I. Preamble

This paper reviews some of the more recent research into the efficacy of Autogenic Training (AT) in the context of Stetter and Kupper's 2002 Meta-Analysis.

Autogenic Training was developed by J.H. Schultz in Berlin in the 1920s, and was first described in a monograph by him in 1932 (Schultz 1932). Early research indicated that it can bring about a psycho-physiological shift[1] – which is usually associated with modalities associated with the Relaxation Response (Benson 1975). AT thus pre-dates many other more recent approaches. Interestingly, however, Jacobsen's "Progressive Relaxation" was published in 1929 (Jacobsen 1929).

Autogenic Training subsequently established itself as the most commonly used relaxation method in German-speaking countries (Stetter & Kupper 2002); it was slower to establish itself in Anglo-American countries. Many of the early studies and research into Autogenic Training were therefore, understandably, in German.

The first qualitative and quantitative meta-analysis of Autogenic Training that established the efficacy[2] of AT was that by Wolfgang Linden (Linden 1994). The Stetter and Kupper meta-analysis builds on the work of Linden, and adds in new research papers since the early 1990s, in addition to including papers that had not been translated into English in time for Linden (1994).

Autogenic Training consists of a series of mental exercises (phrases or formulae) that are learnt over a series of weekly sessions – usually between eight and ten. It can be taught to individuals or groups; both methods have been found to be effective (Sellers 1974; and Stetter & Kupper 1998). Different Autogenic Therapists may use slightly different approaches: of note is that the training diaries are an "effective component of treatment" (Stetter & Kupper 2002; referring to the work of Krampen 1991).

II. Some general comments on study protocols for Autogenic Training

There remain some methodological issues regarding some of the research papers on AT. For example, some studies involved very small numbers of patients. Seventy three controlled outcome studies were found for the period 1952-1999; and of these 35 Randomised Controlled Trials are included in Stetter and Kupper's Meta-Analysis.

Stetter and Kupper also emphasise that the model of AT used in these RCTs varied. In particular, in relation to whether the term Autogenic (generated from within) was appropriate. The following considerations are important to bear in mind:

- Some studies used tape recordings for the autogenic phrases to minimise the impact of different therapeutic approaches (i.e. differences between Autogenic Therapists); that is, a tape was used during the sessions and not the Autogenic Therapist's voice.
- Researchers tend to prefer such standardisation (i.e. here by using the same tapes) as it raises fewer questions regarding the methodology.
- It is unclear from the meta-analysis if the tape was then also used for home practice: we cannot conclude that a true Autogenic state is achieved by the practitioner when using a tape – as the procedure is no longer truly generated from within.

[1] *Umschaltung* – Schultz & Luthe 1969.
[2] This work by Linden was of great importance as an earlier study cast some doubt as to the efficacy of AT as a Relaxation Method compared with other relaxation methods. (Grawe et al; cited by Stetter & Kupper 2002 p 46)

- If during the teaching sessions, a tape or the individual Autogenic Therapist's voice is used for introducing the Standard Exercises, we are still of course one step away from allowing the student to develop a true Autogenic State. In order to overcome this problem, Stetter and Kupper recommend that in future study protocols, there should be at least one "real autogenic exercise" in each therapeutic session (Stetter & Kupper 2002 p 92); i.e. the student(s) practising the sequence in silence. Note that this is the standard teaching of the British Autogenic Society for Autogenic Therapists.

Notwithstanding the above, student Autogenic Practitioners (i.e. those learning basic AT for the first time) have the standard homework task of completing three Autogenic Training session each day in their own time: this is without the use of pre-recorded tapes / CDs[3]).

III. Results of the Meta-Analysis

Initially it may be helpful to look at some of the outcome variables used in the research papers studied by Stetter & Kupper: these are illustrated in Figure 1 below.

Outcome measures	Examples
i. Physiological	• Blood pressure • Skin temperature • Blood levels of hormones etc.
ii. Behavioural variables	• Frequency of attacks (e.g. panic attacks, asthma attacks etc.) • Duration of sleep • Reduction in specific medication (e.g. analgesics / medication for pain)
iii. Psychological variables	• Self-administered questionnaires • Structured investigations regarding key complaints / symptoms.
iv. Non-specific effects (not directly related to "target symptoms")	• Mood (e.g. reductions in depressiveness; reductions in feelings of tension) • State of mind (such as calmness; concentration) • Quality of life For example, the improvement (reductions) in subjective feelings of: • being breathless in patients with anxiety • being sleepless in patients with anxiety.

Figure 1
Examples of some of the outcome measures in some of the studies of the Stetter & Kupper 2002 (page 48) Meta-Analysis

Now we will turn to the results: as the Stetter & Kupper meta-analysis is 53 pages long, we will simply be looking at some of the main findings.

[3] Except in rare cases – at the specific discretion of the Autogenic Therapist.

In general terms, this meta-analysis of Autogenic Training shows it to be an effective, non-specific approach to a number of situations / conditions. Stetter & Kupper tend to use Effect Size[4] (ES) as one of the main parameters in their meta-analysis of the studies analysed in their report. As many of the studies are looking at different types of effect that AT may have on many different conditions / situations, it is not straightforward summarising the results. Below I have attempted to give what I hope is a fair summary of their meta-analysis.

