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## “Crisis” and “re-foundation” of psychology – outmoded topics of theoretical-psychological discourse? Retrospections and Assessments

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### **Abstract**

*In the 1970-80ies critical assessments of the problematic state of psychology as science were flourishing, stressing the theoretical disintegration and practical irrelevance of psychological basic research and connecting both defects to a misplaced dependence of mainstream psychology on a scientific notion of scientific cognition. Talks of a crisis in psychology were gaining ground again. Controverting the paradigmatic maturity vs. the pre-/non-paradigmatic state of our discipline or, alternatively, its necessarily multi-paradigmatic character, the quest for unification as against a programmatic theoretical pluralism became a top issue of scholarly dispute. The institutionalisation of ISTP in 1985 and its initial epistemological and meta-theoretical core themes clearly reflected this pervasive trend. Some 35 years later, it has become noticeably quiet about such concerns, and there is no evidence of a renewal of large-scale discussions on a foundational crisis in psychology, let alone of ambitious attempts at theoretical unification or re-foundation – despite the fact that none of the “epistemopathological“ (Koch, 1981) diagnoses of traditional variable-psychology have been refuted or lost strategic importance. Combining historical retrospection with an exemplary analysis of topical theoretical-psychological subjects, the aim of my paper is to get a clearer idea of where Theoretical Psychology currently stands in regard to the meta-scientific study of psychological theory-problems.*

Keywords: grounded action, problems of replicability, crisis in psychology, scientific indeterminacy, unification.

Pondering over a possible subject of my talk, I came up with the idea that it might be fitting for me as a veteran of ISTP to present a paper, in which I try, in a historical retrospect and at the same time a recollection of some of my own theoretical psychological contributions, to recognise where Theoretical Psychology stands in regard to the meta-scientific study of

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psychological theory-problems. In particular, my concern is to clarify what has become of the scholarly debates on a foundational crisis in psychology as science and of the ambitious attempts at its unifying re-foundation, which were widespread in the 70-80ies and constituted one motivation for the establishment of independent theoretical-psychological infrastructures and its initial epistemological and meta-theoretical core themes.

## Psychology in a state of crisis

On the founding conference of the ISTP at Plymouth in 1985 I introduced the approach of (German) Critical Psychology (Maiers, 1987), underlining its claim to contribute to the scientification of our discipline. In two respects this focus was not chosen accidentally.

First, since the programmatic turn during the early seventies from a mere critique of the ideological biases and legitimating functions of bourgeois psychology towards a positive conception of a critical-emancipatory psychology based on Marxist theory, our primary work had been directed for more than a decade to a transdisciplinary historical reconstruction of the natural- and social-historical development of human consciousness. The objective of this historical categorial analysis (as we call it) of the psychological subject matter was to critically revise and re-define the basic concepts and methodological principles of psychology and, by this means, to render a coherent theorisation possible which no longer disregards human (inter-) subjectivity and achieves a higher level of scientific objectivity precisely for this reason (cf. also Maiers, 2001).

Second, throughout the seventies and early eighties academics with a keen interest in epistemological, basic theoretical, and historical issues in psychology had increasingly engaged in vigorous discussions about the problematic state of psychology as science and the consequential need for a fundamental change. Synoptic overviews and meta-analyses of the manifold criticisms were provided, among others, by Giorgi (1970, pp. 79ff.), extracting a catalogue of predominant motifs of basic criticisms that had been expressed since 1950 from the journal *American Psychologist* or by the Nebraska-Symposium on Motivation of 1975, addressing the guiding theme *Conceptual Foundations of Psychology* (Arnold, ed., 1976). Subsequent surveys of similar type can be found, e.g., in the APA symposium series *A Century of Psychology as Science: Retrospections and Assessments* edited by Koch & Leary (1985).

Despite their different accentuations and ways of argumentation, such critical assessments agreed on emphasising, on the one hand, the lack of theoretical unity, i.e. disparate conceptualisations even within the same subject areas, fragmented theories, and an accumulation of unrelated and ambiguous empirical data, and, on the other hand, the trivialising problem formulations and hence limited knowledge value of psychological basic research for understanding crucial issues of individual conduct in the social lifeworld. Both defects – the *theoretical disintegration* and the *practical irrelevance* – were connected to the misplaced dependence of mainstream psychology on a scientific notion of scientific cognition involving a *primacy of methods over issues*, for which Bakan (1967) trenchantly dubbed psychology “methodolatrous” (cf. Shames, 1987).

