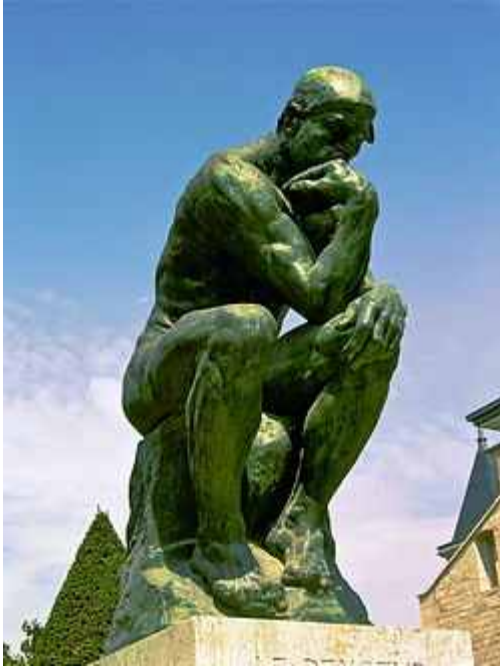


The Thinker

marble sculpture by Auguste Rodin



Self-talk in Sport

Nikos Comoutos (former Zourbanos), Associate Professor

University of Thessaly
SCHOOL of Physical Education & Sport Science

Our lab.. almost 20years of research on self-talk in sport

The Sport Psychologist, 2000, 14, 253-272
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The Effects of Motivational Versus Instructional Self-Talk on Improving Motor Performance

Yannis Theodorakis
University of Thessaly, Greece

Robert Weinberg
Miami University of Ohio

Petros Natsis, Irini Douma, and Panagiotis Kazakas

The Sport Psychologist, 2002, 16, 368-383
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Enhancing Performance and Skill Acquisition in Novice Basketball Players With Instructional Self-Talk

Stefanos Perkos, Yannis Theodorakis,
and Stilian Chroni
University of Thessaly

JOURNAL OF APPLIED SPORT PSYCHOLOGY, 16: 138-150, 2004
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Self-Talk in the Swimming Pool: The Effects of Self-Talk on Thought Content and Performance on Water-Polo Tasks

ANTONIS HATZIGEORGIADIS, YANNIS THEODORAKIS, AND NIKOS ZOURBANOS

University of Thessaly

Psychology of Sport and Exercise 10 (2009) 186-192



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Self-Talk and Sports Performance: A Meta-Analysis

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APPLIED RESEARCH

The Effects of Self-Talk on Dominant and Nondominant Arm Performance on a Handball Task in Primary Physical Education Students

Nikos Zourbanos, Antonis Hatzigeorgiadis,
Dimitris Bardas, and Yannis Theodorakis
University of Thessaly

Self-talk

ANTONIS HATZIGEORGIADIS, NIKOS ZOURBANOS, ALEXANDER T. LATINJAK AND YANNIS THEODORAKIS

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EDITORIAL

Reflections on the Maturing Research Literature of Self-Talk in Sport: Contextualizing the Special Issue

James Hardy
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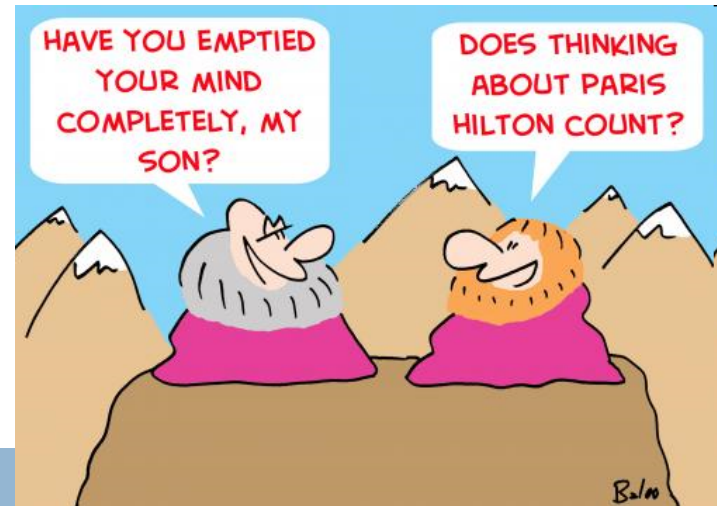
Nikos Comoutos and Antonis Hatzigeorgiadis
University of Thessaly

We are what we eat...as

we are



what



we think

Video time...



