



# Designing Dance into Qualitative Research

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## History of Dance as Research Method

Over the last two decades, there has been an increasing interest in using methods borrowed from the arts as part of research designs (Barone and Eisner 2011; McNiff 1998, 2004, 2010; Leavy 2009; Grierson and Brearley 2009; Barry and Hansen 2008; Knowles and Cole 2007). However, interest in using dance as a research tool, outside the various dance communities, is much more recent (Biehl-missal and Springborg 2015). Dancers, and artists in general, often refer to their art creation as a form of research. In this sense, the use of dance as research has older roots among dancers.

The development of new dance techniques such as the techniques of classical ballet, the techniques of Isadora Duncan, Martha Graham, Merce Cunningham, Lester Horton, flying low (David Zambrano), the release

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technique (Joan Skinner), contact improvisation (Steve Paxton, Nancy Stark Smith, and others), the Gaga technique (Ohad Naharin), Butoh (Hijikata Tatsumi and Ohno Kazuo), to name a few have often been motivated by the desire to explore and express new aspects of human experience beyond what could be explored and expressed through the techniques available at the time. Furthermore, the development of new dance techniques has often found links to contemporary research in non-dance related fields. For example, when Steve Paxton, one of the founders of contact improvisation, met Daniel Stern and was introduced to Stern's work on attunement between mothers and infants, he realised that his work on contact improvisation was an exploration of how adults attune to each other through movement. Similarly, the development of the release technique is related to research in therapeutic movement such as the Feldenkrais method (Moshé Feldenkrais), the Alexander technique (Frederick Matthias Alexander), Cranio-Sacral Therapy (John Upledger), and Body Mind Centering (Bonnie Bainbridge Cohen).

However, even though the work of dancers in their own field can be considered a form of research in itself, it will often not live up to the standards of rigour, validity, reliability, and generalizability that are normally demanded of scholarly research. This chapter aims to show how elements from the world of dance can be used as part of rigorous scholarly research in business and humanities—as well as other fields beyond dance. This may include research on topics, such as leader–follower interactions, performativity of leadership, organisational culture, and embodied aspects of communication.

## The Use of Dance in Research Design

When considering using dance as part of a research design in business, management, and the humanities, one has to consider how dance relates to all stages of the research process. Since the use of dance in research is often conceived as a means to interview participants bodies, rather than their minds (Hujala et al. 2015) I will in this chapter use the different stages of interview research to give an overview of how and when in the

research process dance can be used. The stages below are adopted from Steiner Kvale's renowned work on the interview method (Kvale 1997: 95).

- **Research question:** Clarify the research question and the why and what of the research design and then consider whether the medium of dance is suitable for capturing the kind of data needed to explore the research question, i.e. whether dance is suitable for the how of the research design
- **Design:** Design the process through which the data (the dance) will be produced. This includes considerations of who should dance and of what instructions should be given to the dancers to secure data that is relevant to the research question
- **Data collection:** When carrying out the dancing one has to consider a range of interpersonal conditions
- **Transcription:** How to transform the dance into a permanent form that is suitable for analysis
- **Analysis:** Decide on methods for analysing the data. For example, is this the role of the researcher alone or in collaboration with dancers?
- **Validation:** How to deal with questions of generalizability, reliability, and validity
- **Reporting:** How (and where) to report on the research

Throughout the chapter, I will discuss how researchers can use dance in the various stages of the research process in practice. I begin by considering which kind of research questions can be usefully answered by including dance in the research design. However, before doing so, it is useful to address the issue of philosophical stance.

## Philosophical Stance

The use of dance in research is not restricted to a particular philosophical stance. However, researchers with different philosophical stances will understand the research process differently. Due to limited space, I cannot discuss philosophical implications throughout the chapter. Instead, I will here give an example of how the reader can think about what is presented in the chapter from their philosophical perspective of choice. Collecting

data through dance exercises can be seen as an interview where the body contributes to the dialogue (more on this below). As with interviews, the researcher can think of this process from different philosophical positions, such as the realist, interpretivist, participatory, or pragmatic perspective.

From the realist perspective (Philips and Burbules 2000), dance may reveal truths that can be hidden by the interviewees' lack of awareness, self-deception, or deliberate lies. From the interpretivist perspective (Berger and Luckmann 1966), the use of dance in data collection brings richer data and, thus, the opportunity for richer interpretations. In a way, the advantage of using dance in data collection is not that it reveals hidden truths but that it provides more building blocks for constructing interesting and useful meanings and narratives. From the participatory perspective (Kemmis and Wilkinson 1998), the use of dance in data collection can be seen as a method for letting the marginalised voice of the body, the affective and/or the aesthetic be heard. Thus, what comes through the body in dance is neither hidden truths, nor new building material for meaning-making. Instead, it is a voice that has hitherto not been allowed to participate in the research process. And the inclusions of this voice can bring about knowledge that is informed by a larger whole.

My personal stance, and the stance from which this chapter is written, is more the pragmatic stance (Cherryholmes 1992). Thus, I may in the following speak from all three above-mentioned viewpoints. Which one I speak from will be guided by an overall concern for the creation of knowledge in support of action.

And now, let's look at how to use dance as a method of research in practice.

## Research Questions

New research methods are often born out of difficulties with answering new sets of research questions. The development of art-based research methods emerged from a desire to answer new kinds of research questions that could not be adequately explored by existing methods. At the same time, the development of art-based methods stimulated researchers to ask

new questions they had not conceived of before. The new kind of questions that emerged together with art-based methods in general included questions about unconscious, affective, and aesthetic aspects of human experience.

Dance, in particular, has been seen as suitable “for diversifying research on such phenomena as power relations, emotions, and identity, which are something we can feel, but which are not easily explicitly reached by words in conventional interviews” (Hujala et al. 2015: 11). Dance can be particularly useful when asking questions about unconscious, affective, and aesthetic aspects of such topics. In the first case, unconscious beliefs, feelings, attitudes, etc. may be visible in how people move in dance. In the second case, dance offers a medium through which affective and aesthetic experience may be more readily expressed as compared to the medium of language.