Talks of a *crisis in psychology* gained ground again, sometimes reminiscent of pertinent surveys by Vygotsky and Bühler, both of 1927 (for a critical appraisal see Maiers, 1990a). Against the backdrop of a wide reception of the model of scientific development which Kuhn had set out in 1962, discussions arose on whether psychology had already reached the maturity of a *paradigmatic* science, conducting its manifold research programs on the basis

of commonly shared categories and methodological principles, or, on the contrary, whether such a fundament was still missing, so that psychology, as a *non-, pre- or mis-paradigmatic discipline*, was plunged into a *scientific crisis*. Consequently, the need and prospects of *unification* as against programs of *theoretical pluralism* (or even of pronounced *eclecticism*) as viable correctives became an issue of scholarly dispute. Interestingly, the latter view of psychology's either necessarily non-paradigmatic or at best multi- or poly-paradigmatic character was held both by defenders of the traditional variable-psychology and by a number of proven critics such as Koch (1969), who pointedly took the stance that “psychology cannot be a coherent science”.

It should be pointed out that the field at large was far from unanimous even about the precedence of this debate. Some expressly denigrated the *discussion on crisis* as a *crisis of discussion*. In his presidential address to the 1972 congress of the *German Society for Psychology* (DGPs), Herrmann, e.g., straightened out the official reading of the analytical-experimental, nomothetical psychology and delivered an explicitly positive summary not alone of the institutional advancement of psychology as a discipline of study and professional field, but likewise of its development as science: "The current attitude of verbal questioning can scarcely obscure this state of affairs." (Herrmann, 1974, p. 24). Two years before, his predecessor in office, Graumann, had admitted the grave doubts which "leading representatives of our own discipline have raised about the unity of the psychological science" (Graumann, 1973, p. 21). Consequently, he had underlined the challenge of reaching a new basis as a human science that overcomes the traditional theoretical distortion of subjectivity via a unifying and binding alternative definition of its object of knowledge. By contrast, Herrmann (1974, p. 19) considered psychology a variable network of non-competing plural research programs which defy any derivation of an object-based unity of knowledge production, due to the heterogeneity of their actual objects, formulations of problems, and theoretical conceptualisations. Contrary to what he queried as failed essentialistic attempts at an ultimate definition, he regarded the identity of psychological studies as sufficiently defined in terms of the invariant strategies of nomological research.

As already mentioned, such controversies were not new to psychology. From its inception as academic discipline, there have been perennial debates in the final analysis revolving around “the unsettled fundamental issue of the definite object of psychology as a science *sui generis*” (Traxel, 1976, pp. 105f.) and on the epistemic position of psychology between the poles of the (natural) sciences and the humanities. Various conceptual and methodological contentions (such as the issues of qualitative vs. quantitative method, of statistical vs. clinical thinking, etc.) can be linked with the classical contraposition of a *natural-scientific, explanatory, nomothetical psychology* to a distinct *human-scientific, understanding, idiographic psychology* – or, to put it another way, can be subsumed under the meta-theoretical controversy over whether and how this dichotomy can possibly be overcome. The practical settlement of this open question with the triumph of behavioural psychology proved to be a schismatic Pyrrhic victory: The accusation that its objectivism is at most catching only half of the subject matter, if not missing it altogether, has never muted and has gained momentum with the circulation of models of human agency and subjectivity from diverse theoretical points of departure (such as phenomenology, symbolic interactionism, ethnomethodology, social constructionism, or psychoanalysis, etc.). With us again is the time-honoured issue of the reconcilability of the intentional and the causal, the idiographic and the nomothetical modes of thinking.

In short: During its nearly 150 years of institutionalised existence, psychology has never got rid of its endemic flaw with respect to the due conceptual self-understanding, and to me it appears a compelling conclusion that the de facto or on principle declared "renunciation of the unitary conception of the psychological science" (Graumann, 1973, p. 22) can only perpetuate the crisis status quo. Not surprisingly, however, even among those who share this argument it remains a controversial issue how to respond positively to such a challenge.

## **The quest for reorientating psychology: Dualistic or monistic ways out?**

The historical bifurcation of academic traditions and cultures proves to have a negative impact on the contemporary determination of direction. Various (non-Marxist) critiques of the prevailing naturalism and mechanicism of psychology have led to *subject-psychological* counter-programs designed to substitute, or at least to complement, what they consider the *scientism* – in their reading: the *natural-scientific bias* – of the psychological mainstream. (For concrete examples see Maiers, 1988.) This critical verdict is liable to be taken in by *historical legends* in so far as it levels the interdisciplinary difference and intradisciplinary diversity of the cognitive processes within the realm of natural sciences.

For one, it typically ignores the option of a completely divergent trajectory that psychology would have followed, had it orientated itself by (*evolutionary*) *biology* as a type of science informed by developmental thinking. (I skip the snares such a direction of development carries with it in turn, if one fails to think the history of nature through to the end and hence misconstrues the emergence of autonomous societal structures and processes, that do not fall under the cognizance of biology.)

