The four modes of coexistence in psychology and group dynamics

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Abstract

Purpose – The purpose of this paper is to show how behavioral descriptions in psychology and group dynamics can be related to four goal-setting processes and to four mode of existence.

Design/methodology/approach – Some person A can approach a person B with an inclination to realize one of four goal-setting processes: (1) A sets goals for B; (2) A sets no own goals; (3) A pursues own goals alone; (4) A and B develop mutual goals. Depending on their choice of inclinations an interaction of A and B can lead to four modes of coexistence: (1) Conflict – A and B fight; (2) Hierarchy – A submits to B; (3) Independence in niches – A and B do not interact; (4) Cooperation – A and B work together. The paper investigates how these theoretical options – four inclinations for different goal-set processes and four modes of coexistence – show in behavioral descriptions in psychology and group dynamics.

Findings – Psychic states studied in psychology (e.g. by Freud, Berne, Horney) can be related to one of the four inclinations. Interaction patterns studied in group dynamics (e.g. by Steiner, Schindler, Bion) describe aspects of the four modes of coexistence.

Practical implications – Behavioral descriptions of various schools of psychology and group dynamics can be classified according to theoretically derivable basic options of goal-orientated behavior.

Originality/value – The paper shows the application of a theoretical framework covering all options of goal-orientated behavior available in the behavioral sciences.

Keywords Psychology, Goal-setting, Four modes of coexistence, Group dynamics

Paper type Case study

1. Introduction: goal-values, control and social systems

Control is a goal-orientated act: without a goal-value for a comfortable room temperature we cannot apply the temperature controller in our room; or without a goal-value specifying a speed limit a policemen has no base to control the velocity of a car passing by.

Control systems evaluate data of an actual situation (like a room temperature, a speed) in relation to a goal-value (like a comfortable temperature, a speed limit); then they determine if there is a deviation from the goal-value (e.g. if the actual room temperature or speed is lower or higher than the respective goal-value), and if so, they trigger a corrective action. Control systems make at least elementary decisions (Nechansky, 2008b), which take the form:

if {(actual data) (relation) (goal-value)}, then {trigger for a goal-orientated action}.

Control systems may make decisions that are much more complex (Nechansky, 2012a, b, 2013a, b), if they check for more or even for interconnected goal-values (e.g. a climate control system checking for room temperature and humidity, a policeman checking for speed and if a car comes with the headlights on, etc.). But control systems cannot make decisions simpler than the elementary form named above; and that elementary form can be used as a first approximation of complex decisions (Nechansky, 2008a, 2011), treating them as if they would just check for one goal-value at a time.

So, without goal-values there is no control. This fact is so obvious, that it is seldom explicitly considered. Obviously we expect that a temperature controller can realize a

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desired room temperature, that a policeman can control a speed limit. The interesting question, where goal-values actually do come from, is surprisingly seldom asked. But this is particularly interesting, when we are interested in control in social systems.

And in social systems further complications arise, which are not included in the basic setting, which control theory usually deals with and which we implicitly applied in our examples above. This setting just considers a simple relation: *one* "controller system" (like a temperature controller, a policemen) trying to enforce *one* given goal-value (like a comfortable temperature, a speed limit) in *one* controlled system (like one room, one car).

In social systems we have to deal with the fact that there are many "controller systems," here individual humans, which can set goal-values by themselves, and accordingly can change them, and that interacting individuals can pursue various, different and changing goal-values. Such situations are not considered in control theory, because they are not clearly defined in time and may lead to unstable oscillations. Yet in social systems additionally even the role of controller and controlled system may change. So, what seems all too complex for control theory is exactly what we have to consider when we investigate control in social systems.

2. Control in social systems: four inclinations and four modes of coexistence

To shed some light on these complications of control in social systems we carried out two preceding investigations. The first is a general cybernetic analysis how two controllers, and goal-orientated systems generally, can interact (Nechansky, 2007). And the second is an application of that, studying the options how two persons or social systems can interact (Nechansky, 2016). We present here a brief summary of the main results of these investigations, which are the base for our following considerations. For a complete coverage of the background of this paper we recommend consulting Nechansky (2016).

Basic systematic considerations show that *one* person or system A has *four options for goal-setting* in relation to another person or system B (Nechansky, 2016):

(1) A sets goals-values for B;

(2) A does not set own goal-values;

(3) A sets own goals-values for the own niche only; and

(4) A aims at mutual goal-values with B.

