

1 Running head: Celebrating the insecure practitioner

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3 Celebrating the insecure practitioner. A critique of evidence based practice in adapted
4 physical activity

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1 Abstract

2 Over the past decade there has been a trend within adapted physical activity (APA) to
3 question the hegemony of the medical understanding of disability. This debate has
4 consequences for professional practice, which some argue should be regarded as a learning
5 situation with a pedagogical orientation. The concept of evidence-based practice and research
6 has spread from its origin in medicine to other allied health fields and education. In this
7 article I discuss the limitations of applying evidence-based practice to a pedagogical approach
8 to APA. More specifically, I use the Aristotelian notion *phronesis* to show that professional
9 practice of APA is essentially characterized by an indeterminacy that cannot be eradicated
10 through the technological thinking inherent in evidence-based practice.

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12 Key words: adapted physical activity – evidence-based practice – phronesis – professional
13 practice

1 Celebrating the insecure practitioner: A critique of evidence-based practice in adapted
2 physical activity¹

3 Adapted physical activity (APA) is a cross-disciplinary field of study that takes its
4 theories and methodologies from the mother-disciplines physical education, medicine and
5 special education (Reid & Stanish, 2003). The focus of APA has primarily been directed
6 towards professional practice in the sense that research and theory in APA aim at enabling
7 “professionals to interact with people experiencing difficulties with movement” (Reid, 2003,
8 20). Thus, there is a strong emphasis on providing services that help people with disabilities
9 (and others) who experiences difficulties with movement to take part in physical activities.

10 The historical roots of adapted physical activity can be traced to the system of medical
11 gymnastics developed by the Swede P.H. Ling (Sherrill & DePauw, 1997). In the early years
12 of the discipline, people with disabilities were for the most part exempted from participation
13 in physical education and sports, and if they did participate, expectations and challenges were
14 low (Reid, 2003). Physical activities were used almost exclusively as corrective therapy, in
15 efforts of alleviating problems connected to people’s impairments. As Reid (2003: 13) points
16 out:

17 The medical perspective of correctives was consistent with the historical fact that early
18 physical education was dominated by physicians who realized that exercise were
19 beneficial in the treatment of some physical disabilities.

20 Over the past decade, there has been a trend in APA to question the hegemony of the
21 medical understanding of disability (cf. DePauw, 2000; Grenier, 2007). More specifically, the
22 critique is directed towards the idea of disability as a problem mainly connected to the
23 individual’s body, rather than seeing disablement as a socio-contextual process. The medical

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1 understanding of disability has, as DePauw (2000) pointed out, consequences both for
2 research and practice. Research in APA has been characterized as an atomistic study directed
3 at specific structures or functions of the body, seen unrelated to each other (DePauw, 1997).
4 Also, the practice of APA has been characterized by a categorical approach to movement
5 activities. A categorical approach is such that “physical activity options and adaptations for
6 an individual can be generalized based on the disability and the associated implications”
7 (Emes, Longmuir, & Downs, 2002: 404).

8 The notion of viewing APA as distinct from medical endeavors is not all together new.
9 Hutzler (2007) refers to Lorenzen’s German textbook on disability sports (*Versehrtensport*)
10 from 1961, where Lorenzen made the distinction between disability sports and physical
11 therapy. Whereas the former, according to Lorenzen is based in a pedagogical perspective on
12 participation in movement activities, the latter is based in a medical perspective. Physical
13 therapy is founded on prescribed treatment of impairments; whereas disability sport is
14 concerned with self-determined participation in physical activities, focusing on the whole
15 person, rather than her impairments (Lorenzen, 1961, cited in Hutzler, 2007: 48).

16 Emes and co-workers (2002) maintain that the trend of criticizing the medical model in
17 APA is not necessarily reflected in professionals’ actual practice. In their critique of the
18 medical dominance of professional practice in APA, these authors reached much the same
19 conclusions that Lorenzen did: they advocated an abilities-based approach to professional
20 practice where the focus is on “the person in a learning situation” (Emes et al., 2002: 403)
21 rather than in a treatment situation.

22 Thus, if we want to conceptualize professional practice in APA in a manner distinct from
23 medical practice, it might be useful to see it as a learning process which aims at self-
24 determined participation in activities that are experienced as inherently meaningful in the

1 perspective of the participant. We can say that this is an educational² rather than a medical
2 approach to professional practice.

3 To a very limited degree, evidence-based practice (EBP) has been debated in APA. An
4 exception is Hutzler (2006: 13), who defines it as “the conscientious, explicit and judicious
5 use of current best evidence in making decisions about the professional service provided to
6 participants in APA programs”. Hutzler argues that there is a need for more evidence-based
7 research (EBR) in APA where there is a clear theoretical link between the intervention and
8 the expected outcome effects.

