



ZWOLLE, THE NETHERLANDS  
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| 35th IAPCT Conference

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## Conference Schedule – Day 1

<b>Wednesday, October 8 – All remote</b>				
<b>Time (NL)*</b>	<b>Duration</b>	<b>Format</b>	<b>Speakers</b>	<b>Title</b>
11:00-11:20	20 min	Remote	Conference Team	Opening & Welcome
11:20-11:55	25+10 min	Remote/NZ	John Kirkland et al.	PCT as transformative processing algorithms
11:55-12:15	10+10 min	Remote/AUS	Greg Tsuklis	A Chatbot Based on Method of Levels: Results of a Randomised Controlled Trial
12:15-13:15	60 min	–	–	Lunch Break
13:15-13:45	20+10 min	Remote/AUS	Tom Cochrane	A control theory of morality
13:45-14:05	10+10 min	Remote/AUS	Daniel F. Gucciardi et al.	Integrative Perspective of Personalised Stress Regulation (Recorded + Q&A)
14:05-14:25	10+10 min	Remote/JAP	Masaru Kanetsuki et al.	Japanese Version of Reorganisation of Conflict Scale
14:25-14:40	15 min	–	–	Break
14:40-15:10	20+10 min	Remote/UK	Dan Pope et al.	Implications of professionals' exposure to suicide on suicide risk assessment – informed by PCT
15:10-15:40	20+10 min	Remote/US	P. Claudius Osei	Levels of Performance
15:40-15:55	15 min	–	–	Break
15:55-16:55	60 min	Remote/Canada	Tom Scholte	Reflexive Conflict Management: An Introductory Workshop

\* 11:00 Zwolle = 17:00 Perth, 10:00 London, 06:00 Buenos Aires, 05:00 New York, 02:00 Los Angeles.

## Conference Schedule – Day 2

<b>Thursday, October 9 – Almosta all local</b>				
<b>Time (NL)*</b>	<b>Duration</b>	<b>Format</b>	<b>Speakers</b>	<b>Title</b>
10:00-10:30	20+10 min	Local	Mueen Abid, Warren Mansell, Wasima Shehzad	Cultural and Contextual Adaptation of the Take Control Course: A Transdiagnostic Intervention for Adolescent Depression and Anxiety in Pakistan
10:30-11:00	20+10 min	Local	Kent McClelland	Racism as a Social Institution
11:00-11:15	15 min	–	–	Break
11:15-11:35	10+10 min	Local	Ellen M. Lutz	Integrating PCT with Characteristics of Recovery
11:35-11:55	10+10 min	Local	Susan Yousufi	Role of PCT on control loss among refugees
11:55-12:25	20+10 min	Local	Tom Merrill	Beyond Triggers: Aggression as Perceptual Control
12:25-13:25	60 min	–	–	Lunch Break
13:25-13:55	20+10 min	Local	Susan McCormack	From combat to construction: MOL in help- seeking veterans
13:55-14:25	20+10 min	Local	Djoeke van de Klomp	Neurodiversity: Am I Abnormal or Simply in Control?
14:25-14:55	20+10 min	Local	Anne Valdez Mora et al.	Arts Therapy and PCT
14:55-15:10	15 min	–	–	Break
15:10-15:40	20+10 min	Remote/ARG	Matias Salgado	Practitioners' Top 5 Benefits and Challenges When Applying MOL
15:40-17:10	90 min	Local	Andreas Rapp	Exploring Method of Levels – Interactive Peer-to-Peer Practice (Workshop)

\* 10:00 Zwolle = 16:00 Perth, 09:00 London, 05:00 Buenos Aires, 04:00 New York, 01:00 Los Angeles.

## Conference Schedule – Day 3

<b>Friday, October 10 – Hybrid</b>				
<b>Time (NL)*</b>	<b>Duration</b>	<b>Format</b>	<b>Speakers</b>	<b>Title</b>
10:30-12:00	90 min	Local	Eva de Hullu	Hierarchical Control (Workshop)
12:00-12:15	15 min	–	–	Break
12:15-12:45	20+10 min	Local	Michael Landman	Pupil dilation during curious dialogue: a pilot test
12:45-13:45	60 min+30	–	–	Lunch Break
13:45-14:15	20+10 min	Local	Bruce Nevin	Complementary Theories (PCT vs FEP)
14:15-14:45	20+10 min	Remote/US	Richard Marken	The Brain is a Specification (Not a Prediction) Machine
14:45-15:00	15 min	–	–	Break
15:00-16:30	90 min	Hybrid	Warren Mansell et al.	Exploring PCT along with AI and ML towards impactful innovations (Panel)
16:30-16:45	15 min	–	–	Break
16:45-17:45	60 min	Remote/US	Cat Harbord, B.Taylor Fleming	Crisis of Linear Thinking in Dog Behavior with PCT
17:45-18:00	15 min	Local	Conference Team	Closing Session

\* 10:30 Zwolle = 16:30 Perth, 09:30 London, 05:30 Buenos Aires, 04:30 New York, 01:30 Los Angeles.