And similar systematic considerations show that *two* persons or goal-orientated systems A and B have just four options to interact; we called these options *the four modes of coexistence* (Nechansky, 2007, 2016). These modes correspond to Ackoff and Emery's (1972, p. 124) observation that two adaptive systems A and B have just four options to adapt to each other:

(1) *Conflict*: A tries to force B, while B resists (A tries to force B to adapt to A, according to Ackoff and Emery, 1972);

(2) *Hierarchy*: A submits to B (A adapts to B);

(3) *Independence in a niche*: A and B do not interact, pursuing own goal-values in their own niches (neither A nor B adapt to the other); and

(4) *Cooperation*: A and B realize mutual goal-values (A and B adapt to each other).

To explain how we get from the four individual processes of goal setting to the four modes of coexistence in interactions, we have to consider what happens, when A and B apply their goal-values in their decisions controlling their personal behavior. Here we can use the formula for an elementary decision, as specified in Section 1 above, to show how this primary choice of goal-setting gives direction to and determines the current behavior of A in relation to B and *vice versa*:

(a) Initially A applies one of the four processes of *setting a goal-value* (setting goals for B; setting no own goals; setting goals for the A's own niche only; trying to stipulate mutual goals of A and B).

(b) The goal-setting determines the *focus of attention* of A, i.e. *where* A will seek *deviations* (in the other – i.e. in B; nowhere; in A's own niche only; or in both systems A and B).

Let us explicitly emphasize that it is solely A's initial act of goal-setting, which defines *what* will constitute a deviation in A's view (according to the term {(actual data) (relation) (goal-value)} entering in a decision) and *where* such a deviation is sought.

(c) Goal-setting and derived definitions of deviations in turn determine the *direction of the corrective actions* of A (against B; nowhere; toward A's own niche only; or toward both systems A and B).

(d) And with that comes a *general character of the behavior* of A in relation to B (aggressive against B; aimlessly drifting or submissive, if taking over goal-values of B; striving for independence; or cooperative).

For a detailed discussion of this decision process see Nechansky (2016).

Based on that, we suggested that every one of the four goal-setting processes corresponds to an *inclination*, which mode of coexistence *one* party A *wants to realize* in a current interaction with another party B (Nechansky, 2016):

(1) A has an *inclination for conflict/hierarchy upper position*, if setting goals-values for B;

(2) A has an *inclination for hierarchy lower position*, if setting no own goal-values;

(3) A has an *inclination for the niche*, if setting own goals-values for the own niche only;

(4) A has an *inclination for cooperation*, if aiming at mutual goal-values with B.

Now, when *two* persons or goal-orientated systems A and B enter in an interaction, each can chose one of these goal-setting processes and inclinations. These determine the relation A *wants* to achieve with B, and B *wants* with A, respectively. But then the actual goal-setting processes and inclinations of *both parties* determine which mode of coexistence actually *will be realized* between A and B.

Placing these four goal-setting processes and the related inclinations, which A and B can pursue, in a 4×4 matrix, leads to the *interaction matrix*. This shows how the current goal-setting processes and inclinations of A and B *predetermine and limit* the available modes of coexistence. So, e.g. if A sets goal-values for B, A comes with an inclination for an upper position in a hierarchy, wanting to make B pursue A's goals. Now if B has no own goal-values, B may readily submit and there will be the hierarchy A wanted; but if B wants to pursue any own goals, there will be a conflict (for a complete discussion see Nechansky, 2016).

This was a dense summary of the theoretical background of this paper. Our main points are:

- The four individual acts of goal-setting and the related *inclinations* cover all possibilities for individual goal-orientated behavior of one person or system A in relation to another party B.
- The *four modes of coexistence* (Nechansky, 2007, 2016, Ackoff and Emery, 1972) cover all basic possibilities for goal-orientated interactions between two persons or system A and B.

Based on that we suggest the following starting hypothesis for this paper:

H1. If the four *inclinations* cover all options for individual goal-orientated behavior, then we should expect that they *show in some way in any description of individual behavior*, and that any such description addresses at least one of them.

H2. Accordingly, if the four *modes of coexistence* cover all options for goal-orientated interactions, we should expect that they *show in some way in any description of goal-orientated interactive behavior*, and that any such description addresses at least one of them.

Both assumptions should hold for all behavioral sciences. So we suggest that the four inclinations and the four modes of coexistence can serve as a basic classification scheme for any description of goal-orientated behavior in any behavioral science. In the following we will try to show that these behavioral characteristics have been discovered and rediscovered literally over millenniums, and have been grouped appropriately, but have been always studied under totally different headings. Now, we suggest that this classification scheme allows showing parallels in behavioral descriptions elaborated in very different approaches and perhaps even to unite them as contributions to our understanding of one particular of these classes of behavior.

