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Designing Psychological Co-research of Emancipatory-Technical Relevance Across Age Thresholds

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Abstract

The requirement that theoretical and empirical research is to sustainably benefit not only the nominal researcher, but also the other research participants, is deeply embedded in the conceptual-analytical framework of Psychology from the Standpoint of the Subject (PSS) and its co-researcher principle. PSS research is thus to be of emancipatory relevance to those others the researcher comes to collaborate with. Meanwhile, the question of how this requirement can be prospectively integrated into the design of a research project remains subject to debate. This question emerges as particularly difficult to tackle in research projects that engage in co-research with young children: How can a researcher ensure that the young children s-he works together with benefit from the research project? Based on the critical analysis of an earlier research project implemented by the author, the contribution at hand suggests that PSS' foundational notion of emancipatory relevance needs to be revisited. It argues that if a research project is to sustainably benefit young co-researchers, the technical relevance of the expected mutual emancipation should as well be explicitly considered in the project design. A discussion of recent methodological developments in child-targeted Participatory Design (PD) and Human-Computer Interaction (HCI) serve as inspiration for this conceptual specification. The contribution thereby invites co-research to further investigate how emancipatory relevance cannot only to be methodologically attained via dissemination of research results and conceptual developments, but also via the actual research process it attempts to engage the co-researchers in irrespective of their age.

A problem and its relevance emerge

The following article deals with the concept of relevance and its analytical importance in co-research inquiries. More precisely, it illustrates how problems emerging in a practice of

concern (which may be termed everyday problems that are personally relevant to the people one conducts participatory-collaborative research with) are always already connected to problems that are of more general, societal relevance – a foundational insight deeply embedded into both subject-scientific Critical Psychology (e.g., Højholt, 2011; Tolman, 1994) as well as Cultural-Historical Activity Theory (e.g., Kontopodis, 2012). Furthermore, it suggests that this interrelation between problems of personal and of societal relevance ought to have consequences for designing psychological participatory-collaborative research with children as well as everyone else from the very outset of a research project. The article's main questions of concern are why psychological research arguably should strive for and how it concretely could attain relevance for the human beings constituting a researched practice, ergo a practice that is obviously relevant enough for a researcher to study and connect her-his research problems to. This concern emerged during my recently completed PhD project on daycare children's experiences of media artifacts (Chimirri, 2014). The dissertation, however, did not dedicate this concern a more profound, conceptual discussion, also because its relevance only clearly surfaced in retrospect.

Drawing on psychologist Klaus Holzkamp (1972), one can reformulate the main questions as such: Why should we and how can we ensure that one's research is of *emancipatory relevance*? And this includes: How to ensure that possibly every co-researcher benefits from this emancipation, also beyond the official project's duration? As I will outline, emancipatory relevance would here need to incorporate but also transcend an idea of hermeneutical relevance: All participants of a co-research project would ideally come to understand their personal problems as related to problems of more general, societal concern throughout their participation, while additionally learning from one another how to implement a methodology of co-inquiry in their respective life practices that sustainably allows for keeping such co-inquiry alive as ongoing process even beyond an official co-research project's duration. It is in this sense that I will propose that co-research projects ought to opt for both emancipatory as well a situated *technical relevance* which renders the emancipatory process more sustainable. This proposition is to be understood as an invitation to collaboratively reflect on how future co-research projects may ensure their relevance beyond their official duration. Concluding first ideas that draw on co-research methodologies from Participatory Design (PD) and Human-Computer Interaction (HCI) projects with children may serve as rudiment for such future discussions.

Illustrating the problem: The relevance of a conflict among two young friends

Before delving into more conceptual discussions, however, I would like you to meet Bobby and John. I got to know Bobby and John over the course of four months while engaging in a participatory-collaborative practice research project located in a Berlin daycare center. Bobby and John are close friends: They are part of the same institutionally arranged daycare group, but also engage in many activities together beyond this frame. One of their favorite pastimes is to re-enact Mario Kart, the video game first developed by Nintendo in 1992, in which Mario and his brother Luigi race their friends and foes from the legendary Super Mario game series on little go-karts – and in which they nudge each other and throw tortoiseshells as well as other objects in order to win the race.

Bobby is four years of age, John just turned five. However, Bobby believes John is still aged four as well. Why John's precise age emerged as a multilayered problem first and foremost relevant to Bobby while I was participating in their institutionalized everyday

practice with my video camera, surfaces in the following description of a scene we experienced together (which is a modified version of the description presented in Chimirri, 2014, pp. 209-210):

Most often, both John and Bobby seem to enjoy their collaborative Mario Kart re-enactments. One sunny summer day, however, a problem temporarily deadlocks their collaboration: When I join the two, they seem to still have a more or less harmonious interplay going, gently nudging one another in the daycare's garden. Suddenly Bobby nudges John harder, almost bringing John off balance and to the ground. John looks like he is not enjoying the activity anymore, but Bobby nudges him once more. John tells Bobby to stop. I ask Bobby why he is nudging John so hard. Bobby answers that one needs to nudge the other hard so as to end up first in the race.

John now stands next to the two one-seat swings, which are set up in the midst of a sand pit and are occupied by two other boys. After the nudging event, both he and Bobby look pensive, maybe sad, are quiet. Out of the blue, Bobby asks John about his age. John says that he is 5. Bobby claims that this is not true. He cannot believe that John already turned 5: John did not celebrate his birthday. John insists on being 5, and says that he *did* celebrate. Bobby calls him a liar, looking really sad and torn. He says, more to himself than to any other one of the participants, that John often lies, and that John laughs about him. And when he laughs, he lies.

The boys on the swings underline that John is right about his age. Also I try to tell Bobby that to me, it seems as if John was not lying. John takes over one of the swings, which was just given away by another child. That reroutes the conflict to turn-taking on swings. Now Bobby accuses John of always using the swing, and of swinging too long. The discussion goes on. At one point, another boy on the swing looks at my video camera and asks whether I can take photos with it. He laughs, and John laughs as well. Now Bobby accuses John of again laughing about him, and calls him once more a liar.

All of a sudden, Bobby redirects the conversation to what might actually be underlying his problem: That John never visits him, because, supposedly, he lives too far away. And if John does not stop lying, he will never ever be able to visit Bobby, which to me sounds like both an invitation and a threat.

Bobby starts using a wooden stick to throw up sand. At times the sand hits John, who got off the swing. John tells Bobby to stop throwing with sand. Bobby does not stop, grins. Then John uses his foot to throw sand on the kneeling Bobby. I ask Bobby how he can be so sure that John is lying about his age. John once more emphasizes that he is not lying. Bobby says that he does not believe John, because John always nettles him by laughing.

John leaves, looking frustrated. He says that he leaves Bobby behind now. Bobby throws the stick away. He picks up his matchbox car which represents Lightning McQueen, the main character from the animation movie Cars. He makes the car roll on the side of the swing construction. Sometimes he looks over his shoulder to see what John is doing. I ask him whether he is sad now. With a soft voice, he says he is not – because John is lying. John is lying about his age. And he is lying because he is not going to school! With 5 one goes to school, but since John is not at school, he cannot be 5. All at once our conversation is interrupted, as a pedagogue approaches me and asks for help with a computer problem.

