>mi</u>nä	emphasis
JOA	strong emphasis
[	beginning of simultaneous talk
]	end of simultaneous talk
(.)	micropause
(0.5)	silences in tens of a second
(( ))	transcriber's comments, descriptions of nonverbal actions
:	preceding sound is stretched
se-	glottal stop or cut off
°joo°	whispered talk

=	latches between words or turns
>joo<	increased speech rate
<joo>	decreased speech rate
.joo	word produced with inhalation
.h	audible inhalation
h	audible aspiration
( )	uncertain hearing
£nih£	smiley voice
*	embodied actions by Simo
^	embodied actions by Kari
¤	embodied actions by Hannu
#	embodied actions by Matti
*--->	the embodied action continues across subsequent lines₽
--->*	₽ until the same symbol is reached.
--->>	the embodied action continues after the excerpt₽ end