Overview

Terms & Definitions

Conceptualization & Assessment

Research Questions & Paradigms

description

antecedents

Criticism on existing models

IMPACT

.....

TIME FOR SOME PRACTICE!!!



Terms

Self-talk in sport literature
in general psychology as...

automatic thoughts

internal dialogue

inner conversation

sub-vocal speech

self-verbalizations

self-statements

verbal cues

Vygotskian (1934/1999)

inner

social

Piaget (1926/1962)

Egocentric
language

(3 – 5 years old)

In other words, inner speech is *inner* in the sense that the speaker can regulate her or his own activity through language. According to Vygotsky (1934/1999), speech mediates the speaker's activity (see also Wertsch, 1985)

Definitions in sport literature

what people say to themselves either internally or out-loud

Theodorakis et al. 2000

Self-talk refers to what people say to themselves either silently or aloud, inherently or strategically, to stimulate, direct, react and evaluate events and actions

Hatzigeorgiadis et al. (2014)

Statements, phrases or cue words that are addressed to the self which might be said automatically or very strategically, either out loud or silently, phrased positively or negatively, having an instructional or motivational purpose, an element of interpretation, and incorporating some of the same grammatical features associated with every day speech

Hardy and Zourbanos (2016)

Dimensions

With regard to the *form of expression*, self-talk can be described as **internal** and **external**. Internal refers to self-talk athletes have within their head, also termed silent; whereas external refers to self-talk that is audible, which is also termed vocalized, or out-loud self-talk.

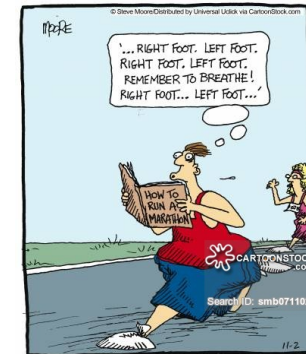
Positive # Negative



Describing the content

Describing the effect

Motivational # Instructional



Positive / Negative self-talk can be facilitating or debilitating
Instructional / Motivational self-talk can serve several functions

Self-talk can also be categorised in terms of grammatical form, although this has been studied primarily in areas outside sport and exercise psychology (Kross et al., 2014). Senay, Albarracin, and Noguchi (2010) compared the effects of interrogative self-talk (i.e., “Will I?”) to that of the simple future tense (i.e., “I will”) and found that use of the interrogative form, led to superior task performance.

Modern Day Maturation of Self-Talk Research

Theodorakis et al. (2012) Self-talk as thought content thoughts athletes experience (during sport performance) automatic / inherent / spontaneous
Self-talk as mental strategy - use of specific cues to enhance performance specific / planned / systematic

Latinjak et al. (2014) Spontaneous and goal directed self-talk related to particular emotions have been categorized according to time perspective, activation, and time-orientation but ...additional research is needed to determine if these activation and time-related categories of self-talk are related sport-specific variables such as performance.

Van Raalte et al. (2016)

Self-talk as system 1 (fast-emotionally charged) and system 2 (slow-consciously monitored)

Assessment

“the area of inner speech is one of the most difficult to investigate”

Vygotsky, 1986

“relies solely on individuals’ reports” and therefore dependent on Memory, Perceptions, Desires, Conscious, Will to share

Nisbett & Wilson, 1977

“access to cognitions is not perfect, people may report cognitive activities on the basis of their likelihood of occurrence rather than their actual occurrence”

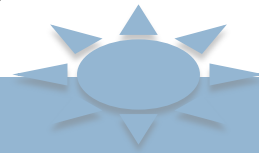
Dobson & Dozois, 2003

- concurrent to retrospective evaluations
 - unstructured to fully structured procedures

Assessment

Methods

- think-aloud
- recording of private speech
- random sampling
- videotape thought reconstruction
- self-statement inventories
- interview
- thought listing
- *observation*
- *Or combination of the above methods....*



Assessment

Sport research

- self-statement inventories
- interviews
- videotape thought reconstruction
- *observation* ('observable' self-talk)

