The bodily experience of apraxia in everyday activities: a phenomenological study

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Purpose: The aim of this study is to explore apraxia as a phenomenon in everyday activities, as experienced by a group of stroke patients. Some consequences for clinical practice are suggested. Method: In this phenomenological hermeneutical study, six persons with apraxia were followed from 2 to 6 months, from the early phase of stroke rehabilitation. ADL-situations and interactions with therapists were observed and videotaped repeatedly during the rehabilitation trajectory, to provide access to and familiarity with the participant's apractic difficulties over time. Two in-depth interviews were conducted with each participant. Interviews and video observations were analyzed together, taking Merleau-Ponty's concept of bodily intentionality as basis for analysis and his phenomenology as the main theoretical perspective of the study. Results: Five types of altered bodily intentionality were described by the participants [1]: Gap between intention and bodily action [2], Fragmented awareness in action [3], Peculiar actions and odd bodies [4], Intentionality on the loose, and [5] Fighting against tools. These were recognized as characteristics typical of the apraxia experience. Conclusion: The phenomenology of Merleau-Ponty, and his concept of bodily intentionality in particular, elucidate the way specific apractic difficulties come into being and may thus render apraxia less incomprehensible. The apraxia phenomenon appears as characteristic fragmentations of anticipation inherent in action performance, thereby “slackening” the bodily intentionality. Identifying apractic changes of intentionality may help health professionals to adjust and individualize therapy, and facilitate patients' acting competence in everyday life.

Keywords: Stroke, Merleau-Ponty, intentionality, occupational therapy, apraxia

Implications for Rehabilitation

- Few studies have explored how apraxia appears in everyday life activities, e.g. during rehabilitation practice.
- The study explores apraxia as a phenomenon in everyday activities, as experienced by a group of stroke patients. Merleau-Ponty's concept of bodily intentionality constitutes the analytic focus.
- Reflection upon changes of intentionality in illness may help professionals focus on patients' experiences and their struggles.
- Findings support the necessity of the user perspective, with a more adapted, individualized and contextualized occupational therapy.

Introduction

This study explores apraxia from a phenomenological perspective and provides new insights into how people with apraxia experience the disorder in everyday life.

About 1/3 of stroke patients with left hemisphere damage have apractic problems. The prevalence is lower for patients with right hemisphere stroke. While apraxia has been widely explored in neurophysiological research, surprisingly few studies have explored how apraxia appears in everyday life activities, e.g. during rehabilitation practice [1].

Rothi and Heilman [2] define apraxia as an inability to carry out acquired, purposeful activities that is not primarily explained by motor or sensory impairment or by deficits of motivation, language barriers or intellectual dysfunctions. There is no unambiguous classification of apraxia, and...
definitions, demarcation and mechanism of various types of apraxia remain contentious [3]. Current clinical practice and research often use the distinction between ideomotor apraxia and ideational apraxia, developed by Liepmann [4] at the beginning of the 20th century, though definitions of the terms vary in research literature and between health disciplines [2]. Ideational apraxia is usually related to the conceptual organization of actions, and refers to problems related to "knowing what to do," leading to difficulties of task sequencing and object use. A patient may for example start eating a slice of bread before putting spread on, or brush his hair with his toothbrush. A person with ideomotor apraxia knows what to do, but still has problems with carrying out the task. Typically, actions, in particular tool use, become hesitant and imprecise, or movements lack flow and timing. Both planning and programming of actions can be impaired. The two types of apractic problems are however often present to varying degrees, influencing each other [5]. In this study, Rothi and Heilman's overall definition of apraxia is used, which includes both ideational and ideomotor aspects.

It has been argued that ideomotor apraxia has limited implications for the persons' daily activities [3]. Studies [6–9] investigating the impact of apraxia on daily activities document that this is not the case. Findings indicate severe difficulties in managing specific tasks, such as preparing coffee [6], eating dinner [7] and dressing [8,9]. According to one study, 40% of 118 persons with left-side stroke had apractic problems 3 months after the stroke [10]. Bjørneby and Reinvang [11] followed 120 stroke patients 6 months after discharge from a rehabilitation unit. Patients with apraxia improved their ADL-function during the rehabilitation program, but their functioning deteriorated after staying in their home environment for a period. Another study [12] evaluated stroke patients in need of ADL-support after 6 months, and found that patients with apraxia needed more help than patients with other neurological impairments. These studies demonstrate that apraxia affects patients' ability to function in daily life, and that the consequences may persist over time.