# Day 1

**Wednesday, October 8**  
All remote

## Considering PCT as a series of transformative processing algorithms

*John Kirkland, Mike Saywell, David Bimler*

In this presentation we integrate three perspectives, transformative processing, algorithms, and PCT. This bundle is assembled as part of our ongoing quest of providing pedagogically useful answers to the general question, “What the heck is authentic learning?”

Part one: We suggest there are three distinct constituents of transformative processing. First, the well-known dual processing model advanced by the Nobel laureate Danny Kahneman, as System 1 and System 2, which we introduced at last year’s conference. This year we present a map of S1’s essential features, created from applying a well-tested methodology demonstrated two meetings previously.

The second refers to bilateral co-operative notation bridges, also introduced at the previous meeting, which span the gulf between S1 and S2.

Thirdly, there are radical transformations of the co-operative bi-directional notational bridges. On the one hand upward shifts provide more adept handling of multiple complexities during the acquisition of expertise. And on the other, downward slippage and deterioration is evident during advanced aging with the onset of, say, cognitively crippling dementias.

Part two: Algorithms are processing tools, selected for getting jobs completed as simply and directly as possible. An algorithm consists of specific procedural steps providing greater efficiency and generating less waste by increasing the signal-to-noise ratio. Intelligence is the acquired skill for designing intentional algorithmic tools.

Most educators make a critical mistake. They do not distinguish between the stuff of learning (facts, and what have you) from the cognitive tools which make them so. We suggest authentic learning is less about memorizing stuff and more about accessing higher-order implicit algorithms applied as transformational processes. As an aside, to make learning difficult for students, teachers will focus on their need to reproduce stuff and ignore the utility of recognizing and incorporating thinking’s range of processing algorithms.

Part three: It’s expected the executive order of higher-level algorithms will run parallel to the PCT hierarchy. It accommodates the development of multi-level transformative processing algorithms in S2. However, it is to be kept in mind that PCT also informs day-to-day living experiences mostly conducted automatically where basic algorithms may be played out in S1.

## A Chatbot Based on Method of Levels: Results of a Randomised Controlled Trial in University Students

*Greg Tsuklis*

MYLO is a chatbot for wellbeing and mental health that aims to emulate Method of Levels Therapy via a text-to-text interface. Whilst early controlled trials evaluated a prototype on a desktop computer in a one-off session, this is the first controlled trial to compare a smartphone version of MYLO over four weeks to waiting list in a full powered design. We will report on the findings in terms of its effects on key outcome variables, and also report on the factors that may predict better engagement and impacts from having access to MYLO, ahead of the codesign and roll out of a version across the university and beyond.



## A control theory of morality

*Tom Cochrane*

A number of researchers have recently applied the perceptual control framework to social relations (e.g. Cooper 2021; Huddy & Carey 2022; Moore 2023; Westermann & Banisch 2024). Perceptual control theory is well-placed to explain the nature of interpersonal conflict as the conflict between the reference values held by individuals and groups. Cooper in particular describes how 'directionality' can be shared at the group level, sometimes at the expense of individual flourishing. Yet the potential for PCT to offer a general theory of morality of the kind that philosophers aspire towards has yet to be fully explored. Philosophers have long aimed to discover a single rule or master value that can determine the morally right thing to do in any given situation. Due to various problem cases (such as the famous trolley problem), many philosophers are sceptical that such a rule can be found, instead acknowledging that a plurality of values guide moral behaviour (such as maximising happiness, respecting each person as an end in themselves, or making mutually beneficial agreements). I propose that PCT offers a new way to think about the moral phenomenon: as the regulation of a quite specific affiliative relationship between all morally relevant beings. Regulating this relational state can be understood as a control system that draws on two opposing values, analogous to heating and cooling functions in a thermostat: 1) alleviate suffering and 2) don't interfere. A perceptual control theory of morality helps us to explain how the tension between these values isn't the failure of moral theory, but precisely the point.

## References

- Cooper, M. (2021). Directionality: Unifying psychological and social understandings of well-being and distress through an existential ontology. *The journal of humanistic counseling*, 60(1), 6-25.
- Huddy, V., & Carey, T. A. (2022). Coercion and Social Influence. In *Social Psychology in Forensic Practice* (pp. 165-182). Routledge.
- Moore, R. K. (2023). Local Minima Drive Communications in Cooperative Interaction. *arXiv preprint arXiv:2307.09364*.
- Westermann, S., & Banisch, S. (2024). A Formal Model of Affiliative Interpersonality. *Clinical Psychological Science*, 21677026241229663.

