

What is real? (Re-)Locating body, movement, and experience in an increasingly digitized world

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ABSTRACT

In sport pedagogical contexts, body, movement and experience can be seen as fundamental issues. The conceptualization of these issues—often based on anthropological, phenomenological, or otherwise philosophical considerations on how human beings act and perceive the world—is crucial for sport pedagogical work on the theoretical, practical, and empirical levels. The authors' thesis is that, in an increasingly digitized world, body, movement, and experience are gaining more and more new meanings. Therefore, this paper seeks to (re-)locate body, movement, and experience in a digitized world, confronting traditional sport pedagogical conceptualizations with philosophical and sociological considerations on digitality. The aim is to build a solid base and to open new doors for sport pedagogical work in the 21st century.

Keywords

digitalization, body, movement, experience, sport pedagogy, education theory, bildung

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Introduction

In sport pedagogical contexts, body, movement, and experience can be considered as fundamental categories. Almost every sport pedagogical theory and practice deals with bodies in movement (in more or

less strong connection to sport and play) and mostly focuses on experience as a pedagogical category (McNamee, 2005; Quennerstedt et al., 2021; Tinning, 2012). In the (German-speaking) discourse on sport pedagogy—from which this article is written—there

are well-founded philosophically oriented theoretical reflections on these categories and on how humans act in and perceive the world (Giese, 2008; Grupe, 1984; Thiele, 1996). This is theoretically underpinned by the elementary goal of educational efforts to enable *Bildung*, understood as the self-determined enlightenment of young people in their subjective relationship to oneself and to the world (e.g., Aggerholm & Giese, 2023; Biesta, 2021). Hence, a transformation of the relationship to oneself and to others is called the process of *Bildung* (Koller, 2012). *Bildung* is distinguished from competence-oriented or psychological learning concepts and means a lifelong process of self-work whose importance is repeatedly emphasized in German-language sports pedagogy (e.g., Ruin & Stibbe, 2021; Wibowo et al., 2022). *Bildung* is strongly connected with the experience of an interruption or an irritation. Experiences of *Bildung* make it possible to experience oneself and others in the world differently, to see and behave in a different way (Brinkmann & Giese, 2023). In this respect, the exemplary conceptualization of body, movement, and experience is crucial for sport pedagogical work on the theoretical, practical, and empirical levels.

While these basic categories have always been the subject of critical discourse and have not been conclusively defined (Thiele, 1996), present conceptualizations can be increasingly questioned in the course of a currently intensifying digitization of our everyday practices (Hoffmann, 2017). With an increasing use of and interconnection with complex digital technologies and infrastructures, a “digital condition” (Stalder, 2018) is fundamentally challenging the existing understandings of body, movement, and experience in our lives.¹ This has a huge impact on sport pedagogical work.

1. The reference theories discussed here show proximities to current, sociological approaches in the context of New Materialism Theory, but since these approaches are not the focus of the author’s own argumentation, they are merely mentioned in the context of this footnote, but not discussed further in the article (e.g., Goll et al., 2014; Houben & Prietl, 2018).

Common distinctions between “virtual” and “real” or “digital” and “natural” contexts (as well as bodies, movements, and experiences) seem increasingly untenable as the transitions become fluid. With game consoles whose operation involves physical changes of location, apps that prompt physical activity based on collected movement data, or not least with the possibility to virtually participate in a bicycle race in one’s own living room on a real bike, for instance, it must be critically questioned which body moves how in which world and which experiences accompany it.

So, if sport pedagogical theory aims to discuss digitality in terms of its impact, fundamental queries need to be addressed. The discussion needs a distinction between a more superficial level, which, for example, deals with questions about the use of digital tools in physical education, and a pedagogical depth level, which asks what educational (in our view, *Bildung*-theoretical) consequences arise from digitality. Questions concerning the application of technologies in physical education as supporting aids, which seem to dominate the sport pedagogical discourse on digitality to date (e.g., Bodsworth & Goodyear, 2017; Jastrow et al., 2022), cannot ignore the fact that these technologies are not at all “innocent tools” (Rode, 2021, p. 15), but rather express certain conceptualizations of body and movement, and thus, to a certain extent, anticipate experiences. Hence, “learning to be human in a digital world” (Chambers & Sandford, 2019) requires us to (re-)locate these fundamental categories of human being in the world regarding digitality. In doing so, in the following, we aim to build a more profound base and to open new doors for sport pedagogical work in the 21st century.