	Modality investigated	Comments / caveats
1	**As a relaxation method**	Similar to that of other methods such as Progressive Muscular Relaxation.
2	**"Psychosomatic disorders"**	Note that in nearly all of the studies from which this research is based, on-going medical treatment was given. So from the perspective of this research, AT should here be seen as a helpful addition to such on-going medical treatment, rather than an alternative. • If in doubt please discuss with your medical advisor.
	• Mild to moderate hypertension • Tension headache /migraine • Coronary Heart Disease • Asthma • Raynaud's Disease • Somatoform pain disorders	In these listed conditions, AT proved to be as effective, or slightly less effective, in comparison with other psychological therapies – such as Progressive Muscular Relaxation, hypnosis, and symptom biofeedback.
	• ? Inflammatory Bowel Disease • ? Atopic eczema • ? Glaucoma • ? Preparation for child birth	In each of these conditions, one study relating to the particular condition suggested that AT may be effective. Further research is therefore indicated.
3.	**Psychological disorders such as:**	
	• Anxiety	Effective. Studies did not compare AT with CBT or Exposure therapy.
	• Depression (mild to moderate)	Effective. Studies did not compare AT with CBT or antidepressants. Stetter & Kupper therefore conclude that AT should not be regarded as an alternative to CBT / Anti-depressants for severer forms of depression. • Note that Krampen's study[5], (Krampen 1999 / 1997) on treating depression with CBT or CBT and AT showed that initially the AT had no effect. However, at 3 years follow up those who had received both CBT and AT had lower relapse rates than those who had CBT alone (see also A5 in this web series regarding this CBT / AT study).
	• Functional sleep disorders	Effective

Figure 2
A summary of the findings of Stetter & Kupper 2002 meta-analysis

[4] Effect Size is sometimes defined as: "[Mean (treatment) minus Mean (control)] divided by Standard Deviation" or "[Mean (end of treatment) minus Mean (beginning of treatment)] divided by Standard Deviation" (Hattie 2009 p. 8 (ex MJR)).
[5] Cited by Stetter & Kupper.

IV. Concluding remarks re this Meta-Analysis

Stetter & Kupper's meta-analysis was hindered by the fact that the studies reviewed covered such a wide range of conditions (e.g. blood pressure; anxiety; depression; sickness absence; stutter etc). Such a wide range of conditions in some ways dilutes the results. However, despite this, they conclude:

> As a result of this meta-analysis, AT proved to be an effective relaxation method being about as effective as other relaxation methods.
>
> Stetter & Kupper 2002; p 94

They also suggest that further research on AT is indicated.

This concludes the formal review of Stetter & Kupper's meta-analysis. Below in the post script are some further reflections and discussion from my perspective as an Autogenic Therapist.

Post script

i. Depression, HAD scores, and Autogenic Training

Note that many patients / clients come to Autogenic Training at a critical point in their lives. In this situation, the HAD scores for Anxiety and Depression are often both significantly elevated. In such cases, a judicious mutual assessment between the client and the Autogenic Therapist may result in a trial of AT without the use of anti-depressant medications. The experience of a number of AT therapists is that the Autogenic Training often results in falls in the Anxiety HAD score; and at the same time the Depression score returns to non-depression levels. This may imply that where "depression" is occurring in stressful home and / or work situations (leading to raised Anxiety on HAD), addressing the stresses through the Autogenic process can bring about a restoration of equilibrium. [In other words, the depression here is best seen as a manifestation of the stressors and anxieties in the individual's life; removing, or enabling the individual to deal more effectively with, the stressors, dissolves the depression.]

Such clients not infrequently feel that Autogenic Training has been a life-transforming experience for them.

ii. Some further comments and reflections

Autogenic Training is a non-specific discipline in which we as practitioners are encouraged (in an autogenic sense) to continue daily AT practice as a life-long discipline. This non specificity is both a strength and a weakness. It is a strength because it can be helpful and effective in many different life situations and conditions. It is a weakness in that this makes it more difficult for research. If a pharmacist develops a new tablet for diabetes, it is just tested for diabetes against other "known-to-be-effective" medications for diabetes. This makes the statistical underpinnings of such research relatively simple. In Autogenic Training, as indicated above, the research over the years has in a way been diluted by the number of conditions / states examined.

In addition, research studies may not pick up non-specific benefits such as general feelings of increased well-being, being & feeling more *at home* with one's children[6], and / or noticing the colour of the sky, the sunlight on a leaf, and the smile on a child's face.

Autogenic Training also gives the opportunity for us to review our lives; and review our lives in terms of work, home, re-creation, and meaning. It is now generally accepted that aspects of AT overlap with some forms of Meditation. Recent research on Meditation suggests that it has specific effects on the middle pre-frontal cortex of the brain – and the associated functions (of Mindsight / Mindfulness), such as: reductions in anxieties / fears; increased insight; increased empathy; and attuned communication with others (Siegel 2007; 2010; and also see C2 and D1 in this series). Future research into the effects of AT on such middle pre-frontal cortex dynamics may be fruitful.

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Linked themes in this Autogenic Dynamics section

A4	Autogenic Training and CBT
A5	Autogenic Training, CBT, and recurrent depression. .
C2	Mindsight – our seventh sense – *and associated middle pre-frontal cortex functions*
D1	Reflections on foundations for Mindful Living

[6] Including playing more – and OLE-CROE-ing with them!
[7] This work is cited by Stetter & Kupper who give slightly ambiguous dates for its publication: the dates given on this present Web entry is my understanding of the dates of this research – originally published in German.