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What Happened to Holism?

Diriwächter, R. & Valsiner, J. (Eds.). *Striving for the Whole: Creating Theoretical Synthesis*. New Brunswick: Transaction Publishers. 263 pages

Brady Wagoner

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“Der Drang nach Ganzheit.” Striving for the whole. This phrase was the key slogan of the second Leipzig school of psychology, *Ganzheitspsychologie*. The phrase aptly captures the existential dimensions of human experience: we all exist in time and as such must grapple with the uncertainty of the past, the incompleteness of the present, and the indeterminacy of the future. Every moment of our lives involves struggles to overcome these ambiguities and become secure wholes. Though we may make great gains stabilizing the world and ourselves over our life, this process will never be complete. We will forever live in a world of becoming. This situation affords on the one hand, anxiety and ambivalence, and on the other, creativity and novelty.

Despite the centrality of these dynamics to human life, contemporary psychology has contributed little to their investigation (with some notable exceptions—e.g., Ernst Boesch, discussed by Simão in chapter 8 of *Striving for the Whole*). This is a result of contemporary psychology’s anxiety about phenomena that cannot be easily studied through its elementary parts (i.e., variables). One might even call this tendency of the discipline “intolerance to ambiguity” (Adorno et al. 1950)—the ambiguity here being that the properties of wholes cannot be understood from their parts alone. For broader insight into holistic dynamics it is beneficial to go back to an earlier era of psychology that focused on the mind as a complex and developing whole.

Diriwächter and Valsiner’s *Striving for the whole* provides an excellent selected survey of early twentieth century theories of holism, centered around *Ganzheitspsychologie*, together with a few historical precursors and contemporary developments. The editors’ expressed aim is to bring back a strong philosophical and theoretical framework into contemporary psychology so as to strive toward a “unity” in our understanding of mind—in other words, to see the whole (bigger picture) behind the mass of “data-driven” research. The present review will attempt to further the goals of this book by highlighting and developing some key ideas discovered in it. First, I contextualize and contrast *Ganzheitspsychologie* with other contemporaneous holistic theories; second, I explore how the whole was lost in psychology; and third, I focus on some methodological principles of holism and how they might be applied to reinvigorate a holistic psychology today.

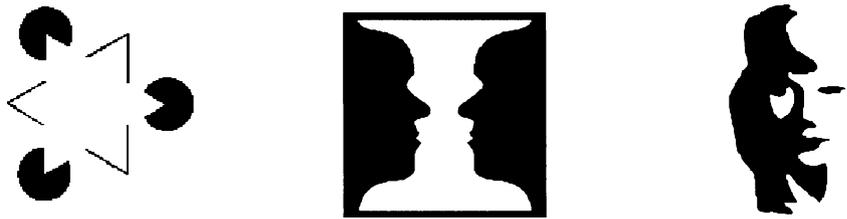
Varieties of Holism

In 1917, after Wilhelm Wundt’s retirement, Felix Krueger took over the Leipzig institute. Wundt had focused his experimental efforts on the study of how elementary sensations combined into a whole in experience. He reserved the study of wholes transforming into other wholes for his *Völkerpsychologie*, his “higher”¹ psychology, which dealt with issues such as language, custom, religion, and myth. For example, in his *Elemente der Völkerpsychologie*

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¹ It was “higher” both because it dealt with higher psychological processes—cultural processes, as opposed to sensory and motor processes—and because it was more valued (Kusch 1999).

Fig. 1 Stable (*left*) and dynamic (*middle and right*) wholes. Neither is developing



(translated as *Elements of Folk Psychology*) he traced various developmental stages of societies—e.g., (a) the primitive man, (b) the totemic era, (c) the ages of heroes and gods, (d) the development of humanity—as evidenced in their products of thought (Diriwächter 2004). The second Leipzig school, lead by Krueger, rebelled against the emphasis of Wundt's experimental approach, arguing that experiences in everyday life were not decomposed into elements. Outside of the laboratory, experience did not show a movement from PARTS to WHOLE but *from one WHOLE to another WHOLE* (which Wundt had applied to his study of societies, not experiments on individuals' experience). It was the dynamics of the latter holistic transformation (wholes “becoming” other wholes) that the Krueger and colleagues focused on in their investigations, experimental and otherwise (see Diriwächter, chapter 3).