This scene invites to posing a number of questions to what happened here, among others: What is the conflict between Bobby and John actually about? What is their respective and/or joint problem? On the everyday-empirical level of analysis, the description offers some first rather speculative answers to that: Bobby nudges John too hard by accident; Bobby is mad at John because John tends to lie and/or laugh about Bobby, or because John did not invite him to his birthday, or because Bobby fears that John may soon be leaving the daycare to join school. Probably, all of this holds somewhat true. But it is also connected to a fact that I learned about a few weeks earlier when interviewing John's

father: The father considers Bobby to exert a bad influence on his son, as Bobby is very fond of video games, TV series and other digital narratives, and the father fears that these narratives may already be turning John into someone “disrespectful” towards adults. Therefore the father actively limits John and Bobby’s possibilities for seeing one another outside of daycare.

In the context of this article, meanwhile, I aim at inquiring into the *relevance* of this conflict and the underlying problems: Who is this conflict relevant for and how? Is it merely of personal relevance to Bobby and John? It may be of relevance to John’s dad as well. But I do not know whether he actually ever found out about this scene taking place. It possibly is also of relevance to the daycare staff and leadership, to Bobby’s brother and mother, to the rest of John’s family. Through the lens of Critical Psychology and CHAT, it furthermore is undoubtedly of *societal relevance*, as it is grounded in conflicting understandings of societal norms and values, it is grounded in societal conditions and in how they are interpreted differently by all those involved. But what does this latter, conceptual ascertainment imply for my project’s concrete co-researchers John and Bobby, and for how they deem the conflict to be relevant in order to co-conduct their respective everyday lives in the future?

Given the empirical material I collected throughout my PhD project, I cannot give any conclusive answers to these questions, as I did not follow up on the conflict’s further development. But given the fact that I myself considered it to have been relevant for my own study, for investigating my research questions, for engaging in the friends’ practice, should I not have systematically pursued these questions further if following an emancipatory co-research agenda? The answer I would give today in retrospect is yes, also because I came to analyze the children’s and other participants’ actions at the daycare as inextricably intertwined with my own actions, as interrelated *conducts of everyday life* (cf. Chimirri, 2014, 2013). In addition, given the emancipatory impetus built into my co-research project’s design, i.e. the ambition that my work is supposed to benefit my primary co-researchers, the children, this can be regarded as a crucial shortcoming. As I will argue for, however, further pursuing the conflicts’ manifold relevancies in their development would have required to prospectively and systematically integrate an emancipatory inquiry into the project’s co-researchers’ relevancies from its outset, and it would have required a thorough reflection of why I as researcher found it relevant to focus on particular relevancies and not on others. And as I will furthermore propose: It would have required to extend the idea that co-research should attain emancipatory relevance with a concept such as technical relevance, which more clearly indicates that a co-research’s possible consequences beyond the official duration of a project may need to be thoroughly reflected beforehand. This implies that a co-research project’s design ought to explicitly anticipate how it will come to benefit the co-researchers even after the nominal researcher will have left the practice of her-his concern.

Emancipatory and technical relevance in co-research

Throughout my project’s 4-months lasting participation in a daycare’s everyday practice, the focus of inquiry was put on how the children draw on media technology-mediated experiences across contexts in order to contribute to this everyday daycare practice: Instead of looking at the children, I aimed at looking *together with them* at how they turned their media experiences into actions or rather *engagements* (Højholt, 2011). I thereby became myself part of the children’s very same engagements and their conducts of

everyday life: I came to sociomaterially co-produce the scenes I came to experience together with the children, for instance by expressing questions and evaluations, but also via the recording devices I had myself introduced into the daycare. As the above description of John and Bobby's conflict shows, the fact that I was carrying my video camera may have further fueled the quarrel, as it made John laugh, which Bobby in turn interpreted as John laughing at him. Moreover, my interest in the children's *media* experiences alone, ergo my research agenda coupled with the problems I deemed relevant to investigate, co-produced scenes which may else have never emerged. Accordingly, it could be speculated that Bobby and John's recurrent Mario Kart enactments may have been intensified by the relevance I explicitly ascribed to their media experiences.

The methodological proposition of looking together with children at what they are engaged in instead of looking at the children from an artificially detached researcher's position stems from *contextual developmental practice research* (Kousholt, 2011). Practice research is deeply rooted in the philosophical and conceptual framework of Critical Psychology as *Psychology from the Standpoint of the Subject* (PSS; cf. Motzkau & Schraube, 2015; Schraube & Osterkamp, 2013; Holzkamp, 1985; see also: Dreier, 2008), and combines PSS' theoretical-analytical framework particularly with the methodological propositions of ethnographic work grounded in *Social Practice Theory* (SPT; Lave & Wenger, 1991; Lave, 2012, 1996). While PSS is pivotal for understanding *why* psychological practice research is to attain relevance, the participatory-ethnographic inspirations from SPT clarify *how* researchers drawing on this analytical framework attempt to methodologically ensure a project's relevance.

The proposition of looking together with children at the world is of crucial importance in order to further discuss how maximum relevance may be approximated in a research project. It is an answer to PSS' ambition/requirement that those people participating in one's research project are to be understood and conceptualized as *co-researchers* (in German: Mitforschende; in Danish: medforskere). Participants are not research objects, irrespective of their age. They are just as much a human being as the researcher is (also referred to as *ontological symmetry* by Schraube, 2013, p. 25). Epistemologically, this entails that a psychologically relevant problem anyone encounters always needs to be explored together with a co-researcher: We need one another's insight into the problem in order to determine how it can be tackled in purposeful, sustainable ways. The same goes for the problem's relevance: Just because a psychologically trained researcher may deem a problem relevant does not necessarily imply that a co-researcher deems it relevant (a consequence of *epistemic asymmetry*; cf. Schraube, 2013, p. 25). One could meanwhile argue that the co-researcher is just blind to the problem. But this is not for the researcher alone to determine: The researcher is dependent on the co-researcher in order to determine how a problem is of broader, societal relevance, including whether it is empirically at all deemed relevant to more human beings than just the researcher. Philosophically as well as politically-ethically speaking, PSS may thus never decide on behalf of someone else whether a problem should be considered to be of relevance for someone else: The co-researcher her-himself would need to come to acknowledge the researcher's problem as a truly *joint* problem of more general relevance throughout the co-research process (cf. Tolman, 1994; see below). Else the project cannot attain *emancipatory relevance*:

Psychological research would be of emancipatory relevance, if it contributed to human self-understanding [Selbstaufklärung] of one's societal and social dependencies, thereby creating

the prerequisite for the human being to better one's circumstances by freeing oneself from these very same dependencies. (Holzkamp, 1972, p. 32; translation NAC)

Holzkamp developed the term *emancipatory relevance* in his early preparatory works on a Critical Psychology from the Standpoint of the Subject. This was intended to counter conceptualizations of external relevance usually found in experimental psychology. These conceptualizations follow natural-scientific research criteria which according to Holzkamp exclusively address its *technical relevance*. In that he was inspired by philosopher Jürgen Habermas (1965), who differentiates between emancipatory and technical epistemic interests. Holzkamp utilizes this differentiation in order to critique the mainstream psychology of his time, a psychology which regards research participants not as complex and ontogenetically unique, acting human beings, but as experimental objects that are to follow the psychological researcher's behavioral script. Not only does such research reduce human subjectivity to a set of measurable variables whose relevance is predetermined by the researcher alone, but it (at least implicitly, for instance by granting method primacy over the subject matter) strives for developing knowledge that can predict and thus control human beings' average behavior, rather than helping them in overcoming problematic life conditions that are of relevance to them:

[In his definition of technical epistemic interest], Habermas starts with the assumption that the empirical-analytic sciences can be understood as activities, which, via the production of certain initial conditions, are to generate certain effects in most possibly determining [or predictable] ways. The thereby sought-after possibility to control can be related to the more general interest to control economic, social and societal processes. This would be the technical epistemic interest *sensu* Habermas, i.e. '...the epistemic interest in the technical disposal over objectivized processes' (Habermas, 1965, p. 1146). In consequence, we understand the criterion of technical relevance as insofar attained, as scientific research via the declaration of its initial conditions renders the emergence of certain effects of 'success-controlled action' (Habermas) in the economic, social or societal area possible. (Holzkamp, 1972, pp. 18-19; translation NAC)

The aim or telos of research striving for external technical relevance is to produce certain economic, social or societal effects through the scientific knowledge produced – effects that can be predicted and controlled. Psychological research findings gathered under experimental conditions should subsequently be transferable and relevant to any other life conditions and related problems. The question whether experimental conditions can at all simulate the complexity and multilayeredness of problems relevant to people given their respective life conditions remains unanswered or is considered irrelevant to scientific research and knowledge production that is primarily indebted to attaining technical relevance. An epistemic interest in putting technical relevance first and thus to epistemologically grant predicting methods of investigation a primacy over human subjectivity as psychology's subject matter, is consequently inextricably intertwined with societally relevant, political interests.

Irrespective of Holzkamp's harsh critique of how experimental psychology exclusively strives for technical relevance, it is pivotal for future discussions of the concept to note that Holzkamp did not seek to entirely do away with research that is (also) technically relevant. Rather, technical relevance needs to be specified in its scope of application, as also social psychologist Morus Markard (2009, pp. 49ff) points out. Emancipatory and

technical relevance collide with one another once the control is not exerted over fellow problematic life conditions that are of societal (and therewith also personal) relevance, but is exerted by people who somehow dispose of more power to impose their particular interests on others, i.e. when knowledge serves to control and change different others instead of serving mutually negotiated interests.

Nevertheless, I will propose that operating with a notion of technical relevance may sensitize PSS co-research to more thoroughly consider its projects' emancipatory relevance beyond their official duration. After all, emancipatory co-research also strives toward having lasting or sustainable effects on society, *however without needing to exert control over others* in order to do so. Nissen (2012), for instance, acknowledges that even when working theoretically, "*the ambition that our freedom of critical thinking become part of the real world of necessity*" (p. 33) and of thereby attaining *practical relevance* is always present. Still, the question of how to ensure lasting effects without compromising emancipatory relevance as primary motor of PSS co-research poses an enormous challenge, both to its theoretical framework and its empirical implementation. The rest of this article focuses on the ambition to tentatively conceptualize the interrelation between emancipatory relevance and an emancipatory understanding of technical relevance for engaging in co-research with children.

Conceptually approximating emancipatory relevance for psychological co-research with children

I will henceforth suggest that both the concepts of emancipatory and technical relevance can be helpful in order to specify what is at stake in doing co-research with children, albeit Holzkamp largely ignored these concepts in his later work and they seldom appear in current PSS discussions (exceptions are to be found in Markard's work). Given Holzkamp's above critique of experimental psychology's exclusive focus on technical relevance, I can relate to why it has almost disappeared from PSS discussions. One reason for leaving *emancipatory* relevance behind, meanwhile, may speculatively lie in the fact that concepts denoting the term emancipation tend to be themselves read as manipulative, as they etymologically insinuate that someone *is freed* from something (ergo by someone else according to that other's respective interests) instead of pointing to a joint struggle for mutually bettering one another's life conditions which needs to be fought out together.¹ Holzkamp (1985) himself came to use the term in a derogatory way around 15 years after having introduced it:

Subject-scientific categories, theories, methods, are not theories and methods etc. *about* affected people, but instead *for* the affected people. They are handed to them so that they can

¹ One of the reviewers noted that a non-manipulative understanding of emancipation may render it relatable to a Foucault-inspired notion of power – thereby arguably overcoming a Marxian notion of emancipation. While this is certainly a worthwhile discussion to delve into, I suggest reading Peter Busch-Jensen's recent work on the relationship between Marxian and Foucauldian notions of power (Busch-Jensen, 2015, 2013). Meanwhile, I would like to point out that Marx' notion of emancipation as the free development of all may have been misinterpreted and too easily dismissed in some Foucault-inspired approaches. This is at least what Markard (2013, 2009) seems to be pointing at.

themselves clarify their state of being or to partake in such a clarification. This is not the result of a kind of moral, humanitarian or *political-emancipatory preliminary decision*, but is necessarily deduced from the basic methodological criterion of identifying subject-adequate methods. (p. 544; translation and emphasis NAC)

Irrespective of Holzkamp's relative distancing from a productive conceptualization of emancipation, I deem the concept valuable for explaining the co-researcher principle present throughout all of PSS research. Therefore, a short discussion of why emancipation should be explicitly understood as *co-research* in this psychological approach will precede an illustration of how PSS practice research with children strives for at least implicitly approximating emancipatory relevance.

What is it good for? Emancipation through co-researching joint problems

As theoretical psychologist Charles W. Tolman put it in his introduction to German Critical Psychology (the psychological school which introduced PSS), one of the foundational propositions of this latter tradition is to explicitly interrelate generalized psychological research problems with problems that the co-researchers regard as relevant to their respective everyday lives:

An important corollary [of engaging in metasubjective co-research] is that the problem investigated must also be a problem *for* the other person. This does not necessarily mean that the other person must come to the researcher with a complaint, but that the problem be understood by the person as a problem, the understanding of which is in his or her interest. (Tolman, 1994, p. 141)

Problems are in fact co-constituted and co-maintained by (researching) others through everyday life actions, i.e. ways of conducting everyday life. In order to tackle potentially common problems together, each co-researcher needs to acknowledge that s-he has a stake in investigating the problem. The joint inquiry process of co-research, then, consists of inquiring into others' perspectives on potentially common concerns and problems, on contradictory life circumstances and reasons for maintaining them, so as to tackle one's own ontogenetically situated, limited perspectivity, generalize apparently purely personal problems as metasubjective or societal problems, and emphasize alternative possibilities for acting and potentially transforming these contradictory conditions – not once and for all, but through ongoing negotiation processes (e.g., Axel, 2011, 2003).²

Engaging in this relational, open-ended and potentially transformative dialogical negotiation process as co-research is what could be termed *emancipation* in a PSS understanding. It is clearly not normative in a prescriptive way, as Markard underlines in his recent critique of the *competent child* concept prominently present in childhood research:

² This necessity of striving for a joint self-understanding by communicatively exchanging perspectives is also foundational for the Qualitative Heuristics Approach proposed by Kleining & Witt (2001). See also Chimirri (2014, pp. 56-59).

