

Introduction to *volume 5*

It is with great pleasure that we bring you volume 5 of the *Feldenkrais Research Journal*. It is wonderful to be publishing articles again after an eight-year hiatus. In keeping with contemporary practice, we have decided to now upload articles as they become available, rather than hold articles until the whole volume is prepared. Here you will find most of the articles for *volume 5* – with several more in the later stages of editing and formatting, which will be available soon. See the [Index](#) for the list of articles published here, and in preparation to this point in time.

The theme for this volume is ‘Catching Up, and Moving Ahead’. In the Editorial below I take some time to describe the very significant developments in relation to the Feldenkrais Method®, research, and scholarship that have occurred in the last eight years. It provides a context for the articles in this volume. At the end of this Editorial you will find introductions to the articles that can be found in this volume of the Journal.

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Editorial: Catching Up, and Moving Ahead

Cliff Smyth, Editor

Eight years have passed since the publication of the first four volumes of this Journal. It is not without irony that these have been some of the most productive years of research and scholarship in relation to the Feldenkrais Method®. This period, from 2008 to 2016, has seen significant developments in terms of research carried out, the quality of that research, and the publication of research, along with much progress in thought about the nature and possibilities for Feldenkrais-related research.

The aim of this Editorial is to catch the reader up on Feldenkrais® research, and thinking about research in relation to the Feldenkrais Method. It aims to provide a context for this Journal – in the process of moving ahead, I will:

- (a) introduce the articles that can be found in this volume of the *Feldenkrais Research Journal*
- (b) include a brief discussion of the factors that have influenced the burgeoning of Feldenkrais research in this time period
- (c) review some of the published research from this period, including: outcomes research, research reviews, new thinking and writing about Feldenkrais in relation to motor learning, attention, affectivity, and intersubjectivity
- (d) provide a brief introduction to emerging frameworks from philosophy and the social, psychological, movement, learning, cognitive, and neurological sciences that may be useful for understanding a practice like the Feldenkrais Method
- (e) reflect briefly on what all of this means for the kinds of knowledge that are valuable in understanding the Feldenkrais Method in all its wide applications.

A quickening

A number of factors and phenomena are associated with a rapid increase in the volume and quality of Feldenkrais research writings. These include:

- more Feldenkrais practitioners undertaking advanced academic degrees in a number of fields

- the building of more, and stronger, links between the Feldenkrais Method and academic research institutions – links initiated by both Feldenkrais practitioners and interested academicians and researchers
- a growing interest in the body and in embodiment, somatics, movement, mindfulness, consciousness and their connections – from the fields of creative practice, health care, and the learning sciences, as well as cognitive science and neuroscience.

When, as President of the International Feldenkrais Federation (IFF), I wrote a Preface to the first volume of this Journal, I was mostly thinking of the kind of empirical, outcomes-oriented research that had characterized much of the research into the Feldenkrais Method until then, despite my own background in qualitative research and phenomenological thinking. Since 2004, the nature and quality of research undertaken and published, as well as the thinking about the possibilities for how the “Feldenkrais research project” could proceed, have expanded greatly. As the reader will see in the discussion below, and indeed in this volume of the Journal, this expansion includes:

- a continuation of the application of the Feldenkrais Method for health and well-being, with an exploration of what could be the most relevant and effective measures in this domain – as well as the emergence of some interesting qualitative research
- greater exploration of how the Feldenkrais Method can be integrated in arts and expressive practice, and ways to describe and research that emerging practice
- discussion of the philosophical frameworks that are relevant to the Feldenkrais Method, how they reflect and may inform Feldenkrais practice, and what they might mean for the kind of research we do into the Method
- new thinking and research about the Feldenkrais Method in relation to movement science, cognitive science, and neuroscience – and interestingly, at the many possible intersections of these fields (for example, recent thought and research on attention, “mindfulness”, and related topics).

Consistent with the theme of ‘Catching Up, and Moving Ahead’, we are excited to include papers in this new volume of the *Feldenkrais Research Journal* that reflect all of these developments.

In reviewing what has been published in the last eight years, what surprises me is the breadth of the application of the Feldenkrais Method that has been researched, along with the innovative approaches to research methodology across the many domains.

Published outcomes research

I will begin by reviewing some of the significant publications of research findings and research-related papers in the areas of movement, health and well-being, bodily-oriented psychology, arts and creative practice, and the movement, cognitive, and neurological sciences.

Even as I write this, I am very aware that I am writing about the research available in the English language, and there may be additional important studies in other languages that I have not included here. I invite the authors of such studies to provide abstracts, news items or articles about their published research for future volumes of the Journal.