Similarly misleading is, second, the criticism of a *reductionist psychology more physico*, if it confounds the analytical-experimental research practice and kind of theorisation of physics with the positivist rationale of physicalism. (I recommend to re-/read the revealing analysis propounded by Koch, 1976, of psychology's vain efforts as an *imitation science*.)

As the deeper basis of this bias, I discern a failure to recognise the essential point of commonality uniting the antipodes of the classical dualism in that both sides *metaphysically tear apart nature and history*. In order to radically overcome the dominating psychological naturalism, psychology evidently has to understand the societability and historicity of the human beings – however in such a way, that the essential natural-historical preconditions of this human condition are taken into consideration. Psychology will only be able to meet this theoretical challenge, when it is consistently geared to a *transdisciplinary* production of knowledge (cf. Maiers, 2001). This quintessence would be also in accordance with the development of science in general and the unquestionable historicisation of episteme in the exact branches in particular, which deny a dichotomous classification of scientific disciplines, as this utterly mistakes their real links in terms of their ontological and epistemological bases (cf. Maiers, 1988, for the preceding section).

Another point is, that such criticisms, not uncommonly, undermine their own position in as much as they take it that for the sake of including subjectivity one has to radically lessen claims to scientific rigour. Such a contrast blindly reproduces the traditional notion of subjective (self-) experience as a *private inwardness* and *nolens volens* confirms the hegemony of variable-psychology in interpreting the standards of a properly objective methodology instead of countering it with an independent definition. This vulnerability,

together with the aporetic burdens of the historical prototypes of dualistic critique, facilitates a broad defence within our discipline which downplays the existent challenge of founding an integrated and integrating conception of the psychological subject area, theoretical discourse, and methodology altogether.

For lack of space, I cannot elaborate my view here (but see Maiers, 1988, and 2001) that such *anti-monistic* positionings play a part in dignifying the scientific crisis of psychology. To the extent that their criticism blindly lumps together epistemic monism, the physicalistic *unitary science* project, natural scientific research practice, and the ontological argument of ahistoricity and uniformity, they remain trapped in what they intend to repudiate: i.e., the abstract-ahistorical, scientistic notion of the unity of science handed down by logical empiricism. The mistakeness of the latter epistemic absolutism, however, does not per se contradict the possibility of a non-dogmatic theoretical monism acknowledging the manifold aspects of reality and being immune to ruling out or levelling different points of view.

The problem posed here is none to be resolved in terms of a formal logic of science, but points to the need for a fundamental material revision of the traditional conceptual and methodological definition of the psychological subject matter.

## **Theoretical Psychology as critical epistemology of psychological knowledge**

The pervasive trend towards critical assessments of our psychological knowledge, which had evolved over many years, became reflected in the institutionalisation of Theoretical Psychology as a specific concern in its own right. As early as 1951, Koch noted that since the end of World War II psychology had been in a long and intensifying crisis. Progress from its current pre-theoretical stage could be achieved only by the pursuit of theoretical psychology which would

prosecute five major interrelated tasks: (1) Education in the methodology and logic of science; (2) analysis of methodological or ‘foundation’ problems that are more or less unique to psychology; (3) internal systematization of suggestive, but formally defective, theoretical formulations; (4) intertranslation and differential analysis of conflicting theoretical formulations; (5) the construction of new theory. (p. 298).

A major step toward creating an organisational basis for such meta-psychological theoretical work was the first Banff Conference on Theoretical Psychology, held April 1965 and leading to the establishment of the *Center for Advanced Study in Theoretical Psychology* at the University of Alberta two years later (cf. Royce, 1970). Theoretical-psychological units also came into existence in a few European universities (mainly in the Netherlands and at Heidelberg in Germany). In 1984, the Alberta Center launched *Annals of Theoretical Psychology*, an ongoing series designed to further the dialogue on theoretical principles and philosophical issues within psychology and related fields. Against this background and as a consequence of informal discussions among scholars from across the globe committed to the metascientific study of psychological theorisation, a conference was organised for August 1985 at Plymouth, UK, with a view to establishing some sort of independent forum: viz., our *International Society for Theoretical Psychology*. As a supplement to this new discourse framework, the journal *Theory & Psychology* was released

in 1991. (For additional information about the rebirth of the theoretical-psychological discourse see also Madsen, 1987; Baker et al., 1988; Baker, 1988; Stam, 1991, 2017.)

Not so much meant for specialists' circles as for a broad psychological audience interested in reflecting foundational issues of psychology from philosophical, epistemological, metatheoretical, methodological, historical, and sociological perspectives, all these instruments have significantly promoted the clarification of the fundamental prerequisites and cognitive tools for an adequate treatment of characteristic psychological theory problems leading out of traditional antinomies, and for a constructive advancement of comprehensive and substantive theory.