Critical Psychology neither wants to nor can actually tell human beings, ergo also children, how they are to be or live. That is primarily related to the fact that emancipation cannot be thought of as a heteronomously set norm or norming. Critical Psychology's standpoint of critique is not of attaining perfect human beings in random circumstances [or arrangements; *Verhältnisse*], but of circumstances in which – with Marx – the human being is not a contemptible being, and in which the free development of each is the condition of the free development of all. In as far as this perspective is ... generalizable, does it run counter to a normative conceptualization of human association. (Markard, 2013, p. 24; translation NAC)

Emancipation via PSS co-research, as suggested here, is attained by ensuring that a researcher's problem is of relevance to those human beings the researcher does research together with. The co-researchers are then to be able to, in my reading, explicitly influence the researcher's project, according to what they deem relevant and problematic throughout their reflexive reasoning on their respective *conduct of everyday life*. This does not exclude the possibility that co-researchers could already be involved in formulating research questions from the outset of a project. Arguably, however, the researcher may need to propose a first set of problems and research questions so as to offer a point of departure for collaborative renegotiation of questions. Irrespectively and as also pointed out in Holzkamp's (1985) above citation, the co-research process is to result in conceptual insights which assist both the nominal researcher as well as the involved co-researchers as research collaborators to expand their respective possibilities for acting in emancipatory, transformative ways – i.e. to develop by collaboratively gaining influence over those life conditions they themselves are dependent of. PSS research would thus strive toward enabling solidary action by doing solidary research, by mutually exchanging premises and reasons for acting with each other in relation to specific, problematic life circumstances.

Co-research: An ideally collaborative and transgenerational project

As Markard highlights in the above citation, this emancipatory project of engaging in co-research must also be constitutive for child-interested research. Collaborating on the promotion of mutual understanding through conflictual renegotiation of the research focus among all research collaborators is a central aim of PSS, irrespective of how old the participants are. Albeit children may express personally relevant problems that appear hard to fathom and relate to an adult's experience, they may just as much express societally relevant problems which assist others and hereby themselves in questioning and re-arranging joint life circumstances and their contradictoriness. Such mutual exploration of perspectives across ages runs counter to research which objectifies, exoticizes and thereby *others* children (cf. Chimirri, 2014). It is a necessarily collaborative research committed to the *unity of realizing and actualizing* (Einheit von Erkennen und Verändern; cf. also Markard, 2009; Kontopodis, 2012).

It herewith becomes apparent that PSS is similarly committed to conceiving of the child as agentic subject as the more sociologically oriented field of Childhood Studies are. With reference to childhood researcher Michael-Sebastian Honig (2009), Markard (2013) writes:

A general demand of childhood research is not to do research *on* children, but *with* children – i.e. to accentuate their perspectives ... Now I think that this not only holds for children, but that it should hold for all human beings that are or become part of psychological research: Critical-

psychological research conceives itself as psychological research ‘from the standpoint of the subject’, and that is meant literally: Individual subjects are not be researched, but be on the side of those doing the research. The subject matter of research is not (other) individuals, but world as it is *experienced* by individuals. (Markard, 2013, p. 15; translation NAC)

Children’s experiencing and their perspectives on experiencing the world contribute to creating this very same world that also adults are part of. These perspectives need to be explored together with the children as agentic and thus contributing subjects. In my understanding of this research commitment, it follows that the child is not merely someone to be taught, the child is also someone teaching – the child is also a researcher of its own as well as others’ experiencing processes, of jointly becoming conducts of everyday life. Or borrowing from social practice researcher’s Jean Lave’s (1996) terminology: A child is as much an apprentice to an adult’s practice as an adult is an apprentice to a child’s practice. Both adults and children are teachers and learners of one another – engaged in processes of *mutual learning* (Højholt & Kousholt, 2011).

From this theoretical perspective, researching implies actively exploring one’s becoming together with one another, while granting insight into one another’s premises, reasons for acting, and experienced problems. This also means that *one is developing one another’s relations to the world* (cf. Holzkamp, 2013a) – and a child contributes to the development of joint, contradictory life circumstances in its ontogenetically specific ways. Hence, this understanding also calls for a specification of the *development* concept. The initially cited passage of Markard’s elucidating article clarifies that development is essentially emancipation:

Against this backdrop can *development* be shortly put as follows: The transformation of a state which is deemed problematic towards the expansion of influence over life circumstances [Verfügungserweiterung]. It also follows that agency must be understood not as a developmental goal, which can at some point be reached or deemed done, but as a permanently ongoing process. (Markard, 2013, p. 20; translation NAC)

Adult and child development are thus inextricably intertwined. Conducting everyday life is herewith a *fundamentally collective process*, as contextual developmental practice researchers Charlotte Højholt and Dorte Kousholt (2009) termed it. And I wish to explicitly add here that this collectivity encompasses all ages, all generations, and all practices – including the (co-)research practice.

Prototyping methods for emancipatory co-research with children and its limitations

While explicit discussions of emancipatory relevance are broadly absent in PSS’ practice research with children, Holzkamp’s concerns and the ambition of attaining emancipatory relevance were foundational for the methodological approach contextual developmental practice research developed. So as to acknowledge the ontological symmetry between nominal researcher and co-researcher, all empirical PSS research engages in processes of *mutual self-understanding* (Chimirri, 2014; also translated as *social self-understanding*, for instance in Holzkamp, 2013b) with its co-researchers, through which, ideally, problems of personal relevance are increasingly generalized and gradually emerge as societal problems of metasubjective concern.

When working with adults, semi-structured to conversational interviews are typically employed throughout this exploratory and dialogical co-research process. This is due to the epistemological argument that we can only come to discover what problems actually are of joint relevance (or concern) by exploring it together. A researcher cannot know beforehand, as every potential co-researcher has a unique experiential background. Even problems of joint relevance may present themselves to and accordingly be articulated in very different ways by the various co-researchers, including the nominal researcher (cf. Axel, 2011; Schraube, 2013: epistemic asymmetry). This does not mean that (research) questions should not at all be posed, but that they are instead formulated in transparent and inviting ways, i.e. ways that allow for a co-researcher renegotiation of what is at stake in an investigated practice as well as in the academic practice.

However, as surfaces in the above description of the friends' conflict, verbal-dialogical methods would not have sufficed to complexly articulate Bobby and John's problem and at least retrospectively discuss its relevance from manifold perspectives. It is here that PSS' practice research methodology has considerably extended the range of methods with inspiration from SPT's ethnographic studies. Contextual developmental practice research has thereby comprehensively contributed to more generally conceptualizing and implementing the investigation of mutual self-understanding across generations by engaging in *participant observation* (e.g., Højholt & Kousholt, 2014). Participant observation in and across institutionalized child-targeted practices is here understood as key to co-exploring children's conflicts, their engagements, their perspectives on joint practices, and more recently: *children's conducts of everyday life* (Dreier, 2009; Højholt & Kousholt, 2009, 2014; Chimirri, 2014, 2013; Juhl, 2014). At the heart of these research interests, whose exploration thus includes both verbal and non-verbal empirical material, is the question of: What is of relevance to children in their everyday life? And how does that relate to what is relevant to the people around them, including the nominal researcher?

In order to avoid a *microphone-holding stance* (Mørck & Nissen, 2005), in which interviewing as well as observing is detached from the researcher's participation in practice, PSS practice research methods dialogically explore the actions, premises and reasons for actions, the interests, hopes and concerns of research participants in relation to the nominal researcher's actions. Hence it acknowledges the researcher's explicit contribution to the investigated practice (cf. Højholt, 2011; Nissen, 2012; Kousholt & Thomsen, 2013). For instance, it draws on mobile verbal inquiry methods, which in the terminology of childhood researchers Griffin, Lahman & Opitz (2014) could be referred to as walk-around interviews and shoulder-to-shoulder interviews. These "engagement methods" (p. 8) engage not only the child in research, but the researcher in the child's interests and vice versa. The researcher is here actively involved in and contributing to the data's co-generation.