9 EBP originated from medicine, but has spread to other areas, e.g. education, nursing, and
10 social work. In educational research there has been a large debate about whether the
11 principles of EBP can be imported from medicine (cf. Biesta, 2007 ; Olson, 2004; Slavin,
12 2002). In this article I want to critically examine the idea of EBP as applied to APA. More
13 specifically, I want to discuss the possible problems of applying a conceptualization of
14 professional practice that has emanated from medicine, when indeed the field of APA is on
15 its way to re-defining itself as a profession relying on socio-pedagogical perspectives more
16 than medical ones.

17 The controversies of evidence-based practice in education

18 Slavin (2002) states that education has not embraced the idea of developing scientifically
19 based evidence-effectiveness. He notes that in other fields, like medicine, transportation and
20 technology, the adoption of EBP has lead to progressive, systematic improvement over time,
21 something that has been lacking in education. Slavin maintains that change in educational

² Here it must be pointed out that in the APA literature education is almost exclusively connected to instruction of school-aged children (cf. Porretta, Nesbitt, & Labanowich, 1993; Sherrill, 2004). However, as Morisbak (1988: 73) pointed out, an educational approach is to be understood more broadly encompassing organized physical activity not only in “schools, [but also in] sports competitions, recreational activities and remedial / corrective therapies”.

1 practice is characterized as a process that “more resembles the pendulum swings of taste
2 characteristic of art or fashion” (Slavin, 2002: 16). One of the reasons that educational
3 practice has been condemned for being largely a matter of personal taste is that educational
4 research has failed to deliver proper, cumulative, evidence that could guide practice as well as
5 policy (Clegg, 2005). The strategy behind advocating EBP in education is that it is thought to
6 provide practitioners with a secure foundation on which to make their choices between
7 different teaching methods and instructional strategies. In addition, policy makers will be able
8 to base their decisions on the best scientific evidence available. Thus, when properly
9 conducted it is said that the adoption of EBR will improve professional practice of education
10 and it will effectively inform decision making regarding educational policies.

11 The idea that teachers and policy makers should base their decisions on scientific
12 evidence of what works, rather than according to the personal taste of the professional seems
13 reasonable. Why then has this issue sparked controversies? One answer lies in the forms of
14 knowledge that are privileged in EBP. In relation to EBP, researchers will investigate
15 whether an interventions gives an intended effect on those people receiving the intervention.
16 The researcher wants to detect whether the intervention, and the intervention alone, causes
17 the desired outcome. This means that researchers must use some form of experimental
18 method, preferably the randomized controlled trial (RCT) (Slavin, 2002). The RCT is
19 reckoned as a gold standard for EBR because it is the best “methodological route to ferreting
20 out systematic relations between actions and outcome” (Feuer, Towne, & Shavelson, 2002:
21 8). The reason for this is that it tests the effects of a specific intervention in an experimental
22 group, as compared to a control group, in a manner so that spurious causality and bias is
23 removed. When properly conducted the difference in pre- and post-test results between the
24 two groups can be ascribed to the intervention and the intervention alone. Other experimental
25 studies deviate from the RCT in some ways, where the deviations result in confounding

1 factors and increased risks of researcher's bias (hence, the notion of gold standard). This
 2 produces a hierarchical system of evidence and knowledge, ranging from metasynthesis of
 3 RCTs to the lowest acceptable level which is reports from expert committees (Odom et al.
 4 2005).

5 An example of this hierarchy of knowledge, and how it is implemented is found in the
 6 recommendations about physical activity for people with disabilities from the Norwegian
 7 directorate of health and social affairs (SHDIR) (SHDIR, 2004). In the report, knowledge is
 8 graded in four levels, where level 1 and 2 (highest) range from evidence generated from
 9 metasynthesis of randomized controlled trials to other experimental studies, level 3 is
 10 evidence from well designed non-experimental studies, and level 4 is opinions from expert
 11 committees or clinical expertise³. Ideally, advices should be grounded in the theoretical
 12 knowledge from level 1-3 (SHDIR, 2004). Thus, the report from SHDIR follows the standard
 13 of prioritizing scientific and theoretical knowledge⁴. The example from SHDIR, and EBP in
 14 general, indicate that:

15 a common element across professions is the extent to which the legitimacy of
 16 professional decision-making is no longer based on what might be accounted as
 17 professional wisdom.... Instead [the legitimacy] is thought to reside in the weight of
 18 evidence, produced by other members of the community or by the researcher community,
 19 independently sifted through external review (Clegg, 2005: 417).

³ This hierarchy is identical to the one developed by the Oxford Centre for Evidence-based Medicine (Odom et al., 2005). Note also here that on level 4 one leaves the secure foundation of evidence and enters the dubious terrain of opinions.

⁴ It should be noted that due to the lack of scientific evidence, the recommendations actually given by SHDIR draws to a large extent on experiences from experts in the field (i.e. level 4). In addition to lack of scientific evidence, the report also states that the large variation in how different disabilities affect the individual "makes a clear approach difficult" (SHDIR, 2004: 9). This important point will be discussed below.