Body, movement, and experience as elementary sport pedagogical categories

Aiming to (re-)locate body, movement, and experience in an exemplary analysis in an increasingly digital world for sport pedagogy out of a continental approach, we must necessarily take into account the

dominant Bildung-theoretical tradition and the basic assumptions associated with it (Biesta, 2021). Even if a seamless translation of Bildung into international sport pedagogy is not possible (Aggerholm & Giese, 2023), the assumption that body, movement, and experience are attributed central Bildung potentials seems to be consensual (Brinkmann & Friesen, 2018). However, underlying images of man, understandings of education, and the specific relevance attributed to certain body- and movement-related phenomena and experiential processes differ (summarized in Prohl, 2010). Hence, focusing on body, movement, and experience as the basic categories of sport pedagogical theory and practice, we aim to better understand the changes provoked by digitalization, and hence see the necessity for a deep look at these elementary categories.

Body

The body can be named as a fundamental category and as a basic theme in the tradition of physical education and sport pedagogy (Krüger, 2019). In the German-language discourses, Grupe's (1984) emphasis on the educationally relevant significance of physical/bodily phenomena in his influential *Foundation of sport pedagogy* written in the 1960s, is considered groundbreaking. Based on anthropological considerations, he points out that the "double sense" (Grupe, 1984, p. 108) of the pedagogical significance of the body always comes into play in sports education processes. While the body is always considered to be the "carrier of education" (Grupe, 1984, p. 108), it becomes "itself the starting point of pedagogically important actions" (Grupe, 1984, p. 108) in a movement-oriented thematization in sport. Under these premises, the focus of pedagogical efforts is on the physicality of human beings in their confrontation with the world. Sport as a socially traditional and cultivated way of dealing with the body is of particular importance in this context.

In order to explicitly elaborate and anthropologically substantiate the educational potentials associated with this accentuation, sport pedagogy often refers to Plessner's (1975) concept of human eccentric position-

ality and derives from it the relevance of cultivating body and movement. The core of Plessner's (1975) theory is that humans, due to their physical constitution, are on the one hand spatially and temporally bound to the here and now (i.e., centrally positioned), but at the same time, they can overcome their spatio-temporal boundedness and gain some distance from their own body (i.e., become eccentrically positioned). This results in the possibility, as well as the task, for the human being to deal productively with their own corporeality. Seen in this way, every human being is given the task in life of dealing with the fact of *having a body* over which they can potentially dispose and at the same time must do so (Prohl, 2010). However, the human being can never avoid always *being a body*, which is why a cultivation of the body-having in recognition of the permanent body-being is necessary. In this light, Grupe's (1984) basic principles of sport pedagogy focus on the productive confrontation with the permanently dynamically changing relationships between ego, body, and world, whereby the body is attributed a mediating role. In this view, the experience of the world, and thus also any cognition, is bound to bodily phenomena.

In fundamental recognition of the elementary importance of body-related processes, however, the interpretations of the body in conceptual sport pedagogical considerations diverge considerably. Thus, in addition to subjectivizing perspectives, there are also perspectives that functionalize and normalize the body (Ruin, 2015). As an expression of a social, educational, and sport pedagogical zeitgeist, certain interpretations and emphases regarding body and movement come to the fore in prominent discourses, and others tend to take a back seat. Thus, the body in social terms is currently subject to dynamic and widely ambivalent change. With a growing disembodiment in many areas of life, working on one's own body is at the same time becoming an identity-forming project (Shilling, 2012) of active self-design for many people. This is often aligned with prominent ideal concepts of young, fit, and healthy bodies. These developments are strikingly visible in the renewed boom in the fitness movement

(Millington, 2016), increasing self-measurement (Lupton, 2016), and ever-advancing technologizations and optimizations of the body (Bateman et al., 2015). In this context, the health of children and adolescents is also receiving increasing attention (Romeo et al., 2019; Thorburn & Gray, 2021). At the same time, however, in the wake of virulent discourses around diversity and intersectionality (e.g., Hill Collins & Bilge, 2016), a countervailing development can also be observed, and the pedagogical claim is formulated to promote an “intersubjective recognition’ of each individual person in his or her respective unique life situation” (Prengel, 2019, p. 56). This also includes, to a significant degree, a demanded and at the same time often missed recognition of the respective unique physicality (Giese & Ruin, 2018).