## **Toward an Integrative Perspective of Personalised Stress Regulation: Insights from Perceptual Control Theory**

*Daniel F. Gucciardi, Monique F. Crane, Hugh Riddell, and Warren Mansell*

Stress regulation is often conceptualised as controlling behaviour (what people do) rather than perception (what people experience or feel is happening), limiting our understanding of personalised stress dynamics. In this paper, we introduce an integrative perspective grounded in perceptual control theory, where we reconceptualise stress as an emergent state characterised by loss of control. This loss of control occurs when there is a mismatch, or discrepancy, between an individual's current perceptions of their environment and their internally held reference values for how they ideally want things to be. We argue that goal conflict is the primary driver of stress, with reorganisation serving as the adaptive mechanism for conflict resolution by modifying the properties of control systems to reduce intrinsic error. This framework explains individual differences in stress responses by focusing on hierarchically organised controlled perceptions rather than standardised strategies. We propose a research agenda emphasising: (1) identifying personally relevant controlled variables through systematic testing, (2) mapping hierarchical control systems, (3) capturing intraindividual variability in naturalistic settings, and (4) developing computational models to formalise principles of perceptual control theory. This perspective bridges biological, psychological, and social dimensions of stress regulation, offering a foundation for personalised interventions that address what people care about most when regulating stress, rather than prescribing one-size-fits-all approaches.

## Examining the Validity of the Japanese Version of the Reorganisation of Conflict Scale

*Masaru Kanetsuki, Tomomi Kanetsuki, Warren Mansell, Eriko Takahashi, Aimee Wrightson-Hester, & Isabeau Tindall*

In Perceptual Control Theory (PCT; Powers, 1973), reorganisation refers to a learning algorithm that randomly changes properties of control systems until intrinsic error reduces. Arguably, intrinsic error is an index of the psychological distress that build up through loss of control when two or more control systems are in chronic, unresolved conflict. A self-report psychological scale that examined reorganisation is the Reorganisation of Conflict Scale (RoC; Higginson, 2007), which consists of two factors.

The first factor of the RoC, "Reorganisation Capacity," captures the self-report of being able to direct and maintain awareness toward the source of the conflict which is a control system superordinate to the systems in conflict, while the second factor, "Inflexible Control," is thought to reflect the self-report of various processes that interfere with this ability to shift and sustain awareness to resolve conflicts. The RoC has been validated for its reliability and validity (Bird, 2013; Morris, 2016). Kanetsuki et al. (2024) developed the Japanese version of the RoC (RoC.j) and demonstrated that the pattern of findings was largely consistent with those reported in previous studies. In Japan as well, it is desirable to examine various characteristics of reorganisation using the RoC.j.

This presentation provides additional data on the Japanese version of the RoC. In this study, we used several psychological measures different from those used in Kanetsuki et al. (2024) to examine concurrent validity and conducted a one-month longitudinal study. The main hypotheses were that the RoC subscales would be related to variables proposed in transdiagnostic models such as the Interactive Cognitive Subsystems (ICS; Teasdale & Barnard, 1993) and the Self-Regulatory Executive Function (S-REF; Wells & Matthews, 1996), and that people who reported more distress after one month would be those who had scored higher on Inflexible Control and lower on Reorganisation Capacity.

At Time 1, data were collected from 143 Japanese university students. At Time 2, the RoC.j, a measure of stress responses, and the Life Event Scale (Takahira, 1998) were administered. The Life Event Scale assessed life events experienced during the one-month interval between Time 1 and Time 2. Detailed results will be presented during the session, but the main findings were as follows: reorganisation ability was positively correlated with decentering; inflexible control was positively correlated with negative beliefs about the controllability of thoughts and their associated danger, as well as with experiential avoidance. Furthermore, the longitudinal analysis suggested that inflexible control was positively associated with stress

responses one month later, even after controlling for stress responses at Time 1 and the number of life events.

It is important to note that these results are based on correlational analyses and do not indicate causal relationships. However, the RoC may be a useful tool for examining the reorganisation process shared across both Western and Japanese cultural contexts. Future studies using the RoC in Japan are anticipated.

## Implications of professionals' exposure to suicide on suicide risk assessment - informed by PCT

*Dan Pope; Dr James Kelly; Dr Rob Griffiths*

My talk presents an empirical research study recently submitted as part of the thesis requirements for the DClinPsy course at Lancaster University. The talk will outline the study's background, methodology, results and discussion points with a particular emphasis on the influence of PCT and Method of Levels upon the study's rationale, interviewing style, analysis and implications for the applications of PCT and MoL to findings.

### Background

Key guidance advocates for personalised, collaborative suicide risk assessment to reduce rates of suicide. However suicide risk assessment within mental health services may be ineffective due to over-use of stratified assessment tools and lack of collaborative engagement. This may be due to psychosocial factors affecting clinicians exposed to service user attempted or completed suicide. There is a lack of understanding of mechanisms informed by theory, which may inform reduction of these factors.

### Methods

The study interviewed 10 mental health professionals using the research question 'How do mental health professionals who have been previously exposed to service user completed or attempted suicide experience the process of risk assessment and management?', using a unique interviewing approach informed by principles of PCT and MoL, aiming to aid professionals to more deeply explore underlying goals and motivations in how they manage risk. Results were analysed using Reflexive Thematic Analysis.