1 The methodological hierarchy of EBP suggests that there is one best way of finding out
2 what works. Berliner (2002: 18) argues, however, that seeing randomized controlled trials as
3 *the* method for gaining evidence in education “reveals a myopic view of science in general
4 and a misunderstanding of educational research in particular”. More specifically, he points
5 out that educational researchers must deal with problems like the power of context and the
6 ubiquity of interactions, which limits the possibility of generalizations from experimental
7 studies. The complex networks of social interactions that take place in an educational setting
8 cannot be totally controlled and are thus confounding factors that makes it inappropriate to
9 generalize findings.

10 A related issue is that in complex contexts, factors like student characteristics, motivation,
11 socioeconomic status, and curriculum material interact with each other in a myriad of
12 reciprocal ways. Again, according to Berliner, the ubiquity of interactions limits the
13 possibility of finding out what actually works. In education, both the inputs and outputs, and
14 the relations between them, are highly complex (Berliner, 2002; Clegg, 2005). This means
15 that one needs to question whether the practice of experimentation valued in EBR is in any
16 way analogue to the practice of professional practice, where the experimental results are
17 going to be applied.

18 In a critique of EBP in education, Biesta (2007) raises the question of whether there
19 actually is a homology between medicine and education which could justify the application
20 of EBP in education. According to Biesta, EBP conceives of professional action as a form of
21 intervention. A consequence of this conception of professional practice is that it relies on a
22 causal model: A treatment or intervention is administered in order to produce certain
23 measurable effects. Hammersley refers to this as the linear model of professional practice,
24 where

1 it is assumed that [professional practice] should take the form of specifying goals
2 explicitly, selecting strategies for achieving them on the basis of objective evidence about
3 their effectiveness, and then measuring outcomes in order to assess their degree of
4 success (thereby providing the knowledge required for improving future performance)
5 (Hammersley, 2001: 3)

6 Both Biesta and Hammersley argue that this model of professional practice is defective,
7 though not totally inaccurate, when applied to the educational domain. Professional practice
8 in education usually involves multiple goals that are not readily operationalized in explicit
9 terms (Hammersley, 2001). The linear model also portrays the relation between means and
10 ends as an external, causal, one. Biesta objects to this by claiming that the means and ends of
11 education are linked in an internal way. This is to say that the means “contribute qualitatively
12 to the very character... of the goals which they produce” (Carr, 1992: 249, as quoted in
13 Biesta, 2007: 10). The means are not neutral, but value-laden and this is why most of us
14 would not endorse corporeal punishment, even if it should be shown that this type of
15 intervention is effective in producing better school results (Carr, 2001). Interaction in
16 education is thus not a neutral process of applying means to ends, but rather a value-laden
17 practice.

18 Biesta further claims that through the rhetoric of EBP the only research questions
19 regarded as relevant are those that deal with the effectiveness of interventions, i.e. questions
20 of “what works”. The question of what works is therefore prioritized to the exclusion of
21 questions like “effective for what?” Thus, according to Biesta, EBP leaves out questions of
22 what is educationally desirable. Consequently, EBP severely limits “the opportunities for
23 educational practitioners to make such judgments in a way that is sensitive to and relevant to
24 their own contextualized settings” (Biesta, 2007: 5)

1 In summary, proponents of EBP claim that in order to give practitioners and policy
2 makers a proper foundation for decision making, there is a need to investigate what works,
3 primarily through some form of experimentation. Basing professional judgment on secure,
4 scientific, evidence is the best way to ensure that the best possible services are delivered. The
5 lack of EBP makes professional practice a matter of subjectivity and caprice, something that
6 hinders the advancement of the particular profession.

7 The critique of EBP in educational settings is directed at the idea that there is not a
8 homology between medicine and education. In particular, education is practiced in a context
9 that severely confounds the relationship between input and output, thus questioning the
10 relevance of the evidence from experimental studies. In addition, EBP fails to address ethical
11 aspects of professional practice. What works will always work with respect to given
12 purposes, and cannot be considered neutral. Also, it is claimed that unlike medicine,
13 education is not an intervention with clear ends and well defined means. The relation between
14 input and output is not a matter of causality, but is found “in the *interpretations* of the
15 learner, in the divers ways in which learners make sense of the situations they encounter”
16 (Biesta, 2007: 9, emphasis thus).

17 Professional practice as a hermeneutical experience

18 Due to the practical orientation of adapted physical activity, it would not be very
19 controversial to argue that the core of professional practice is the meeting between an APA-
20 professional, the participant, and the subject matter (i.e. movement activities). As outlined
21 above, it is now argued that this meeting should be conceived of as a learning situation (Emes
22 et al., 2002) and thus a pedagogical process (Hutzler, 2007). This has certain bearings on how
23 professional practice should be conceived, and in relation to that I will again draw on
24 educational literature.