Today psychologists are unlikely to remember the sophisticated efforts of *Ganzheitspsychologie*. Most now think of *Gestalt psychology* when they hear the word “holism”. Despite the interest of both schools of thought in “wholes,” they emphasized different aspects: Gestalt psychology took its inspiration primarily from physics and thus concentrated on “objectivity” in perception. By contrast, for *Ganzheitspsychologie* aesthetics was the basis of their psychology; thus, they highlighted the role of feeling as diffuse wholes, wholes without clear boundaries. Feelings were thought to operate at the core of our experience, rather than being merely a secondary quality (see Diriwächter, chapter 3; Görlitz, chapter 5). Furthermore, *Gestalt psychology* focused on stable and sometimes dynamic wholes but not wholes in a state of tension, anticipation and becoming, as did *Ganzheitspsychologie*. Let us consider some concrete examples of visual wholes investigated in each approach to illustrate these differences.

In Fig. 1, Kanizsa's triangle, on the far left, illustrates the Gestalt law of “closure,” whereby the parts are grouped together to complete some entity. The triangle that appears in the middle of the configuration does not change. It is there immediately at the start and continues to be present throughout. By contrast, the images in the middle (i.e. the Rubin's figure) and on the far right are dynamic, but not developing. There is an intermediate point of ambiguity (e.g., the border between the face and vase) but the border itself can only change into a face or a vase. In switching between the two possible wholes we foreground one and

background the other. Nothing new emerges from the image once we have seen both figures.

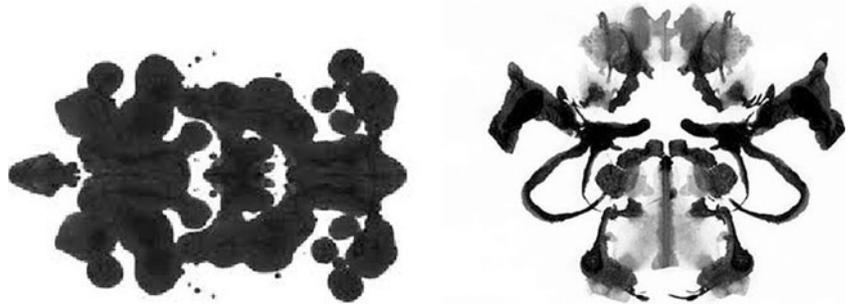
Inkblots are an example of more diffuse visual wholes that are open to multiple interpretations (see Fig. 2, below). From early in psychology's short history inkblots have been recognized as an apt tool for studying imagination (see Binet and Henri 1896). However, in using inkblots we do not necessarily access the intermediate processes by which subjects construct a stable imaginary form; we simply hear about the end result. Bartlett (1916) partially captures the movement from one whole to another by using a *series* of inkblots and reading between participants' interpretations. He reports persistence of a topic and attitude in participants' interpretations of the series of inkblots—for example, one participant sees “ghosts”; “more ghosts kissing”; “more kissing”; “green ghosts” (Bartlett 1916, p. 255).² But this does not capture wholes still in a state of tension and becoming; rather it accesses the movement between one relatively stable whole to the next, demonstrating the relative stability of our interpretive stance. Another means of accessing the perception as an unfolding process will have to be found.

The Insight of Ganzzeit

The method innovated by *Ganzheitspsychologie* for studying wholes in tension and development was called *Aktualgenese*. The experimenter “slowed down” the process of perception by first presenting stimuli in sub-optimal conditions—for example, at the periphery of one's visual field, at a distance, for a fraction of a second or extremely small. The stimulus conditions were then gradually improved step-by-step, while participants' constructive overcoming of ambiguity was recorded at each juncture. Figure 3 (below) illustrates one early experiment by Wohlfahrt (1932) using this technique. The target stimulus was first presented in miniature. The size was then

² Bartlett frequently and emphatically uses the phrase “an effort after meaning” to describe his various experimental results, in both this publication and others that follow. This phrase comes very close to *Ganzheitspsychologie*'s “striving for the whole”, though I have not found evidence of direct influence between the two groups. Instead, the notion must have been part of the early 20th century European Zeitgeist.

Fig. 2 Inkblots are examples of diffuse wholes



increased in increments of 25%. Participants drew what they saw at each step in the movement from diffuse to articulate, thus creating a series of drawings.