Most importantly the researcher's attention and focus are put on the research participants' social and material engagements, i.e. both with one another and in relation to artifacts in the world. In short, it can be said that the researcher's directionality of action is to be attuned to the co-researcher's respective directionalities of action, including inquiring into their reasons for acting in particular ways. This sensitive attunement in terms of *teleogenetic collaboration* (Chimirri, 2015) is in my eyes crucial for approximating ontological symmetry without forgetting about epistemic and politically-legally stabilized asymmetries, ergo for approximating emancipatory relevance through co-researching metasubjective dependencies and problems.

What remains little discussed throughout contextual developmental practice research, however, is the question of how this approximation of emancipatory relevance can be coupled to an approximation of technical relevance, which ensures emancipation as process of mutual development (*sensu* Markard; see above) beyond the duration of the official research project. What I mean by technical relevance here is then: How to collaborate on gradually ensuring that co-research not only works on the prerequisite for attaining emancipation, by offering concepts for “human self-understanding of one’s societal and social dependencies” (Holzkamp, 1972, p. 32; see above), but also on explicitly promoting a (lasting) effect on the “economic, social or societal area” (*ibid.*), thereby sustainably increasing co-control over those life circumstances we ourselves are dependent on – *without compromising the emancipatory agenda of co-research?* This question, I find, is in particular of utmost importance when doing research with children or other human beings that qua their societally stabilized, asymmetrical positionings dispose of relatively few possibilities for collaboratively renegotiating societal or social dependencies and thereby overcoming problems of both societal and personal relevance.

Do for instance Bobby and John, aged 4 and 5, even if they came to realize that John’s father is worried about what their friendship may do to John’s behavior and therefore tries to avoid that the two see one another outside daycare, dispose of the possibility of addressing and questioning this worry in a for John’s father meaningful way? They may of course promise the father that they explicitly avoid drawing on media narratives throughout their fellow engagements, or find other ways for temporarily soothing his worries. But judging from the interview I conducted with the father, his worry is strongly stabilized by numerous popular and academic discourses around young children’s supposedly worrisome media use. Without discussing the worries on a more generalized plane, without for instance showing that other media-related discourses also point to social productivity and creativity among children, then, I presume that he would not feel inclined to substantially and sustainably change his perspective on the detrimental effects of their friendship. Perhaps, there are not even arguments good enough for him to reconsider his perspective. But irrespectively, my normative proposition would be that an emancipatory-technically relevant co-research would want to and arguably even ought to attempt to engage him in a multimodal dialogue with the boys, the parents, the pedagogues, etc. in order to negotiate what is best for one another and thereby get a step closer to decentering from problems of personal relevance toward problems of more general, societal relevance.

It is with such a polyvalent example in mind that I suggest contextual developmental practice research and other co-research approaches need to discuss how technical relevance can be co-designed together with all involved practice participants, while avoiding losing co-research’s emancipatory impetus – emancipatory in the sense of iteratively renegotiating with one another where our joint research engagement should be heading, including what problems we are to tackle that potentially concern all of us, irrespectively of age. And it is here that the nominal researcher, commonly positioned in a relatively powerful position, may need to ask her-himself how his-her own research problem is interrelated with the problems of very differently aged co-researchers, how much s-he is anyway already intervening into the researched practice, how s-he can intervene without becoming manipulative by objectifying the co-researchers, and how s-he can best help to mediate across the *generational ordering* (Alanen, 2014) that renders an ontologically symmetrical and thereby emancipatory collaboration difficult to actualize.

Technical-emancipatory relevance in co-design research

What would be needed to ensure that the nominal researcher's problem is or becomes relevant to as many co-researchers as possible from a project's very outset, as an opportunity for co-researchers to transform problematic circumstances "towards the expansion of influence over life circumstances" (Markard, 2013, p. 20; translation NAC) also beyond the research project's duration? How can emancipatory co-research systematically design a sustainable research frame for co-inquiry, which is ontologically-epistemologically-methodologically-politically sensitive to those metasubjective problems that are usually marginalized, overlooked or overheard, for instance due to societally maintained power asymmetries?

In order to tackle these questions from a PSS perspective and hereby answering to the conceptual and methodological limitations I retrospectively identified in my PhD's co-research project, I suggest now that it may be helpful to turn to design-related approaches that have epistemologically-methodologically and in part also politically experimented with their versions of co-research with children over the past decades. One of the arguable strengths of such participatory-collaborative design research is that it brakes complex social problems and possible interventions down to an empirically negotiable scale, a scale which renders it practicable to brainstorm, prototype and materialize first solution ideas that are then iteratively re-shaped according to the co-researchers' contributions. Materializations of this exploratory process can also consist of the most acknowledged communicative tools, such as written and spoken language. But moreover, other tools of expressing ideas, experiences and critique, such as drawings, clay, string, etc., (e.g. Guha, Druin & Fails, 2013) as well as heterogeneous high-tech artifacts (e.g., Brodersen & Iversen, 2007), are often utilized, thereby diversifying the communicative means and potentially rendering the dialog with, among others, younger children more manifold and explorative.

Both design approaches have been primarily selected for discussion purposes here, because they in different ways systematically work on involving children and their everyday experiencing into research and design processes through co-inquiry (broadly speaking), while opting for benefitting children not only throughout the duration of the respective project, but also beyond and in the long run. They thus explicitly attempt to ensure this benefit in prospect and therefore help in further specifying the concept of technical relevance when engaging in co-research with children.

At the same time, though, some of the ontological, epistemological and therewith also psychological presumptions and implications remain too little discussed within these design approaches. My working hypothesis for the following discussion is that both the strength of systematically wanting to benefit children through co-research in the long run and simultaneously undervaluing their contribution may be connected to a conceptualization of subjectivity widespread in design research: that of the *user*. On the one hand, declaring children as (future) users of a technology connotes that they must be taken seriously as active agents and systematically involved in design research as (future) customers and payers, as potential consumers of a technological product and possibly even as investors. On the other hand, declaring co-researchers as users paradoxically also connotes a relative passivity of the active human agent, who contributes to technological and societal development primarily through consumption and reception of goods and less through their production. This may be a reason for participatory-collaborative design

methods to closely work *together with users* throughout the development of a technological product, but usually finalize, introduce and (if relevant) institutionalize or market the product *on behalf of the involved users*. The design researchers (and designers) may still be interested in ensuring beneficial effects for the involved users also thereafter, but out of logistic, economic, practical etc. reasons have a hard time following up on these long-term effects, or need to assume that this is otherwise ensured (for instance through the involved institutions or the market). A consequence is that the projects' technical relevance may be increased once a product is inserted into the commodification cycle, by having more predictable effects on the economic, social and societal areas, but arguably at the risk of losing the project's long-term emancipatory relevance – particularly for the involved children – from sight. This somewhat paradoxical relationship to the users as rather temporary collaborators shimmers in the background of the upcoming exemplary analyses of design approaches' quest for attaining technical (and to varying degrees) emancipatory relevance.

Participatory Design (PD) as emancipatory-technical methodological framework?