Recent outcomes studies: Movement, function, health and quality of life

Reviewers in the 1990s and early 2000s, looking at the small amount of published research into the Feldenkrais Method until then, were critical of the research that had been published for the small size of the studies, the frequent lack of control groups, the lack of study dropout tracking, and other aspects of the research designs. Since around 2010, there have been many new studies into the application of the Feldenkrais Method that have addressed many of these methodological concerns. These include a number of studies into the Feldenkrais Method showing a variety of improvements in balance, mobility, and gait, mostly for older adults, including: Ullmann, Williams, Hussey, Durstine, and McClenaghan (2008), Vratsidis, Hill, Moore, Webb, Hunt, and Dowson (2009), Hillier, Porter, Jackson, and Petkov (2010), Connors, Galea, and Said (2011), and Gopal Nambi, Trivedi, Momin, Patel, and Pancholi (2014). Other valuable studies include Bitter, Hillier, and Civetta's (2011) study showing increases in dexterity (grip strength and coordination) and Webb, Cofré Lizama, and Galea's (2013) study showing improvements in dynamic balance and a number of measures of gait for people dealing with osteoarthritis. A 2013 pilot study by Ramli, Leonard, and Harun showed preliminary evidence of improved lung function for patients with chronic obstructive pulmonary disease (COPD). A recent study from Paolucci, Zangrando, Iosa, De Angelis, Marzoli, Piccinini, and Saraceni (2016) showed that people with chronic low back pain (CLBP) had decreased back pain and increased interoception, in a study that contrasted Feldenkrais Method with a 'back school' exercise program.

Connors, Pile, and Nichols' (2010) study of Functional Integration® aimed to validate some outcomes measures, and indeed found that the Pain Outcome Profile (POP), various scales of the SF 12v2 Quality of Life measure, and the Patient Specific Functional Outcome measure were all useful when looking at outcomes for clients of Functional Integration. Their study showed reductions in pain and improvements in functional abilities and quality of life measures for 33 Functional Integration clients who worked with 11 practitioners. In addition, this study also provides a model of a research project distributed across a Feldenkrais professional community – in this case, in Australia.

In an interesting case report, Myers (2015) looked at the outcomes for a runner with scoliosis, using neuroplasticity as a theoretical framework.

Research reviews

Two systematic reviews of research have recently been published: Buchanan (2012) and Hillier and Worley (2015). Both look at research published up to the date of the review, and have somewhat different emphases.

Buchanan (2012) looked at all studies where the Feldenkrais Method was used as an intervention, noting the large growth in the number of published studies starting in the 2000s and continuing after 2010. Buchanan analyzed 59 studies in terms of standards of evidence – from level 1 at the highest to level 4 at the lowest – finding, for example, only two studies at the highest level of evidence (level 1) and a further 26 at the next level (level 2).

One ongoing challenge in investigating the outcomes of the Feldenkrais Method is that it is very difficult to “blind” trials for practices like Feldenkrais (for example, for participants to not know whether they are receiving the “intervention” or not). Even with sham interventions, participants will often be able to guess fairly accurately which is the real intervention and which is the sham (Licciardone and Russo 2006). This lack of blinding is one of the reasons that the evidence in Feldenkrais outcome studies frequently receives a lower level of evidence rating. Buchanan draws on work by Mehling, DiBlasi, and Hecht (2005) to suggest ways that this risk of bias can be dealt with in studies of practices like the Feldenkrais Method.

Buchanan (2012) also notes that, since 2000, a number of studies identified “physiological” changes in response to a Feldenkrais intervention. This is significant, as previous reviewers had suggested that changes engendered by Feldenkrais practice were probably mostly “psychological” (for example, described by self-report measures). In analyzing the limitations of Feldenkrais research studies to date, Buchanan (2012) makes a number of suggestions for improvement. She concludes: ‘Much more research needs to be done utilizing a range of methodologies with appropriate rigor befitting a learning method that is grounded in the self-organization of human behavior that emerges in relation to intention, others, and the environment’ (164).

Hillier and Worley’s (2015) systematic review, funded in part by the IFF, analyzed randomized controlled trials (RCTs). Using the Cochrane Review’s “risk of bias” approach, these authors did a detailed analysis and data comparison of 20 RCTs. Meta-analyses – comparing the data from different studies – were performed on seven studies, finding significant positive effects of the Feldenkrais Method for improving balance in ageing populations. In addition, single studies reported significant positive effects in relation to:

- perceived effort and increased comfort in movement
- body image perception

- dexterity.

They noted no adverse effects reported for the studies reviewed. Hillier and Worley concluded, 'Further research is required; however, in the meantime, clinicians and professionals may promote the use of the Feldenkrais Method in populations interested in efficient physical performance and self-efficacy' (2014, "Abstract"). The publication of this systematic review is an important step in the documentation and evaluation of RCTs of the Feldenkrais Method as an intervention to date.

These two systematic reviews add much to Feldenkrais research by providing an evaluation of outcomes research to date, as well as providing important perspectives on the limitations of this research that can help guide how we proceed with future outcomes research.

New qualitative studies

For a long time there were not many qualitative studies in relation to the Feldenkrais Method, although some interesting material had been published as mixed-methods studies or as small parts of mainly quantitative studies. Three new qualitative studies, addressing students' experiences of the Feldenkrais Method, have begun to fill this gap.