The series can be analyzed in two interrelated ways. First, we can analyze the participant's successive actualization of different Gestalt factors. In the beginning (stage a and b), participants only see a bright circular patch. The participant differentiates the figure into inner field and outer field. But the inner field remains active and amorphous until stage c when a line appears. Finally, in stage f the figure is no longer "closed" (to use Gestalt psychology's term), but instead becomes "multiple" as the participant experiences a moment of insight. Throughout the stages there is a tendency towards "regular" over "irregular" forms.

Second, the series can be read as a participant's creative striving at each stage to go beyond the information given and construct a unitary form. When I have tried out this experiment myself I have found participants giving the figure an iconic cultural form: in early stages of the series, the figure was labeled and drawn as a "house", "musical note", "pac man", "sailboat", etc. The percept that they constructed was a culturally meaningful whole, which was already anticipating the next stimulus exposure. This forward-looking character to perception was surprisingly unattended to by Gestalt psychology (Rosenthal 2004).

The motor of these constructive processes is *tension*. Tension is produced in a situation where there are forces simultaneously pushing and pulling in different directions—in the psychological domain, they are opposing tendencies of action and change. Marková (2003) points out that "tension" is used widely in both the discourses of science and everyday life: Compare, for example, the words "at-tention", "in-tension", "re-tention", "dis-tention", "con-tension", "de-tention", etc. Tension's highly polysemic nature highlights the need for such a concept. Psychology needs the concept of tension to understand "development", not in the sense of "child psychology", but in its earlier meaning of a directed, dynamic and holistic process of change. It is only in a system where there is tension that true development can occur. This idea is also explored in Janet's theory of

emotions (see Zittoun, chapter 7), Vygotsky's famous law of cultural development,³ narrative psychology,⁴ dialogical psychology (e.g., Marková 2003), among other approaches.

The Strange History of Losing the Whole

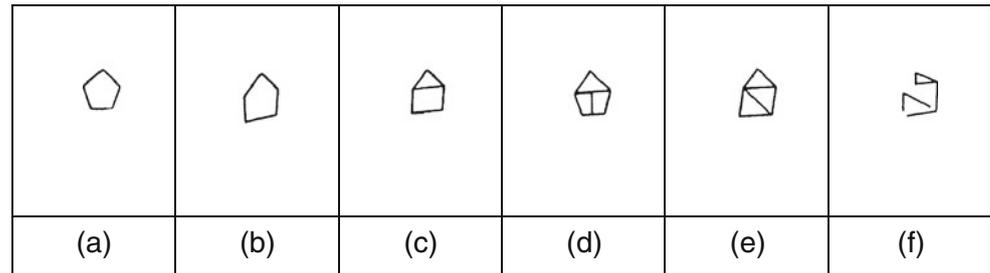
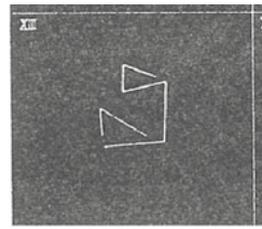
Ganzheitspsychologie was one of the dominant approaches in Germany before, during and, to a lesser extent, proceeding WWII (see Görlitz, chapter 5, for an account in Heidelberg). It even spread around the world to newly developing psychology in places as far as Japan (see Takasuna and Sato, chapter 4). By the late 1950s, however, *Ganzheitspsychologie* was largely abandoned. The approach was criticized by some (e.g., Vygotsky) for inadequately theorizing higher mental process, but the main reasons for its abandonment (along with other holistic approaches) were largely unscientific in nature: the language of *Ganzheitspsychologie*, for example, coincided with the Nazi movement's rhetoric and ideology (Valsiner and Diriwächter, book conclusion; Mandler 2007, chapter 8). As a result of this association, the holistic terminology of *Ganzheitspsychologie* took on stigma after the war and as such was difficult to use independently of politics.

At a more general level, WWII also had the effect of dislocating the highly holistic German-Austrian tradition of psychology, which at the time was the new discipline's

³ Vygotsky (1987) famously said, "[E]very function in the cultural development of the child appears on the stage twice, in two planes, first, the social, then the psychological, first between people as an intermental category, then within the child as an intramental category. This pertains equally to voluntary attention, to logical memory, to the formation of concepts, and to the development of will" (p. 145). Veresov (2010) has pointed out that the word "category" came from Russian theater criticism and Hegel, where it meant a kind of "dramatic collision", or in other words "tension" occurring on stage.