### Results

Three overarching themes were generated, relating to emotional responses and conceptualisations of risk post-exposure; methods by which professionals attempt to cope with these effects; and subsequent practicalities of suicide risk assessment and management post-exposure.

### Discussion

Key findings and discussion points concerned professionals' ability to move forward positively from exposure, managing risk through use of personalised, collaborative SU engagement. Additionally they may effectively manage effects of exposure through the ability to reflect, and by working as part of a supportive MDT. Findings were also discussed through conceptualising professionals' difficulties as resulting from goal conflict, and how these may be resolved, for example through the use of MoL to support staff following exposure to service user attempted or completed suicide.



## Levels of Performance

*P. Claudius Osei*

Athletic skill development requires the continuous reorganization of the nervous system to adapt to both internal and external perturbations that interfere with achieving the performance goal. I propose a framework in which coaches or practitioners deliberately introduce disturbances to the perceptual information available to the athlete, targeting different levels of the Perceptual Control Theory (PCT) hierarchy to assess the athlete's skill in controlling this information at progressively higher levels.

A sharp drop in performance following such a disturbance indicates the athlete's current limit in controlling information at that level. To help the athlete improve, coaches can manipulate perceptual information at the point where the breakdown occurs, creating targeted training that challenges their perceptual control at precisely the right level. For example, a basketball player might consistently make shots when stationary, with their feet set and gaze fixed. However, their accuracy may decline when forced to adjust their gaze while transitioning into a new shooting position. Meanwhile, another player might struggle with the gaze sequence, for example, by stepping forward rather than backward before moving to the left or right.

In both cases, I suggest that coaches actively engage the athlete's orientational sensors by introducing systematic changes to head and body movements across multiple planes. For the first player, this could involve practicing shots following movements from different leftward or rightward directions, forcing gaze adjustments before the shot. For the second player, this may include changing the movement sequence, such as moving forward or backward before shifting laterally, to vary the sequence of visual information intake.

Unlike in the method of levels, I am not focusing on the level above to resolve a conflict. Instead, I am focusing on disturbing the elements at the same level to create a conflict that will identify a faulty control mechanism and generate the appropriate higher-level reference through negative feedback mechanisms, as proposed by Dr. Henry Yin's basal ganglia transition model.

## Reflexive Conflict Management: An Introductory Workshop

*Tom Scholte*

This interactive workshop will introduce participants to Reflexive Conflict Management (RCM); a novel approach to conflict engagement developed by the author and currently being taught to new Department Heads and Associate Deans across the University of British Columbia through its Academic Leadership Development Program. The method builds upon the foundations of Non-Violent Communication (NVC) developed by Marshall Rosenberg. By grounding those foundations in the hierarchical schema of PCT, a 'non-violent' communication becomes an intentional process of 'bumping' the conversation up above the "program" level where conflict usually erupts. By emphasizing the top three levels of the hierarchy (renamed "Actions, Values, and Identity" for ease of use among non-specialists), conflicts can be transformed from interactions to be 'won' or avoided at all costs, into opportunities for the mutual co-construction of new understanding. This leads to an expanded awareness of possible courses of action that might avoid generating error signals for all involved. Throughout the interaction, the application of the method remains 'reflexive' because, like Method of Level therapy, it carefully avoids any diagnostic or prescriptive statements about the other person. It is truly a process of 'self' discovery and revelation for each person involved. This workshop will begin with a Power Point presentation introducing the fundamentals of the method and then transition into an opportunity for interactive role-play in which participants can experience, firsthand, this process of shared 'reorganization.'



# Day 2

**Thursday, October 9**  
Almost all local

## Cultural and Contextual Adaptation of the Take Control Course: A Transdiagnostic Intervention for Adolescent Depression and Anxiety in Pakistan

*Mueen Abid, Warren Mansell, Wasima Shehzad*

### Background

Depression and anxiety are leading contributors to adolescent morbidity worldwide and represent a major public health concern in low- and middle-income countries (LMICs), where the treatment gap is exacerbated by structural limitations, stigma, and cultural barriers. Scalable, low-intensity, group-based psychological interventions have demonstrated promise in bridging these gaps. The *Take Control Course* (TCC), a novel, group-based low-intensity transdiagnostic intervention informed by Perceptual Control Theory (PCT), has shown efficacy in high-income countries; however, its applicability to LMIC settings remains untested.

### Objective

This study aims to undertake the cultural and contextual adaptation of the TCC for Pakistani adolescents experiencing symptoms of depression and anxiety, with the goal of enhancing cultural relevance, acceptability, and feasibility of implementation.

### Methods

The adaptation process will follow the Ecological Validity Model (EVM) and the WHO psychological intervention implementation framework. A multi-stage design will be employed: (i) literature synthesis on adolescent mental health in Pakistan; (ii) rapid qualitative assessments with adolescents, caregivers, educators, and clinicians; (iii) cognitive interviewing and linguistic refinement of TCC materials; and (iv) iterative adaptation through “mock sessions” and stakeholder workshops. Multidisciplinary and Young Persons’ Advisory Groups will guide the process to ensure ecological validity and cultural resonance. The adapted intervention will undergo usability testing and validation workshops prior to pilot feasibility testing.