Movement

Closely linked to the body, movement is also a fundamental sport pedagogical category (Krüger, 2019).² In school contexts, it is above all the special emphasis on body and movement that can be named as a unique selling point of physical education in the canon of school subjects. In an explicit action orientation, this is primarily directed at the body in movement or at movement as an elementary “characteristic of corporeality” (Größing, 2010, p. 38). In a body-anthropologically oriented view of movement, which has a strong tradition in German-speaking countries, the *dialogical movement concept* based on psychological action theory explicitly does not consider movement as a simple change of location of bodies in space and time, but as a form of meaningful behavior, i.e., as action, charged with purposefulness, intentionality, meaning, and significance (Bietz & Oesterhelt, 2022). The starting point here is the body-phenomenological idea that movement actions enable bodily experience as an intentional relationship with the meaningful world (Merleau-Ponty, 1945/2011). “In his movement, man always

questions and responds to the other” (Tamboer, 1979, p. 14). In accordance with the anthropological foundation, three core elements are at the center of this understanding of movement: the relationality of moving oneself, the directedness of moving oneself to something outside, and an understanding of self-movement as a condition of possibility for man’s being-to-the-world (Tamboer, 1979). In reciprocal resonances between subjective structures of experience and structures objectively given in the (social) world, primary orientations emerge in moving and constitute a unity of human being and world (Biesta, 2021). And it is mainly for this reason that human movement practice can be understood as a fundamental mode of shaping concrete world relations (Bietz & Oesterhelt, 2022).

With that in mind, a sport pedagogical accentuation of movement education in close connection to body anthropological discourses is often understood as a conscious staging of aesthetic spaces of experience, in which an educationally relevant confrontation with the relationality, centering, and intentionality of the body is to be initiated (Prohl, 2010). In this interpretation, sport is a field for educational work that focuses on the cultivation of the body and movement senses. At the same time, other protagonists (e.g., Söll, 2000) conceptualize movement and movement education in a narrowing functional way. Movement education then means shaping the body, which is understood as an object to be formed, in order to increase athletic performance in movement, whereby the focus is especially on teaching athletic skills (Söll, 2000). At present, however, movement is very prominently in the focus of sport pedagogy—not least also fueled by social and (educational) political discourses—in the figure of the neglected body. In compensatory concerns, an educational influence on children and young people in their dealings with body and movement is closely linked to a problematization of lack of exercise and prolonged sitting. This promotion of physical activity is also promoted by the use of digital tools (Goodyear et al., 2023). These make it possible in a previously unprecedented way to collect body- and

2. Movement is understood and discussed here as a fundamental category and not in the sense of a pedagogical concept like movement pedagogy.

movement-related parameters on a large scale in a technically simple way, to check them, if necessary, and thus to potentially drive more control through increasingly fine-grained parameterization. These developments have been pushed, as well as problematized, in some countries for some time (e.g., Macdonald, 2011; Romeo et al., 2019).

Experience

Experience is still and has always been a key concept in German-language general pedagogy, inextricably linked to the goal of educating responsible citizens in a humanist and democratic social order. Nevertheless, Gadamer (1990, p. 329) points out in *Truth and Method* that “The concept of experience seems to me—paradoxical as it sounds—to be among the most unenlightened concepts we possess.” And Bollnow (1974) remarks that this assertion is outrageous, since the whole of modern science sees itself as a science of experience, which is built entirely on the concept of experience. This perception is certainly still valid for general and sport pedagogy today, which is why some terminological approximations seem appropriate at first.

For sport pedagogy, experience is of particular importance because experience is characterized by a special bond to the body. Experience includes the inescapable determination that the individual must make their own experiences, and that a theoretical, purely linguistic mediation of experience is not possible. Etymologically, experience refers to the ancient topos of *homo viator*, found, for example, in Odysseus, the hero of Homer’s *The Odyssey*. Hence it is indispensable to make the experience oneself, with one’s own body. Those who do not embark on the journey themselves cannot have experiences (Bollnow, 1981). Following the concept of *Bildung*, experience is understood as an autopoietic process that changes the relationship between the self and the world (Larsson, 2020). With Hegel (2018), it should be noted that new experiences always modify previous knowledge, and the way future experiences are acquired in a dialectical process. Experience is thus always to be understood as self-experi-

ence: “This *dialectical* movement which consciousness practices in its own self (as well as in its knowing and in its object), *insofar as, for consciousness, the new, true object arises* out of this movement, is properly what is called *experience*” (Hegel, 2018, p. 57).