⁴ Narratology teaches us that narratives are only generated when there is "tension" (or "trouble") between act, scene, agent, agency and purpose (Burke 1945); when things are going as anticipated there are "scripts", such as going what is involved going to a restaurant (Shank and Abelson 1977), but not "narratives".

Fig. 3 An actual-genetic series (below) of the target stimulus (above) studied by Ganzheitspsychologie (Wohlfahrt 1932, reproduced from Diriwächter 2009, p. 331–332)



world leader (Toomela 2007). Many important psychologists lost their positions under the Nazis and/or immigrated (e.g., Felix Krueger was found to be 1/4 Jewish, and as such was not given the prestigious Goethe Prize and even worse, had to emigrate to Switzerland, where he died in 1948). Some were able to secure positions in the US and developed active research programs there (e.g., Lewin, Koffka, Köhler, Wertheimer, Werner) but they had to adapt themselves to the local context and their US students developed research in a very different vein (Ash 2002).⁵ Others, such as Karl Bühler, Wilhelm Stern and Karl Duncker, never adjusted to the change. Finally, those that remained in Germany were highly constrained in the research they could conduct—race research was the topic promoted by the Nazis.⁶ The history of holism provides an illuminating example of how scientific theories and

practices are embedded in culture; when relocated they become assimilated to the receiving culture.⁷

But perhaps the most central reason for the demise of holism in psychology was the methodological shift away from a focus on wholes to correlations between variables, in the first half of the 20th century. This was done for the purposes of large-scale prediction and control of behavior, rather than the advancement of basic scientific knowledge (Danziger 1990). Knowledge of how a variable had effects at the level of a population was seen as “socially relevant” (i.e., useful) by emerging social institutions, such as education and the army. Thus, psychologists using an aggregate methodology appealed to the general public and social institutions, rather than expert scientists, to legitimize their knowledge. Interestingly, the aggregate investigative model was first developed by Francis Galton (Darwin’s half-cousin) in the late 19th century in the hopes that his research would eventually contribute to an English eugenics program. His inspiration came from his use of aggregate methods to predict the weather from countless low/high reports on different locations of a map.

What is lost in aggregate research—now psychology’s (unquestioned) standard methodology—is a conceptualization of individuals as more than the sum of their parts. Statisticians, at the time, were careful to point out that inter-individual variation (i.e., at the level of a population) is not isomorphic with intra-individual variation (i.e., at the level of an individual) (see also similar contemporary arguments by Molenaar 2004). Thus, it is not legitimate to make claims about individual functioning from this methodolog-

⁵ An excellent example of this is the fate of Lewin et al. (1939) classic study conducted in the USA. They created ‘authoritarian’, ‘democratic’ and ‘laissez-faire’ groups whose differences could then be holistically compared. Lewin thought these different ‘group climates’ could not be reduced to elementary variables. Already by the early 1950s, Lewin’s holistic form of experimentation was incomprehensible to leading American psychologists, even those sympathetic to Gestalt ideas. For example, Festinger (1953, p. 138) criticized it in these terms: “rather than isolating and precisely manipulating a single variable or small set of variables, the experimenters attempted a large and complex manipulation. There was also little attempt at control.” A methodology that did not reduce to cause and effect relationships between variables was demeaned unscientific (see Danziger 1990; 1992; 2000). An exception to this American tendency was the work of Lewin’s student Asch. Though Asch’s (1952) conformity studies remain classics the holistic aspects of his analysis are rarely discussed.

⁶ Wolfgang Metzger of the Gestalt school did remain active in Germany during the war by opportunistically reformulating the holistic approach to support Nazi ideology. He recanted post-war and continued to pursue Gestalt ideas.

⁷ Bartlett’s (1932) serial reproduction experiments aptly capture the psychological dimensions of this process. They are also illuminating examples of a holistic experimental methodology.

ical approach. Yet, that error is entirely commonplace in contemporary research practice, particularly in experimental psychology. It is, of course, unfair to say that a holistic orientation has been completely abandoned by psychology; rather I want to claim that its status as a guide for methodology has been marginalized.⁸ In the next section I will outline some principles of methodological holism, which contrast strongly with the contemporary study of variables. In the section that follows this, I will look at some recent applications of a holistic approach to research.