Öhman, Aström, and Malmgren-Olsson (2011) used a grounded theory approach to explore the experience of a group of people with neck and back pain who had participated in a seven-week Awareness Through Movement® program. Interviewed four to six months after the program, they reported reduced pain, 'the feeling of reclaimed movement ability and freedom', and that they were 'more prone to "listen" to the body' (159), among many other perceived benefits. Pugh and Williams (2014) used a phenomenological approach, interviewing Feldenkrais students who had been dealing with pain for up to 17 years. Key among the experiences of these students, reflected in the title of the paper, was 'feeling empowered by the Feldenkrais Method' (176), which included feelings of having greater choice, learning self-care tools, gaining a positive relationship with their bodies, being able to maintain themselves with less pain, and greater functional ability. Broome, Shamrock, and Alcorn (2015) conducted semi-structured interviews with eight older adults about why they engaged with Feldenkrais Method classes. Using a qualitative content analysis approach, they identified key themes about these participants' choice to participate in these classes, such as reduced pain and improvement in everyday life activities, as well as 'the attraction of gentle physical and cognitive exercise' (122), the development of 'body and movement awareness' (123), and 'mindfulness' (124).

Related programs and studies

Another new phenomenon is an increasing number of programs that address particular movement learning, health, or rehabilitation needs that draw strongly on ideas and practices from the Feldenkrais Method, but also involve other modalities. These programs may make use of aspects of the Method and/or are designed and delivered with the active participation of

Feldenkrais teachers. Some of these are now being studied. For example, the “Walk for Life” program developed by Feldenkrais trainer Ruthy Alon was the subject of one study showing a number of improvements in balance and gait as the result of a five-day workshop using this approach (Cook, LaRoche, Swartz, Hammond, and King 2014). The PLIÉ (Preventing Loss of Independence through Exercise) program, as an early intervention for dementia patients, drew on ideas from the Feldenkrais Method as well as physical therapy, Tai Chi, and other practices. The initial protocol was written by Feldenkrais practitioner Eveline Wu along with senior investigators, and with input from Feldenkrais practitioner Jennifer Lee. Three papers have been published (Barnes *et al* 2012, Barnes *et al* 2015, Wu *et al* 2015) and research is expanding into a second phase at new sites with larger numbers of participants.

Finally, Christina Schön-Ohlsson’s (2010) book *Back to Oneself: Sensory-motor Learning Applied in Patients with Nonspecific Chronic Low Back Pain* was published by the University of Gothenberg in Sweden. In her approach to sensory-motor learning, Schön-Ohlsson makes use of ideas and practices from the Feldenkrais Method, physical therapy and exercise, Motivational Interviewing, and other sources. The book contains the texts of her four studies, as well as support material about her approach and research methods.

Arts and creative practice

There has been an increase in recent years in published articles about the Feldenkrais Method and the arts and creative practice. One recent highlight was that the July 2015 edition of the journal *Theatre, Dance and Performance Training* was dedicated to the Feldenkrais Method, including 11 articles. The authors of these papers describe their creative and teaching practice in, for example, theatre, voice, and puppetry, in relation to themes such as the use of breath, the meaning of movement, and working in higher education. Worth (2015) quotes a phrase from Latour’s paper on puppetry, which might also apply to Feldenkrais and the arts generally, suggesting together they ‘offer a strong dyad for ecological and restorative human performance practice’ (127). Kampe (2015) discusses how ‘Feldenkrais-informed performance pedagogies’ can be ‘a means to facilitate conditions for embodied self-care, collaborative creative enquiry, and an embodied criticality through movement’ (2015: “Abstract”).

This new writing on creative practice and Feldenkrais ranges from Grant’s (2014) book chapter on teaching vocal skills using Feldenkrais to the work of Loke and Khut (2011) and their associates (Loke *et al* 2014), who make use of the Feldenkrais Method in the creation of interactive experiential art practices and events.

It has long been suggested that, for “new” practices like the Feldenkrais Method, one early and continuing research task is to develop good descriptions of the many and complex phenomena that are part of the practice (Hanlon Johnson 1997). One of the strengths of these writings about the Feldenkrais Method, arts, and creative practice is an approach to research using rich description, dialogue or multi-voiced texts, and other innovative qualitative methods. Many thinkers, such as Merleau-Ponty (Hass 2008), have come to understand how creative

“expression” is one of the most important ways in which we humans can come to deeply understand our experience and each other. It is very appropriate that the contribution of the Feldenkrais Method to human expression is one of the growing areas of Feldenkrais thinking and research.

The Feldenkrais Method and emerging fields of thought and research

In previous volumes of the *Feldenkrais Research Journal*, several authors have noted that, in addition to studying the outcomes of the Feldenkrais Method for students and clients, research into the possible mechanisms of action of the Feldenkrais Method is needed ([Browne 2007](#), [Stephens 2007](#)). This may involve exploring not only the physiological aspects of the Method, but also the cognitive, pedagogical, and interpersonal nature of our methods. In many cases these mechanisms of action will be shared with other approaches to human movement, awareness, and development, allowing for complementary research and mutual insights.