Assessment

Questionnaires in sport – Content of self-talk

Thought Occurrence Questionnaire for Sport (Hatzigeorgiadis & Biddle, 2000)

performance worries / thoughts of escape / irrelevant thoughts

Cognitive Interference Table Tennis (Kronhe & Hindel, 2000)

worry / emotional tension / helplessness & irrelevant thoughts

Automatic Self-Talk Questionnaire for Sport (Zourbanos et al., 2009)

psych-up / confidence / emotional control / instruction
worry / disengagement / fatigue / irrelevant

Assessment

Questionnaires in sport - Description / Use / Purpose of self-talk

- Test of Performance Strategies (Thomas et al., 1999)
description; positive / negative
- Self-Talk Use Questionnaire (Hardy, et al., 2005)
description; Where / When / What / Why
- Self-Talk Questionnaire (Zervas et al., 2008)
Purpose; instructional / motivational
- Functions of Self-Talk Questionnaire (Theodorakis et al., 2008)
functions; attention / effort / confidence / anxiety control / automaticity
- Self-Talk and Gestures Rating Scale (Van Raalte et al., 1994) *observed: positive / negative / instruction*

Self-talk Research

Hardy et al. 2009 – A framework for the study of self-talk

The study and application of self-talk 39

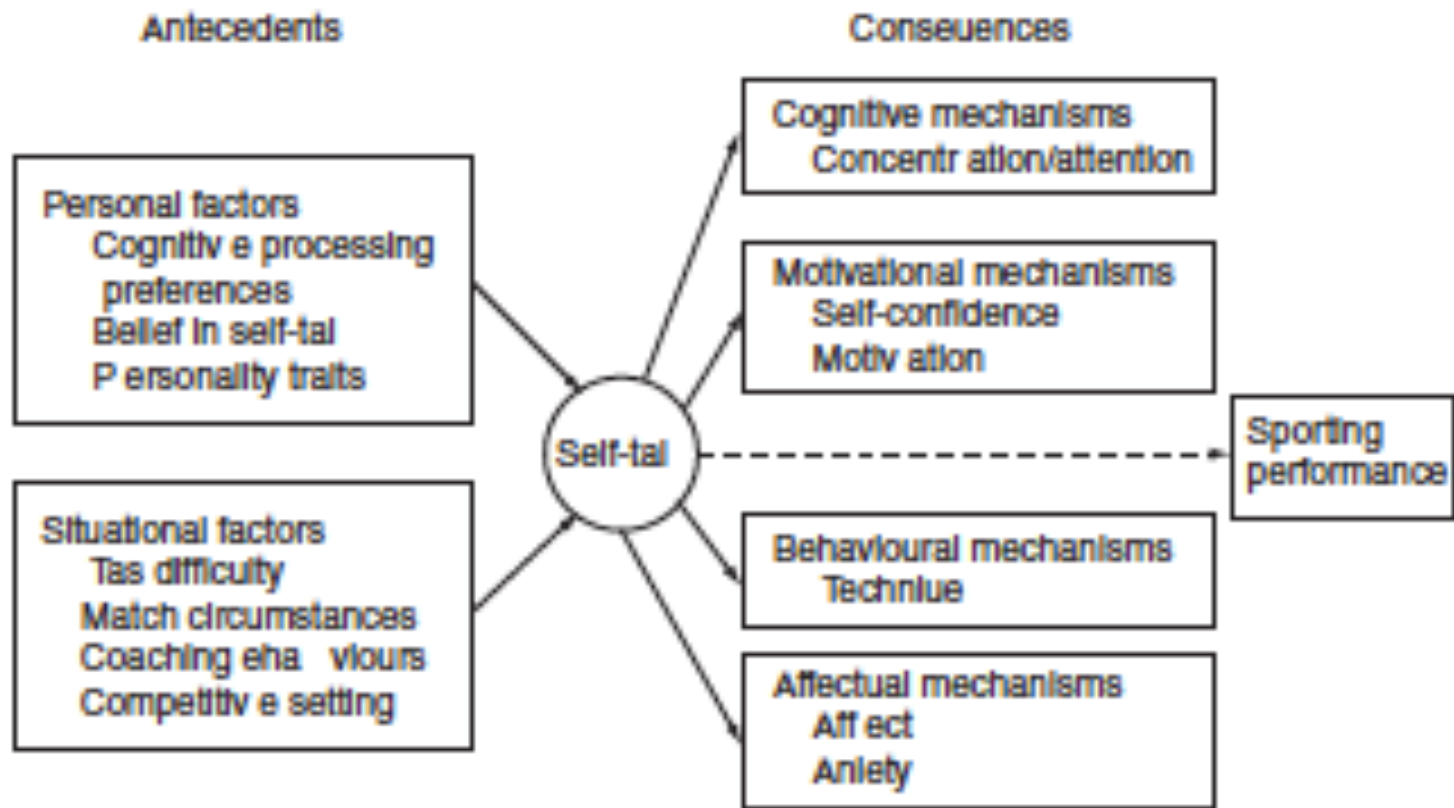
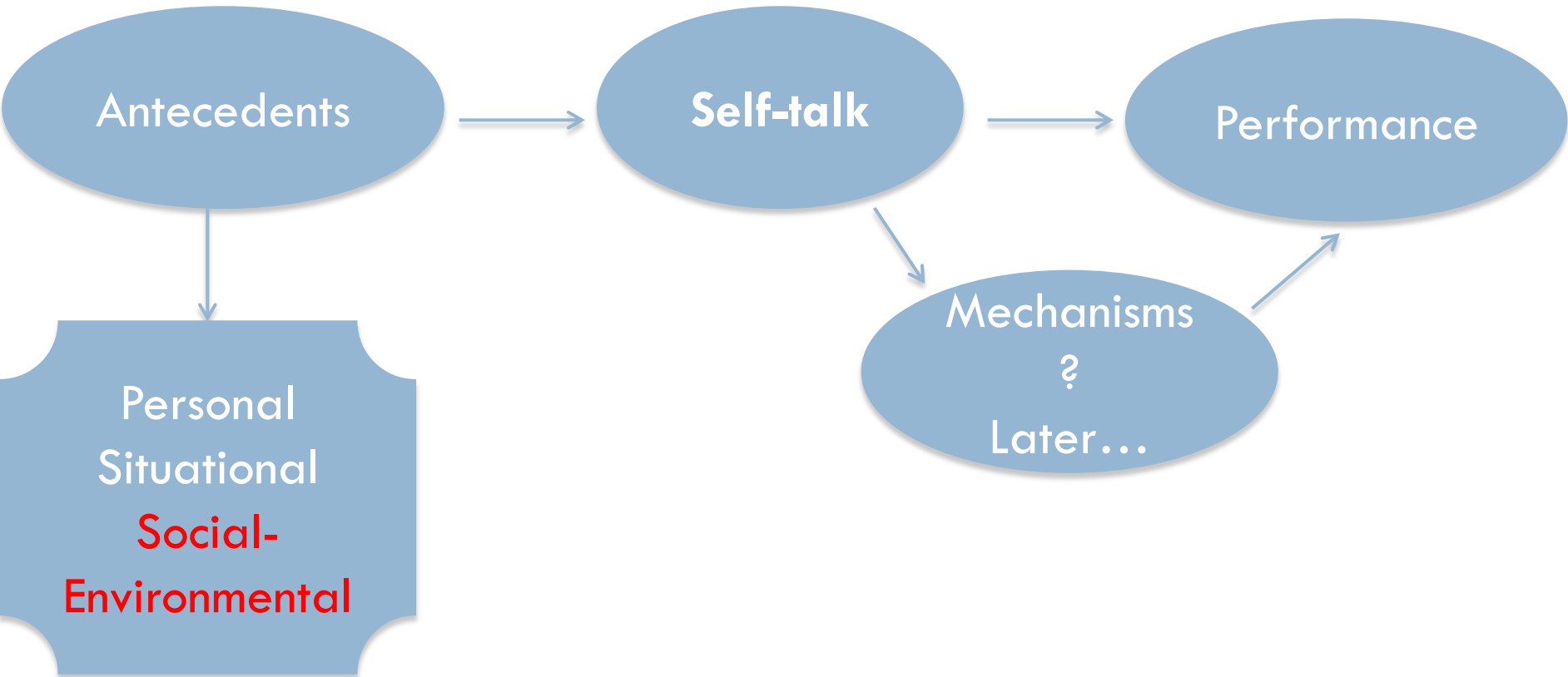


Figure 2.1 A framework for the study of self-talk.