In this vein, one emphasis within Theoretical Psychology was on psychology's fragmentation outlined above and hence on the metatheoretical issue of whether or not systematisation, integration, let alone unification, constitute a valuable goal in Theoretical Psychology and, if so, whether this goal ought to be achieved on a pluralistic or monistic epistemic base. I mention in this regard the 1st Banff conference in 1969 and a number of publications during the early eighties, as e.g. Volume 3 of the *Annals of Theoretical Psychology, New Ideas of Psychology*, or neopositivist initiatives such as the founding of the *Society for Studying Unity Issues in Psychology* (SUNI) in 1986, and the publication of an *International Newsletter of Uninomic Psychology*. Not least, it was a subject of controversial discussion within ISTP, most notably during the first meetings (1985, 1987, and 1991). Likewise, an early volume of *Theory & Psychology* (1991) took up this thematic focal point.

With its dissent on the monism-pluralism issue, Theoretical Psychology mirrors at a meta-level the overall conceptual and methodological split of psychology. In such circumstances, historical research becomes especially relevant as a guide (cf. Maiers, 1990b). With good reason then, theoretical psychologists have occupied themselves time and again with "the relevance of history to theory, or psychology in general. In other words, how and what could 'doing history' contribute to (theoretical) problems that face contemporary psychology" (Van Rappard et al., 1993, p. vii). Outside the theoretical psychological quarters, however, contemporary psychology gives a different picture: Studies pertaining to the history of science are being marginalised, and at least for the German-speaking psychology it is the case that a critical historiography plays only a minor part in today's Bachelor's and Master's degree programmes. Revealingly, this curricular neglect has met with resistance only by the small and not very powerful DGPs section *History of Psychology*.

To summarise: The ISTP took up and has broadened the scope of metatheoretical considerations, within which reflections about the crisis of psychology and the consequential necessities have indeed constituted a core topic from the very beginning.

## Foundational challenges – fallen out of time?

Some 35 years later, it has become noticeably quiet about the above issues, and there is no evidence of a renewal of large-scale discussions on a foundational crisis in psychology, let alone of ambitious attempts at theoretical *unification* or *refoundation*. Taking, by way of example, another look at the biennial developmental reports on the state of German psychology, it becomes apparent that none of the presidential addresses following Graumann's and Herrmann's accounts makes mention of fundamental criticisms of the course and state of scientific research in our field, occasional skeptical undertones notwithstanding. Critical notes primarily refer to barriers to the institutional progress of the

discipline and/or the professional psychological practice. Overall, these reports draw a picture of a successfully advancing science. What passes for *successful* theoretical work in their assessments is only too well known from today's standard journal articles or textbook chapters, which, as a rule, review some circumscribed empirical domain, debate detailed methodological issues of a highly specialised sub-area, and finish accounts of experimental findings with conjectures about underlying law-like generalities. It seems that theory as the average empirical research psychologist is accustomed to is persistently viewed as something one does after collecting the data to fill in the gaps left by our observations.

With a few notable exceptions, theory construction is being relegated to the periphery of the discipline – if it means producing broad-gauged explanatory theoretical structures over a wide range of psychological phenomena and problems, breaking traditional boundaries between sub- and neighbouring disciplines, and involving a critical revision of the stock of theories in psychology including ontological, epistemological, and methodological as well as historical and social theoretical concerns about systematic aspects (see also Stam, 1991). Consequently, until today the mainstream has perseveringly disregarded foundational problems, that psychology has been caught up with time and again, and that seem to have got a last hearing in the crisis debates of the seventies and eighties.

### **Psychology astray? Problems of replicability**

All the more remarkable is therefore the current turmoil in the face of massive problems with replicating findings of experimental and correlational studies, which became identified in the early 2010s as a *crisis of replication* (cf. Simmons et al., 2011; Open Science Collaboration, 2015; Green, 2019 [2021]; Maiers, 2019b [2021]). How are we to evaluate this growing unrest within the mainstream of nomological variable-psychology? Since the anomaly of non-replicability has a direct bearing on its very own methodological requirements and quality criteria of empirical research, the dismay comes as no real surprise. Nonetheless, I rather doubt that the discussions will yield sweeping effects on the future course of psychological research. Considering the disregarding of earlier warnings in the 1960s that something has gone terribly wrong with the conventional statistical procedures around significance testing (e.g., Rozeboom, 1960; Hays, 1963; Bakan, 1967; Meehl, 1967; similarly in the German-speaking psychology Holzkamp, 1964 and 1970), I would anticipate that the excitement within the mainstream of empirical research will sooner or later die down. Quite apart from that, it strikes me that the critique falls short by confining its focus to a purely method-immanent analysis, more precisely: to the violation of sacrosanct standards.