Thus, dance can be used to explore research questions, such as:

- How do managers manage conflict?
- How do managers feel about leading in unfamiliar situations? (Springborg and Sutherland 2014, 2015)
- How do employees experience and interpret the leader-follow relationship with their bosses? (Hujala et al. 2015)
- How do managers use sensory-motor states in problem-framing and problem-solving (Springborg 2018)
- How do teachers use the embodied dimension of their classroom performance to support their teaching? (Andrews 2018)

## Surfacing Unconscious “Stuff”

It is possible to research such questions through interviews or questionnaires. However, it is a well-known issue, that interviewees and respondents may provide false, misleading, or low-quality information. They may do so for various reasons—including image management/organisational politics, lack of awareness, and self-deception.

Interviewees and respondents may deliberately lie in order to uphold a particular presentation of self or protect themselves. Employees may, for example, lie about their negative feelings related to work because they are concerned about what would happen if their manager found out that they are dissatisfied with their work, their workplace—or the manager. Similarly, managers may be unwilling to admit to their aggressive ways of dealing with conflict or their fears or sense of inadequacy related to leading in unfamiliar situations if they believe such emotions are not seen as socially acceptable in their position. Skilled researchers can counter this by applying various techniques to access richer information that transcend the logics of presentation. Such techniques include creating an environment of confidentiality and emotional safety during the interview and challenging the interviewee's statements by carefully pointing out inconsistencies.

However, even if interviewees and respondents are honest in their answers, they may still be unconscious of the kind of information the researcher is interested in. Teachers may, for example, use their bodies to skilfully communicate theories and concepts, but be unaware of how they do this—or even that they do this. Employees may be unaware of their deeper feelings in relation to various leader–follower relationships. Managers may be unaware of how they deal with conflict or unfamiliar situations. In these situations, interviewees and respondents would simply report that they do not know the answer or state that they never thought about it and do not know. In such cases, the interviewer and the interviewee may engage in an exploration to unearth or formulate the knowledge around this. This can be a very exciting process for the interviewee as they will learn something new about their own practice through this process.

However, sometimes interviewees and respondents are not only unaware of certain things, but they are also unaware that they are unaware. Argyris and Schön (1974) have shown how people will often *believe* they know how they act and feel in certain situations (their espoused theories of action), while, in fact, they are unconscious of how they truly act and feel (their theories-in-use). A manager may believe (and report during an interview) that she feels calm in conflict situations, but when one observes her in conflict situations it may be apparent that she is very tense and anxious. That is, what can be observed in the situation is difficult to reconcile with her own statement about how she feels in the situation. Similarly,

an employee may believe that he is powerless in relation to his boss, but when observed while interacting with his boss it may become apparent that he is, in fact, to a large degree influencing or even controlling the manager's decisions. In these situations, the interviewees and respondents may answer what they believe to be true—yet still provide a partial narrative.

To remedy this, Argyris and Schön suggest that interviews can be based on observations of actual behaviour. This gives the researcher the possibility of pointing to concrete behaviour that may contradict what an interviewee claims about his or her own actions and affective states. Examining concrete observed behaviour together with interviewees can make the interviewee more aware of and better able to talk about what is going on.

Unfortunately, combining interviews with observation of concrete behaviour is not always practicable and does not guarantee good results. First, observation can be too time consuming to be practicable. Second, it may not be possible to observe interviewee's behaviour in natural work situations, if the situations in question are confidential, rare, or dangerous. And third, even when it is possible to observe behaviour, what can be observed even by a trained observer may not speak to the theme of the research. For example, Taylor (2002) was interested in employees' aesthetic experiences during instances of leadership storytelling. Even though he observed the meetings where such storytelling took place it was still difficult for him to elicit information about the participants' aesthetic experiences in subsequent interviews. Art-based methods provide a useful alternative to observation as a means of enriching data collection.

Art-based methods provide another way of raising interviewees' awareness of the topics the researcher is seeking to explore. Using various art forms to surface unconscious "stuff" has been referred to as a projective technique (Taylor and Ladkin 2009), analogically mediated inquiry (Barry 1994). It has been shown that different art-based media are useful for surfacing different kinds of unconscious stuff. For example, building sculptures in clay is more likely to raise interviewees' awareness of affective states than building sculptures in Lego (Taylor and Statler 2014). Dance as a medium allows for a focus on affective, performative, and, relational aspects of experience.

For example, Springborg and Sutherland (2014, 2015) used dance exercises to raise managers' awareness of how they experience and deal with being in leader and follower roles in their work. They did this by assuming that the way managers lead and follow in physical dance exercises reveal a lot about how they feel and act in their roles as leaders and followers in the workplace. They, therefore, asked managers to engage in a series of dance exercises—both in the role of leader and in the role of follower. They then made observations about the physical movements and used these in a subsequent interview about how the manager deals with leading and following. One of the observations made by Springborg and Sutherland was that managers in the leading role were observed to lead steps without waiting for the follower to be on the right foot. When the managers were asked about this behaviour in a subsequent interview, they became aware that they expect resistance from followers and that they therefore were afraid of giving their followers time to find their balance. This fear of being met with resistance from their followers also impacted the way they were leading in their organisations.

Similarly, Springborg and Sutherland observed that several managers in the role of follower moved before the leader had a chance to clearly indicate the direction they wished the followers to move in. Bringing up this observation in the subsequent interview led to the discovery of a deep, general distrust in leaders. As one participant expressed it: "The sooner I can get out of my boss' office, the sooner I can regain control over my project and the less likely it is that my boss will place unhelpful demands on me that will prevent me from doing a good job".