From a *Bildung*-theoretical perspective, it is important to consider that *Bildung* is tied to moments of not being able, of failure, and of irritation, which are referred to as negative experiences. Thus, *Bildung* does not mean continuous adaptation or development, but rather a potentially uncomfortable experience in which one’s relationship to oneself and to the world is questioned and possibly changed. From the perspective of educational theory, negative experiences are—very positive—prerequisites for learning and practice (Brinkmann & Giese, 2023). From a sport pedagogical perspective, it can be added that e.g., Grupe, one of the founders of the German-speaking sport pedagogy distinguishes between primary and secondary experiences. In his view, in contrast to primary experiences, which are made directly with one’s own body, secondary experiences are mediated exclusively through digital media and technologies. In this approach sport in particular is predestined to provide primary experiences that become the basis for judgments, knowledge, and insights about ourselves and the world. Secondary experiences are often rejected in the context of a naive and simplistic critique of civilization as insignificant and impeding development (Grupe, 1995).

Body, movement, and experience in an increasingly digitized world

With the increasing use of new developments in digital media and technologies, an intensifying digitization of our everyday practices (Hoffmann, 2017) can be observed, which has also reached various areas in the field of sport and exercise. This is conspicuously visible, among other things, in digital self-measurement (Lupton, 2016), the use of digital tools in sport pedagogical contexts (Jastrow et al., 2022), and in the controversial discussion about whether e-sports are sport

(e.g., Borggreffe, 2022). This brings two new aspects in essence: On the one hand, digital tools can increasingly be used to record bodily functions and movement data more precisely and with better parameters; on the other hand, virtual worlds can be entered, discovered, and conquered (in e-sports, for example). However, these developments are not additive changes. Rather, they are accompanied by a fundamental change in what the world offers us. The use of and interconnection with complex digital technologies and infrastructures creates a “digital condition” (Stalder, 2018), which increasingly shapes our lives in almost every area, and hence also in sport and exercise.

To flesh out the discussion, the following will theoretically explore what these changes associated with digitality might mean for body, movement, and experience in sport pedagogical contexts. Since digitality is an extremely broad field, and it is impossible to discuss all aspects of it in detail, we will mainly focus on an example of a hybrid activity characterized by both the use of digital tools and the entry into a virtual world. This example is the virtual participation in a bicycle race in one’s own living room on a real bike (virtual cycling).

Body in a digitized world

If we agree with existing physical education theory that the focus of (sport) pedagogical efforts is on the physicality of human beings in their confrontation with the world, we must now ask whether new confrontations or new forms of confrontation are generally relevant in a digitized world. At first sight, nothing actually changes in this respect in a digitized world compared to the world as it was before. The human being is also here bodily to the world and experiences this primarily through his sense-guided encounter with the world. Here, too, the individual is intentionally directed toward the world and opens up the world for themselves by moving in it (Prohl, 2010). What makes a difference, however, is that with other physical regularities in virtual worlds, with phenomena like immersion or avatars, the connection between physical self-movement changes in the world caused by movement,

and its sensual perception in virtual worlds is no longer subject to the same regularities as in the analog world. Until now, unchangeable physical and social restrictions can or must be renegotiated in the context of digitality (one can, for example, be stronger or more beautiful, have superpowers, or be liberated from external circumstances that affect the body). Another point worth noting is the virtual absence of existential bodily consequences of one’s actions. This applies just as much to virtual sports and adventure or war games, for example, as it does to our example of virtual cycling. An individual actually cycling in their living room does not feel any disturbing wind, they are not exposed to the weather, and can ride any route they choose. In addition, they can stop or pause at any time, without having to make a tedious return trip. This opens up enormous potential for experimenting with one’s own body and its possibilities. For instance, one can push the limit of what is physically possible to the maximum. In virtual games, one can even make the body the object of experiments or slip into other bodies.