The often heard call for even more methodical rigour on the usual path in order to secure unambiguous empirical findings gives at least rise to suspect that the conceivably deeper reason for this anomaly is not yet recognised: namely, the misguided regulations of a purportedly strictly objective inquiry investigating empirical phenomena of subjectivity as consequences of situative conditions conceived as causal effects, and treating the *subjective* of the subject matter as the central root of interfering factors to be eliminated or neutralised in the pursuit of experimental-statistical hypothesis testing. This objectivist *effect paradigm* or *conditionality thinking* [Wirkungsparadigma/Bedingtheitsdenken] distorts what is present and relevant in everyday life. No wonder, that the data so obtained are tainted with uninterpretability and a lack of scientific objectivity.

The difficulties with replicability would thus be proof once again that the notorious inversion between matter and method does not really work, due to the characteristics of

human inter-/subjectivity. In this sense, we can say that the replication crisis replicates the eternal topic of all historical discussions about a crisis in psychology: i.e., the failure of a *psychology without subject*.

**Theoretical Psychology nowadays: Have epistemological-metatheoretical concerns become less important?**

Let me now try to get an idea of where Theoretical Psychology currently stands in regard to the meta-scientific study of the aforementioned psychological theory problems.

Going by the range of prevalent topics in recent ISTP conference proceedings or issues of the journal *Theory and Psychology* and comparing their multifaceted spectrum of subjects with the relatively clear-cut thematic priorities of the early ISTP debates on issues such as epistemic unification, monism vs pluralism, realism vs constructionism, relativism and anti-foundationalism, deconstruction of universal truth claims, views on representation, correspondence and progress of knowledge, and so forth, one can hardly overlook certain alterations of priorities and forms of theoretical discourse and radical psychology critique. Broadly speaking, the societal, political, and institutional contexts of academic and professional psychology have come to attract a growing interest, while metatheoretical-epistemological reflections currently seem to be fading into the background. (The present Copenhagen conference with its central theme can serve as another example.) Notabene: Contrary to what might be a conventional preconception of Theoretical Psychology, all of this fits well into the province of ISTP to foster a theoretical knowledge which is relevant to everyday use by means of examining more closely the social function of psychologists' common practices and shedding light on linkages of psychological theories with real-world political developments.

Looking for an explanation of this presumed shift in emphasis, my first suggestion was that philosophical and meta-theoretical positions had become sufficiently delineated at a certain point, so that a continuation of the debate along the same lines of argument promised no longer a relevant gain of knowledge. Beside other tentative assumptions, I also suspected that especially among a generation of academics who grew up with (if not actively shaped) the deconstructionist approach of postmodern philosophy and social theory to *grand narratives* and hegemonic truth claims, *any* unifying or, even more so, foundational project is per se at risk of evoking scepticism.

While there may be something to such provisional explanations, on second sight my attempt to plot topical trends over the ISTP conferences as well as over issues of *Theory and Psychology* proved quite difficult, and my initial impression, that within ISTP and the international circles of Theoretical Psychology at large concerns about categorial-methodological and other foundational problems of psychological theory foundational issues may somewhat have fallen into oblivion, turned out over-hasty. In fact, down to the present day numerous individual studies have been dedicated to this main topic.

The bottom-line is: While relatively clear-cut conceptions of the metascientific endeavour of Theoretical Psychology may have formed a common ground for, say, the initiators and founding members of ISTP, the understanding of Theoretical Psychology has (justifiably so) vastly expanded in the meantime – if it has ever corresponded to the alleged blueprint. To quote the editors of the Nanjing Conference Proceedings (Stenner et al, 2011, p. ix):



(...) there is no unified program of theoretical psychology, and hence no standardized set of problems to solve, or methods with which to solve them. (...) These problems are many and varied (...) – and hence it is appropriate that a range of different approaches should arise in response.

This statement might be found in similar wordings in the prefaces to other proceedings as well, as they all wrestle with the problem of how to categorise papers concerning Theoretical Psychology. Take note, already in 1985 it was pretty clear, that in spite of the initial consensus “what constitutes ‘theoretical psychology is quite an open ended issue” (Baker et al, 1988, p. v). So far, so good. However, the quotation from Stenner and colleagues is followed by a second statement, which I wish to underline no less: “(...) theoretical psychologists still have to grapple with (...) the enduring and pervasive ‘wicked’ problem of the discipline’s lack of firm foundations”. (Stenner et al, 2011, *ibid.*)

While no one can possibly wish to (re-) instate dogmatic claims of any position of an exclusive uniform understanding of the theoretical psychological domain, it is nevertheless the case that for Theoretical Psychology to be able to contribute to comprehensive and relevant psychological theorisation, its initial core business of elucidating fundamental epistemological-metatheoretical problems (following Koch’s above-mentioned, albeit too narrowly defined, early layout of objectives) needs to be insistently retained. After all, none of the “epistemopathological“ (Koch, 1976) diagnoses of the precarious situation of traditional variable-psychology has been refuted – let alone remedied. As a random sample of this impasse, let me instance three cases.