Apraxia is commonly diagnosed through formalized tests. This is also the methodic approach in the studies referred to. Apractic difficulties however appear in the context of everyday activities, are not readily described, and may be difficult to conceive and predict both for the affected person and others. Both for therapeutic practice, and for the persons themselves and their families, it is important to learn more about how apractic difficulties may appear in action, how people with apraxia may articulate their problems with acting, how they perceive and understand the altered functions of their bodies, and how they find meaningful ways of managing everyday life. While tests indicate the range and severity of the disturbances, insight into the experiences of apraxia may help professionals understand and interact with patients, and facilitate the individualizing, graduating and adjustment of therapy.

Several studies have explored the experience of living with stroke in general [13–17] and give valuable insights into stroke trajectory experiences. Findings dealing with how stroke survivors manage unpredictable situations and handle their limitations, are of particular interest to this study. However, there is also a need for attention to the specific experiences of living with particular neurological phenomena. We have found few such studies. Tham, in a study from 1998, analyzes the meaning of living with neglect [18], and shows how neglect implies perceiving oneself, others, and the surrounding world in ways that are strange and hidden to the perceiving subject. The participants of the study however gradually managed to discover and handle their difficulties in everyday life.

Arntzen's phenomenological study of apraxia from 2008 identifies eight apractic patterns in everyday activities [19], some elements of which have been described in neurological and clinical literature [6–9]. The author found that the participants performed actions uncertainly and with many starts and stops and derailments. Sequences of action were misplaced in time or space or were omitted, and tools were used inappropriately, or with lack of fluidity or functional grip. The participants' acting difficulties varied across time and between activities. One of the study's conclusions is that apraxia is a highly unpredictable phenomenon.

Blijlevens, Hocking and Paddy [20] studied a group of men's everyday experience of living with dyspraxia, from five months to five years after stroke. The study describes participants' long-term experience of struggling with unwilling bodies, unhandy tools and unfamiliar activities and environment. The participant's actions became slow-paced and demanded a new kind of awareness and concentration, which destroyed the flow and changed the nature of tasks. The men in their study had to concentrate intensively to figure out how objects work, and were easily torn out of their concentration when e.g. somebody spoke to them. Blijlevens et al. [20] point out that when experiencing a world that is reduced to details, it becomes necessary to focus on one thing at the time. They conclude: “The extent to which dyspraxia is experienced as struggling with the most mundane of everyday activities is not conveyed by formal definitions of dyspraxia” ([20]; p.473). The men of the study overcame their difficulties by instructing and pacing themselves, and by planning and organizing tasks and environment.

The aim of this study is to explore the phenomenon of apraxia as it appeared in the habituated activities of six participants diagnosed with apraxia. Their specific apractic experiences are described closely, and Merleau-Ponty's concept of bodily intentionality (presented below) is the study's analytic focus. Through this analysis, the study aims to suggest insights of relevance for occupational therapy to persons with apraxia.

Method

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Specific neurological disturbances are defined and diagnosed in a biomedic conceptual context, which also pervades the rehabilitation setting. The phenomenological approach, aiming to study how apraxia appears in everyday activities, must both integrate biomedic concepts, and transcend this context. The first author has long experience as an occupational therapist in stroke rehabilitation; the second author is a philosopher in phenomenology. For both, foreconceptions have certainly influenced the research process, what caught the attention and what was overlooked. The

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fore-conceptions of apraxia implicit in the first author’s professional attention were however a necessary precondition for capturing significant aspects of situations in their scientific and clinical context. The medical conception of apraxia was an indispensable fore-conception which provided the entrance to the field of investigation, and was also subject to the authors’ reflections throughout the research process. The study employs the phenomenological approach to analyze the apraxia experience previous to medical conceptualization [21], and thus contribute to a further reflection.

We have seen that apraxia disturbs fundamental aspects of human action, such as the use of one’s hands and tools, and the flow and continuity of performing. Holzkamp [22] and Borg [16], analyze human action as contextually embedded in persons’ everyday life. Everyday activities are culturally constituted and defined, even when performed in privacy, such as tooth-brushing. Tools, artefacts and spaces of action constitute relations in an intersubjective and social world, and are at the same time bodily relations and experiences.

What makes this a phenomenological study however, is its epistemological perspective and analytical concept of bodily intentionality, both derived from Merleau-Ponty’s Phenomenology of Perception [23]. He introduces phenomenology as a radical reflection that attempts a direct description of our experience, prior to its psychological and scientific explanations (p:vii). This phenomenal field is not an inner world; the phenomenon is not a state of consciousness (p:66). The phenomenology of Merleau-Ponty is not restricted to first-person experience. While Husserl’s phenomenological method is frequently interpreted as the constitution of acontextual and immutable essences, Merleau-Ponty’s phenomenology is concerned with phenomena of concrete experience, their coming into being and ways of evolving in particular (p:66; 24). The phenomenon of apraxia, then, appears and can be described as a particular kind of experience unfolding in acting situations. Indeed, Merleau-Ponty argues that significance and time are one in human life (p:495). This becomes evident when life is being structured into the time before stroke, and the time after.