A number of developments in philosophy and scientific theory have helped create a framework for new ways of describing and thinking about the Feldenkrais Method, including possible mechanisms of action. In many ways, other thinkers are catching up with some of Moshe Feldenkrais’ insight. In addition, both Feldenkrais and many contemporary thinkers draw on the same deep sources of human knowledge that are becoming clearer and better understood even as I write.

Among these developments in contemporary thinking about human consciousness and life are:

- (a) the understanding of how *neuroplasticity* (Nahum, Lee, and Merzenich 2013) provides a framework for learning and behavior change on a neurological level
- (b) the widespread inclusion of *dynamical systems theory* in a variety of domains – for example, in the science of motor skill learning (Newell 1996, Kelso 1997), human development (Thelen and Smith 1994), and the Feldenkrais Method (Buchanan and Ulrich 2002)
- (c) the emergence of an *enactive* approach to human cognition and action: a recognition that knowledge and meaning are grounded in the action of self-organizing organisms in their environment (the idea of *autopoiesis*) (Stewart, Gapenne, and Di Paolo 2010, Thompson 2007, Varela 1996, Varela 1997, Varela, Thompson, and Rosch 1993)
- (d) *phenomenologically-informed* research and theorizing: an attempt to ground scientific understandings in both first-person descriptions of human experience, especially bodily experience, and third-person observation and theorizing (Depraz, Varela, and Vermensch 2003). Such an approach can be seen in the kind of psychological and cognitive science advocated by Thomas Fuchs and colleagues (Koch, Fuchs, Summa, and Müller 2012), Chemero’s call for a radically embodied

cognitive science (Chemero 2009, Käufer and Chemero 2015), and Berthoz and Petit's exploration of human action (2008). Many of these authors draw on the pioneering thinking of Maxine Sheets-Johnstone (2011) on the importance of the phenomenon of self-movement.

In addition, the spread of Buddhist-inspired "mindfulness" practices in the West has led to an 'attention revolution' (Wallace 2006). Many Feldenkrais and other somatic practitioners, as well as researchers, have noted the similarity between aspects of mindfulness practices and movement-and-awareness-based somatic practices (Kerr, Sacchet, Lazar, Moore, and Jones 2013). Mindfulness can include non-judgmental, present-moment attention within the Buddhist practice (Kabat-Zinn 2000), as well as the coming of *awareness* (or *metacognition*) of one's taken-for-granted habits of perception found in Langer's (1997) definition of "mindfulness", in the Feldenkrais Method (Feldenkrais 1972), and arising from programs like Mindfulness Based Stress Reduction (MBSR) (Kerr, Josyula, and Littenberg 2011).

In Buddhist meditation practice, the 'first foundation of mindfulness' is awareness of the body (Hanh 1990). The well-known secular MBSR program of Jon Kabat-Zinn (2000) and colleagues involves a body scan, walking meditation, and awareness of the breath in the body. Some neuroscientists have called for research into what they have termed 'Movement-based embodied contemplative practices' (Schmalzl, Crane-Godreau, and Payne 2014:1), such as the Feldenkrais Method, the Alexander Technique, Tai Chi Chuan, and Yoga. Payne and Crane-Godreau (2015) provide an interesting framework for the study of 'body-mind therapeutic and educational systems (BTES)' in proposing the construct of the 'preparatory set' (54) of 'the organism in readiness: physical posture and muscle tone, visceral state, affective or motivational state, arousal and orientation of attention, and (subcortical) cognitive expectations' (55). Schmalzl and Kerr (2016a, 2016b) also recently published a review of the neuroscientific studies of these practices to date.

New fMRI Study

One of these studies, reviewed by Schmalzl and Kerr (2016a), is a recent study of the Feldenkrais Method using functional magnetic resonance imaging (fMRI) (Verrel, Almagor, Schumann, Lindenberger, and Kühn 2016). This study looked at possible differences in brain activation in response to different applications of the Functional Integration technique of using an 'artificial ground or floor' (Feldenkrais 1981:139), where a flat surface (such as a board) is brought to the client/research subject's feet with the aim of simulating, albeit with less force, aspects of the haptic experience of standing on the foot. Two different applications of this technique were studied: one where the 'practitioner explored movement within foot and ankle' and another where 'the practitioner focused on the connection and support from the foot to the rest of the body' (Verrel *et al* 2016:1). The authors found that these different applications of the intervention were able to 'target lower-level sensory areas related to specific body parts or instead engage more broad action-related networks' (Schmalzl and Kerr 2016:3), as reflected in

changes in the neurologic resting state of ‘primary or higher order motor areas’ in the brain (Verrel *et al* 2016:2). That is, “working locally” with the foot and ankle led to changes in the levels of neurological activity in areas of the brain associated with those parts of the body, while when the intention was to work more “globally”, with the whole body, changes were observed in more widespread neural networks, including some involvement of motor areas. Much more research is needed, but this paper represents an interesting beginning to this kind of research.