1 In *Hermeneutics and Education*, Gallagher (1992) sees learning as an integral part of an
2 educational process that has a hermeneutical structure. Gallagher (1992: 74) states that
3 “learning involves an essential incompleteness of knowledge, a noncoincidence between
4 teacher and student, a hermeneutical circularity that remains open”. With this he suggests that
5 both teachers and learners are involved in a hermeneutical process. The student tries to
6 understand the subject matter, and this understanding is guided by preconceptions that both
7 enable and restrict learning. The preconceptions give the student a context that (s)he can
8 relate the unfamiliar to, but it also limits the possible interpretations that can be made. There
9 is no such thing as unrestricted thinking. The teacher is similarly involved in acts of
10 understanding. (S)he is, for instance, striving to understand how to present the subject matter
11 and how to understand the students and their interpretations of her pedagogical presentation.
12 These acts of understanding are always incomplete, and this incompleteness makes learning
13 and education an interpretational process.

14 The incompleteness of the educational experience also gives way to an openness towards
15 new possibilities. Though the interpretational process is conditioned by our preconceptions,
16 the hermeneutical structure of the process also opens up a productivity that, as Gallagher
17 says, goes beyond all intentions. The idea of going beyond all intentions signifies that
18 education is a process that goes beyond what can be planned in advance. It is therefore in
19 some respect always open to the unexpected and the unfamiliar. Education as such is not
20 primarily a deliberate human practice, but a process that happens to us. Thus, education is not
21 reducible to the controlled activities of teachers and learners or to the methodologically
22 defined framework of educational institutions (Gallagher, 1992).

23 *Phronesis as a model for professional practice*

24 Gallagher (1992) argues that when learning and education are understood as having a
25 hermeneutical structure, that always entails openness and uncertainty, professional practice

1 should be modeled on the Aristotelian concept ‘phronesis’. Aristotle drew a distinction
2 between three different forms of knowledge: episteme, techne, and phronesis. According to
3 Dunne⁵ (1993) episteme was considered to be “an object-domain which is limited to
4 necessary and eternal being, and which therefore encompassed only mathematical entities,
5 the heavenly bodies and the divine being or first mover” (Dunne, 1993: 238). This means that
6 episteme concerned theoretical reasoning about laws of nature, i.e. those things that exist out
7 of necessity, uninfluenced by human beings. Separated from the theoretical domain is the
8 domain of practical knowledge that encompasses techne, which is a form of productive
9 knowledge, regarding the capacity to make, and phronesis, which is practical knowledge in a
10 stricter sense of the capacity to act. The activity of techne was called poiesis and the activity
11 of phronesis was called praxis:

12 Production (*poiêsis*) has to do with making or fabrication; it is activity which is designed
13 to bring about, and which terminates in, a product or outcome that is separable from it and
14 provides it with its end or *telos*. *Praxis* on the other hand, has to do with the conduct of
15 one’s life and affairs primarily as a citizen of the *polis*; it is activity that leaves no
16 separately identified outcome behind it and whose end, therefore, is realized in the very
17 doing of the activity itself (Dunne, 1993: 244, emphasis thus).

18 An important distinction between techne and phronesis is indicated in the quote above: The
19 activity of techne leaves behind a product that is separable both from its maker (i.e. the
20 person of techne) and the process of making it. When it comes to phronesis, there is no result
21 that can be separated and identified apart from the act, thus its end is to be found in the very

⁵ In order to understand the concept phronesis, I will mainly draw on Joseph Dunne’s seminal book *Back to the rough ground*, which is a philosophical exposition of Aristotle’s distinction between techne and phronesis motivated from problems in the educational domain, not too distant from the challenges regarding EBP.

1 process of action, i.e. in praxis itself. So, whereas *techne* is thought of as applying means
 2 towards the realization of an externally defined end, *phronesis* is an end in itself⁶.

3 The distinction drawn up here refers to what Dunne calls the official notion of *techne* and
 4 *phronesis* in Aristotle (e.g. as the difference between making and acting, and between actions
 5 as means towards an end and actions as ends in themselves). Nevertheless, the relations
 6 between *techne* and *phronesis* are according to Dunne not as clear-cut and ordered as they
 7 seem on first sight. An illustration of this is two problems associated with Aristotle's account
 8 of *techne*: First, in some instances the product that is left after the exercise of *techne* is not a
 9 durable and material one. This is the case in movement activities. Gymnastics is, alongside
 10 for instance playing musical instruments, described by Aristotle as a *techne*, but does not
 11 produce a material outcome, e.g. like the table made by a carpenter would be. Second, in
 12 some instances a definite result that endures after the exercise of *techne* is produced, but
 13 where the actor