Hence, in a digitized world, we can conquer the body-having in various new ways (having other bodies, experience other worlds with different physical laws, experience those due to immersion, as if they were real etc.). But still, we cannot step beyond also being our body. Sooner or later, the body that we are will emerge with its needs. At this point, therefore, the virtual world reveals the potential for gaining new bodily experiences, but at the same time, however, these experiments can be accompanied by the danger of an alienation of body-having and body-being, since we then tend to have a completely different body than the body we are. Also, in a digitized world, a new variety of reactions of the world in response to our actions can become possible. These must be addressed and dealt with pedagogically. Hence, it could be argued that, in this way, new forms of the duality of body-having and body-being are created. Evaluating these issues peda-

gologically (in theoretical and empirical studies) would certainly be a worthwhile endeavor, which could be seen as a future task for a digitally aware sport pedagogy.

If we now further agree on the particular importance of sport as a socially traditional and cultivated form of dealing with the body, we can ask whether sport in its cultivated forms is also somehow changing with digitality. Considering that the world of sport is heavily infected by digitality (e.g., Jastrow et al., 2022), this seems reasonable. Most of all, digital tools are used for optimizing learning and training processes, as well as for recording and analyzing body-related fitness data. This could mean that the existing forms of dealing with the body in traditional sports might also undergo change. And, in this respect, the traditional forms of the duality of body-having and body-being might not be sufficient to grasp what is happening in a digitized sport on an epistemic level. One might, for example, count less on what one feels (like being tired) than on what the data say. In that case, cycling in the living room would be a new form of sport, but one that is also accompanied by new dynamics in terms of the relations between the self, the body, and the world. If we pursue this idea further, sport pedagogy is urgently required to take on these new forms, especially the changed connection between one's own bodily movement and the extremely variable change in the world that goes along with it, including a changed perception of the world.

Movement in a digitized world

Following the above-mentioned connections, it can be said from the point of view of a dialogical movement concept that human-world relations also exist in the virtual world and are, in principle, just as conceivable here via virtual movement. However, as already explained above, other qualities of the world at least potentially open up other relations. In a contemporary sport pedagogy that wants to address digitality in its multifacetedness, this would have to be accepted in principle in a value-free way. Virtual movements should not be discredited as second-class movements

and would have to be considered in these new relations. The "man" who in his movement "always questions and responds to the other" (Tamboer, 1979, p. 14) does the same, but he might find something different than before. Movement as a fundamental mode of shaping concrete world relations (Bietz & Oesterhelt, 2022) will also shape these relations in a virtual world. But, at the heart of these processes are sensory experiences, and it is questionable to what extent these can be had in the virtual world as well as in the analog one, and what quality they do have (see the next section). To put it in a nutshell, cycling in one's living room is still moving and still in the world, but it is unclear what this world is like and what experiences are to be made within.

In a more conservative sport pedagogical perspective, movement is understood as a means for shaping the body in a predefined way. If it comes to virtual worlds, this becomes problematic since, here, other forms of movement (with sometimes less physical activity) are of importance, and this is challenging traditional sport. Hence, predefined movement patterns and body forms might also be less useful here. Therefore, it is not surprising that, among representatives of this current, a relatively clear line can be discerned: everything digital that supports the training and forming process of real body movement is good, whereas everything where the body no longer (or hardly) moves physically is dismissed as not desirable in terms of sport education (e.g., Borggreffe, 2022).

In an even stronger way, this is seen in the currently prominent view of movement as a compensatory measure against civilization diseases (Macdonald, 2011; Romeo et al., 2019; Ruin & Stibbe, 2021). Looking at this discourse, losing sight of the sensual component and one's own feelings of being body to some scholars seems to be acceptable in terms of sport pedagogy, but when it comes to the realization of physical movements, a red line is drawn. Looking at our example, this would mean that cycling in the living room is OK, but playing football on the PlayStation is not.

Experience in a digitized world

If we focus on the aspects mentioned above, namely, that experiences with one's own body must be made by oneself and the special relevance of negative and primary experiences, then further shifts in meaning become apparent in the mode of the digital world. Thus, it must first be emphasized that the mode of being at the mercy of the world changes qualitatively. The physical and existential entanglement in a situation for which there is typically no emergency exit no longer exists. The *homo viator*, who unexpectedly encounters an uncomfortable experience on his journey, has the possibility at any time to get off the bike, turn off the screen, and escape the situation. The threat of defeat in the decisive soccer match can be escaped by turning off the Xbox or replaying the game as many times as necessary until victory occurs.