In addition to this interesting research, there are a number of other recently published papers that draw on the kinds of developments in theory and research from the movement, learning, cognitive, and neurological sciences described above. Here are some examples.

Feldenkrais Method and motor skill acquisition theory

In an interesting approach to qualitative research, Connors, Galea, Said, and Remedios (2010b) analyzed the texts of the *Getting Grounded Gracefully* Awareness Through Movement program for improving balance, developed by Robert Webb. They found that ‘the lessons contained many elements consistent with current theories of motor skill acquisition and motor control’ (Connors, Galea *et al* 2010, “Abstract”).

Studying the relationship between attention and movement

In June 2015, Clark, Schumann, and Mostofsky published a major paper on ‘Mindful Movement and Skilled Attention’. Their thesis is that ‘mindful movement practice may improve executive and attentional control by providing opportunities for learned functional coordination of goals and attention, and that this might be productively modeled as *skill learning*’ (4). They provide a thorough review of ‘the theoretical literature on attention, cognitive control, mind wandering, mindfulness, and skill learning, endorsing a model of skilled attention in which motor plans, attention, and executive goals are seen as mutually co-defining aspects of skilled behavior...’ (1). They make use of Langer’s (2000) framework of “mindful learning”, and look at ADHD as an example of a phenomenon where lack of attentional and cognitive development are seen to correlate with limitations in the person’s motor coordination. Clark *et al* (2015) draw on the Feldenkrais Method as an example of a sophisticated approach to improving motor coordination that provides frameworks for thinking about and researching a range of practices that may develop cognitive skill and mindful movement through a mutually influencing and reinforcing process.

Discovering connections between diverse practices

An extensive comparison between the hands-on practice of Feldenkrais Functional Integration and Zen Shiatsu is presented in an interesting recent study by Kimmel, Irran, and Luger (2014). They used a qualitative “micro-ethnographic cognitive analysis” for their research methodology to explore these two practices in much detail through the descriptions of the practitioners.

Drawing on language from dynamical systems theory, the authors sought to look beyond apparent differences in jargon and metaphors from each approach to try to discover the ways in which practitioners use ‘their ability for sensorially staying apace of systematic emergence’ of aspects of the client’s sensory-motor responses, which ‘allows them to customize’ their responses and ‘stimulate the client’s system with a mix of perturbing and stabilizing interventions...’ (1). Such a study has much to offer in examining in detail the dynamics of complex practices we see in Functional Integration and other ‘inter-enactive’ modalities (1).

In a similar vein, Abrahamson, Sanchez-Garcia, and Smyth (2016) (respectively a mathematics educator, sports scientist, and Feldenkrais practitioner), in a conference paper on the use of metaphors as “attentional anchors” in learning, give examples from diverse practices including math learning, Judo, and the Feldenkrais Method.

Embodying research

In a recently published study, De Jaegher, Pieper, Clénin, and Fuchs (2016) make use of an embodied approach to the research process itself, in particular drawing on principles and practices from the Feldenkrais Method to provide frameworks for research. Making use of a form of practical-phenomenology advocated by, among others, Depraz, Varela, and Vermensch (2003), the authors use movement-and-awareness-based workshops as “experiments” in the embodied experience of intersubjectivity. The authors drew on the PRISMA workshop framework, developed originally as part of the IFF quality and competency program, to explore embodied “inter-action” in Functional Integration. While not explicitly studying the Feldenkrais Method, this paper shows and exemplifies how key concepts and practices from the Method can be used to design research processes that could be applied to other somatic practices (such as contact improvisation) and diverse research issues (such as autism) for studying specifics and patterns of intersubjective experience.

Discovering intersecting practices; Finding common language

These new paradigms offer the possibility for practitioners and researchers to use shared language and develop common conceptualizations to support research. Are there places where our practices intersect, and are there common mechanisms of action, beyond the practice-specific ways of describing and conceptualizing what we do? These frameworks not only have informed the authors engaged with Feldenkrais in a scientific context, but also provide useful conceptual frameworks for arts and creative practice, as can be seen in the writings of Kampe (2015, 2016 – this volume) and Loke *et al* (2013).

Scaffolding Feldenkrais research and thinking: Data, events, books

Reference Database

In order to support the development of research in relation to the Feldenkrais Method, last year the IFF initiated a project to create a [Feldenkrais Studies Reference Database](#). The aim is ‘to collect and showcase all available high-quality research publications related to the Feldenkrais Method’ (IFF 2015, “Para 1”). This database is located online within Zotero, allowing it to be updated quickly and easily. Interested practitioners and scholars can [browse the database](#) and join the [Feldenkrais Studies group](#) on Zotero to contribute. In addition, [curated collections](#) focused on particular areas or topics of research will be prepared from time to time. The project team to create the new and updated reference database was comprised of Wolfgang Säckl, Dav Clark, Jessica Taylor (web designer), Stefan Wiltschnig (as Project Coordinator), and myself.