14 ...rather than having disposable materials upon which he can impress a preconceived
 15 form, the *technitês* here is more readily thought of as intervening in a field of forces, or as
 16 immersing himself in a medium, in which he seeks to accomplish a propitious end. ...
 17 What characterizes these *technai* is a close relationship – which does not obtain in the
 18 case of the more straightforward productive *technai* – with the opportune (*ho kairos*) and
 19 luck or chance (*tuchê*) (Dunne, 1993: 254)

20 On the basis of this, it would be fair to suggest, I believe, that our topic – pedagogical
 21 work with movement activities for people with disabilities – is a case that subsumes both
 22 these reservation with the official notion of *techne*: For one thing, movement activities do not

⁶ Dunne notes that seeing something as an end in itself is somewhat problematic because it operates within the rational logic of means to ends. The full significance of *phronesis*, is according to Dunne not be grasped "unless we see that it involves nothing less than what Gadamer calls a 'fundamental modification' of the means-end framework" (Dunne, 1993: 262).

1 leave a durable and material result and is thus not a *techne* in the standard sense. The more
 2 important point is that pedagogical work is, as argued above, not the straightforward
 3 application of means to an end, but should more appropriately be thought of more as an
 4 intervention in a field of forces, where the teacher to some extent must adhere to the
 5 opportune⁷.

6 This would seem to imply that teaching of movement activities may not be thought of as
 7 *phronesis* in the first place, but rather as a special instance of *techne*. The origin of this
 8 complication lies in Aristotle himself, who speaks of the distinction between *techne* and
 9 *phronesis* as equivalent to the distinction between *poiesis* and *praxis*, yet also speaks in some
 10 instances of *techne* as a form of *praxis*: “by speaking of a *techne* whose exercise is a *praxis*
 11 and not a *poiesis*, [Aristotle] seem to buck the careful alignments (between *poiesis* and *techne*
 12 and *praxis* and *phronesis*)” (Dunne, 1993: 254). Does this mean that trying to base
 13 professional practice on *phronesis* rather than *techne*, as Gallagher (1992) suggested, is in
 14 vain because the distinction cannot be upheld? Not necessarily. As David Carr states, “the
 15 distinction grounds a significant difference between technical and moral modes of practical
 16 engagement with the world” (Carr, 2003: 258).

17 So, what are the significant differences between *techne* and *phronesis* that are relevant to
 18 professional practice? *Techne* might be said to portray pedagogical work as a mechanical
 19 process with the formulation of clear and explicit goals followed by teaching as a sort of
 20 technological application of instrumental steps towards the realization of those goals. This is
 21 what critics of EBP is resisting, namely the attempt to make teaching a practice where

⁷ This does not mean that pedagogical encounters are totally subjected to chance. However, “the play of chance is simply ineliminable”, so that what is required is a “flexible kind of dynamism... [T]his is the meaning of *kairos*; one’s active intervention has skillfully awaited until one’s polyvalent materials – be they the wind and the waves in play upon one’s boat or the changing humors in the sick body – are at their most propitious, i.e. are most able to help, or at least able to hinder, the accomplishment of one’s end” (Dunne, 1993: 256, emphasis thus).

1 scientific evidence of what works should be directly applied in teaching (cf. Biesta, 2007;
2 Hammersley, 2001). The practical situations of teaching, and indeed other domains that are
3 characterized by being highly contextualized, are governed by the urgencies and necessities
4 of practical life (Bourdieu, 1990). These contexts are changing and in constant flux. It is in
5 these situations that *phronesis* is needed:

6 Faced with uncertainty and the unfamiliar, the person with *phronesis* does not appeal to
7 ready-made universal rules that would be applied in a mechanical fashion. Rather, action
8 is guided by a finite understanding of the actual circumstance. Instead of classifying a
9 specific circumstance under an already devised set of laws, *phronesis* calls for application
10 in light of the existing situation within which the actor finds herself. In *phronesis* one
11 approaches an understanding of the universal in light of the particular, rather than the
12 other way around. (Gallagher, 1992: 153, emphasis thus).

13 As opposed to the technical approach, which subsumes the particulars of the situation
14 under a predetermined (theoretical) framework, the *phronetic* approach is that good actions
15 cannot be calculated from such a framework. Instead, “*phronesis* is a habit of *attentiveness*
16 that makes the resources of one’s past experience flexibly available to one and, at the same
17 time allows the present situation to ‘unconceal’ its own particular significance...” (Dunne,
18 1993: 305-306, emphasis thus)

19 The view of professional practice as the application of science driven evidence (i.e. as
20 *techne*) reduces teaching to a form of managerial expertise (Carr, 2003). What *phronesis*
21 brings about is an “understanding of teacher expertise as practical wisdom... [and] such
22 expertise is not primarily a matter of skill acquisition at all” (Carr, 2003: 260). *Phronesis* is
23 not a skill that we possess and then apply to the problems at hand, i.e. something external to
24 the agent. Rather, the agent is invested in her actions, so that *phronesis* is inextricably bound
25 up with the person one is. There can be no split “between what we might call its *being* and its

1 *use* (or in Gadamer's terms between its 'possession' and its 'application') in the case of
2 phronesis" (Dunne, 1993: 268, emphasis thus).