## Endemic flaws of psychology

### Case 1: Scientific indeterminacy

It is still symptomatic of our discipline that different theories about identical objects or subject-areas co-exist, each making universal claims on the basis of mutually exclusive (or at least ambiguously related) conceptualisations and each being equally empirically confirmed according to prevailing standards – leaving us in the awkward position of being unable to decide which of the theories is tenable and which one ought to be rejected or retained with limited validity. Accordingly, the historical sequence of basic theoretical conceptions in psychology frequently has the appearance of a sequence of *fads*, without any recognised grounds for the replacement of one by another and without leading to a qualitative deepening of our knowledge. Hence, both questions and answers, that are at any particular time out of style, remain latent as unresolved – only to recur one day.

In 1977, Holzkamp identified this problem as the *scientific arbitrariness* of conventional psychological theorising, which he traced back to the fact that (in conformance with the *halved rationality* of a traditional logic of science excluding the *context of discovery* from its scope) traditional psychology has left the *origin of its categories undetermined*. The basic concepts, in terms of which the theoretically generalised assumptions about the interconnections between situational/personal conditions and behavioral/experiential events are couched, are presupposed as such and gain their scientific status only secondarily through the testing of derived hypotheses.

As Holzkamp pointed out, the *empirical reference* of a theory is epistemically predetermined by the kind of conceptualisations employed, its so-called *categorical reference*. It depends on concepts such as *reinforcement*, which empirical facts or object aspects can become the focus of

a theory, here: of learning. What matters is that the categorial definitions are not possibly covered through testing the derived hypothetical assumptions. *Reinforcement* or Skinner's superordinate concept of *operant conditioning*,

from which the hypothesis has been deduced that, e.g., learning success depends on the rate of reinforcement, are not subject to negotiation with the falsification of the latter. This is the case, because with respect to the dimensions of reality reproduced in the theoretical constructs there exists a circular relation between the systematic assumptions hereby conceptualised, their assumed optimal operationalisation in empirical (dependent and independent) variables, and the kind of correspondingly producible findings. Only the degree of verifiability of hypotheses within the framework of the theoretically grasped dimensions escapes this circularity. In other words, empirical testing in the conventional sense does not provide a sufficient criterion for the scientific value and relevance of theories, which may therefore pertain to entirely peripheral or artificial effects.

Since, on the other hand, the procedures for constructing hypotheses offer no standards for a method-driven, verifiable derivation of *relevant* concepts and formulation of theories, the predicament of scientific arbitrariness outlined above is the result. This condition also entails a fatal indifference to different layers of meaning within the psychological subject matter and, by implication, to characteristic category mistakes in explaining human action (see below, case 3).

Even though Holzkamp's problem analysis was backed by corresponding critical voices within the scientific community, only a few peers versed in the logic of science were prepared to join issue with him (Gadenne, 1978; Brocke & Holling, 1982). The vast majority within the psychological mainstream passed over this fundamental criticism in silence, and there is no indication that the problem has been settled in the meanwhile.

### **Case 2: Interference of non-empirical elements in hypotheses on contingent events**

My second case draws on the trenchant analyses from various approaches of the intricate conjunction of empirical elements and structural implications within psychological statements, which needs to be critically scrutinised prior to the design of empirical studies. Despite its central relevance to the formulating and testing of substantial hypotheses, this desideratum has attracted only marginal attention in the field – with the consequence of widespread conceptual confusions and pseudo-empirical research questions (cf. Maiers, 2009).

Incompatible with the traditional presupposition that the connection between variables is one between independent contingent facts in the objective reality itself, so that the prediction of certain behavioural consequences from antecedents may either come true or not, Brandtstädter (1982; 1984) convincingly worked out that experimental effects as supposed-to-be tests of the empirical validity of psychological theories are frequently implied in the conceptual, formal, or material structures of psychological theories and therefore a priori certain. Even more radically, Smedslund (1984; 1988) argued that contemporary psychology is essentially based on *common sense* concepts, which are neither capable nor in need of empirical tests. The experimental practice is thus misleading, and its results are to be regarded as *pseudo-empirical*.

Their detection of *implicative linguistic structures* or *logical-semantic relationships* as constitutive parts of psychological theories bears a certain similarity to the critical psychological view that the common variable-analysis does not simply miss the

intentionality inherent in the psychological subject matter – what is more, traditional theory building does not even observe the logic of this analysis consistently (cf. Maiers, 1993).