Events

A number of events organized by the Feldenkrais professional community have supported this quickening in the life of Feldenkrais-related research.

Since 2011, there have been three symposia on Feldenkrais and research, designed, organized, and financially supported by Roger Russell, Cornelia Berens, and the “Foerderverein fuer Feldenkrais and somatisches Lernen”, represented by Claus-Juergen Kocka and Herbert Hollesch. These workshops aimed to discuss the scientific and philosophical background of the Feldenkrais Method and what kind of research needs to be done, to support international and interdisciplinary discussion between Feldenkrais teachers and researchers, and to consider various research and epistemological perspectives. The three symposia were ‘Feldenkrais and Research’: “I. Feldenkrais and Research” (Berlin 2011), “II. Self-Image in Theory and Practice” (Berlin 2012), and “III. Feldenkrais: Between The Humanities and Natural Sciences” (Aschaffenburg 2013). The last two symposia also included research workshops.

In 2012, the Feldenkrais Guild of North America organized the Esther Thelen Research Forum on the theme of ‘Embodying Neuroscience’. Speakers included movement and neuroscientists, philosophers, integrative medicine, human development, and rehabilitation experts, including Jane Clark, Catherine Kerr, Michael Merzenich, Alva Noë, Michael Turvey, Georg Striedter, Wolf Mehling, and Jill Withall.

In April 2015, Thomas Kampe and associates organized a symposium, ‘(re)storing performance: The Feldenkrais Method and Creative Practice’, at Bath Spa University in the United Kingdom. Over 20 people presented papers or led workshops. Many of the authors featured in the special edition of *Theatre, Dance and Performance Training* also presented at that symposium. In April 2016, ‘Making the Impossible Possible: The Feldenkrais Method in Music, Dance, Movement, and Creative Practice’ at the University of West London was convened by Marcia Carr and Robert Sholl. Sholl and Kampe are currently planning to apply for Arts and Humanities Research Council funding to set up a “Feldenkrais Higher Education Studies Network” in the UK.

Journal volume

In 2013, The Feldenkrais Guild of North America published Volume 26 of *The Feldenkrais Journal* on the theme of “Science” (FGNA 2013). It included articles by seven Feldenkrais practitioners on a variety of themes, including the ideas of body image and body schema, the study of the part or the whole in neuroscience research, research into gait, group sessions for children with special needs, motor learning, imagined movement, and a review of Maxine Sheets-Johnstone’s *The Primacy of Movement*.

Important new books

This review would not be complete without also noting the publication of a number of important books that help forward ways of thinking about the Feldenkrais Method.

Firstly, *Doing and Thinking* by Moshe Feldenkrais (1929/2013) is a translation into English of the two chapters by Feldenkrais that he included with his translation into Hebrew of Harry Brooks’ book on Émile Coué, *Autosuggestion*. The chapters bring forth Feldenkrais’ emphasis on the value of “unconscious” knowledge in effective action in the world. Included with Feldenkrais’ writings are notes and introductions that provide both historical and intellectual context to the development of parts of Feldenkrais’ thinking. See the [review of *Doing and Thinking*](#) by Hillel D. Braude (2016) in this volume of the *Feldenkrais Research Journal*.

Also of great importance is the publication of the biography *Moshe Feldenkrais: A Life in Movement, Vol. 1* (2015) by Mark Reese. This biography is a momentous achievement, over 500 pages of detailed scholarship into Feldenkrais’ life from 1905 to 1951 – his struggles, his achievements, and the incredibly diverse influences on the development of his thought and practice. Reese has created a biography that is both personal and intellectual, and that does much to refine our understanding of Feldenkrais’ method. It will be of great value to scholars for years to come. We hope to review this biography more fully in a future volume of this Journal.

The 2010 book *The Intelligence of Moving Bodies* by Carl Ginsburg (which also includes contributions from Lucia Schuette-Ginsburg) provides an extensive intellectual framework for understanding the Feldenkrais Method. Going from Brown’s Laws of Form and drawing particularly on the ideas of biological epistemology of Maturana and Varela, as well as non-linear dynamics and of course Feldenkrais’ thinking, these authors provide a contemporary outline toward a ‘theory’ of learning through the Feldenkrais Method.

In his two books of philosophy, Richard Shusterman (2008, 2012) brought forth his proposal for a new field of “somaesthetics” that supports the understanding of the central role of bodily experience in human life and the practice of bodily awareness as a form of self-cultivation. He explores the thinking of Foucault, Merleau-Ponty, de Beauvoir, Wittgenstein, James, and Dewey – both in their limitations and possibilities – in making his argument for the importance of the somatic to the philosophical injunction to “Know Thyself”. Drawing on pragmatist philosophy,

and his experience as a Feldenkrais practitioner, and as a student of the Alexander Technique and Buddhist meditation practices, Shusterman argues against philosophical dualism and provides a critique of the philosophical assumption that bodily self-awareness is of necessity a barrier to effective action, authentic being, or both.