### Expected Outcomes

The study is expected to yield a culturally and contextually adapted version of the TCC that incorporates locally relevant narratives, idioms of distress, and collectivist group processes. By addressing stigma and resource constraints, the adapted intervention will provide an evidence-based, scalable framework for adolescent mental health care in Pakistan. Findings will inform broader implementation strategies for transdiagnostic interventions in LMICs, thereby contributing to global efforts to reduce mental health disparities.

### Keywords

ecological validity, advisory group, evidence-based, low-intensity interventions, implementation framework

## Racism as a Social Institution

*Kent McClelland*

This article uses the PCT-based theory of collective control to describe how the social institution of racism has emerged from the individual and collective actions of people just trying to control their own social and physical environments, as they perceive them.

Racism, like other major social institutions, including sexism, capitalism, government, education, religion, science, and technology, is a complex social phenomenon that has emerged and changed over the last several centuries. The social institution of racism now spreads across the globe, providing a cultural and physical context for the lives of nearly everyone on the planet. My article shows how previous explanations of social institutions like racism have underplayed the complexity of these phenomena by neglecting their material dimensions and overlooking the way they are normally rife with conflict.

My central argument is that populations of people create and maintain social institutions like racism by means of three concurrent layers of collective control, similar to the layered hierarchy of neural control circuits in the human brain: (1) a cultural infrastructure of abstract, symbolic, and interpretive concepts and ideas by which we attribute meaning to some important aspect of our shared existence; (2) a behavioral structure of patterned and repetitive actions and interactions, as we carry out this important aspect of our daily lives; and (3) a physical infrastructure of physical objects, tools, and other modifications of our living and working environments that result from the collective control of this aspect of our shared existence.

After a short introduction and overview of the perceptual control theory perspective used in my analysis, the article presents a detailed description of how people have created and maintained the institution of racism by means of these three interconnected layers of collective control. The last section of the article turns to questions of social change, focusing on social power and explaining why the social institution of racism has been fraught with conflict and the reform of this institution has been so difficult.



## Integrating Perceptual Control Theory with the Characteristics of Recovery: a Theoretical Framework

*Ellen M. Lutz*

The recovery movement emerged from clients and former clients of mental health care who sought a more equal form of care and demanded the right to be heard. In addition, this movement initiated a different way of dealing with mental problems; not the professional but the client is the expert and decides for him or herself what is needed to recover. This personalized form of recovery is contrasted with the traditional clinical view, and is expressed in terms such as hope, empowerment, and agency as opposed to symptom reduction and functional rehabilitation. Research has since shown that clinical recovery and personal recovery or recovery are distinct. Despite the fact that recovery is currently widely endorsed, implementation within existing forms of mental health care remains problematic. The literature on recovery reveals the lack of a unified definition and a multitude of concepts. In addition, the idiosyncratic nature of recovery appears difficult to reconcile with traditional scientific discourse. One consequence of the foregoing is that it is not clear what the operating mechanisms of recovery are.

To address this confusion, Leamy et al. (2011) developed a conceptual model with a preliminary classification of the stages, processes, and characteristics of recovery. Although intended as a first attempt to provide order in the multitude of concepts and descriptions, this model lacks a theoretical foundation.

In this study, a theoretical framework was created that merged the descriptive characterizations of recovery and the kernel phenomena of PCT. The results showed that PCT can provide theoretical support for recovery. Not only does PCT explain the highly unique nature of recovery; core elements such as control, nonlinear processes, reference values, and reorganization provide a sparse explanatory model for the operating mechanisms of recovery.

## What is the role of PCT on control loss among the refugees?

*Susan Yousufi*

As a refugee child, I would like to present a glimpse of my theoretical research on the role of PCT and control loss among the refugees. Refugees often experience multiple traumatic events such as war, persecution, and forced displacement. These experiences can lead to psychological conditions like depression, anxiety, and post-traumatic stress disorder and so on. Understanding how these traumatic experiences affect refugees sense of control as well as the loss of control, is a key predictor of poor mental health outcomes. Control loss refers to the subjective experience of being unable to influence or manage key life circumstances. Among refugees, this may manifest as a loss of autonomy in areas such as safety, work, housing, and cultural identity. It can lead to feelings of helplessness, which exacerbate trauma symptoms. Investigating this connection through the lens of Perceptual Control Theory may reveal new pathways for intervention, resilience building, and psychological support for refugees.