3 Evidence-based practice in adapted physical activity

4 We are now in a position to discuss EBP and EBR in APA. This discussion rests on the
5 basic premise that professional practice in adapted physical activity is seen as having an
6 educational rather than a medical orientation⁸. The critical examination of EBP and EBR
7 applied to APA will therefore draw on the outline of the same topic in relation to education
8 given above. In addition, a couple of issue specifically related to APA will be pointed out.

9 Earlier, it was pointed out how "the power context" (Berliner, 2002) was used as an
10 argument against the prominence given to experimental methods in EBR. The best way of
11 conducting EBR is reckoned to be the randomized controlled trial, where confounding factors
12 are controlled. The setting where such research is to be carried out must to the highest
13 possible degree be sterilized, as a laboratory, in order to make sure that all participants
14 receive the same intervention. Yet, the contexts where APA is practiced are social settings,
15 much like those in education, that are not in the same way immunized against the unexpected.
16 One can therefore suspect that the situation in APA is similar to education, in that "broad
17 theories and ecological generalizations often fail because they cannot incorporate the
18 enormous number or determine the power of contexts within which human beings find
19 themselves" (Berliner, 2002: 19).

20 Further, it could also be argued that the need to control the intervention, so that all
21 participants receive the same treatment, is in serious conflict with the basic idea of APA:
22 Physical activity must be adapted to the individual participant. Adaptations produce an

⁸ Even if this premise is not universally accepted, and APA is still conceived of as a medical practice (as it indeed sometime will be), there will still be at least a marginal room for the critical approach offered here. For instance Svenaeus (2000; 2003) has discussed the non-technical nature of medical practice, and the need for the general physician to exhibit phronesis.

1 intervention that is unique to the individual (Olson, 2004) and this creates problems for the
2 researcher, who then seem to be trapped between methodological requirements of the
3 scientific method and the basic principle of APA. It also creates problems for the reader,
4 because it will be difficult to determine what the intervention actually was like. Thus,
5 transferring evidence from randomized controlled trials in APA is perhaps not impossible.
6 Yet it is undoubtedly a very uncertain project.

7 A counter objection to this argument is that there are other means of securing evidence
8 that does not rely on RCT. There are other experimental methods, for instance single-subject
9 designs (Horner et al. 2005), that can protect against the criticism outlined above and thus
10 make sure that practitioners can be guided by scientific evidence in their practice. In any
11 case, evidence can only show us what *worked* in a particular setting, with a particular group
12 of individuals (Biesta, 2007). It shows us what has been possible, but it cannot show us with
13 certainty what will work in a different context.

14 In addition to the problems that the power of context create for experimental researchers
15 in education, Odom and co-workers (2005) argue that researchers working with people with
16 disabilities are faced with extra complexities, as compared to educational research. For one
17 thing there is a greater variability among the participants. Diagnostic groups often contain
18 people with very different problems. For instance, the movement difficulties in cerebral palsy
19 range from almost unnoticeable to profound difficulties. Also, in many illnesses and
20 disabilities there are different stages in the development of the condition. This means that
21 researchers either must put together groups of participants who may have the same diagnostic
22 label, but who have different challenges that would require different adaptations, or they face
23 the problems of small groups, where it is difficult or perhaps not even realistic to build

1 “power of analysis”⁹ (Odom et al. 2005). We saw an example of this above, regarding the
2 recommendations from the Norwegian SHDIR about physical activity for people with
3 disabilities (SHDIR, 2004). Though their hierarchy of knowledge suggested that they would
4 have preferred knowledge from RCT or other experimental designs, they ultimately had to
5 rely on knowledge from expert’s opinions. The limited number of good experimental studies
6 was thought to come from the difficulties in researching disability in movement activities
7 (SHDIR, 2004).

8 In the literature on adapted physical activity, the idea of self-determination has been
9 advocated as an important strategy to move beyond the older expert-systems of service-
10 delivery, where the professional was the expert and the participant a passive recipient of
11 services (Reid, 2003). If we understand self-determination in the everyday meaning of the
12 word, as an experience of a sense of agency, control over one’s life and participation in
13 decision making regarding oneself, then self-determination is a call for a person-centered
14 approach to professional practice (Emes et al., 2002). Cott (2004) draws up the history of
15 person-centered rehabilitation. In the old fashioned paternalistic system the patient was
16 expected to follow the doctor’s orders. Later, “a rise in consumerism in the 1970s and 1980s
17 led to a discourse which viewed the person with chronic illness as taking the more active role
18 in decision-making” (Cott, 2004: 1411). This development is parallel to that of APA
19 described by Reid (2003), which has lead to the present prominence given to self-
20 determination.