Medical doctor and author Norman Doidge's first book, *The Brain that Changes Itself* (2007), was of great interest to Feldenkrais practitioners in its presentation of the idea of neuroplasticity. Doidge's new book, *The Brain's Way of Healing* (2015), includes two chapters on the Feldenkrais Method. Doidge explores the crucial role of the nervous system and its ability to change with appropriate stimulation (for example, through touch, movement, light, vibration, or sound). While the aim of these books is to popularize the science of neuroplasticity, the greater understanding of the kinds of learning-as-healing (Feldenkrais 1981) we see in the Feldenkrais Method is useful in situating the Method in terms of this emerging scientific paradigm.

Finally, Sondra Fraleigh, a long-time pioneer of somatic thinking in dance and movement studies, has recently edited a volume of essays, *Moving Consciously* (2015). It features several of her own essays on somatic movement arts that bring together both Eastern and Western somatic movement traditions and draw on phenomenological thought. The book includes essays by other somatic thinkers, including a paper by Hillel D. Braude on the somatic basis of empathy. Papers by both [Fraleigh](#) and [Braude](#) appear in this volume of the *Feldenkrais Research Journal*.

Introducing the *Feldenkrais Research Journal*, Volume 5

Volume 5 of the *Feldenkrais Research Journal* reflects many of the tendencies and directions emerging as part of the Feldenkrais research dialogue over the last eight years.

Our research news for this volume is a description of interesting work in progress conducted in France by [Adjoa Domelevo and Bernard Andrieu](#). Domelevo's dissertation studies will explore Csikszentmihalyi's (1992) psychological construct of "flow" in the context of teaching Awareness Through Movement with high school students.

The original research by [Madeleine Edgar, Greg Anderson, and Neil Tuttle](#) continues the process of researching outcomes from Awareness Through Movement classes, especially for older adults, and exploring what research tools may be of value in identifying outcomes. The measures of quality of life and kinesiophobia (fear of movement usually associated with a history of pain) did not achieve significance in this study. However, consistent with the findings of Connors, Pile *et al* (2010), the Patient Specific Functional Scale – where a student or client can identify a functional activity in which they wish to improve – was a useful measure and also showed significant results.

We are also pleased to "reprint" [Patricia Buchanan, Nicole Nelsen, and Simon Geletta's](#) original research on the practice patterns of Guild Certified Feldenkrais Practitioners in North America.

This paper was first published in *BMC Complementary and Alternative Medicine* 14, in 2014, and is reprinted here with the permission of the authors. Such research is very valuable to understanding the actual practice of the Method for our professional organizations in thinking about training, continuing education, and promotion. Also, for researchers, the information on the demographics, interests, and needs of the public who utilize the Feldenkrais Method is very useful in arguing for and designing future research.

Other original research, this time from the field of arts and creative practice, is by [Rhiannon Newton, Zoran Kovich, and Julie-Anne Long](#). Their paper is a good example of the kind of plurivocal, dialogic research from this field. The authors explore the experience of the process of doing Feldenkrais lessons for one dancer, bringing forth perspectives from a choreographer, the Feldenkrais practitioner, and the dancer herself.

In [Thomas Kampe's](#) paper, he discusses 'how collaborative choreographic processes can be informed through somatic educational practices' such as the Feldenkrais Method. He explores the history of thought about these approaches, introducing the ideas of many important exponents of somatically-oriented collaborative practitioners, and provides examples from his own choreographic research projects from 2006 and 2009 – the "Body/Soma/Self" cycle undertaken at London Metropolitan University. His paper includes rich quotations from a number of participants in these Feldenkrais-informed explorations.

We are delighted to have a paper from [Sondra Fraleigh](#), one of the pioneers of somatic approaches to dance and movement expression. Fraleigh, a long-time teacher at the State University of New York at Brockport, has combined her training in the Feldenkrais Method with Eastern dance and somatic approaches, such as Butoh, to create her unique approach. In this paper she traces some of the history of her process, particularly how phenomenological philosophical practice has informed her work, presented through the metaphor of a process of "detection".

While much philosophical dialogue in relation to the Feldenkrais Method lately draws on phenomenological perspectives (see various papers in this volume), [Abraham Mansbach's](#) paper argues for the relevance of Foucault's critical theory. The social aspects of Feldenkrais' thought are often more in the background of everyday practice of the Method, yet are a vital part of his thought. Mansbach, a Feldenkrais practitioner and professor of philosophy at the Ben Gurion University of the Negev, explores important similarities and differences in Feldenkrais' and Foucault's social thought. In particular, he puts forward the value of Foucault's conception of the "care of the self" as a way of thinking about the ethical personal and social potential of Feldenkrais' method.

As noted, [Smyth](#) explores phenomenological thought: both the similarities between the Feldenkrais Method and phenomenology as practices, and the value of the many conceptions from phenomenological thinkers such as Husserl, Merleau-Ponty, Leder, Dreyfus, and

Sheets-Johnstone on the phenomena associated with embodiment and self-movement in relation to health.