A phenomenological approach requires detailed descriptions of action sequences with their variations, that make apparent the dynamics between the acting person, others, space, and things in use [25,26]. In this study, the apraxia phenomenon is approached both as it appears intersubjectively to a close observer, and as experienced and related by the persons affected by apraxia themselves.

According to Merleau-Ponty, action is not simply performed from the explicit intention or decision to act. His concept of bodily intentionality refers to the body as a unity of perception and movement in its directedness towards its tasks (p:114–115,158–159). In initiating the act, the final situation is anticipated. The body is from the start in contact with the movement’s completion, “and propels itself toward that end” (p:107–108). Merleau-Ponty describes this directedness as an ‘intentional arc’ which brings about the unity of intelligence, sensibility and motility. And it is this which “goes limp” in illness (p:57).

The anticipating intentionality is directed towards the practical object (p:160). In our culturally habituated everyday actions, we respond with certain types of solutions to situations of a certain general form (p:64). Instruments or tools are incorporated into the action, and become part in the structure both of my own body, and of my cultural world (p:104). The habitual action, then, is neither a form of knowledge, nor an involuntary movement. Merleau-Ponty says it is knowledge in the hands, which comes forth only when a bodily effort is made, and cannot be formulated in detachment from that effort (p:166).

Merleau-Ponty discusses apraxia precisely as an alteration of motor intentionality. For the arm of the apractic, he says, objects no longer exist (p:161). Commenting on Liepmann, he states that “we shall make sense of apraxia and do justice to Liepmann’s observations only if the movement to be performed can be anticipated, though not by a representation. This is possible only provided that consciousness is understood (...) generally as reference to a practical as well as theoretical object, as being-in-the-world” (p:n.94, p.159–160). Proceeding from this philosophical analysis of bodily intentionality as practical anticipation, the project of the study is to describe and analyze the specific apractic affections in their contextual variability. It remains a central aim of this study to understand the affected persons’ experiences as far as possible.

Participants
The primary participants were three men and three women with apractic problems, who were followed between two and six months (see Table I). Five participants were included during

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<th>Table 1. Information about the stroke survivors with apraxias.</th>
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<td>Age</td>
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<tr>
<td>80</td>
</tr>
<tr>
<td>Name (fictitious)</td>
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<td>Location of stroke left side</td>
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<td>Type of apraxia*</td>
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<td>Concomitant conditions</td>
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| *Most participants had elements both of ideational and ideomotor apraxia, although one type was more dominant than the other.
the first weeks after the acute stroke, while one was included after 3 months. The last participant was included because she still had apractic difficulties and was in an in-patient setting. Information about her earlier phase was obtained by interview with occupational therapist and medical documentations, in addition to interviews with the participant herself. The plan was to follow all the participants for six months. Unfortunately two died before the last follow-up, and one withdrew from personal reasons. The decision had nothing to do with the study, and we were allowed to use the data already collected.

The primary participants were recruited from several rehabilitation units located in Northern Norway. Occupational therapists selected the participants. The diagnoses were specified in multidisciplinary meetings, on the basis of the occupational therapists’ ADL-observations and test results. Inclusion criteria were: adult persons diagnosed with apraxia after recent stroke, who did not have major cognitive and communication impairments and were able to share their experiences in an interview, and who participated in a rehabilitation program.

All the participants had concomitant conditions which influenced their functional ability (see Table 1). In that regard, they were representative of people affected with apraxia, with the important reservation that many also experience aphasia, as neurological structures involved in action and language are closely connected.

The study also includes a group of secondary participants: seven occupational therapists, one enrolled nurse and two students. Two family members, son and daughter of the primary participants respectively, were also included, in accordance with suggestions from the primary participants. The secondary participants were responsible for the therapy sessions or had an important role in the daily activities. The results from interviews of this group will be presented in a subsequent paper dealing with therapy and care to persons affected with apraxia.

Data collection
The study combined these research methods over the period: In-depth interviews with primary participants, interviews with family members and occupational therapists, observing and videotaping interactions and ADL-situations at the hospital and in participants’ homes. Field notes and documentation from medical journal and interdisciplinary reports were supplemental data.

Changes in data during the research period are generally regarded as an issue of research dependability [27]. Since this study deals with a fluctuating and processual phenomenon, the issue of change was integrated in the study design. The participants were followed for 2–6 months with the aim of exploring both short-term dynamics and long-term developments. The fieldwork was conducted in two or three consecutive periods during the rehabilitation trajectory, each period lasting two or three days. In the fieldwork periods, the first author was together with the participant from morning until afternoon, and interviews and video filming of ADL-situations were conducted. The same kinds of tasks were videotaped the following days, to identify similarities and differences in the phenomenon. The patient was also observed in other ADL-situations during the days, interacting with other patients and personnel, and in other therapy sessions. Informal talk also gave valuable data. Detailed field notes were written every afternoon directly after the field work.