21 According to Cott, the introduction of evidence-based medicine in rehabilitation has lead
22 to a return to the expert system, where the patient rarely is having a role in the decision

⁹ Implicit in this argument is the idea that research in special education, and in APA, uses medical diagnostics as the groups or labels whereby research participants are divided into to intervention- and control group. With regard to APA, one can ask how research done in a medical model of disability can inform a practice that is supposed to move away from the medical model.

1 making process. In the old expert system, the participant was supposed to do what the
 2 professional said, because he was the expert. With the introduction of EBP, it could be
 3 suggested that the participant again have to follow the professionals' order, not because it is
 4 the expert who says what to do, but because science says so. It is therefore pertinent to ask
 5 whether the introduction of EBP in APA is at odds with a discourse of self-determination¹⁰.

6 *Reconstruction: Arguments in favour of EBP in APA*

7 The above criticism of the possible application of EBP to APA paints a largely negative
 8 picture of research's application to practice. Let me therefore clarify this: I believe that
 9 practice can be improved when practitioners are familiar with important and relevant research
 10 results, but as Hammersley (2001) points out, it is possible to believe that research can be of
 11 value for practice without uncritically accepting all aspects of EBP. Just the fact that I feel
 12 driven to make this qualification points to a generic problem with EBP. As Hammersley
 13 captures it: "its name is slogan whose rhetorical effect is to discredit opposition"
 14 (Hammersley, 2001: 1).

15 Evidence in itself is principally neither good nor bad, regardless of the how rigorous the
 16 methodology employed is (Clegg, 2005). What the critique of EBP points toward, is the
 17 danger in treating the research / practice (or theory / practice) gap as unproblematic. EBP
 18 should not be either dismissed or accepted at face value, but must be examined in order to
 19 understand how evidence is construed in each particular case and how it "can give insight

¹⁰ This matter is more complicated: One could say that there is good and bad self-determination, much like it is good and bad paternalism. Respecting the autonomy of the participant is of course crucial, but as Loewy argues, a stark autonomy where the participant is left to make all the choices is to "abandon [the participants] to their own autonomy" (Loewy, 2005, 446). This means that, at worst, too much emphasis on autonomy and self-determination is a form of professional abdication, jeopardizing the good of the participants. Balancing between stepping back and letting the participant make decisions (self-determination), and stepping in and assuming responsibility when needed (good paternalism) is an ethical issue that has received little attention within APA, but one that merits some closer examination.

1 into the structures, powers, generative mechanisms and tendencies that help us understand the
2 concrete world of experience” (Clegg, 2005: 421).

3 Bredahl (2007) has questioned the relevance of some forms of research in APA. She is
4 critical towards the lack of meaning that certain research projects and results have for the
5 everyday lives of people with disabilities. One possible benefit of EBP is that researchers
6 should have to orient themselves towards the challenges that practitioners face in their
7 professional practice. Involving practitioners in the formulation and design of inquiries could
8 make the research in APA more appropriate if this leads EBR to address those challenges
9 actually faced by practitioners. The outcome of such collaborative research might even be
10 more efficient because the specifications of problems are directed towards issues that
11 practitioners find problematic. Solutions to these problems might therefore better fit the
12 understanding of the practitioners and thus ease the transition from research to practice.

13 More importantly, Bredahl (2007) also encourages including people with disabilities – the
14 people that professionals and researchers in APA should be working for – not only as
15 research participants, but also in the formulation of research topics. If research in APA truly
16 aims at being relevant for a practice that is evidence based, then researchers must make “use
17 of the unique knowledge and insight provided by those who live with a disability and who
18 participate in physical activity” (Bredahl, 2007: 77). In this sense EBR can make the
19 scientific work done in APA more relevant both to practitioners and participants¹¹.

20 Wilfred Carr (2007) argues that educational research should begin with an understanding
21 of what education is like, rather than start with an idea of what the best practice of research is
22 thought to be. In his view, one must determine what kind of knowledge can contribute to the
23 development of the educational practice. The question for APA is accordingly what kind of

¹¹ Of course, it might be argued that this form of collaborative research, tending towards action research, fails to address an underlying problem with EBR, namely whether the questions one is concerned with at all are “best approached via any sort of empirically or experimentally conceived research” (Carr, 2001: 465)

1 practice it actually is. Only after that question is answered, one can begin to ask what kind of
2 knowledge is needed and how researchers should go about to create relevant research. This is
3 especially important when one tries to apply a model of professional practice imported from
4 medicine to a field that in many other respects tries to distance itself from the medical model
5 of disability.

6 Celebrating the insecure practitioner

7 One of the ideas behind EBP is that it will provide practitioners a secure ground on which
8 to base decisions about their practice (Slavin, 2002). It gives the practitioner a sense of
9 security to be able to say that the way (s)he works is evidence-based (e.g. ‘research has
10 shown that this is the best way to deal with your problem’ or ‘because you have that
11 particular disease, scientific studies recommend that you perform this type of activity’). If,
12 however, the arguments presented above regarding the problems of employing EBP are found
13 to be convincing, then the sense of security that EBP gives might turn out to be a chimera
14 amply supported by the whole weight of the scientific method.