The main question of my theoretical research is:

*How does Perceptual Control theory explain control loss among refugees?*

The sub questions of my research are:

1. *What is the Theory of Perceptual Control?*
2. *What is control loss?*
3. *What are the common control losses faced by refugees?*
4. *How are common control losses faced by refugees linked to mental health outcomes?*

## Beyond Triggers: Aggression as Perceptual Control

*Tom Merrill*

Most contemporary theories of aggression—and the cognitive-behavioural therapy (CBT) protocols built on them—treat violent or hostile acts as dependent variables: observable responses to identifiable stimuli such as provocation, frustration, or violent cues. Within this stimulus-response frame, researchers catalogue external triggers and personal risk factors, while CBT interventions teach clients to spot those triggers, challenge hostile appraisals, and rehearse alternative behaviours so the chain from stimulus to aggressive output is broken. Although this approach has produced a rich body of correlational data and useful clinical techniques, it leaves a gap in explaining the real-time flexibility and purposiveness that aggressive episodes so often display.

Perceptual Control Theory (PCT) begins from a different premise. PCT holds that living organisms act continuously to keep their perceptions of the world aligned with internally specified reference values—moment-by-moment standards for how things should feel or appear, such as how safe I need to be, how respected I expect to feel, how much freedom of action I require, or how close others may stand. Behaviour of any outward form operates within a closed feedback loop that restores a perception whenever it differs from its reference.

The presentation will show that many established models already hint at this control logic. The frustration–aggression hypothesis, for example, portrays behaviour as goal-directed and locates aggression in the obstruction of that goal—mirroring PCT's notion of restoring a disturbed perceptual variable. The I<sup>3</sup> framework highlights the rivalry between impelling and inhibiting forces, resonating with PCT's treatment of internal conflict between competing reference values. Even Freudian instinct theories, which describe aggression as hydraulic pressure released when instinctual energies clash with social restraints, can be reframed in PCT terms as prolonged error within hierarchically organised control loops struggling to reconcile incompatible demands.

Building on these convergences, the talk will map current insight onto PCT's organising principles: hierarchical nested control loops that link moment-to-moment actions with higher-level purposes; conflict that arises when those nested loops pursue incompatible references; and reorganisation, the intrinsic trial-and-error process that retunes the loops themselves—adjusting reference levels, loop gains, and perceptual linkages—until effective control is regained. The session will close by exploring Method of Levels (MOL) therapy as a practical application of these principles: MOL helps clients shift attention up the hierarchy, surface goal conflicts, and support adaptive reorganisation, offering a promising route for people whose persistent anger and aggression have not responded to conventional CBT methods.

## From combat to construction: MOL in help-seeking veterans

*Susan McCormack*

### **Objective**

To elicit the barriers and facilitators experienced by veterans working in the construction industry who served in Afghanistan and Iraq

### **Design**

12 male participants from the construction industry agreed to participate. Semi-structured interviews were conducted, applying Method of Levels (MOL) as an exploration technique. Data was analysed in accordance with the Interpretative Phenomenological Analysis (IPA) and interpreted through the lens of Perceptual Control Theory (PCT).

### **Results**

Themes were identified across domains associated with various types of experiences in the construction industry.

## A Perceptual Control Perspective on Neurodiversity: Am I Abnormal or Simply in Control?

*Djoeke van de Klomp*

Stop skipping about, stop spinning around, stop flapping your hands. Can you please just act normal! Am I normal when I meet societal norms or am I normal when I behave in a way that makes sense to me? After decades of adhering to societal norms, a growing call for a paradigm shift is heard. A need to step away from a categorisation in normal or abnormal, in disorder or non-disorder. The neurodiversity community has taken a prominent role in this call for a paradigm shift, from the pathology paradigm towards the neurodiversity paradigm.

The neurodiversity community voices a desire to be accepted as they are, in their entirety, including both strengths and weaknesses. What began as a countermovement, a rebel voice, has evolved into a desire to fundamentally change how diversity in humanity is perceived. Within the context of the call for a paradigm shift, there is a current search for a model to explain individual differences. Such a model must meet the following criteria: variety in being, diversity in functioning, and inclusivity of diversity.

This theoretical discourse proposes that PCT meets the needs of the neurodiversity community. The perceptual model aligns with the neurodiversity paradigm and meets the three identified criteria. Variety in humanity is better understood when individuals are regarded as active agents (control systems). The hierarchy of control offers a deeper insight into why we behave differently and why we pursue different goals. The transdiagnostic process of loss of control, underlying all forms of psychopathology, provides a framework to understand a wide range of psychological manifestations.



## Arts therapy and PCT

*Eva de Hullu, Anna-Eva Prick, Lisette Christenhuis, Merel Hagendoorn, Anne Valdez Mora*

Creative arts therapies, including drama therapy and psychomotor therapy, are widely recognized in practice for their positive impact in clients' process of recovery. However, a comprehensive theoretical framework that explains how and why these therapies work is still largely missing. While insight into their effectiveness and underlying mechanisms is gradually increasing, further theoretical integration is needed to support professionalization and scientific grounding (Haeyen, 2020; 2025). We aim to contribute to the understanding of therapeutic mechanisms within creative arts therapies by exploring Perceptual Control Theory (PCT), developed by Powers (1973), as explanatory framework. PCT proposes that behaviour is driven by the regulation of perception—individuals act to align their experiences with internal reference values.