Observation and video recording: Apractic difficulties, as experiences of bodily movement, are silent, fluctuating, and frequently puzzling. The use of video observations of rehabilitation sessions provided access to the phenomena and context for the dialogue with the participants about their apraxia experiences. In phenomenological studies of body movements, video observations do not aim to establish an objective basis for validating subjective material, but a close and detailed descriptions of ongoing processes, subjected to a triangulation that integrates interview and observational data [25,26]. The observational data were particularly valuable for capturing the person’s immediate response to their disturbed actions.

The ADL-activities observed in the rehabilitation units were ordinary morning routines, breakfast preparation, making coffee or meals. We did not influence the choice of activity, or when and where it should be carried out; it was as close to ordinary practice as possible. The activities were performed in the patients’ rooms and bathrooms, in the therapy kitchen, or other therapy rooms. Four participants were followed up in their own homes and one in a nursing home. If possible, the same activities were video filmed at the hospital and at home. Some participants offered to demonstrate other activities, such as needlework and dinner preparations. These were also videotaped. The video camera was hand held for greater flexibility of position, adjustment of angle and zooming, to capture details in the interaction. It was considered important to capture the therapist and the tools in use as well as the patient. The video sequences varied from fifteen minutes to one hour, in total twelve hours of edited video tape.

Interviews: Open-ended interviews were conducted shortly after the first video observation, which provided openings for concrete discussions of the specific apraxia difficulties. The participants were asked to articulate and reflect upon their own experiences with apraxia, beginning with questions like this: “We were together when you…. (ADL-situation), can you describe what happened?” The interviews unfolded as a conversation. In phenomenological investigation, the interviewer usually aims at being an interested listener, sensitive to the participant’s expressions. The participants were given pauses to think, ample time to talk, and their answers were followed up. An interview guide with the themes: Life before stroke, the illness experience, changes and thoughts about the future, was checked at the end of the interview. The participants’ descriptions were generally richer in the second interview than the first. That may be because of recovery, increased confidence, and their having had time to reflect and find adequate words for their experiences. The interviews were conducted at the hospital or in their living room at home without disturbances.

Therapists, nurses and family members were interviewed in the same way. The interviews lasted from half an hour to one hour. In total twenty-two interviews were conducted; twelve were repeated interviews.
Data analysis
Data interpretation and analysis went on continuously through the study. The research process was regularly validated among the researchers, and consensus developed through continuous dialogue. All the material was grouped into units of analysis, one for each stroke survivor with his or her trajectory, therapist and/or family member. Each analysis unit thus consisted of tape-recorded interviews, video films and field notes. The interviews were listened through twice, and the video films were examined several times, before the interviews and film sequences were transcribed. The interviews were transcribed verbatim. Periods of silence, laughing, crying etc. were noted. All video film of action sequences were described closely. The first author went back and forth between film sequences, interview recording and the transcribed text of the analysis unit, and to made sure that important details were captured, since transcription from sound and picture to text may represent a reduction as well as an addition of meaning [25]. That way, the data forms were made to illuminate each other, and the initial step of the analysis kept within each individual’s trajectory. Meaning units – constellations of statements relating to the same meaning – were then identified in the transcribed text of each analysis unit, and labelled with a code which summed up what the meaning unit was about, in terms close to the transcribed text [26].

Next, all the coded meaning units were grouped across the analysis units and abstracted into four areas of manifest content [27]. The abstraction aimed at identifying content areas that expressed the participants’ reflections and their perceptions of their acting. The areas of manifest content were (i) the body as an “acting tool”, (ii) changes in performing actions, (iii) perception of self as agent, (iv) changed relation to tools and space (see Figure 1).

In the second abstraction, the evolvement of bodily intentionality in the apraxia experiences were traced as a latent content in all the coded meaning units, and across the areas of manifest content. Thus a theoretical informed construction of the intentionality of apraxia was developed, in five themes that recurred across all the analysis units and in all the content areas. These are the findings of the study. They comprise all particular changes of bodily intentionality registered in the material, as experienced by all the participants, though to a greater or less extent:

1. Gap between intention and bodily action
2. Altered awareness in action
3. Peculiar actions and odd bodies
4. Bodily intentionality on the loose
5. Fighting against tools

Figure 1. Example of the analysis process from meaning units, condensation, and content area to construction of a theme.
The five themes indicate several and particular changes of intentionality in the apraxia experience, but the themes are not mutually exclusive. Since experiences of action connect, and all texts have multiple meanings, one coded meaning unit may be interpreted to express more than one of the themes [21,26].