The Principle of Hierarchical Organization

The whole is more than the sum of its parts. This notion is an important first principle of holism, but on its own it does not yet say much. Perceptual forms, as explored above, are holistic but they occur within the larger whole of an individual's life. The individual is a whole with properties that cannot be deduced from its parts alone, but the social group—made up of individual persons—has properties irreducible to the individuals within it.⁹ Intergroup dynamics explores still larger wholes. And we could go on. In short, whole and part are relative terms, which change according to the context in which they are applied. Without including some principle of *hierarchical organization* (i.e. wholes embedded in larger wholes) reality becomes one fluid whole, and thus impossible to investigate. Valsiner (2009) notes that this principle is often overlooked within sociocultural psychology, resulting in theoretical difficulties.

By contrast, biologists have long recognized that organisms are complex hierarchically organized systems, in which higher processes regulate a lower processes (see Khatchikian, chapter 11)—gene expression, neural func-

⁸ There are important counter examples to this. An anonymous reviewer has aptly pointed out that the holistic orientation is still strong in clinical neuroscience. V.S. Ramachandran, for example, has consistently worked within the 'romantic' tradition of A.R. Luria, which extends back to Vygotsky's influence. Studies in clinical neuroscience cannot achieve the large sample sizes required of aggregate style research due to the rarity of cases. Perhaps this has led this field to tools for analyzing the complexity of whole single cases.

⁹ Floyd Allport (1924, p. 4) is notorious for advocating an individualistic social psychology: "There is no psychology of groups that is not essentially and entirely a psychology of individuals. Social psychology must not be placed in contradistinction to the psychology of the individual; it is part of the psychology of the individual, whose behavior it studies in relation to that sector of his environment comprised by his fellows." Before Allport the dominant conception of the 'social' was the properties of groups, which could not be predicted from a summation of individuals in the group, such as the customs, values and norms specific to a particular group. The more 'social' social psychology was largely comparative in methods, exploring the distinctive mentalities of different social groups (see Farr 1996; Greenwood 2004).

tioning, and organ systems all provide examples of this. Many holistic models of development in psychology have explicitly used biological analogies. For example, Heinz Werner, who formed his general orientation to psychology in the Leipzig school, defined development as a process "proceeding from a state of relative globality and lack of differentiation to a state of increasing *differentiation, articulation, and hierarchical integration*" (Werner 1956, p. 126). Werner was explicitly using embryonic development as his metaphorical source: The embryo begins as an undifferentiated mass of cells, which develops into different cell types and eventually organ systems that become hierarchically related.

Leibniz had already recognized the hierarchical embeddedness of different wholes in his *Monadology* (see Ehrenstein, chapter 1), but it was von Ehrenfels (1890/1988) classic paper "On gestalt qualities" that first brought these dynamics to the forefront of psychology—the paper had a major influence on both Gestalt psychology and *Ganzheitspsychologie* (see Kissinger, chapter 2). Ehrenfels is remembered for pointing out that the experience of a melody (i.e., a "gestalt quality") emerges from a series of individual musical notes with a certain temporal structure. Rearrange the same notes and the melody disappears. Or play a totally different set of notes, with the same temporal arrangement, at a higher pitch and the melody remains. Hierarchical organization enters into this scheme when von Ehrenfels (1890/1988) notes that gestalt qualities, such as melodies, can become parts of higher gestalt qualities—for example, many melodies make up a symphony.

Ehrenfelds goes even further in pointing out wholes (on different levels) can have different degrees of structure: An individual is a far more unified whole than society.¹⁰ Society itself may be structured in qualitatively different ways—for example, Durkheim (1893), using technological and biological metaphors, describes society's movement from "mechanical" (undifferentiated) to "organic" (differentiated) solidarity. In the domain of psychology proper, feelings can be characterized as diffuse undifferentiated wholes that permeate everything around us, whereas verbally describing an experience constructs a highly structured whole. The methodological challenge becomes not only one of characterizing different wholes but also of analyzing the relationships between them—in this case, between affective and linguistic mediation. I will offer some reflections on advancing a developmental approach to hierarchical organization in the next section.

¹⁰ Dialogical theorists have, however, recently attempted to show that the self is much more divided and de-centered than has previously been supposed (see Hermans 2002). Even that being so, it is still safe to say society is more divided than the Self.