Creative arts therapies are experiential by nature and utilize modalities such as visual art, music, dance, drama, play, and movement to bring about change, development, stabilization, or acceptance on emotional, behavioural, cognitive, social, or physical levels. Literature in this field describes various mechanisms of change, such as arousal regulation, bodily awareness, emotional expression, cognitive flexibility, affect regulation, and social cognition. Central to many of these mechanisms is the concept of regulation. While these mechanisms have been identified, they are often treated as separate components without a unifying theory to explain how they contribute to therapeutic outcomes. PCT may offer such a framework by conceptualizing these mechanisms as the regulation of specific perceptions—such as arousal, physical sensations, and emotional responses—within a hierarchical control system.

In this talk, we will share our first study results, outline of the framework and our qualitative studies exploring the therapist perspective. We used semi-structured interviews to investigate how creative arts therapists observe, apply, and explain their therapeutic mechanisms in practice. By gathering insights from therapists—who work closely with a diverse range of clients and interventions—this research aims to develop a grounded understanding of how PCT can be applied to explain the functioning of creative arts therapies.

## Practitioners' Top 5 Benefits and Challenges When Applying MOL

*Matias Salgado*

Beginning to apply Method of Levels (MOL) seems to be a significant experience for clinicians at all stages. Although PCT principles and MOL goals themselves make sense to therapists, new and sometimes unexpected insights often arise once they put MOL into practice with clients.

This talk explores the main benefits and challenges therapists report as they learn and apply MOL in clinical practice. The focus is on the practitioner's subjective experience with the model, rather than on its efficacy or effectiveness. This presentation draws on an informal, anecdotal dataset -unstructured reflections from MOL workshops, supervisions, and peer forums- rather than a formal empirical study. While not a definitive source, its themes closely mirror the real world insights that MOL trainers routinely encounter when teaching and supervising clinicians. This talk presents the top five benefits, and the top five challenges reported -varying by experience level (experienced vs novice therapists)- offering a detailed look at what it feels like to start practicing MOL.

## Exploring the Method of Levels - An Interactive Peer-to-Peer Practice Workshop

*Andreas Rapp*

In this 90 minutes interactive peer-to-peer workshop we aim to create a collaborative and playful space to develop or refine our skills in the Method of Levels (MOL) through shared practice and mutual feedback. Everybody is welcome: experienced MOL therapists as well as participants just curious about this form of helpful conversation based on PCT. For the time of the workshop we will put all PCT theory mostly to the side and focus instead on experiential learning and interactive skill development. Participants will work in small groups and alternate between the roles of practitioner, client and observer in a well structured form.

- In the role of the MOL practitioner we aim to embody and express genuine curiosity about the “right-now” experience of the client and at the same time look out for disruptions and “up-a-level” events. We are able to appreciate the elegance of the minimalistic and recursive way of doing MOL.
- In the role of the client we have the opportunity to work on a real problem or personal issue (of a non traumatic type) and experience the fun and flowing state when wandering through the different levels of one’s own control-hierarchy. Maybe we could even experience some reorganisation of internal perceptual conflict.
- As an observer we gain from witnessing the diverse personal styles and approaches of doing MOL but also have a good viewpoint to observe the MOL principles in action and provide helpful feedback or offer support when the process gets stuck.

Let us get together and create a friendly, equal and curious learning environment entirely in sync with the spirit of MOL.



# Day 3

**Friday, October 10**  
Hybrid

## Stepping up and down the hierarchy (Workshop)

*Eva de Hullu*

In an interactive, outdoor workshop\* we will collectively explore Powers' proposed 11 levels of the perceptual hierarchy. Standing on the steps of the amphitheater on the campus grounds, we will explore each level, from that levels' first-person perspective.

For example, if you stand at the floor level, you will, as level 1, control the intensity of sensory information. What is that like for you? What can you sense, and how do you control? What happens when you lose control or gain control? How do you organise?

What is it like to control at level 5, where you perceive and control relationships between lower-level perceptions? How do you arrange and connect control systems at lower levels to perceive space or time?

What is it like to have the higher perspective of a control system at level 10, controlling principles through checking if all the lower level control systems are alright? What can you do to regain control?

Information will be provided to help each level express their way of controlling. If you want to be extra prepared, please read the chapter provided below.

### Readings

de Hullu, E. (2023). Exploring the perceptual control hierarchy. In *The Interdisciplinary Handbook of Perceptual Control Theory, Volume II* (pp. 3–28). Elsevier. [Open access](#).

*\*Due to the interactive and outdoor nature of this workshop, it is only available to local participants of the conference.*



## Pupil dilation during curious dialogue: a pilot test

*Michael Landman & Warren Mansell*

Pupil dilation has been shown to reflect various psychological phenomena for over a century. When controlling for ambient luminance and focal length, pupil dilation can be used as a continuous, integrated, and non-invasive read-out of cognitive states like mental effort, alertness, and shifts in perspective. We have piloted a novel methodology designed to assess whether pupil dilation can be used as a useful index whilst introspecting about a problem with an interlocutor.