Neither the fear of resistance from followers, nor the distrust in leaders was something the managers in this research were aware of (or willing to talk about) before they were presented with the physical evidence observed during the dance exercises. In this way, dance can be used to surface unconscious stuff when observations of movement patterns are analysed together with the research participants during interviews.

## Expressing Ephemeral Aspects of Experience

The research questions mentioned above also address aesthetic/emotional aspects of human experience that the individuals may be *unable* to express through language even if they are conscious of it. They may simply lack an adequately expressive vocabulary. When describing one's inner life of emotions, drives, intuitions, and feelings, language can often feel very inadequate. Inversely, most people have experienced how a play, a dance performance, a painting, a poem, or a piece of music can express what they feel better than they themselves can do using their own words.

Susanne Langer writes that “the primary function of art is to objectify experience so that we can contemplate and understand it” (Langer 1962: 90). Langer points out that different media are useful for capturing different aspects of human experience. In particular, Langer points out that language has limitations as a medium for capturing human experience and that using various art media to capture experience can help us overcome these limitations. Langer writes: “all language has a form which requires us to string out our ideas even though their objects rest one within the other; as pieces of clothing that are actually worn one over the other have to be strung side by side on the clothesline” (Langer 1951: 65). Anyone who has written an academic text knows the struggle one goes through when trying to present a complex system of mutually interlinked ideas in the linear manner required by language.

The same goes for trying to express complex emotional states where several emotions are interlinked and dependent on each other, such as when one simultaneously loves another person and resents that person because of the sense of dependency loving that person seems to bring. When describing such emotional states in language, it is necessary to mention the emotions and their interconnections one at a time (in the above I chose the sequence: Love—resentment—dependency) even though they appear simultaneously and their very coexistence is a key aspect of the intensity of the state. Using the media of various art forms (both the materials and techniques for manipulating these materials) to capture experience allows us to overcome the barriers of language that Langer points out. When using music to map a complex of interdependent emotional states, one can use different instruments to capture different aspects simultaneously

and thus depict the intensity of their juxtaposition. The medium of dance, like music, can capture both complex and contradictory experience and the development of this experience over time. In summary, using dance as part of research design can be relevant, when asking questions about unconscious, affective, aesthetic, performative, and relational aspects of experience.

## Research Designs

To outline the diversity of how dance can be used in research, I present four different designs, that can be somewhat overlapping. I have named the designs after the kind of phenomena they ask questions about.

1. Develop new theoretical models
2. Understand bodily practices
3. Surface unconscious practices and meaning-making processes
4. Establish links between movement and interpersonal experience

## Develop New Theoretical Models

Some researchers are interested in developing new theoretical models or categories that are useful for capturing hitherto unnoticed aspects of organisational practices and guiding practice. For example, Bozic and Olson (2013) studied how choreographers and dancers develop new dance performances and based on their findings they developed a model for how organisations can develop a culture that supports innovation (for more examples see section below on using dance as metaphorical lens). Researchers who are interested in developing new theoretical models to use in organisational research can follow the design below:

1. Identify a dance-related context that is relevant to the organisational phenomenon of interest

2. Use the anthropological method, interviews, and/or participant observation to thoroughly familiarise yourself with the selected dance context
3. Transcribe interviews/organise field notes
4. Analyse data using meaning condensation, narrative structuring, meaning or categorization/coding. For an in-depth description of these analysis methods, see Steiner Kvale (1997)
5. Use findings to develop a model or framework for the organisational phenomenon of interest
6. Establish communicative, pragmatic, and transgressive validity (see section “[Validation](#)”)
7. Present the theoretical model.

## Understand Bodily Practices

Some researchers are interested in how bodies are used in organisations. For example, Andrews (2018) studied how teachers use their bodies to communicate when teaching (see section “[Vignette 3.2](#)”). Researchers who are interested in understanding bodily practices can follow the design below:

1. Observe/record the relevant people engaged in the organisational context of interest
2. The movements can be “transcribed” in two ways
  - a. A dancer can observe and learn the movements
  - b. The movements can be noted down using a dance notation system
3. The data can be developed in two ways
  - a. The dancer can describe the affective/aesthetic experience of performing the movements
  - b. Enriched reflective interviews: The dancer can show the movements people who originally performed the movements and interview them about the function and meaning of these movements
4. Transcribe interviews and organise reflections

5. Analyse the dance notation, dancers' reflections, and the interviews using meaning condensation, narrative structuring, meaning, categorization/coding, or interpretation. For an in-depth description of these analysis methods, see Steiner Kvale (1997)
6. Establish communicative, pragmatic, and transgressive validity (see section "Validation")
7. Present the findings in a qualitative report format—possibly supplemented by video clips of the dancer performing the moves.

## Surface Unconscious Practices and Meaning-Making Processes

Some researchers are interested in organisational players' often unconscious processes of acting and meaning-making. For example, Hujala et al. (2015) studied academic employees' perception of their interactions with their bosses (see section "Vignette 3.1"). Researchers who are interested in this kind of research can follow the design below:

1. Design a dance session through which participants can use movement to explore the phenomenon of interest
2. The data may or may not be enriched by feeding selected movements back to the participants
3. Conduct enriched reflective interviews: After the dance session, the participants can be interviewed about the phenomenon of interest
4. Transcribe interviews
5. Analyse the interviews using meaning condensation, narrative structuring, meaning, categorization/coding, or interpretation. For an in-depth description of these analysis methods, see Steiner Kvale (1997)
6. Establish communicative, pragmatic, and transgressive validity (see section "Validation")
7. Present the findings in a qualitative report format—possibly supplemented by video clips of the dance performances to evoke relevant affective/aesthetic states.

The advantage of this design is that the dance session can give participants language to talk about affective and aesthetic aspects of their organisational experience that might otherwise remain unconscious or difficult to express in words. The disadvantage is that many people may hesitate (or refuse) to participate in a dance session.