15 By introducing the distinction between phronesis and techne (albeit with the reservations
16 of how distinct they really are), it is suggested that phronesis goes against the technology of
17 employing a practice based on scientific results. The idea behind EBP is a technical one,
18 where the practitioner is more like a managerial expert than a reflective practitioner (Carr,
19 2003). What phronesis helps us see is that knowledge of the universals must be balanced
20 with sound, professional judgment of the particular case at hand. This “requires sensitive
21 adaptation of general social or other rules to the needs (here paraphrasing Aristotle, 1925, p.
22 38) of the right person, at the right time, with the right motive and in the right way...” (Carr,
23 2003: 257)

24 Aristotle held that “it is the mark of an educated man to look for precision in each class of
25 things just so far as the nature of the subject admits” (Aristotle, 1998: 3). This tells us that it

1 is not only a matter of determining what kind of knowledge is needed, but also a matter of
2 determining the degree of exactness that can be expected in a given domain. In APA, the
3 general principle is that individual solutions ought to be found for each particular participant
4 and her specific difficulties with movement. As Jones (2007: 159) has pointed out in a
5 different context, pedagogical work “as opposed to being a reductive, knowable process that
6 can easily be followed, is instead problematic, multifaceted and fundamentally intertwined
7 with teaching and learning at the micro-interactive level within given situational constraints”.
8 Consequently, each professional encounter in APA involves a degree of uncertainty. It cannot
9 be planned in advance and must remain open to the flux of the learning situation.

10 The insecurity that I celebrate does not amount to a lack of knowledge. Instead of being
11 an ignorant, the insecure practitioner has knowledge of the universals. At the same time, she
12 is also aware that this knowledge must be balanced with a sound appreciation of the
13 particulars of each case. Accepting the insecurity faced by practitioners of APA require that
14 we must recognize that the kind of deliberation and action that is needed in their practice
15 involves understanding in addition to knowledge. Understanding is practical-moral activity
16 that is concerned more with engaging with that which is to be understood, rather than
17 grasping the content of it (Schwandt, 1999).

18 Further, recommending a healthy portion of insecurity does not mean that the
19 practitioners should become paranoid or paralyzed in their actions: It does not amount to a
20 throwing one’s hands up in despair. Accepting and working with insecurity both grants and
21 requires an openness towards the unfamiliar and unpredictable. As a positive term, the
22 insecure practitioner is constantly learning by being “drawn out of himself towards his own
23 possibilities and is remade by his experience” (Gallagher, 1992: 189). This learning involves
24 a changed self-understanding or character formation (Carr, 2003), which is of a very different
25 kind than the learning achieved through objectively evaluating the effects of one’s

1 intervention. Though it is not suggested that the latter holds no importance, it is clear that
2 such evaluative information is external to the professional practitioner as an agent.

3 Phronesis, which necessarily involves the self of the practitioner, is learned through
4 practicing phronesis (e.g. in order to be brave, I have to do brave deeds), so that the self-
5 transformation of the insecure practitioner is part of a “practice-promoting-practice” (Carr,
6 2003: 259). It could be suggested that the outcome of insecure practices is not accumulation
7 of experience in order to become more secure, but rather developing ways of handling the
8 inescapable insecurity. This is a positive outcome for the insecure practitioner, and an
9 important one too.

10 Conclusion

11 The point of using ‘the insecure practitioner’ has been to get a lens through which we can
12 come to better appreciate that the flux of learning situations cannot be controlled by EBP. To
13 the contrary, the idea of the insecure practitioner suggests that in a time of increasing
14 technologization of professional practice, some more tentativeness is needed in order to be
15 open to possibilities that go beyond the notion of *techne*.

16 In medicine, from where EBP emanates, there is an understanding that evidence of what
17 works must be balanced with the independent judgment of professional expertise: Evidence
18 based medicine is “about integrating individual clinical expertise and the best external
19 evidence” (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996: 71). Evidence is but one,
20 and certainly not the only, factor driving clinical practice (Biesta, 2007). On the basis of the
21 critical discussion of EBP in relation to APA, I maintain that it is important for APA
22 professionals to be granted the same degrees of freedom, so that they are not only supposed
23 to apply evidence of what works to their practice. There must be an open space in
24 professional practice where the practitioner is allowed to navigate between the universals and
25 the particulars according to his or her professional judgment. This space opens up the

1 possibility for engaging with the unpredictable and unfamiliar. Insecurity need not be a
2 paralyzing condition that disables the practitioner. Rather, through meeting the unfamiliar
3 with a productive insecurity, the practitioners are involved in a process of transforming their
4 self-understanding.
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