If we follow the assumption that *Bildung* as a process of subjectivation is not possible without negative experiences in which the self is challenged, then education is only possible as long as the subject voluntarily surrenders themselves to a situation that can be escaped from at any time. The significance of such a voluntary self-commitment must also be critically reflected upon in terms of its relevance for educational contexts. The nature of negative experiences and their orchestration in the educational process needs to be readjusted. Engagement with the digital world follows different laws, because the subject is no longer at the mercy of the world's intransigence, but can—at least to a certain degree—shape, manipulate, and leave it according to their own wishes. At the same time, however, it should be considered that pedagogically staged processes of experience, for example in physical education, have always had an artificial or pedagogically staged character. Negative experiences, as an exhausting and challenging activity for the individual, which requires patience, endurance, concentration, and tolerance of mistakes, change their character if the person is only optionally challenged.

In this sense, it also becomes clear that the binary distinction between primary and secondary experiences, whereby only primary experiences are ascribed educational potentials, appears obsolete. The individual will have insignificant secondary experiences on the bicycle ergometer because acceleration gradients, slipstream riding, or headwinds cannot be experienced. Therefore, from a sport pedagogical perspective, the focus should be on what new potentials of subjectivation are offered here, as already mentioned above. This perspective also emphasizes that, in *Bildung*-theoretical contexts, it is assumed that experiences do not only arise individually or in the interaction between student and teacher, but that experiences are always made in front of others, and thus something is always learned from each other, even if they are only imaginary or virtually present (Brinkmann, 2018).

Conclusion

This analysis first makes clear that a superficial distinction between supposedly genuine movements, real bodies, and primary experiences versus—supposedly less relevant—artificial movements, virtual bodies, and secondary experiences falls short and must be described as naive. Such an interpretation ignores the pedagogical challenges and opportunities that come with the digitalization. In contrast, it must be emphasized that it is never possible to step beyond the body. Movements remain a central mode of encountering the world, and experiences cannot be prevented, even in a virtual world. What has been said so far makes it clear that, because of its emphasis on corporeality, physical education seems to be particularly well suited for taking a differentiated look at the multi-layered and pedagogically ambivalent processes at the interface between the so called analog and digital worlds. This leads us to “the need for more fluid understandings of identity and belonging” (Chambers & Sandford, 2019, p. 926) and the challenge of finding a pedagogically constructive way to deal with it in an increasingly digitized world that is also characterized by a wide diversity of learners. This means, for example, to better explore new qualities of body-having and mov-

ing while still being physically bound and to sound out what kind of pedagogically relevant experiences can(not) be made by whom under these changed circumstances.

In these connections, the exemplary analysis of the three categories of body, movement, and experience sensitizes us to the overarching challenges and opportunities. For example, one's own body (having) as well as one's own movements can be manipulated in virtual contexts, to a certain degree. This opens up a lot of possibilities for experimenting with one's own corporeality and identity. But, in doing so, the existential character of negative experiences might evaporate. If the manipulability of digital worlds and the potential inconsequentiality of negative experiences are determined as central challenges, challenges for pedagogical practice arise from this. On the one hand, these mechanisms need to be addressed, while at the same time it must be ensured that the digital space is not conceived as a protective space that is exempt from all negative consequences encountered in the world. Hence, even if virtual spaces seem to open up a lot of new possibilities, and if the aim of physical education is to ensure that not only skills can be improved but abilities and attitudes can also be developed, then didactical approaches must be developed that do both, make use of the new possibilities, and ensure the impositions of the pedagogical work. It must be ensured that contact with the world retains its challenging character, so that experiences and attitudes can change. Ultimately, however, the challenge could also be simply different here, for example, in the dissolution of previously fixed constants of physical world experience. Finally, it should be noted that our analysis has obvious limitations, such as that we only focus on one concrete example – virtual cycling. Undoubtedly, more research is needed to shed light on other virtual phenomena that would provide more detailed insights into the subject.

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Data availability statement

All relevant data are within the paper.