## **Establish Links Between Movement and Interpersonal Experience**

Some researchers are interested in establishing links between patterns of movement and interpersonal experiences. For example, Himberg et al. (2018) were interested in the link between group movement and the interpersonal experience of togetherness. Researchers who are interested in establishing such links can follow the design below:

1. Design a dance session in which participants engage in different patterns of movement or move in various physical environments
2. Measure relevant biometric data (EEG, movement tracking, hormone levels in before and after blood samples, etc.). Some biometric measurements will necessitate extra ethical precautions
3. Measure interpersonal experience using psychological scales and/or interviews
4. Analyse data using statistical methods. See, for example, Andy Field and Graham Hole (2003) for details
5. Establish validity using statistical significance
6. Present findings in a quantitative report format.

These designs are summarised in Fig. 1.

In the following sections, I will describe in more detail how to use dance in the various phases of the research.

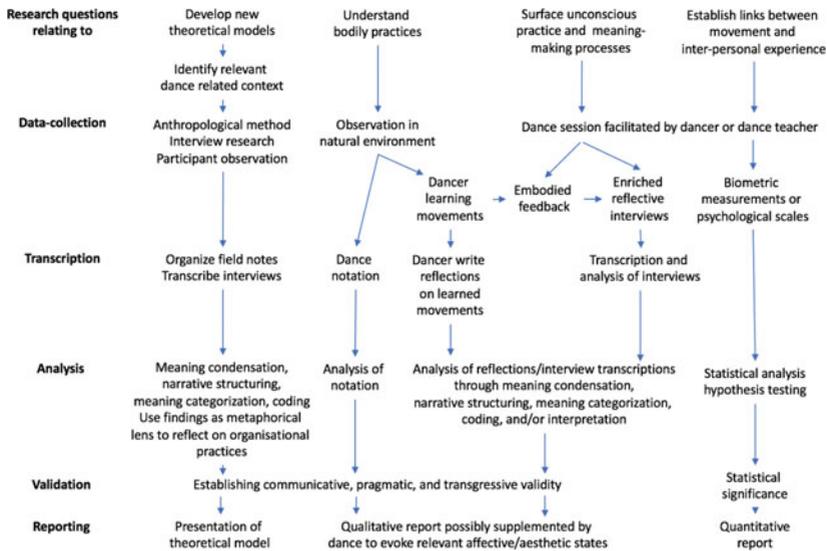


Fig. 1 Research design summary

## Data Collection

The main concern in the design and execution of data collection in any research is to elicit and capture data that is specifically relevant to exploring the research question. If the design and data collection is too narrow in its focus nothing new will come out of the research. If the design and data collection is too wide in its focus, the researcher will drown in data and the analysis will be too time consuming. Three themes are particularly important in relation to designing and executing data collection sessions using dance: Creating a safe space for the participants, designing and framing the dance session, and capturing movement data.

### Creating a Safe Space for the Participants

Just as is the case with interviews, it is important to make participants feel at ease during the data collection session. If participants are worried or ill at ease due to the unfamiliarity of the research context, this can affect the

data. Researchers can do a number of things to make participants feel at ease and prepare them for a dance session.

First, it is important to give participants information about how the data will be used, tell them what precautions will be used to ensure their anonymity, and answer any questions the participants may have relating to the formal structure of the research process and data handling.

Second, if the participants do not already know each other, it is important to take time to establish a certain level of trust and make participants feel at ease with each other. This can be done using power mingling exercises, i.e. short (typically 2–5 minutes) exercises where the participants can develop relationships by getting to know a bit about each other, laughing together, collaborating on simple tasks, etc. Many such exercises can be found online by searching for “power mingling” or “energizers”. One simple possibility is to give participants 2–3 minutes to walk around the room, shake hands with everyone and tell each other why they are participating in the research.

Third, researchers should consider using the term “movement” rather than “dance” to avoid more formal notions of established dance styles interfering with the research process or participants perceptions of what is expected of them. Indeed, using the term dance may scare off some participants who believe that they “cannot dance”.

Fourth, it is highly recommendable to do a warm-up session consisting of exercises that will enable participants to clearly understand how the dance sessions will work and will give participants confidence in their ability to participate. This is done to prevent the situation where the dance session has to be stopped in order to clarify technical matters or where the dance session is inhibited by the participants doubts in their ability to engage in the dance session.

## **Designing and Framing the Dance Session**

When designing the actual dance session, it is important to both consider the research question and the participants’ abilities. Researchers can use questions, themes, stories, and/or physical instructions to frame the dance session.

Hujala et al. (2015) asked research participants to do solo dance improvisations as a way to express their experience with leader–follower relationship at work. The dance session was improvised. The session was framed by giving participants a theme and by asking them a few carefully selected questions (see the vignette below for more details). Springborg and Sutherland (2014, 2015) used highly prescriptive physical instructions—i.e. dance exercises drawn from tango and contact improvisation as a means to surface managers’ unconscious assumptions governing their behaviour as leaders and followers in the workplace. Since none of the participants had danced these dances before, the researchers used exercises normally given to complete beginners.

It is often a good idea to involve a professional dance pedagogue to facilitate the session if the researchers are not themselves dancers/dance teachers.

## Capturing Movement Data

Capturing data consisting of human movement poses a methodological challenge. It is not easy to capture movement in ways that makes it available for rigorous analysis. If researchers are concerned with capturing *all* of the data, rather than capturing *relevant* data, it may be tempting to think of using video recording or even motion capture technology to capture the movement data. However, this may not necessarily capture the kind of data that is most relevant to the research question.

The appropriate data collection method depends both on the research question and on the method the researcher plans to use to analyse the data. The relationship between research question and data collection method can be illustrated by a few examples, set out in Fig. 2.