Self-talk Research

Theodorakis et al. 2012 – A framework for the study of self-talk



Self-talk Research

Van Raalte et al. 2016, PSE – Theoretical framework

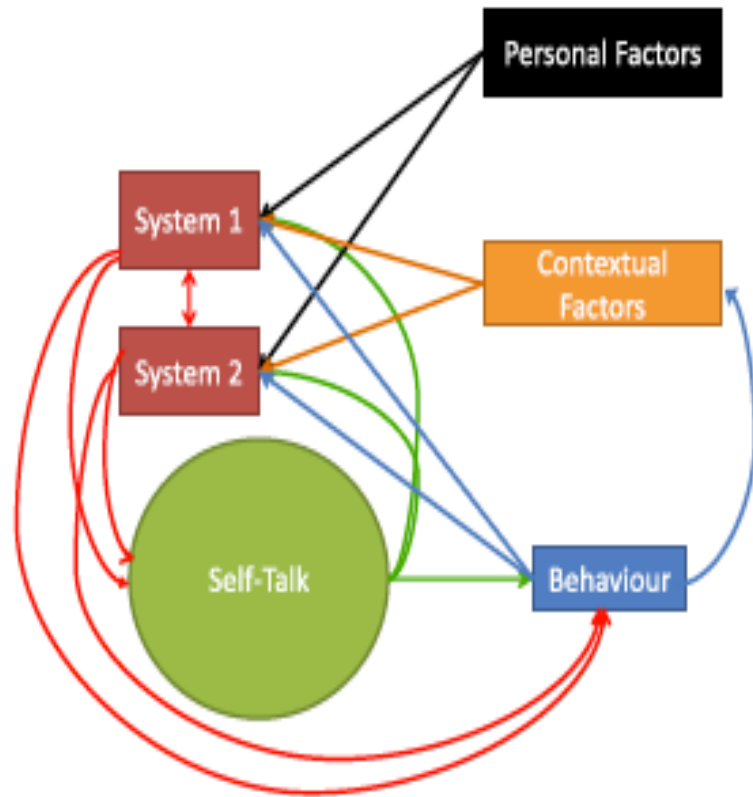


Fig. 1. Sport-specific model of self-talk. The antecedents of self-talk, personal and contextual factors, are shown by the black and orange arrows connecting to System 1 and 2. The red arrows represent the connections between System 1, System 2, self-talk, and behaviour; and the reciprocal nature of the links are shown by green and blue arrows. The effect of behaviour on self-talk is mediated through System 1, System 2, and contextual factors. Examples of these connections are described in the text.

In his Nobel Prize lecture, [Kahneman \(2003\)](#) noted that two discrete but interacting systems transform information from the outside world into cognitive content: (a) System 1, which is fast, effortless, and emotionally charged; and (b) System 2, which is slower, effortful, and consciously monitored. Content that originates in System 1 is often described as intuition, and comes to mind spontaneously as gut feelings or impressions. For example, being surprised by something but not really knowing what caused the feeling of surprise, or recognising someone without quite knowing what caused you to recognise that person ([Kahneman, 2011](#)). Content that originates in System 2 includes explicit and intentional ideas, logic, conscious calculations, attributions, and interpretations ([Berkowitz, 1993](#); [Kahneman,](#)

Critique on both models

- Although Latinjak et al.'s framework has been criticized (see Van Raalte et al., 2016a), it has been employed in several studies in the sport domain (e.g., Latinjak, Font-Llado, Zourbanos, & Hatzigeorgiadis, 2016; Latinjak, Hatzigeorgiadis, & Zourbanos, 2017). On the other hand, Van Raalte et al.'s (2016a) framework has yet to be tested in the sport domain (Van Raalte, Vincent, & Brewer, 2016b).
- The development of a unifying self-talk theory for sport established from both correlation and experimental studies, including not only the processes but also the origins, the antecedents, the mechanisms, and the outcomes of self-talk would be of particular importance for the advancement of the field (e.g., Van Raalte et al., 2016a)

Main research questions in sport

There are three key research questions with regard to understanding self-talk and performance

- 1) involves the **description and the content** of athletes' self-talk.
- 2) involves **the antecedents**— those factors that determine, shape, or influence self-talk.
- 3) involves the **consequences**—the impact self-talk has on outcome variables, and, most importantly, performance.