Design practices as well as design research underwent a methodological paradigm shift towards collaborating with those human beings that are to benefit from a design. While the international popularity of co-designing practices has foremost increased in the past decade, demarcated among others by the issuing of the academic journal *CoDesign* in 2005, co-designing practices are by no means a recent invention (cf. Sanders & Stappers, 2008). In particular Participatory Design (PD) has a long tradition of engaging in co-research as well as co-design, reflected in its widespread use of the concept of emancipation. While PD is indebted to a similar political and partly also epistemological commitment as PSS, the latter may be able to contribute to sharpening PD's ontology of subjectivity as two-sided human-world relationship and its conceptualization of emancipation, which tends to reproduce a notion of imposing emancipation on others through expert knowledge. Then again does PD tend to display and formulate its political-epistemological commitment much more explicitly than PSS, which is in turn reflected in PD's detailed methodological and analytical propositions.

PD, as described by rhetoric researcher Clay Spinuzzi (2005), is a methodological research framework, which provides “an iterative co-exploration of designers and users” (p. 167). PD has in particular been used to conduct research in Scandinavian wage labor settings, and the ideal is to co-develop artifacts and practices that benefit the workers also beyond the duration of a PD project. The three main stages of the iterative PD co-research process start with a fellow *initial exploration* of the established work practice. Here “designers meet the users and familiarize themselves with the ways in which the users work together” (p. 167). The ensuing *discovery processes* allow “designers and users to clarify the users' goals and values and to agree on the desired outcome of the project” (p. 167). Finally, in the *prototyping* stage, “designers and users iteratively shape technological artifacts to fit into the workplace envisioned” (p. 167). All of these three steps should ideally be iterated several times, until they meet the following evaluation criteria: Firstly, new designs are to improve the quality of life for the workers. Secondly, the collaborative dimension of the design development needs to be ensured through agreeing with all workers on representatives, who will be more closely involved in common language games and the codetermination of design/project aims. Thirdly, iteration must be ensured.

PD must therefore strive for continual participation, revisiting stages and sustained reflection.

In my reading, PD's and PSS' approaches to doing emancipatory-technical co-research may productively be synthesized, but need to further discuss and overcome three major conceptual incongruities: 1. PD primarily focuses on developing the *workplace* alone for the benefit of the worker/practitioner. The design of technological artifacts may of course lead to a development of the workplace's and herewith also broader societal dependencies, but a more general inquiry into the conditions under which wage labor is arranged and maintained is less in focus. 2. PD projects are commonly conducted with worker representatives. This may undercut possibilities for the other workers to exert influence on the project according to what they deem relevant and thereby feeds into a liberal democratic understanding of attaining technical relevance. 3. I read PD's propositions as requiring the researcher and/or designer to become an almost continuous member of a certain workplace force to ensure sustainability and technical relevance of ongoing technology design, which is seldom a viable possibility and may also level out potentially productive differences in perspective on a potentially joint problem due to societally maintained asymmetrical power positionings (expert versus worker).

Focus on long-term gains in a PD technology project with children

This latter problem may also have been an issue in the so-called iSchool project (2003-2007; e.g. Brodersen & Iversen, 2007), which was retrospectively reflected and revisited by information and media researchers Claus Bossen, Christian Dindler and Ole Sejer Iversen (2010). They interviewed various former project participants or users (pupils, teachers, administrators and consultants, and a politician) and investigated how iSchool's intended participatory development of "open and fluid information technologies with sufficient accessibility and robustness to support learning in and outside the physical limits of the primary school" (Bossen, Dindler & Iversen, 2010, p. 142) may have entailed long-term benefits (and thereby also attained *technical relevance* as discussed above) for these users. According to the authors, the users gained both on the individual as well as collective level: Users became more competent in using novel technologies and were able to promote their respective careers, while extending their networks and also improving on the collective reflection of their professional practices and on group work competences.

Bossen, Dindler & Iversen (2010) specify user gains and long-term PD aims according to kinds of people involved as well as the type, degree, duration and arena of participation implied: "the 'who', 'how', 'where', 'when', and 'to which extent' of participation will depend upon the focus, aims, and organizational settings of the particular project in which one engages" (p. 142). Power relations and different interests are to be explicitly addressed throughout these projects. Thereby direct and indirect participation can be distinguished: Indirect participation is at work when primarily engaging group representatives, advocating proxies, etc. – similar to the PD approach described by Spinuzzi (2005; see above). When directly participating, degrees of participation can be further differentiated, for instance according to whether users act as test subjects, as informants, as cooperative design partners, or "as cooperative project partners who make decisions regarding not only design, but also regarding project directions" (Bossen, Dindler & Iversen, 2010, p. 142; cf. also Druin, 2002; see below).

While the authors emphasize in particular the positive aspects of the iSchool project's long-term user gains, the final words sound somewhat sobering:

While the perhaps utopian ideal may still be that of fully cooperative design and project partnerships that contribute to organizational and societal development, one may find comfort in the fact that participants can engage in new networks and projects with their augmented areas of competence, and thus continue to contribute to PD's aims. (Bossen, Dindler & Iversen, 2010, p. 149)

On the one hand, these user gains may appear somewhat secondary, indirect: Augmentation of competences and networks could have happened in many other research projects as well (possibly not to the same degree, though). Furthermore, the long-term user gains described here explicitly benefit in particular the involved *professionals*. The involved children's or pupils' gains were difficult to verbally inquire into about five years after the original fieldwork was conducted: Primarily, the school children articulated the project as a fun break from school's regular procedures. This certainly not irrelevant short-term children's gain may foremost point to the methodological limitations of doing an a posteriori interview study on a research project conducted a long time ago. But it possibly also points to a more general limitation of PD projects with children – namely that it remains unclear why children should be made co-designing users of technology in the first place, other than for the sake of temporarily feeling empowered and having fun in the actual moment of the project implementation, as a break from ordinary institutionalized life.

The most fundamental long-term gain for children, an improvement of their quality of life through emancipation as creating sustainable future possibilities for collaborative development of life conditions, appears challenging to systematically implement at the outset of PD (as well as PSS) projects with children. It is presumably therefore that Iversen & Dindler (2013) as of late importantly called for a more utopian agenda for technological design with children in the field of Child-Computer Interaction (CCI), as in this latter field, children's long-term gains are less explicitly reflected and discussed, even in design approaches that are clearly targeted at children as co-design partners. Meanwhile, the creative, playful and via its diversity of expressive modes of inquiry highly invitational methods enacted, for instance in CCI's Cooperative Inquiry, could assist both PD and PSS in extending and specifying their co-research methodology with young children, thereby diversifying their possibilities for inquiring into children's problems of personal-societal relevance so as to consequently initiate a more technically relevant, two-sided and sustainable emancipation process.

Cooperative Inquiry: Multimodally involving children in technology design

Cooperative Inquiry as developed and promoted by education technology researcher and designer Allison Druin (e.g., 2002, 1999) is a design approach in the field of Human-Computer Interaction (HCI, of which CCI is a further specification) that focuses on the co-design of technology with children of various age groups. Its aim is to give children an empowering voice in the design of (primarily educational) digital technology targeted at them by making them members of intergenerational design teams. Fundamentally, the argument for further involving children in professional technology design processes is that they are usually merely considered users, testers or at best informants.