Similarly, the relationship between method for analysis and data collection method can be illustrated by thinking of the situation where the researcher plans to explore unconscious aspects of participants’ experience.

The researcher can use dance to make participants aware of previously unconscious aspects of their experience and analyse participants’ descriptions of their discoveries. In this case, the most relevant data will be the statements of the participants’ and video recordings will be of lesser value.

Research questions	Data collection
Explore the participants' experience of certain relationships or activities and dance is used to surface unconscious aspects of this experience and to challenge and complexify the participants' conscious narratives	Participants' reflections on dance session  Selected observations by research/ dance pedagogue
Explore aspects of the participants' experience, which may be difficult to express in words,	Oral statements from participants  Dance session recorded on film and watched by researcher and participant together
Explore to what degree participants under various conditions imitate each other's movements	Video recording of dance sessions.  Editing of recording can be sliced to highlight illustrative examples

**Fig. 2** Relationships between research questions and data collection methods

If on the other hand, the researcher plan to do a visual analysis of the participants' movements drawing on theories which links observable physiological activity to inner experiences, then video recording becomes the most relevant data to collect.

It is also possible that the researcher plans to draw on theories that link non-observable physiological activity, such as micro activity in muscles or neural activity in the brain, to inner experience. In this case, the researcher would have to fit the research participants with electrodes during the dance session to collect relevant data.

The following section gives a concrete example of research in which a dance session was used to collect data about research participants' experience of leader–follower relationships.

### Vignette 3.1: Dancing with the Bosses

Hujala et al. (2015) studied academic employees' perception of their interactions with their bosses. The researchers used themselves as research subjects. They first engaged in a dance session led by a dance pedagogue and then wrote about their experience using an auto-ethnographical approach (Essén and Winterstorm Värlander 2012). They conceived of the dance session as "a living and embodied interview", aiming to harness each participant's entire physical body to create knowledge about the leader-follower relationship" (Hujala et al. 2015: 11).

Hujala et al. furthermore, consider four meta-theoretical perspectives (social constructionism, critical realism, pragmatism, and phenomenology) and proposes that the use of dance is most strongly connected to phenomenology—in particular phenomenology of the body. They argue that through dance the individual can become aware of how he or she feels about (rather than think about) the relationship to his or her superior. They write that: "dance can help us to step aside from our everyday simplifying attitude, in which we take the leader-follower relationship for granted. Instead of 'thinking', we try to 'feel' leadership and followership: we let our body tell us how we feel in the relationship with our boss(es)" (Hujala et al. 2015: 18–19).

The dance session took place in a university classroom and consisted of six stages.

1. The dance pedagogue led a warm-up session to get the participants into a creative mood
2. Each of the six participants did an individual performance reflecting their own experience with leader–follower relationships. The participants performed to music they had selected themselves before the session, which they felt reflected their attitudes and experiences with leader–follower relationships
3. After each individual performance, the other participants would imitate the movements of the performer using the same music. This was a physical way of giving feedback. The individual performances and the feedback performances were all video recorded
4. After each feedback session, the dance pedagogue led a reflective dialogue
5. After all performances, the participants reflected on the experience and wrote down their reflections on three questions: "what kinds of feelings did my own performance arouse? What did the creative movement reveal about my own leader-follower relationship (a current relationship or in general)? How did I feel about this experiment with dance/creative movement as a method?" (Hujala et al. 2015: 20). The two first questions aimed to generate knowledge about the participants' experience of the leader–follower relationship. The third question was included because

the research in addition to exploring followers' experience of the leader–follower relationship also set out to explore the methodological question of how dance can be used as a research method

6. In the final stage, the video material was analysed in the light of the written reflections by the dance pedagogue and the two participants. The outcome of this analysis was short narratives describing each of the participants' experience of the leader–follower relationship.

The result of the research was a series of highly evocative descriptions of the participants' experiences of leader–follower relationships in which the physical dance exercises served as a means of expressing this experience. For example, one participant chose a Finnish tango for her performance. In her reflections after her performance, she wrote:

I chose as my movement a dance for two, which I do not like and which I cannot really do. Bodily I felt clumsy and the movement with my boss was a constant search for a common tune. I felt the relationship physically. Emotionally I was a bit weary and uninterested. Life goes, like a dance for two by mediocre dancers... one bends and sometimes can be happy, but mostly it's making compromises and taking care not to step on somebody else's toes. The cooperation is mainly fluent, but the final touch of passion and cooperation is lacking. (Hujala et al. 2015: 23–24)

This description illustrates how the dance enabled the participant to express her experience in a very eloquent and evocative way by drawing on the physical experience of the dance session. In their final reflections, Hujala et al. writes: "We did not ponder the relationship 'rationally' as we probably might have done through the traditional discursive interview. On the dance floor it was easy to forget the everyday reality and just let the feelings come out through movement" (Hujala et al. 2015: 29).

While Hujala et al.'s (2015) approach was innovative, it prompts a number of methodological questions.

First, one can ask to what degree did the performance reflect how the participants already experience the leader–follower relationship at the workplace and to what degree did it shape and change how the participants experience this relationship? For example, the tango dancer mentioned above expressed her dissatisfaction with what she perceived to be poor leadership. However, the session also led her to reflect on her own role and what she could do to change the situation. Another participant realised that even though she was a follower, she was a remarkably powerful actor. In fact, "all participants felt that their dances ended in some kind of empowerment" (Hujala et al. 2015: 28). Thus, the session did not merely reveal the

participants' experience of the leader–follower relationship. It also changed this experience.

Second, Hujala et al. notes that it takes courage to participate in this kind of research. Not everybody would be willing to dance their relationship to their boss. Furthermore, the method can bring up strong emotions and it is important that the facilitator is competent to deal with situations where participants might experience overwhelming emotions (Hujala et al. 2015: 29). This is, thus, an important ethical consideration related to the research design.

