

# Explorative Experiments In Thinking

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## *Summary*

In this paper, I focus on the observation of thinking that Rudolf Steiner indicates in his Philosophy of Freedom. In an article on the same subject, R. Ziegler (2023) progresses from the usual sense oriented and thought experiments to what he calls explorative experiments in thinking. It is this latter notion that I take up, mold, transform and in the end transmute. What starts to unfold, then, is a second layer in our thinking. A first experience can be that of thinking movements, which may evolve into thinking forms or images, and then can be observed to undergo what appear to be projective geometrical transformations. In the end, these experiences may coalesce into a general description of our thinking processes as four-layered and consequently seven-phased, comparable to the scheme of Theory U. In the final part of this treatise, the results of what these explorative experiments in thinking appear to show are compared with the investigations of brain researchers like *Petitmengin* (2007, 2013), *van Turenhout* (1998) and Libet's widely publicized experiments. Some of their findings seem to be in close concordance with what we developed here, others appear to call up even greater difficulties than envisaged before.

## *Zusammenfassung*

In diesem Beitrag zielle ich auf die Beobachtung des eigenen Denkens, wie sie Rudolf Steiner in seiner Philosophie der Freiheit nahelegt. In einem Artikel zum gleichen Thema geht R. Ziegler (2023) von den üblichen sinnesorientierten Experimenten und Gedankenexperimenten über zu dem, was er explorative Experimente im Denken nennt. Es ist dieser letztere Begriff, den ich aufgreife, modifiziere, transformiere und am Ende sogar in eine Umstülpung führe. Was sich dann zu entfalten beginnt, ist eine zweite Ebene in unserem Denken. Eine allererste Erfahrung kann die von Denkbewegungen sein, die sich zu Denkformen oder -bildern entwickeln und dann dabei beobachtet werden können, wie sie projektive geometrische Transformationen zu durchlaufen scheinen. Am Ende können sich diese Erfahrungen zu einer allgemeinen Beschreibung unserer Denkprozesse als vierschichtig und nachfolgend siebenphasig zusammenfügen, vergleichbar mit dem Schema der Theorie U. Im letzten Teil dieser Abhandlung werden die Ergebnisse, die diese explorativen Experimente zum Denken zum Vorschein bringen, den Untersuchungen von Hirnforschern wie *Petitmengin* (2007, 2013), *van Turenhout* (1998) und Libet's ausgiebig beschriebenen

Experimenten gegenübergestellt. Einige ihrer Befunde stehen offenbar in enger Übereinstimmung mit dem, was wir hier entwickelt haben, andere scheinen noch grössere Schwierigkeiten aufzuwerfen, als bisher angenommen wurde.

### *Introduction*

In a meticulously detailed study *Renatus Ziegler* (2023) investigates and then extends the notion of scientific experimentation into the field of thought experiments and thinking experiments. The shift from the former to the latter is activated, just as *Petitmengin* (2007) states, by progressing from the “what we think” to the “how we think”. Ziegler mentions the difficulties peculiar to these *introspective* investigations, as direct access is impossible (*Steiner* 1893). According to *Montague* (2016, pp. 72/73), *Brentano* mentioned the same in 1894: he remarked that we can *experience* (*Wahrnehmung*) our occurrent thinking, but we cannot *observe* (*Beobachtung*) it. *Steiner*, however, indicated the possibility of “looking back” in *retrospection* into the memory track of the thinking activity just performed. Ziegler follows this line of observing our thinking to the limits of discursive, Aristotelian thinking. In doing so he brings into clear daylight both what the pitfalls are and what kind of questioning may open up new vistas.

In this paper I will try to unveil some of these vistas. I will do so by following the same line of observing our thinking that Ziegler pursues. This may be achieved by performing a number of explorative experiments in thinking – I usually call them investigations or observations of thinking – which I will propose here.

As far as the “what we think” is concerned, the content of our thinking will undergo a continuous metamorphosis from exact discursive into exact imaginative thinking. The first mode, running in discrete if-then forms, I prefer to call Aristotelic. The second mode, progressing continuously, exhibiting the (projective) geometrical character or the form of Venn-diagrams, I would consequently call Platonic, obviously in a renewed form.

What is needed for the “how we think” is a radical transformation, a *transmutation* (German *Umstülpung*) in our thinking. Our scientific thinking these days progresses *linearly*, fully conscious, fully self-controlled, fully self-active. We call up, activate and connect concepts with percepts and with each other. As *Ziegler* (2006) has described on several previous occasions, we cannot alter the character of concepts, we can only set them into motion, activate and *dynamize* them. And it is exactly the latter aspect that we must change under the transition. Staying fully conscious and alert, and inwardly highly attentive, we must nevertheless become inwardly silent and await quietly what concepts will express, out of themselves. It will gradually be observed that they will *self-dynamize* and, what is more,