Development Between Direct Perception and Construction

Above, we saw how Gestalt psychology attended to ‘objectivity’ in perception (e.g., how Kanizsa’s triangle is immediately given), whereas *Ganzheitspsychologie* focused on constructive developmental processes driven by affect and tension. Gestalt psychology later became a major source of inspiration for J.J. Gibson’s ecological approach to perception, with its emphasis on ‘direct perception’ of the environment, while Bruner and others developed a constructive theory of perception, akin to *Ganzheitspsychologie*. Debate over whether perception is better characterized as direct *or* constructed is unfruitful. Perception is *both* direct *and* constructed. We directly perceive wholes in our environment but can also reconstruct those wholes through a process of mediation.

The world for us is not at its base an array of isolated sensory impressions, but rather wholes embedded in larger wholes. We experience roads, buildings, doorways, cars, animals, other people as embedded wholes, not as ensembles of sights, sounds, smells and touch. For example, we tend not to experientially separate a disgusting smell from the thing that smells; the thing itself is what disgusts us. But through mediation we can distance ourselves from the directly perceived world and reconstruct its meaning. Consider this example of a medieval nun’s use of mediation to overcome her embodied reaction to an aversive smell:

The devil wanted to tempt Catherine of Siena’s fortitude by upsetting her stomach, according to her confessor, Raymond of Capua. When she was removing the bandages from a sore of a penitent, she was assailed by a stench so foul that “her inside turned over and a great sensation of nausea convulsed her stomach.” But this work of the devil failed because she invoked the “bridegroom of her soul” and drank a bowlful of the fetid stuff: “Never in my life have I tasted any food and drink sweeter or more exquisite.”

(Obeyesekere 2010, p. 129)

Catherine of Siena experiences nausea on encountering the fetid stuff under a patient’s bandage. But she is able to reconstruct her initial reaction as the work of the devil, and then by evoking Jesus Christ, the “bridegroom of her soul”, she transforms the stuff into the sweet life giving substance of Holy Communion, which opens up the action potential of drinking it. This extreme example points to processes of mediation we all use in our everyday lives: For example, we immediately recognize

food that has fallen on the floor as “dirty” but can overcome this meaning with the “five-second rule” (a super-ordinate mediator which says that as long as the food has been on the floor for less than five seconds it is clean). In this case, society both sets a restriction on eating the food, as well as provides a cultural means of overcoming the restriction.

Vygotsky’s method of double stimulation allows researchers to observe this process of mediation in action (Gillespie and Zittoun 2010; Veresov 2010). The researcher creates a situation where there is some block to action (which in turn generates psychological tension) but also guides participants towards the symbolic means of overcoming the block. Thus, the situation stimulates a process of mediation so that the researcher can observe its course. Valsiner (2003) provides us with an illuminating recent example of this technique: Participants were given a toy gun and told they needed to decide whether to shoot or not shoot a number of images that would be projected in front of them. Images of a bull’s eye (shoot) and grandfather with child (don’t shoot) required little or no meditational work—in Gibson’s terms their meaning was directly perceived. However, an image of Hitler generates an elaborate process of mediation. Participants must reconcile two opposing social suggestions, namely that Hitler is the embodiment of evil and that one should not shoot human beings. These opposing social suggests are agentially navigated by the individual in deciding how to act. We see both the means and processes used by participants to override their urge to shoot. In contrast, at war soldiers are taught how to override the opposite social suggestion. Once they hear “engage” from their commander shooting becomes automatic—consider the recent wikileaks video showing soldiers lack of meditational strategies leading to the killing of several journalists and civilians.¹¹

Conclusion: The Future of the Whole

In conclusion, *Striving for the Whole* provides readers with many instructive examples of holistic thinking, particularly in its developmental varieties. For those interested in incorporating holistic insights into their research, it will serve as a useful point of reflection. The book, however, might itself have strove for further theoretical integration and extension of holistic ideas into contemporary research practice. The editors do extract some important principles of holism for readers as well as point out weaknesses of the current research practice that avoids holism; yet a decisive way forward for holism in psychology remains to be established. This is a major task perhaps well beyond the

¹¹ See <http://www.collateralmurder.com/> (wikileaks 2010)

range of what can be expected from this largely historical survey. It is up to readers to use these voices from the past to develop a new form of psychology, which builds on the insights of earlier holistic thinking. Like the stimuli sub-optimally presented in *Ganzheitspsychologie* experiments, this future psychology is still only an ambiguous figure on the horizon, awaiting our creative efforts to actualize it.

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