As *users*, children are exclusively positioned as the adult designers' target group. Here "the adult looks to understand the child's activities with various methods, [...] [in order to] test a general concept that may help inform future technology developers and to better

understand the process of learning that may contribute to future educational practises” (Druin, 2002, p. 4). Children are thus not involved in the actual iterative development of the technology. As *testers*, children get the opportunity to engage with prototypes and are to give feedback. Here “children may be observed with technology, and the impact on children can be assessed” (p. 5). One of the additional aims of involving children in the inquiry process as testers is to improve usability of the technology. The two alternative roles of children as *informants* and *design partners* are also targeted primarily at improving usability during the technology development, but with different conceptualizations of participation and ensuing ontological implications, as information and communication scholars Frauenberger, Good & Keay-Bright (2011) summarize:

While the first two roles [user and tester] are passive from a creational perspective, the third and fourth roles [informant and design partner] carry the notion of active participation. In the role of informants, children are involved at certain stages for particular reasons, e.g. early ethnography, low-tech concept design and feedback on particular design decisions. As design partners, they are recognised as equal stakeholders in the design process and involved throughout the process. The latter role takes participation to the full extent and shifts the final responsibility for design decisions from the adult researchers to a collaborative decision-making process in negotiation with the child design partners. (p. 3)

As design partners, consequently, children are considered co-designers, whose perspective should be fully taken into account at every step of the design process. Just as adults, they “have special experiences and viewpoints that can support the technology design process that other partners may not be capable of contributing” (Druin, 2002, p. 12). Children are the technology’s target group which gives feedback, engages in dialog with the adult researchers and designers, and also elaborates current and possible future designs, i.e. in relation to ideas, prototypes and final products. Non-verbal methods employed include, as stated above, drawings, clay, string, etc., (e.g. Guha, Druin & Fails, 2013). Meanwhile, this latter design partner role is specifically targeted at one goal of inquiry, namely to improve the *usability* and design of technology. Conceptual and subsequently more generalizable work such as the development of theory or the questioning of the impact of a technology can, according to Cooperative Inquiry scholars, not be pursued with children as design partners. Druin (2002) concludes that therefore “the goals of inquiry may be more limited, but the relationship to adults and technology are greatly expanded for children” (pp. 12-13).

Implications beyond methodology

It is precisely this latter limitation, namely that children can be regarded and involved as design partners, but only in terms of improving a technology’s usability and design, which poses an epistemological-political challenge to directly translating the impressive diversity of communicative co-inquiry methods of Cooperative Inquiry, which could undoubtedly extend the repertoire of dialogical methods when collaborating with young children, to either PD’s or PSS’ methodological frameworks. Still, Cooperative Inquiry offers both this multiplicity of creative methods for the children to express the problems they encounter with a specific design and also to help overcome them, and correspondingly focuses on attaining a specific kind of technical relevance in the sense that co-designing children have direct effects on the technological artifacts they may co-produce. The

problems that children are able to express throughout a cooperative inquiry, however, seem to be primarily or even exclusively framed by the adult researchers and designers on behalf of the children. Hence, if children expressed personal-societal problems that do not directly relate to the pre-designed frame of technology inquiry, would these presumably be largely overlooked as they are not deemed relevant given the pre-framed adult goals of inquiry. From a PSS co-research perspective, then, technical relevance here evidently has the primacy over emancipatory relevance for the children.

A similar critique has been more generally raised toward participatory research with children. The overarching questions of whether children gain at all from such research and how precisely are not sufficiently tackled. According to educational researchers Waller & Bitou's (2011, p. 7) article on participatory research in early childhood, for instance, three central questions remain largely unanswered throughout this field:

- (1) Does using 'participatory' tools (such as cameras) necessarily engage children?
- (2) Does the adult research agenda inevitably change children's experiences?
- (3) How does participatory research empower children?

Bossen, Dindler & Iversen's (2010) follow-up interview study on the iSchool project's long-term gains offers valuable arguments for further exploring as well as designing participatory research projects with children. In particular, though, their conceptualization of the 'user' may need to be transcended in order to design a more emancipatory co-research practice. Also in the original iSchool project, the research participants' gains are limited by their participation in an already clearly pre-framed project – and this, as reflected at the beginning of this article, similarly applied to my PhD study's original research design (Chimirri, 2014). The framing itself, i.e. the research project's intended aims and gains inbuilt into its research questions, generally appears non-negotiable in such cases. In order to ensure longer-term gains for all research participants, participatory research, and in particular its framing of what a problem of emancipatory and metasubjective relevance is, would need to be further democratized, thereby also transcending notions of (research) participation as mere *information access* or *interaction* (cf. Carpentier, 2011) instead of opening up the nominal researcher's original intentions for renegotiation.

For now, it can be concluded that it is the actual (research) framing and herewith the problem of departure that requires iterative co-investigation and co-reformulation in order to attain technical relevance which follows the primacy of emancipatory relevance – technical relevance through continuously learning together that we need to collaborate with others in order to overcome societal dependencies and tackle problems of societal and therewith also of personal relevance. This also requires a radical ontological reformulation of what a (research) participant is, a reformulation that transcends the 'user' status and opts for ontological symmetry across the generational ordering. As PSS underlines, the user is a contributor to the research practice, a co-researcher who can support, question and potentially even destruct a research project, for instance if a nominal researcher's questions and problems cannot be renegotiated with the other co-researchers in meaningful ways (this would disqualify the project's relevance given PSS' co-researcher principle). It is pivotal to acknowledge the research participants' power, and to open up the framing of research for conflictual collaboration by formulating research questions collaboratively 'from below' (cf. Silverstone, 2005). Otherwise, the researcher

one-sidedly exerts power over the participants, and thereby questions or even undermines the entire project of doing ‘participatory research’ or ‘co-research’.

From my point of view, fundamental questions on participatory co-research can henceforth not only be tackled on the methodological plane (or, for that matter, ‘only’ on the epistemological-political plane) as is commonly proposed in design research. As is shown in the Cooperative Inquiry conceptualizations of children as users, testers, informants and design partners, a discussion of these questions fundamentally touches upon the *ontology* of children throughout a technological design process and the research approach’s normative agenda: Who is the research process to be good for, how and why? PSS concepts such as *conduct of everyday life* as well as *teleogenetic collaboration* (this Chimirri, 2015), in addition, could clarify that the ontology of children in a technological design process is – also in order to transgress the epistemological limitedness of one or few adult researchers’ and/or designers’ perspectives on a technology or more generally world – inevitably interrelated with the ontology of other human beings that are part of children’s experiences and imaginations. The technology design process also draws on and is inseparable from experiences made in other (institutionalized) settings and practices.

Most generally, then, it becomes a question of what a child is considered to be in relation to other human beings in relation to the world, including the technological artifacts constituting world. An investigation of John and Bobby’s expression of a problem via a video game design, i.e. an expression which took its point of departure in their integration of Mario Kart experiences into the daycare practice, cannot be understood and further acted on in purposeful or emancipatory ways without taking into consideration their relationship to one another, their parents, the pedagogues, and even myself as a researcher who originally pre-framed their problem in terms of its media-relatedness. What may have been needed in order to more purposefully ensure emancipatory-technical relevance in a PSS co-research project such as my PhD study, I will now finally come to suggest, is to a) learn from PD that long-term co-researcher benefits must be explicitly implemented into the methodological framing or design at the outset of such a project, and to b) learn from Cooperative Inquiry with young children that for this purpose, much more diverse methods of co-inquiry and thus for relating to children’s and all other participants’ communicative expressions may be necessary for enabling meaningful dialog and renegotiation of a research’s framing across age thresholds.