Third, when researchers use dance sessions as a way of generating data, they must be ready to face critique from reviewers and others who will see the method as being unscientific. Hujala et al. question why interviews are readily accepted as a legitimate way of producing knowledge and embodied interviews are not. I will return to the question of how to argue the legitimacy of research using dance in the section on validation of findings.

## Transcription and Analysis

In this section, I will present three approaches to transcription and analysis of data that are useful in dance-based research. These methods are not exhaustive but rather meant to illustrate some of the possible diversity in this phase.

The word “transcription” in this context is used to refer to any transformation of data into a form that is suitable for the intended analysis. Thus, there can be a more fluid boundary between transcription and analysis than what is perhaps usual in interview research.

First, researchers can transcribe movements from a dance session into written text by asking participants to produce written reflections on their experience of the dance session or by conducting reflective interviews with the participants about the dance session and transcribing these interviews. This written text can then be analysed using traditional methods. Second, researchers can use methods originally developed for analysing dance to analyse movement beyond the realm of dance. Third, researchers can use concepts from dance as metaphorical lens to analyse non-dance data.

## Using Traditional Methods to Analyse Dance Data

In the research recounted in the previous section, dance was used to generate data which through several iterations of reflective acts were transformed into written text. This text was then analysed using the methods of meaning condensation where the text is condensed to shorter meaningful statements (Kvale 1997: 192) and narrative structuring where the “interview” is transformed into an overall narrative (Kvale 1997: 197). Other traditional analytical methods used in interview research could also have been used. For example, meaning categorization or coding where sections of the text are assigned to categories depending on the degree to which they represent specific phenomena (Kvale 1997: 194) or interpretation where the text and the movements are interpreted, for example using psychoanalytical theory or other relevant theories (Kvale 1997: 199).

To use such methods of analysis, the research has to bring the data into the form of written text. In the research above, some of the data was collected as text (the participants’ written reflections) and needed no further transcription. Other data was collected as spoken language and needed to be transcribed (Kvale 1997). Yet another part of the data was collected as video. This data was not transformed into text and the movements were not analysed in detail. Watching the videos was used to support the analysis of the texts.

## Using Methods from Dance to Analyse Movement Data

Some scholars use methods originally developed for analysing dance to analyse other forms of movement. For example, Andrews (2018) used tools and techniques from dance to analyse the embodied aspects of two teachers’ performances when delivering lectures. In short, she used her skill as a dancer to learn the movements of the teachers as if they were movements given to her by a choreographer or dance teacher. Once she learned the movements, she described them in detail and sensed into their affective qualities, i.e. she felt what affective states performing these movements called forth in her. Later, during interviews with the teachers,

she would show them their movements and ask them to reflect on their communicative function.

Even though Andrews did produce written text in the form of her own written descriptions of the movements she learned and the transcribed interviews with the teachers, learning the movements and describing their affective qualities as they appeared to her goes beyond mere data collection and must be seen as an important part of her analysis. In this way, Andrews used physical methods she has learned through her training as a dancer/choreographer in her analysis of the data. I will describe Andrew's method in more detail below (see section "[Vignette 3.2](#)").

Other scholars have suggested that Labanotation, a method for representing human movement in a written form developed by Rudolf von Laban, can be a useful tool for turning various forms of movement into written symbols and thus making movement available for rigorous analysis (Kolo 2015; Zeitner 2015). This and similar notation techniques offer a structured way of talking about movement, which can be useful for analysis of video recorded (or simply observed) movement. It enables researchers to systematically consider the complete body movement, countering attention biases, and gives communities of researchers a shared language through which they can speak about movement.

## **Using Dance and Choreography as a Metaphorical Lens to Analyse Non-dance Phenomena**

Some scholars have used dance as a metaphorical lens to analyse various non-dance phenomena. Using one domain as analytical tool to understand another domain is a natural cognitive function in humans which is explored in the field of Cognitive Metaphor Theory (Grady 1997; Lakoff 2012; Lakoff and Johnson 1980, 1999). It has been shown that for example theories of organisations can be grouped depending on whether they use machines, biological organisms and ecosystems, cultures, brains, or other domains of experience as metaphorical lens to analyse the phenomenon of organisations (Morgan 2006).

There are many examples of scholars who have used various practices from the world of dance and choreography to analyse non-dance phenomena. For example, many scholars have used various couple dances as metaphorical lens to analyse leader–follower relationships in organisations (Matzdorf 2015; Springborg and Sutherland 2015). Robin Denise Johnson (2013) has used the dance practice Five Rhythms to analyse differences in leadership style.

Five Rhythms is a popular dance practice where dancers improvise together in groups and this improvisation moves through a sequence of five different overall movement qualities: flow, staccato, chaos, lyrical, and stillness. Johnson used these five modes to create five categories into which she fit important aspects of leadership. Ropo and Sauer (2008) use their ideas about the contrast between ballroom waltz and techno rave dancing to analyse the difference between leadership understood through a hierarchical logic and leadership understood as a collaborative and distributed practice. Robert and Janet Denhardt (2006) interviewed dancers about their practices and developed from these interviews categories for analysing leadership. John Chandler used concepts from dance to analyse “movement, gendered, embodiment, audience, emotion and rhythm at work” (Chandler 2012: 865). Nina Bozic and Bengt Köping Olsson (2013) studied the collaboration of choreographers and their dancers and used their findings as an analytical tool for looking at innovation processes in organisations. Brigitte Biehl-Missal (2018) studied improvised live performances of techno DJ’s and how they read and influence the movements of the dancing crowd and used her findings to analyse how embodied and relational leadership emerges in the space between leaders and followers (Biehl-missal 2018) and “how organisational spaces and human interaction enable, produce and negotiate experiences that are transitory, embodied and difficult to pin down” (Biehl-missal 2019: 16).