A few words on the relationship between human agents and their world seem to be in order. In a nutshell, this relationship is distinguished by *possibility relations* and *subjective grounds for action*. From the individual standpoint, the historically produced forms of practice signified by objective social meanings represent generalised possibilities for action to which individuals to which individuals in principle can consciously relate. Depending on currently effective needs or interests, the objective conditions and meanings – as experienced and appraised by individuals – function as *premises* for action intentions. This specifically human mode of existence should also determine the form of scientific theorising: In contradistinction to the linear causality implicated in the notion of *conditioned behaviour*, the key concept of *subjective grounds for action* represents the *mediational level* between conditions as occasions for acting and the real execution of action. As an expression of *mediated determination*, it draws a specific conclusion from the philosophical and social scientific debate on *causes vs. reasons* and on a *weak form of determinism*, which does justice to the uncircumventable human *freedom of action* (cf. Robinson, & Mos, 1990; Maiers, 2007).

The point of the story is that common psychological theories, to the extent that they focus on human action proper, refer to its underlying *subjective grounds*, albeit nonreflectively and concealed by a rhetoric of mere *conditionality*. Particular grounds to act necessarily follow from what individuals hold to be reasonable in pursuing their respective life interests under given situational and personal circumstances, *premises* in our terms. Assumptions about grounds for action do not predict the occurrence of behavioural effects. Accordingly, they cannot be treated as empirically falsified when they fail to materialise: They simply do not *apply* to cases where the supposed premises are absent. Such failure to fit, however, would not affect the meaningfulness or *discursive soundness* of the introduced hypothesis about a premises-grounds relationship as (much as) its defining features can possibly be fulfilled by a different constellation of real circumstances as suitable *cases of application*. Hence, with a sufficient specification of premises and intentions, any *either-or* may reveal itself *as both-and* or *it depends* (Holzkamp, 1986, pp. 220ff.; cf. Maiers, 1993).

The theory element of *subjective grounding patterns* [Begründungsmuster] is inconsistent with the traditional view of an adequate form of psychological theory and undermines the supposition that empirical/experimental findings provide tests of the respective theoretical proposition. Attempts to test such implicative structures as contingent if-then-hypotheses are indeed tantamount to pseudo-science. To avoid any misunderstanding, I indicate that this critical view of the conventional understanding of explaining and predicting immediate relationships between conditions and events by no means renounces the commitment to scientific realism with its conviction that the empirical truth of theoretical statements can in principle be evaluated. Nor does it suggest an essential dichotomy between a *positivist-factual (nomothetical) psychology of causes* and an *interpretive (idiographic) psychology of reasons* – the contrary is the case (see below).

But it does strike at psychology's methodological heart: the experimental-statistical verifiability of theories, and proves the received own image of psychology as *nomological explanatory science* on a *third person's* observation base to be a *mystifying self-misunderstanding* of its real scientific practice. Even so, when seen from a certain historical distance, Holzkamp's critical scrutiny just like Brandtstädter's or Smedslund's parallel

exposition of unnoticed *conceptual confusions* and *pseudo-empirical* research practice [Pseudoempirie] prevailing in traditional psychology have practically come to nothing.

### **Case 3: The want of a concretely generalisable psychological unit of analysis**

This case refers to the diagnosis that psychology is constrained by an explicit or implicit, ambiguous dualism of heterogeneous (if not contradictory) systems of theory languages about human acting and experiencing, aptly named a *discourse of conditionality* versus a *discourse of groundedness* [Bedingtheits- vs. Begründetheitsdiskurs]. On the 4th and 5th ISTP meetings, I argued in support of a monistic program for integration based on the category of meaningful grounded action (Maiers, 1993; 1995). Both the mainstream-psychological discourse of conditionality and the common dualist methodology designed for action versus behavior as exclusively distinct units of analysis, equally distort the meaningful world and human agency.

As opposed to either distortion I explained that a concept of meaningful grounded action is capable of accounting for human agency while allowing for a consistent relation with non-intentional features of behavior. Hence it is an apt candidate for achieving theoretical unification within core areas of psychology. It goes without saying, that such a concept of action must not be narrowed in a rationalistic manner and bound to criteria of a deliberate goal-directedness and – pursuit. Indeed, a person's grounds need not be conscious, alleged grounds may in part coincide with or cover true ones, and so forth. The discourse of groundedness as a methodology of dialogical understanding only requires that grounds somehow build an aspect of the actual horizon of an individual's subjective experience and hence allow for their possible reconstruction.