Trustworthiness and transferability
It may be asked if the sample of six primary informants is sufficient to lend the study credibility. We judge that the participants’ experiences were typical of apractic difficulties, as described in literature and known from practice. Their concomitant conditions moreover contributed to complexity and variability in their apraxia experiences [27]. The participants’ accounts are presented as distinct from our interpretations. It was however decided not to validate the study’s findings with the participants, as only three remained at the time of analysis completion.

The study’s trustworthiness is primarily secured by triangulation of methods [28]. Several data collecting methods, from several groups of participants, were employed over a systematic temporal course. The methods are consequent on the study’s aim: To explore the experiences of apraxia in everyday activities as a phenomenon of change in bodily intentionality. The study contains the phenomenon’s temporality and contextuality, and no data were excluded [29].

We believe that the results of the study are transferable in the sense that the changes of bodily intentionality in apraxia experiences may well be recognized in the apraxia experiences of others, and some are indeed described in previous research.

Ethical considerations
The study has been approved by Regional Committees for Medical and Health Research Ethics (REK). Since the primary participants are in a very vulnerable situation, reflection on ethical aspects has been a continuous aspect of the project. It has been important to establish good and confident relations to the participants, ensuring that participation in the study did not become an extra burden. Some expressed that the participation “gave them something back” and that they were glad to contribute to developing knowledge that might help them and others. The participants are given fictitious names in the text.

Findings and discussion

Altered experience of acting
In the following, the five themes characterizing changes of intentionality in the participants’ experiences of acting are presented and discussed. Since the results are obtained in an interaction of experiences and philosophical perspectives, we have chosen to present and discuss each theme jointly.

Gap between intention and bodily action
The study demonstrates how apraxia may interfere with the performance of an activity while the participants’ understanding of the activity remains intact. Characteristically, and especially for Tom, Harry, Isaac and Ann whose apraxia was predominantly ideational, they were familiar with the situations, and had a stable understanding of what to achieve. They articulated easily the relevance of concrete actions, and did not have problems in connecting their explicit intentions and the concrete situation. The trouble arose when the participants’ body, equipments and action sequences were about to come together in an action. Isaac, for example, had no trouble finding the equipment necessary for teeth brushing. When he stood in front of the wash basin, picking up his toothpaste he said however: “I don’t know if I shall use this now, or how to use it!” Still, he had no difficulties in talking about his teeth brushing: “I have never brushed my teeth as much as here in the hospital, but I see that it is important to practice on things that are hard for me to manage.” Like the others, Isaac seemed to have problems in generating the proper tool-movement relation in the acting situation. Another example is Harry’s reflections on his struggle in spreading butter on his bread. He said: “It is easy, I had it just in front of me, but still I couldn’t get it right!” Ann articulated the gap between explicit intention and body in action in a precise way: “I can’t get my hands to do what I want them to!”

The participants with predominantly ideational apraxia were initially surprised and upset when their expectations of their bodily skills were not met. Harry and Tom were for examples stunned when they discovered that they could no longer use the coffee machine. Some months later, Harry reflected on the situation in the therapy kitchen:

“I was very surprised… I thought it had to be my head that did not function properly. I got worried how my life will be with this kind of difficulties. Fortunately, it is getting much better now.”

Merleau-Ponty uses the phenomenon of apraxia as an example of how tools and space can be present for recognition, though not for the lived body:

“In the normal person, every event related to movement or sense of touch causes consciousness to put up a host of intentions which run from the body as the centre of potential action (…) in the case of the patient, the tactile impression remains opaque and as sealed up” (p:125).

The bodily intentionality, which anticipates the practical movement, is disrupted; the touch of the tools becomes “sealed up” and does not communicate anything to the proposed action, which in consequence is affected in unpredictable ways. A gap appears between the decision and the lived apractic body.

In apractic difficulties, then, the understanding of the situation may be present, and the expected ability to act may not. The acting situation is both present and non-present. This paradoxical experience created grief and despair in several participants. Tom expressed strong resistance to the acting situations in the early phase, and preferred lying still in bed with his hands close to his body. He said: “It is not easy for me, you see.”

All four participants with right hemisphere stroke had good insight into their difficulties. Harry expressed how odd it was to know that he used the tableknife to slice the bread, without being able to change the operation and pick up the
broad knife that lay by. He said: "I knew it was wrong, but I couldn't do anything about it."

Ann, who had major apractic difficulties, performed her daily activities in her room shielded from other patients, while Isaac ate breakfast and dinner together with others. He told how he was once stopped by the others when about to pour milk over his food instead of in the glass. "That could go really wrong!" They all experienced acting failure in social situations, which meant that they fell out of everyday social conventions. Persons affected with apraxia may in general be vulnerable in social situations. Clinicians should be sensitive about this vulnerability, use care when talking with patients on this issue, and protect them if necessary.