## Complementary Theories

*Bruce Nevin*

Repeatedly, psychologists have developed a model of learning and claimed that it is also a theory of behavior. Friston's FEP is the currently popular example. It makes comprehensive claims. I will briefly survey some reasons to doubt them. In HPCT, the theory of learning and the theory of behavior are distinct—the model of learning operates upon the model of behavior. FEP is a complicated way of describing both learning and the effects of learning upon behavior. Isomura et al. 2023, touted as proof of FEP, actually only touches on learning and appears to be a nice study of reorganization. FEP probably could be a generative statistical model of the 'behavior' of a large language model (LLM or 'AI' so called). Friston has said that FEP is a nihilistic tautology that is unchanged since it crystalized in his mind at age 8. In that 'Gerald Durrell moment' he observed but did not recognize control. Lack of verification of FEP as a model of behavior seems not to bother him. The old conviction persists, that a model of learning is also a model of behavior.

## The Brain is a Specification (Not a Prediction) Machine

*Richard Marken*

A popular idea these days is that the brain is a prediction machine. This idea is based on the belief that one must be able to predict, with some accuracy, what actions to take to behave successfully in a disturbance-prone world. Thus, many brain scientists have concluded that prediction is essential to our ability to control. This presentation will show that examples of behavior that appear to involve prediction of actions might be better conceived of as involving specification of perceptions. It will also show how prediction itself can be seen as a behavior that involves specification of imagined perceptions.

## Exploring PCT along with AI and ML towards impactful innovations and investigations (Panel)

*Speakers: Philip Farrell, Rupert Young, Tauseef Gulrez, Ty Roachford, Kent McClelland*

Artificial Intelligence (AI) and Machine Learning (ML) algorithms – the ability to learn using large data sets – have been popularized and anthropomorphized to mimic “human-like” traits and behaviours. Meanwhile Perceptual Control Theory (PCT) provides a theoretical framework for goal-oriented human behaviours that has the potential to be coded as an inanimate intelligent agent for innovative autonomous and semi-autonomous systems or for modelling and simulation environments used to investigate human behaviour. This discussion session compares and contrasts both AI and ML systems with PCT and explores their relationship to each other, how AI and ML may benefit from PCT-like concepts, structures, and frameworks, and how PCT may generate inspiration from AI and ML algorithms, all leading to impactful innovations and investigations.

## Addressing the Crisis of Linear Thinking in Dog Behavior with PCT

*Cat Harbord and B.Taylor Fleming (Brian Fleming)*

The dog training and behavior industry is encountering a silent professional crisis as a result of the persistent failure of predictions rooted in stimulus-response. Inconsistencies are ad-hoc explained away, patching holes with affective neuroscience, genetics, ethology, attachment theory, trauma-informed care, hierarchy of needs, developmental psychology, and more. These contributions have increased awareness of animal welfare and agency. Nonetheless, professionals are adrift - clinging to theoretical flotsam. Professionals who have found a “tree” in the dark argue with those who found a “snake” and both despise the one who found a “disc”, however none have yet noticed the elephant in our dark room. It may be true that this thing we look at is a strong trunk, a flexible hose, and a floppy disc, but we have yet to turn the floodlights on.

So long as the literature that shapes our field is obscured by the behavioral illusion, we will keep searching under the spotlight - mistaking what is visible for what is true. Dog guardians and dogs themselves are drowning in conflicting information, societal constraints, and method de jour panaceas that are anything but. Interventions commonly rely on manipulative control, leveraging the dog’s hunger and/or pain reference ranges against system goals such as hazard avoidance. Failures to resolve behavior problems can be commonly blamed on “client compliance”, condescending the client’s intelligence or capabilities and disregarding their conflicts. The industry categorizes problems into categorical abstractions based on correlated symptoms, such as “reactivity”, “resource guarding”, “aggression”, or “separation anxiety”. This lures professionals into thinking that two dogs displaying the same symptoms are suffering from the same categorical affliction. The efficacy of interventions predicated on symptom observation is limited.

PCT solves these problems, with a rigorous & quantitative mathematical framework on which disciplines can be integrated, mechanisms uncovered, and conflict resolved across scales. We presented PCT to a cohort of behavior professionals practicing Applied Ethology in May 2025, which was described as “mind-blowing”, “thought-provoking” with many reports of wanting to learn more. We distilled major PCT concepts into 3 “Kybernetic Keystones” for lay consumption, resolving epistemological conflicts caused by linear S-R paradigms. These Keystones will be presented along with dog behavior case studies, videos, and professional & owner testimonies. We are encouraged by the overwhelmingly positive results and response from dogs, dog guardians, and professionals.

There is a new problem now, in that we have no dog training specific PCT research to compete with the tidal waves of statistical analyses of owner-surveys. There remains many TCV’s to conduct in our field, with regard to common behavioral

problems. What variables does a dog control for when protecting its food? When yearning for their guardian to return? When jumping on a guest? We can speculate, but PCT opens the door to serious empirical investigation. We are honored to employ this scientific revolution to the benefit of dogs and people everywhere.