The problem with dualism arises where it offers disparate approaches and conflicting theoretical systems for one and the same (!) level of the active conscious relating of persons to the world. Rejecting any version of a bipartite psychology is therefore not tantamount to objecting to the simultaneous analysis of different system levels of human behavioural and mental processes in terms of distinct theoretical descriptions. Compare, e.g., psychological subject matters such as binocular depth viewing and social perception. To adopt indiscriminately in either case the discourse of conditionality and talk of stimulus patterns or the like conjures away incomparable modes of existence. In the same way, one would make a category mistake if one talked in terms of intentionality in the reverse case of autonomous effects of psychical functioning that are either not experientially given or, as something happening to me, not at my control or disposal. Only on this level, where a reflective self-interpretation of the agent can be ruled out, the theoretical depiction of causally determined behavior is appropriate. It is my conviction that a careful examination would reveal that many of the usually given candidates for non-intentional theorising do not stand the test to represent theories of pure mechanism. Rather, they retain, at least implicitly, the reference to a situated, volitional and cognizant agent, only thus disclosing the meaning of their propositions. Whether or not it is appropriate to suspend the model of reflective action can only be answered through a concrete analysis of the material.

It appears that adopting the specific level of the discourse of groundedness as the primary frame of reference makes a coherent theorisation possible that takes account of the dynamic interdependence of volitional and conscious processes as well as of unintentional and unconscious processes or of objective causalities and befalling events [Widerfahrnisse]. The tentative explication of action does not only allow for determining possible lower deviations from intentionality and objective causal effects within an overarching teleonomy of acting.

Starting from this higher level of specificity, it becomes also possible to define the interface to the non-intentionalist descriptive pattern of conditional behaviour, which applies to an elementary determination level of psychophysical mechanisms functioning in accordance with laws of nature. By contrast, taking the unspecific discourse of conditionality as a point of departure appears to have no prospect of success in establishing a comprehensive theory frame allowing for a consistent, non-reductionist mediation between discrete levels of specificity of acting. In other words, the concept of grounded action provides a possibility to demarcate the correlation and validity conditions of the non-intentionalist and intentionalist theory languages and to ensure theoretical unity covering wide areas of psychology. In my contribution to the Tokyo ISTP meeting (Maiers, 2019a), I therefore refuted the contemporary learning psychological strategy of a reductionist mapping of higher level learning activities onto elementary processes of stochastic (inductive rule) learning. As an alternative, I advocated a sophisticated model of grounded action comprising conditionality as applying to non-specific features of agency as a starting point for a coherent theoretical account of intentional and non-intentional (incidental or even implicit) modes of human learning.

## Conclusions

The fact that the monism vs. dualism-debate has been a recurrent issue with no apparent progress seems to furnish historical proof of arguments for psychology's conceptual non-coherence. In reply to the programmatic coexistence of more or less unrelated, sometimes expressly complementary classes of theory languages, we offer the discourse of groundedness as an overarching meta-theoretical framework for (re-) formulating psychological theories. Assumptions about grounds for action are nothing to be merely accepted desultorily – in a preliminary phase of investigation or, *ex post facto*, in interpreting the data, not to mention investing them with surplus meaning –, nor do they admit of being relegated to a special hermeneutic branch of knowledge. They rather call for and ought to be presupposed as the *sine qua non* to a thoroughgoing methodological reorientation of psychology as a whole. And the demonstration that a nomological and an intentional mode of thought on causes and reasons *exist in parallel* right within experimental psychology itself, in as much as relevant psychological conceptions tacitly comprise intentionalistic conjectures, supplies yet another cogent argument in support of seeking a comprehensive *unitary fundament*. What matters is the meaningfulness of human acting and the reflexivity of the world- and self-experience finding full recognition as bounds to a privileged and exclusive understanding of empirical research from a third person's observational point view, *without* relieving scientific theorising of claims for lawful generalisation and (causal) explanation. To interrelate one demand with the other is thus one centrepiece in the critical-psychological ambition to accomplish a monistic methodology and metatheory for a *subject-scientific psychology*.

In their preface to the proceedings of the first ISTP conference, the editors Baker, Hyland, van Rappard and Staats concluded “it appears that theoretical psychology, as a specific focal point in its own right, is beginning to have an increasing role within the discipline of psychology” (Baker et al., 1988, p. vii). Considering the airy indifference of the psychological mainstream toward fundamental critique, there is some doubt that the high hopes from the founding period of the ISTP have materialised. Theoretical-psychological work seems to be condemned to be a Sisyphean task. Alas, it cannot be helped: Any distraction of our attention to conceptual and methodological groundwork will encourage

the psychological mainstream all the more so to get on with its agenda as usual – and, by the same token, diminish the significance of Theoretical Psychology within the discipline. Hence, ongoing epistemological-metatheoretical reflections on a broad front ought to be recognised (again) as of constant strategic importance to Theoretical Psychology and the field at large.

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