**Fragmented awareness in action**

According to Merleau-Ponty, the body's intentional anticipation of the act means that I do not have to bring together the parts of my body, or add the movements, to know its final position (p.173, 161). That may however be necessary in apractic difficulties. During the acting, the participants' attention became redirected and fragmented. To cope, they needed to attend to consecutive parts of situations, and use much energy to keep their focus. When the participants focused on their fingers' grip around the knife, or the cutting of potatoes on the plate, other elements in the activity or their surroundings was lost to attention. Equipment, body parts and operations demanded their attention alternately and one at the time. Tools were no longer incorporated in the intentional structure of body and world, but took on an existence of their own. When his knife fell to the floor, Harry heard the noise and asked; "what happened?" The awareness of details and parts of actions was often expressed in spontaneous comments while performing. Tom said to the therapist while putting on his jacket; "Don't rush me, or I lose my memory."

The participants' space of action narrowed because of their constant need to "monitor" their movements during activities, and their attention was transferred from the action goal to their own body parts and bits of actions. It turned out to be a whole new way of being in the world. This feature was characteristic in all the participants, but most prominent for those with ideational apraxia. Isaac had to think about the form of his hand and focus on maintaining the grip when he carried his plate to the kitchen table. The grip of his hand appeared conscious and explicit in a way it did not before the stroke. His hands left their "anonymity" and appeared in a more objectified way. He commented that if he did not keep his hand under surveillance, he worried that it would start to live on its own. All the participants experienced to some degree that their hands had to be searched for, found, put in the right place and "monitored" through the action. The action lost its global structure.

The pace of action slowed down. This was a characteristic feature, particularly in the early phase after the stroke. The slower pace appeared both during movements, and as pauses before next sequence of action. We consider slowness both as part of the apraxia phenomenon itself, and at the same time a necessary coping strategy for the participants in the early phase. The participants had to adapt the speed of their acting to that of their thinking. The necessity of taking explicit cognitive control slowed down the actions, and many pauses were needed to reflect. The close attention to all fragments of action and situation was also found exhausting and tiring. All the participants expressed the absorbing and tiring attention when performing activities as a new experience. Tom illustrates this: "Can you imagine! A zip-fastener becomes a big problem!" Explicit attention to action simply requires much more energy, which indicates how much our embodied habits are relieving us. Familiar actions have an established pace and space structure, and are usually performed fast and smoothly. Also Blijlevens et al [20], found that actions that normally were performed "automatically" in minutes, occupied a large part of the participants' everyday life. Paradoxically, the participants' attention is narrowed, and at the same time expands in individual time and space, making intense demands on concentration.

It seems important that clinicians recognizes this, that they do not rush the patients, but give them the necessary "time and space" to facilitate acting competence. The findings accentuate how important it is for the therapist to adjust her or his rhythm of action to that of the patient. It is also important to graduate the activity, and to recognize the patient's needs to be rested before training sessions.

**Peculiar actions and odd bodies**

The repeated disruptions when acting affected the participants' experience of their own bodies and of themselves as agents. The study elucidates the participants' struggles as their bodies appeared peculiar and unpredictable, tools appeared strange, and the environment unfamiliar. Harry could not find the buttering movement when holding the knife over his bread, or he continued hacking on the cheese with the cheese slicer and could not capture the slicing movement. The participants articulated how the body no longer receded from attention, but made itself conspicuous, the centre of wonders and worries [30]. Harry wondered why his body did peculiar things like buttering the bread with his thumb. Isaac, looking down on his left arm, said: "I don't know what to do with this arm, perhaps it is best not to use it". Their bodies appeared odd and were felt partly out of control. As in Blijlevens et al. [20], study, our participants found their bodies unreliable. They struggled to understand what happened to them. Isaac told a story of when he was alone in his room at the hospital, about to shave. He tried to put the plug in the wall outlet. "I couldn't make it, I couldn't figure it out...I did not manage..." He went and got a nurse to help him. She told him that he was trying to press the razor into the wall outlet. “You see”, he concluded, "I took it the wrong way! It was the wrong end! That is what usually happens.”

He found the situation peculiar and often returned to the same story. As we see, he formulated his experience of ruptures initially as negations: He could not make it out, he could not manage. Finally, he was helped to perceive that he tried from the wrong end. The professionals helped him articulate and puzzle together the broken bits of his new situation, in between explicitly articulated elements and the implicit, failing bodily intentions. The changed behaviour “happened” beyond
the participants’ willpower and control, and demanded explanation. By articulating their experiences, the participants tried to grasp the new situation and make it easier to handle. The second interviews in general indicate that the participants gradually had developed ways to express their concrete difficulties, which helped them reflect and cope better.