Common to the above examples is, that they use an aspect of dance and choreography, as a metaphorical lens to analyse something that is not dance. Two aspects are important when using dance/choreography as metaphorical lens for analysis: A thorough familiarity with the dance/choreographic practices used and a good link between these practices and the phenomenon they are being used to analyse. If researchers

do not have thorough experience with the dance practices they use as analytical tools, the resulting analysis will most likely provide little more than colourful language through which they can promote preconceived ideas about the subject of their analysis.

When using dance/choreographic practices as metaphorical lenses, it is important to have a good rationale for using a particular dance practice to analyse a particular non-dance phenomenon. For example, it is easy to argue why couple dances provide a good metaphorical lens for analysing leader–follower relationships, since couple dances contain physical leader–follower relationships, which can be used to sharpen our concepts of non-physical leader–follower relationships. Similarly, Bozic and Olsson have a strong argument in comparing the choreographic work with innovation insofar as the choreographer is striving to create something truly new. If the choreographers they studied were merely creating series of performance similar to their previous performances the argument for using their practices as a lens to analyse innovation in organisations would be considerably weakened.

### **Vignette 3.2: Choreography of Education**

Andrews' (2018) study of the embodied dimension of teaching provides an example of how tools and techniques from dance can be used in relation to data analysis. Andrews is interested in how excellent teachers use physical movement as a tool for communicating while teaching. To capture and analyse this embodied aspect of the teacher's performance, she applies "tools and techniques used to study movement and choreography in dance" (Andrews 2018: 18).

Her method can be described in four parts: dwelling, interiorization, transcription, and translation. In the first two phases of her method, Andrews drew on her background as a professional dancer and choreographer. She would sit in class and observe a teacher move (dwelling) in the same way she would observe a dancer perform a choreography she would have to learn. She would then engage her "kinaesthetic awareness and knowledge" and "very subtly allow my body to move and respond to the teacher's movements and later conjure the felt sensations when reconstructing movements, gestures and postures observed in class" (Andrews 2018: 23). This is what Andrews (following Michael Polanyi) calls interiorization. After having learned and practiced the movements of the teacher by using her own body and her ability she has as a dancer, she would first create a detailed description of these movements (transcription) and second describe the "feeling,

tone, and overall affect of the movement within the context of the situation" (Andrews 2018: 23). For this last description, she would draw on poetic images and metaphors. Through this process, Andrews would become thoroughly familiar with the gestures of the teachers and this enabled her to show these gestures and ask about their meaning and communicative function in later interviews with the teachers.

Andrews used this method to analyse the performance of two teachers with very diverse styles. She found that teachers were mostly unaware of their own gestures, yet these gestures supported the teaching. Andrews writes: "The structure of the class provided a narrative, yet the embodied performance of each teacher acted like a perfume that permeated the class. The percussive quality of Alexandra's performance and tight narrative created an atmosphere where one needed to sit up and be ready to go... The more melodic and casual quality of Julie's performance created a relaxed environment" (Andrews 2018: 33).

Andrews' method is a way of enriching a later interview. However, it is important to notice how the analysis begins already in the process of transcription and translation. Alvesson and Sköldbberg (2000) points out that data collection inevitably contains an interpretive element since data collection distinguishes between relevant and irrelevant data. However, in particular the transcription phase of Andrews' method seems to go beyond this level of analysis. In this way the interview can be seen as a development and verification/falsification of the first round of analysis carried out during the transcription phase.

It is worth noting that this method is contingent on Andrews' skill as a professional dancer. Without this skill, it will be difficult for a researcher to use this method. However, this is not different from other research methods where the quality of the research is contingent on the researcher's skills. For example, researchers who use interview methods need to learn skills, such as, avoiding leading questions and bracketing their own perspectives in order to better capture those of the interviewee.

Andrews mentions that the interiorization was difficult for her because she could not move during the lecture—and thus had to rely on very subtle movement. Other researchers who consider using this method, could consider watching video recordings of the lectures, giving them the freedom to move as they like without disturbing the class.

## Validation

How researchers ensure validity of the knowledge produced through the kind of dance-based research designs I have outlined in this chapter will

vary depending on the researcher's philosophical stance and the particular research design. Beneath, I will describe three approaches that go beyond validation through statistical significance described by Sandberg (2005): Communicative, pragmatic, and transgressive validity. These approaches can be used simultaneously in any research project.

Communicative validity refers to establishing a common understanding between researchers, research participants, and the broader communities of researchers and practitioners. For example, during dance sessions and interviews, communicative validity means establishing "an understanding between researcher and research participants about what they are doing" (Sandberg 2005: 54). During data analysis, communicative validity means generating interpretations that both account for as many parts of the empirical material as possible and makes sense to researchers and practitioners in fields related to the research. Thus, to achieve communicative validity, researchers can invite research participants to comment on whether the findings make sense to them, explain findings to colleagues to test whether they make sense to them, have an external auditor review the research, and compare multiple researchers individual coding of interviews and field notes to test for inter-coder reliability.

Researchers can also collect several kinds of data that can be compared. This is commonly called triangulation and was applied in both vignettes described above. Hujala et al. (2015) collected video material, reflective dialogues, and written reflections for analysis. Andrews (2018) collected both personal reflections on the first-person affective experience of the teachers' movements and conducted interviews with the teachers. One of the main problems with triangulation is that it expands the scope of the study significantly as the researcher has to allow time for additional data collection and analysis. Another problem with triangulation is that the different kinds of data may not always speak to the same question.

Pragmatic validity refers to testing the produced knowledge in action. For example, after developing ideas about how to use body movement patterns as a teaching tool, Andrews (2018) could achieve pragmatic validity by teaching these movement patterns to teachers and observe whether these teachers could use them in their classes. Similarly, Bozic and Olsson (2013) have travelled and taught managers the model of how to create a

culture for radical innovation they developed from interviewing choreographers and dancers about how they develop performances. If managers are able to use the model in practice to generate a culture of radical innovation in their organisations, the knowledge produced by Bozic and Olsson has pragmatic validity.