Content

Antecedents

Consequences - Performance

Self-talk as thought content

▣ divers, wrestlers

Qualifiers more positive ST and instructions than non-qualifiers

Highlen & Bennett (1981)

▣ young tennis players

negative ST - winners used less than losers

positive ST – no differences between winners/losers

instruction - no differences between winners/loser

Observed negative more frequent than positive in competition

Van Raalte et al. 1994

▣ adult tennis players

no relation between performance and positive / negative /instruction ST

Van Raalte et al. 2000

▣ university volleyball -

worry – negatively related to concentration

- negatively related to effort when expectancies low

- positively related to effort when expectancies high

Hatzigeorgiadis & Biddle 2001

Antecedents – findings

- Situational

- Pre-competition anxiety intensity & direction

- Discrepancies between goal and performance (Hatzigeorgiadis & Biddle 2008)

- Game circumstances; winning / losing points (Van Raalte et al. 2000, Zourbanos et al. 2015)

- Competitive setting (Hardy et al., 2004, 2005)

- Personal

- goal orientations, perceived competence (Hatzigeorgiadis & Biddle, 1999)

- goal profile (Hatzigeorgiadis & Biddle, 2002)

- goal orientation, self-consciousness (Hatzigeorgiadis, 2002)

- anxiety and fear of failure (Conroy & Metzler, 2004)

- Social – Environmental

- coache's esteem support (Zourbanos et al. 2006)

- coaches verbalizations (Zourbanos et al. 2007)

- coaching behaviour (Zourbanos et al. 2010)

- social support (Zourbanos et al. 2011)

- motivational climate (Zourbanos et al. in press)

Self-talk Interventions



HOW to ...

Self-talk - IMPACT

ST-IMPACT

- Identify what you want to achieve
- Match self-talk to needs
- Practice different cues with consistency
- Assess **A**scertain which cues work best for you
- Create specific self-talk plans
- Train self-talk plans to perfection

Hatzigeorgiadis, A., Zourbanos, N., Latinjak, A., & Theodorakis, Y. (2014). Self-talk. In A.Papaioannou & D. Hackfort: Fundamental concepts in Sport and Exercise Psychology. Publisher:Taylor & Francis.

Identify

what you want to achieve

Swimming

- Improve Arm recovery
- Optimize Final meters

Match

self-talk to needs

- Arm recovery
 - elbow
 - high
 - close
 - relaxed
- Final meters
 - push
 - legs
 - go
 - do it

Practice

different cues with consistency

- Arm recovery
 - 10 x 50 for each self-talk cue
after each breath (1.5 strokes)
- Final meters
 - 5 x 100 for each self-talk cues
at the final 15m. continuously

Ascertain

which cues work best for you

- Arm recovery
close
- Final meters
go

Create

specific self-talk plans

- Start (when set) – **explode**
- Turn – **fast**
- Recovery – **close**
- Final meters – **go**

Train

self-talk plans to perfection


How do we train - example (Hatzigeorgiadis et al., 2015)

Example of self-talk card

WEEK 5 – MOTIVATIONAL AND INSTRUCTIONAL SELF-TALK			
Swimming	What	When	Why
<i>Motivational self-talk</i>			
All styles	Let's go	Just before the start of each repeat During the push after each turn	To boost effort
<i>Instructional self-talk</i>			
Freestyle	Elbow	On releasing the arm for recovery	To keep the elbow high
Backstroke	Deep	When entering the arm in the water	To take the arm deep enough for the catch
Breaststroke	Ankles	When completing the leg stroke	To continue the move until the ankles come together
Butterfly	Chin	Just before the exit of the head	To keep the chin close to the surface

- Up until relatively recently, scientists had not given much attention to conducting research on self-talk, possibly because of the presence of theory underpinning other popular psychological strategies (such as, imagery and goal-setting).

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Time for practice...

Thank you for your attention...