Clinicians may help their patients to find words and thereby perceive more concretely what is happening. This should be done in a supportive, gradual and tactful way. Borg [16] documented in her study how stroke survivors by being together and talking with other patients and the personnel in the rehabilitation unit, were helped to adapt and recover, and developed language to express and discuss their experience. Similarly, the women in Eilertsen’s [17] study struggled to find satisfactory words that could grasp their diffuse and unpleasant bodily feeling after having a stroke. Their perception of bodily distaste was invisible to others, and when health professionals talked about the body as a physical entity and not as the centre of personal experience, the women felt they were left alone with their feeling. When searching for meaning, language clearly has a vital function. Still, the very struggle for expression shows up the silent dimension of apraxia. It is a phenomenon at the edge of spoken language. The participants had trouble in finding words that could express their disrupted experience of everyday life. For several, aphasia may be part of the explanation. Variation in their acting competence contributed to the participants’ difficulties in understanding and speaking of these problems. Again, apraxia turns out to be a very unpredictable phenomenon.

The experience of a gap between explicit intentions on one hand and action competence on the other, might lead the participants to distrust their bodies. They described feelings of alienation in several ways. Harry said: “My hand is protesting!” His hand was estranged from himself, becoming a hand that defined him. The participants in the study of Blijlevens et al. [20] also expressed frustration about “living with a body that has lost its understanding of what to do” (p:470). This kind of experience of body and world could be termed experiences of “homelessness”. Svenaeus [31], referring to Heidegger [32], analyzes the experience of illness as un-homeliness. We believe that living with apraxia can be seen as a particular form of this experience. Particularly in the early phase, the participants’ experiences were dominated by a sense of “not being at home”, not primarily in their own body, but among familiar tools and actions and common environments. Un-homelike experiences arose because they had lost parts of the existential directedness of their body as a confident belonging in rooms and with equipment.

Clinicians should not underestimate the fundamental character of this disruption. The un-homeliness of the situation created grief, loneliness, isolation, fear, confinement, and for some abandonment of engagement. Christine used a powerful metaphor when she said: “I feel like I am in a prison, there is no freedom”. To be “at home” would mean, among other things, that surroundings become one’s own through the everyday use of things. For the occupational therapist, it is evident that apractic patients will have a special need to train with familiar tools and equipment, in a well-known environment if at all possible.

This kind of un-homelike experience seemed to decrease gradually through the rehabilitation trajectory. We found that through interaction, practical engagement, and professional support, the world would little by little regain its character as a more familiar and homelike place. For Isaac, Tom, Harry, and Tina, their acting competence improved in the follow-up period, though some apractic difficulties were present. Elements that seemed to contribute to regaining competence were spontaneous recovery, practice and compensatory strategies.

**Bodily intentionality on the loose**

In Merleau-Ponty’s “Phenomenology of perception”, the directedness of bodily intentionality implies a perspectivity of the body; my body is the zero point from which the completion of actions are anticipated. In apraxia, intentions both seem to be less safely anchored in one’s own body, and more uncertain in their goals. Participants in our study expressed that their bodies were unresponsive, or operated as if they had a will of their own. Harry commented: “It is like my hand takes its own ways”, and: “The hand can behave very foolish”. When Isaac repeatedly started brushing in his mouth after beginning to clean his dentures under the tap, he said: “What’s that?”, as if surprised by his hand which suddenly interrupted the flow of his acting. For most of the participants, their action sequences were recognizable, even if they did not always fit into the action sequence. In Tina’s breakfast situation however, some of her movements and action sequences became indeterminable and lost their functional value. There were ongoing fumbling with tools, stereotyped repeated movement patterns and hand movements in the air with no clear direction or goal. Gallagher [33] emphasizes that our pre-reflexive self-understanding includes a “sense of agency”, a basic and immediate feeling that it is *me* that initiate my own actions and ideas. In Merleau-Ponty’s perspective, this sense of agency does not imply an explicit distinction between “me” and the world, but rather the perspectivity of bodily intentionality in perception and movement. When the intentional perspectivity is disrupted, the “sense of agency” of the actions may become uncertain. We found that participants sometimes felt unsure about who initiated an action, and seemed to find themselves in a tension between experiencing “this is *me*” and “this is not *me*”. This phenomenon of uncertain agency seemed most frequent for those with predominantly ideational apraxia. Doolittle [13] and Blijlevens et al. [20], found that stroke survivors talked to their body parts in an attempt to regain control over them. The shifts we found in the participants’ attention to their body can perhaps also be interpreted as strategies to restore their” sense of agency.”

**Fighting against tools**

In a phenomenological perspective, things gain specific meaning for us in our engagement with them. Through our agency, the particular character and meaning of tools become apparent, in facilitating or hindering our intentions.