A proposition: Co-research as ongoing emancipatory-technical co-design across age thresholds

The article at hand indicated via an empirical illustration what detrimental consequences it can have for daycare children and their conducts of everyday life if their related conflicts are not accentuated as relevant by pedagogues and/or parents and if co-research is not able to sustainably mediate between conflicting perspectives beyond the official project’s duration – also because the personal-societal relevance of a scene often only emerges in analytical hindsight. Toward the end, the article pointed to two design research approaches (PD and Cooperative Inquiry) that attempt to take the children’s experiences and more specifically media and technology experiences as point of departure for developing a research that basically has an emancipatory agenda, in that children are enabled to actively co-shape design processes and thereby the (technical) future effects of the design’s

products. Meanwhile, I pointed to the problem that these design approaches tend to focus more on attaining technical than emancipatory relevance when viewed from PSS' ontological perspective: Children, even when articulated as co-designers rather than users, only become part of the design process so as to have sustainable effects for adults (as children's representatives) creating pedagogical arrangements or technological artifacts on behalf of them. The participating children have little to no opportunities for co-framing the design or research problems and questions, i.e. have radical effects on this framing and thereby co-shape the relevance initially built into the design projects. For instance, in Cooperative Inquiry, children in their role as co-designers are explicitly excluded from a more general theoretical development or a critique of the impact of a technology, albeit the diverse and invitational methods of co-inquiry proposed by this approach may be very valuable for exactly promoting an intergenerational and in my eyes direly needed theoretical development and critique of the impact of technology.

This led me to suggest that academic work with children informed by PSS' understanding of emancipation as collaborative overcoming of societal dependencies through co-research has a particular responsibility to attend to children's attempts of being sustainably integrated into inquiry practices at every stage, including research and design practices. Any kind of co-research that children have a stake in, I propose, ought to be renegotiable across generational orderings by emancipating the process of formulating the inquiry the design sets out to be a solution for. This may render it possible for all participants of a co-research project (including the nominal researcher) to iteratively pose more purposeful questions to the fellow practice and its problematic societal conditions as well as to other practices and its conditions, questions that are potentially of more emancipatory-technical relevance than what was initially intended by the nominal researcher, throughout and beyond the official research project's duration.

Accordingly, research problems and ensuing goals of co-inquiry should not exclusively be set up by adults and by what they deem relevant investigating. Otherwise the children remain objects to the research or design. Therefore, this article invited PSS co-research to further pursue critical reflections of its methodology, among others by diversifying its dialogical methods of co-inquiry. Thereby it could more purposefully attain emancipatory-technical relevance, i.e. render it possible that its mutual emancipation processes are continued and even extended by the co-researchers one came to collaborate with. For instance, had I beforehand systematically undertaken such a reflection, could my PhD-study's daycare research engagement not have rendered it possible for Bobby, John, John's father, the staff and all other involved to renegotiate the mentioned conflict, underlying problems and their personal-societal relevance? What role would I as psychological researcher have needed to assume throughout my research project so as to create the conditions for such a sustainably emancipatory collaboration during the study and beyond?

In order to attain a more technically relevant emancipatory co-research with children throughout future studies, I suggest a priori addressing the following issues:

1. The research design process may need to be democratically *prototyped* (sensu Nissen 2012, 2009) across positionings, personally relevant problems, and age thresholds or generational orderings: The researcher's problem would accordingly need to be iteratively interrelated with problems, questions and challenges identified by co-researchers, in child-targeted (institutionalized) practices in

particular those identified by the children. In order to better ensure this, dialogical-explorative methods of co-inquiry may require iterative diversification, for instance with inspiration from Cooperative Inquiry.

2. Concepts through which this process of inquiry is initiated and analyzed would need to allow for a processual-relational understanding of mutual emancipation and learning irrespective of age. I deem the psychological concepts of conduct of everyday life and conflictual or teleogenetic collaboration as particularly helpful in this regard. They generally underline that all human beings, irrespective of age, “attempt to gain influence over their life circumstances, to become agentive and in that sense ‘free’” (Markard, 2013, p. 20; translation NAC), building on Karl Marx’ fundamental insight that “the free development of each is the condition of the free development of all” (p. 24; translation NAC). At the same time, these concepts remain open to situated renegotiations so as to attune this development to a concrete co-inquiry’s process’ emancipatory-technical relevance.
3. Modes and methods of inquiry could be mutually appropriated in processual-relational ways: For instance, if young children primarily draw on non-verbal modes of expression, adults would further need to develop their possibilities for developing and generalizing transgenerational, multimodal communication.
4. The PSS researcher as genuine co-researcher could explicitly assume the role of *mediator across generational orderings, positionings, interests and personally relevant problems*. At the same time, the process of iteratively developing mutual emancipation via negotiating the goals of inquiry may arguably need to be initiated and primarily carried through by the researcher, as someone who is appropriating the scientific authority granted to her-him so as to gradually question this very same authority together with the other co-researchers. This could be conceptually circumscribed with inspiration in the research processes discussed in Downing-Wilson, Lecusay & Cole (2011): from (research) design experimentation to mutual appropriation of modes and goals of transgenerational co-inquiry.

Co-research could thus itself be seen as a pedagogical-educational process (or *critical trans-pedagogy*, as Nissen, 2012, termed it), which, however, does not deem some of the co-researchers more qualified in posing relevant questions to the world than others. Emancipatory co-research can always only be prototypically co-designed and theoretically generalized in meaningful ways by the respective practice participants in order to also attain technical, sustainable relevance. What could be generalized are the processual-relational theoretical concepts and dialogical-explorative methods of co-inquiry used in order to focus on transgenerational, societally mediated commonalities as well as the problems identified by all participants in a particular practice. Tentative and thereby emancipatory co-design of goals and modes of inquiry, meanwhile, can merely *inspire* other similar practices, but needs to be democratically resituated in another local practice:

With prototypes as local instances of a theory’s implications, we have a relation between three aspects that define each other: (1) the local practice, which is claimed as prototypical; (2) the model, the (linguistic and otherwise) artifacts with which this claim is articulated; and (3) the general relevance, that for which the prototype, so modeled, is claimed to be prototypical. (Nissen 2012, p. 45)

In this line, the above propositions are most clearly directed at PSS inquiries, but may also be important so as to bridge differences to Participatory Design and Cooperative Inquiry. All approaches address very similar limitations and problems in current research with human beings positioned at the margins of political decision-taking (design) processes. As Iversen & Dindler (2013) have recently pointed out, PD may require to further specify its participatory epistemology so as to bethink itself of its underlying utopian agenda, promoting ideals such as democracy, emancipation and skillfulness. The propositions conceptually worked out in PSS, for instance its fundamental proposition that epistemic asymmetry is at the heart of human ontology, may help in developing the called-for participatory epistemology, including a situated technical, mutual appropriation of problems, concerns and ideals according to the co-inquirers' personal-societal relevance – ideally from the very beginning of a research project.

Children such as John and Bobby, parents such as John's father or also Bobby's mother, professional daycare staff as well as the nominal researcher could then, so my hope, become part of iteratively re-framing the co-research project from its outset, so as to ensure that the problems tackled there are of emancipatory relevance to those having a stake in the practice of concern. The idea is to thereby prototype future academic and non-academic, transgenerational co-inquiry processes that may be picked up on in order to further transform the practice of concern, irrespective of whether a nominal, academic researcher will continuously be present or not.

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