Transgressive validity refers to the process of showing how the knowledge produced is ambiguous, complex, contradictory and is based on the researcher's personal assumptions. In practice, the researcher can implement practices of transparency that will make it possible for readers to draw their own alternative conclusions. Researchers can, for example, make their data available through rich, thick descriptions, extensive quotations from interviews, strive to become aware of their own biases and be transparent about these, and make a point of presenting information that counters their knowledge claims. Keeping a research journal in which one writes about ambiguities, contradictions, biases, and personal emotional reactions can be of great help in developing transgressive validity.

## Reporting

Finally, one can consider how to use dance in relation to the presentation of research findings. In this chapter, I propose two areas where dance can bring unique contributions to the presentation of research findings: The use of dance as an expressive medium and the use of dance to make researchers aware of and the embodied nature of their thinking.

### Dance as an Expressive Medium

Since 2011 John Bohannon has hosted a yearly competition called Dance Your Ph.D. (Bohannon 2011). In this competition, scholars are invited to make videos in which they present their Ph.D. research in physics, chemistry, biology, and social sciences through dance. John Bohannon did a TEDx talk in Brussels in 2011 proposing that scientists should replace their PowerPoint presentations with live dances.

The videos produced for this competition generally are a form of entertainment where students draw on various social dances, tap dancing, ballet, or simply moving around, combined with various props to make entertaining representations of phenomena such as particle formation, heart surgery procedures, and social interactivity. In most cases, the videos contain a series of sentences explaining the research, which could have stood alone, and the dance seems to serve the dual purpose of making a dry topic funny to watch and of creating low-tech visualisations to illustrate the concepts used in the text. The first is only necessary to grasp the attention of people who are not particularly interested in the topic and the second can be achieved through any animated visualisation. Thus, neither necessitates dance as such.

This raises the question, whether dance has something unique to offer in relation to the presentation of research findings and what kind of research findings can be represented through dance. One answer to this question could be that in the same way as dance (and other art-based media) better capture affective and aesthetic experience, it also better evokes it and thus represents it. Laura Brearley (2002) researched the emotional responses of “middle and senior managers during an amalgamation process, in which all of their jobs had been spilled and their previous organization absorbed into a larger entity” (Brearley 2002: 298). She chose to represent her research findings by constructing a poem from the interview transcripts. Laura Brearley, who is a musician, further experimented with setting the poem to music. Thus, Laura Brearley used music and poetry as an integral and indispensable part of the presentation of her research findings. Using these art forms allowed her to represent the emotional tone by evoking it in the listener. This would have been very difficult to do through a traditional academic presentation.

The famous dancer Isadora Duncan, one of the pioneers of modern dance, is said to have responded to the question of what her dance meant by saying: “If I could tell you what it meant, there would be no point in dancing it”. Just like music and poetry enabled Laura Brearley to evoke the emotional tone she had been exploring, we need to ask what kind of phenomena we can evoke through the medium of dance and how this can be used in relation to the presentation of research findings.

## Creating Awareness of and Transparency About the Embodied Ground of Their Thinking

Through dance training the researcher can increase his or her proprioception, the ability to perceive the movement of one's physical body, his or her interoception, the ability to sense subtle internal movements in the body, and his or her felt sense, "a body sensation that is meaningful" (Cornell 1998). Such skills are important, recent developments in cognitive science suggests that even the most abstract concepts are grounded in sensorimotor experience (Ackerman et al. 2010; Barsalou and Wiemer-Hastings 2005; Wiemer-Hastings and Xu 2005) and that if two people ground the same conceptual term (the word) in two different sensorimotor experiences (different sensory templates) it will, in fact, operate as two different concepts and enable the two people to perceive and act in very different ways (Springborg 2018; Springborg and Ladkin 2018).

Therefore, it is important for researchers to be explicit about what sensorimotor experiences they use to ground their concepts. One example of this is found in the book *Presence: An exploration of profound change in people, organisations, and society* (Senge et al. 2005). In this book the authors several times use descriptions of the sensorimotor experience in which they ground various concepts as a tool to distinguish between a common use and their particular use of these concepts. Joseph Jaworski talks about how the concept of "commitment" is commonly grounded in the physical tension one can feel when determined to do something. He then goes on to point out that he himself grounds the concept "commitment" in a sensorimotor state of relaxation and surrender. Therefore, he often uses the phrase "surrender into commitment".

Being transparent about the sensorimotor states in which one grounds various key concepts is a good way to avoid misunderstanding and misinterpretations. Stephen Fineman laments that many of the concepts from humanistic psychology, such as "empowerment", have been adopted and misused by managers: "Beneath empowerment's humanistic trappings, one can see a subtle form of control aimed at getting more performance from workers, often for relatively less reward" (Fineman 2008: 4). By changing the sensorimotor experience in which the term is grounded, it is possible to maintain the same coercive and exploitative managerial

practice, while shifting the social discourse around this practice from a negatively laden to a positively laden discourse. This is only possible insofar as the description of the sensorimotor ground of concepts is omitted from the presentations of research. Thus, developing awareness of the sensory templates, the embodied ground of their own thinking, and developing the ability to put these into words is important for researchers to attain accuracy and transparency in their research presentations (Springborg 2018). Such awareness can be developed through somatic practices, including dance practices.

## Conclusion

Dance offers exciting new possibilities for researchers. In particular, dance offers new methods for exploring unconscious, affective, and aesthetic aspects of organisational life. In this chapter, I have presented a collection of possibilities for using dance in relation to various parts of the research. Furthermore, I have described how these ideas can be used in four different research designs. It is my hope that this chapter can inspire readers to develop many more interesting research designs using elements from the world of dance.

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