The excitement and conflicts that tool use often created for the participants, could be described as derived from the resistance yielded by the things. In Heidegger’s analysis [32],
tools in use are incorporated into the action, ready-to-hand [zuhanden]. When they for instance are badly adjusted or break, tools however become present-at-hand [vorhanden]. As present-at-hand, tools are regarded as separate objects, as they also are for the unskilled, – or the apractic person, whose bodily intentionality has been disturbed. In the “present-at-hand” relations to tools we identify in this study, the participants, especially those with ideational apraxia, knew theoretically and categorically what the things were, but were uncertain about the practical use of them. Ann said little about her major difficulties in manipulating tools, but Harry, Isaac and Tom described how tools were twisting around in their hands or got misplaced in dysfunctional positions. Isaac found it hard to explain his tool-use difficulties during the interview. He left the room and returned with a knife and a fork to demonstrate what he was trying to articulate.

The body’s directedness towards objects involves emotional aspects [34]. Apraxia alters the relation to the object, and that is also an emotional experience. The world of equipments can be present in an unpleasant way. Their experience of tool’s resistance made the tools conspicuous for the participants. Some tools made more resistance than others. After weeks practising making coffee in the therapy kitchen, Harry said: “The coffee maker was stupid today…perhaps as stupid as I am”. He fought the coffee machine, lost every time, and needed assistance from the occupational therapist. The defeat turned on himself and his own incompetence. He wanted to win the match because it was important to make his own coffee when he returned home, and so he did not capitulate and make the instant coffee which he did not like. The repeated confrontations provoked harm, anger and frustration, so that Harry grabbed the coffee machine with both hands and shouted: “I’ll break you into pieces!” The equipments were no longer familiar, but alien and provoking. The more troubles the participants had handling tools, the more frustrated and emotionally affected they became. The study invites further investigations into the emotional significance of things for the apractic patient’s rehabilitation process and acting competence.

The study elucidates how tools, according to their character, can yield different forms of resistance and so contribute to advancing or reducing acting competence. We found that design and technology as well as degree of familiarity can affect the participants’ ability to carry out a task. These, and the patient’s familiarity with the training setting, are important considerations for the therapist. Another factor is whether the apraxia is predominantly ideational or ideomotor. Coffee machines or other more technical equipments will challenge a person’s semantic memory more than a knife or a brush. Tools like knives and brushes extend the movement of the hand and must be adjusted throughout the act. They challenge the procedural (body) memory because their use demands a correct grip, dexterity, adjustment and flexibility. However, the simple brush and the more complicated machine both took on an alien character in the apractic difficulties. By focusing on the connectedness of body, tools, actions, and environment in interaction, we have tried to analyze how apractic people’s intentionality, as Merleau-Ponty says, may “go limp” in action (p:157). The continuous relation of person and things in the world becomes looser.

**Conclusion**

To act implies continuity between the explicit intention and the implicit bodily intentionality. This continuity appears disturbed in the apraxia experience. Because the bodily anticipation inherent in the action is weakened, the action becomes more or less fragmented both in its spatial and temporal dimensions. We have taken bodily intentionality as an analytic perspective into close, contextual descriptions of the apraxia experience, to elucidate the way specific apractic difficulties come into being. Thus, the phenomenological approach may serve to render apraxia less mysterious, less incomprehensible.

We believe there is a general need for further phenomenological research on experiences of specific neurological impairments after stroke, to illuminate the complexity of the phenomena through detailed and contextualized descriptions.

The study highlights potentials for reflection in clinical practice. The various ways people struggle to manage specific disturbances, present specific challenges to the clinicians. We also believe that the findings support the necessity of the user perspective, with a more adapted, individualized and contextualized occupational therapy and care, which will be explored in a subsequent paper based on this study.

Patients’ experiences in general represent an important and continuous source of knowledge for occupational therapists and other health professionals who engage in understanding phenomena of illness, and in finding ways of helping people in their rehabilitation trajectory. Reflection upon changes of intentionality in illness may help professionals focus on patients’ experiences and their struggles.

This study is an attempt to understand experience from its bodily aspects. Apractic difficulties in everyday activities highlight intentional threads between body and world that we usually take for granted, and that are loosened in the illness.

**Critical comments**

A larger sample would strengthen the study. It was originally planned with a larger number of participants, followed from the acute phase over an equal span of time. Despite many efforts, the study was somewhat reduced by recruiting difficulties and deaths. We judge, however, that its substance is not affected.

One may ask if its philosophical perspective may limit the study’s focus and consequently its results – despite its use of close, many-sided descriptions. We certainly believe that different perspectives may highlight different aspects of these complex phenomena, and thus supplement each other.

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