Philosopher, physician, and Feldenkrais Practitioner [Hillel D. Braude](#) reviews *Thinking and Doing* (Feldenkrais 1929/2013), the two chapters Feldenkrais wrote to accompany his translation of Harry Brook's book *Autosuggestion* on the ideas of Émile Coué. Braude introduces the book and its context in Feldenkrais' life – one of the features of the material published along with Feldenkrais' two chapters. He also takes up the likely influence on Feldenkrais' thinking by the authors of the foreword of the original edition (Professor Hugo Bergman) and the preface of the proposed 1977 edition (Professors Hans Kreitler and Shulamit Kreitler). Braude puts forward a perspective in his review of this book that suggests a way of thinking about Feldenkrais' thought as lying between philosophy and psychology.

Taking up the relationships between philosophy and psychology, we are pleased to present a dialogue between an eminent psychologist at the University of Heidelberg, [Thomas Fuchs, and experienced Feldenkrais teachers Roger Russell, Ulla Schlaefke, and Sabina Graf-Pointner](#). They discuss the concept of *Leibgedächtnis*, or “body memory”, in some depth. They make useful comparisons and distinctions between this idea and concepts such as “the lived body” or “own body”, between “implicit” or “procedural” memory, and between the old idea of the “unconscious” (with its associations of repressed material) and contemporary ideas about the “cognitive unconscious”. The discussion brings forth the often-neglected bodily aspect of the deep sources of our emotions and behavior. What emerges is the contrast between the idea of the nervous system being “reactive” to stimulus and the idea of humans being “resonant” with their environment based on the whole of their experience. This bodily, lived experience provides the basis for a whole range of tendencies and potentialities from which we act.

In addition to the fascinating dialogue presented here in *volume 5*, Dr. Fuchs and Roger Russell, and Ulla Schläfke have recorded an additional four dialogues on a range of topics. Once they are transcribed, we will collect these dialogues as a special online publication of the *Feldenkrais Research Journal*. We are delighted for this opportunity to present Dr. Fuchs' thinking in depth and in the context of Feldenkrais thought and practice.

Types of knowing

It is important to acknowledge that there are many ways of experiencing the Feldenkrais Method, or aspects of the Feldenkrais Method, in different contexts. There are also many different views of the nature of the Feldenkrais Method within the professional field.

It is also clear that the Feldenkrais Method has a very wide range of application. Because of the many aspects of human experience and development to which it contributes, a wide range of research methodologies is not only desirable, but necessary. This, in turn, implies an engagement with different epistemologies – with different ways of knowing and different types of knowledge. Some people cleave to certain kinds of “evidence” – favoring, for example, the

findings of a government report ahead of a systematic review of trials, or empirical studies ahead of a qualitative report.

Research always involves processes of selection in the bringing forth of knowledge: the definition of terms in the operationalization of concepts in the research process, such as the selection of the methodology; the selection in how the results, even statistical results, are presented; and the choice of explanatory systems and metaphors. What is important for any valid research process is transparency and rigor. In addition, the value of knowledge is very context-dependent. An insight from a case report or a dialogue may be of profound value to a dance teacher or a client in pain in a way that an empirical study may not be. To really study and appreciate the tremendous value of a systematic approach to enhancing human health, expression, life, and being, like the Feldenkrais Method, requires an openness and rigor that I hope will continue to be a characteristic of this Journal – and I invite readers to bring those qualities to their roles as well.

Thanks

It takes a community to produce a Journal. Many thanks to the member organizations of the IFF that fund and support this Journal, and the IFF Board that carries that support forward. In particular, thanks to outgoing IFF President, Wolfgang Säckl, who was the liaison person through the production of *volume 5*. Next, very special thanks to the Editors: Cornelia Berens, Hillel D. Braude, Karol Connors, Dianne Hancock, Zoran Kovich, Aarti Rana, Pat Buchanan, Susan Hillier, and Roger Russell, who did much of the work of finding authors and papers, reviewing papers, corresponding with authors, helping with text editing, coordinating transcriptions and format checking, setting policies, and much more. Thanks to Brandee Selck, Robert Spencer, Jessica Taylor, and Nicola Kate Woods for additional reviewing and editing, and Liz Hough for transcription. Many thanks also to our web designer, Jessica Taylor. And thanks to the Editors, and others, including Dav Clark, Frank Schumann, and Barbara Pieper, who gave feedback on parts of this Editorial.

I also want to take this chance to acknowledge those pioneers who produced the first four volumes of this Journal, and the last editor Stephan Elgelid, who did much of the work to bring out *volume 4*.

Finally, and of course, special thanks to the authors of the papers you find here, without whom there is no Journal, and who work long hours to make a contribution to this important corner of human knowledge and understanding.

I hope you enjoy this volume of the *Feldenkrais Research Journal* and the many more we plan will follow. Please get in touch if there is any way you would like to contribute to this venture, that is as important now in its revival as it was in its inauguration so many years ago.

Cliff Smyth, Editor

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