We will start with suggestions how the four inclinations can be used to find parallels in classifications of individual behavior in different schools of psychology. Then we will turn to group dynamics and suggest how various behavioral descriptions of interactions can be related to the four modes of coexistence. Beside that we will sketch how individual inclinations seem to be related the positions and modes of coexistence, which individual can realize in groups.

3. From theory to applications: classifying descriptions of behavior

Now we need a way from the theoretically available possibilities for goal-orientated behavior – the four individual inclinations and the four modes of coexistence in interactions – to specific descriptions of behavior.

To relate given descriptions of *individual behavior* to an *inclination*, we can rely on the analysis of the goal-setting and decision processes, as carried out briefly in points (a)-(d) in Section 2 above (for details see Nechansky, 2016). This analysis provides us with four different characteristics of the inclinations for one mode of coexistence (conflict/hierarchy upper position, hierarchy lower position, niche, cooperation). These characteristics are (a) the *initial internal goal-setting process*, which determines the externally observable behavior, (b) *focus of attention*, where deviations are sought and (c) *direction of actions*, where corrective actions aim at, and with that (d) the *general*

character of behavior. In detail we find the following characteristics for the four inclinations (for an overview see top of Table I):

(1) *Inclination for an upper position in a hierarchy*: (a) Setting goal-values for others; (b) Detecting deviations from own goals in others; (c) Acting against others and enforcing own goals against them; (d) Aggression.

Field	Subcategory / Author	(1)	(2)	(3)	(4)
Cybernetics	Inclination for a mode of coexistence (Nechansky, 2016)	Conflict / Hierarchy upper position	Hierarchy lower position	Niche	Cooperation
	Characteristics (see section 3): (a) Goal-values	Own for others	Non / Extraneous	Own for self	Mutual
	(b) Focus of attention	On others	No own focus	On self	On all parties
	(c) Direction of actions	Against others	No actions / prescribed actions	Towards own niche only	Mutual actions with others
	(d) Behavior	Aggression / Domination	Aimless drifting / Subordination	Independence	Interaction of equals
Hindu Tradition	Gunas (Prevailing personal characteristics) Bhagavat Gita (Radhakrishnan, 1948)	Rajas (Passion)	Tamas (Ignorance)	Sattva (Clarity)	
	Developmental tracks (Radhakrishnan and Moore, 1989)	Karma-yoga (The way of action)	Bhakti-yoga (The way of devotion)	Jñāna-yoga (The way of knowledge)	
Buddhist Psychology	Avidya - Vidya (Brazier, 1995)	Lobha (Greed)	Moha (Delusion)	Dosa (Hate)	Vidya (Open mind)
Western Tradition	Plato's tripartite human soul (MacIntyre, 2002)	Thumos, (Spirit - concerned with standards of honorable behavior)	Epithumia (Appetite - concerned with bodily desires)	Logisticon (Reason - concerned with rational behavior)	
	Augustine's human faculties (Levi, 2004)	Memoria (Remembering)	Voluntas (Loving)	Intelligentsia (Understanding)	
Current Approaches to Psychology	Basic forms of anxiety (Riemann, 1961)	Compulsive (and hysteric) Personality	Depressive Personality	Schizoid Personality	(Hysteric Personality)
	Psychic states (Freud, 1934)	Superego	Id	Ego	
	Behavioral states (Berne, 1975)	Parental ego state	Child ego state	Adult ego state	
	O.k. positions (Berne, 1975)	I am o.k. / You are not o.k.	I am not o.k. / You are o.k.	I am not o.k. / You are not o.k.	I am o.k. / You are o.k.
	Neurotic states (Horney, 1950)	Vindictive-aggressive type	Self-effacing type	Resigned type ("Appealing to freedom")	
	Value Tracks (Hall, 2006)	Vision	Compassion	Courage	

Table I.
The four inclinations for a certain mode of coexistence: cybernetic definitions and characteristics, and different descriptions in old and new approaches to psychology (see main text for details)

(2) *Inclination for a lower position in a hierarchy*: (a) Setting no own goals or submitting to extraneous goals of others; (b) Detecting no deviations or seeking deviations from extraneous goals in the self and others; (c) No actions or only ordered or prescribed behavior; (d) Aimlessly drifting or submissively following others.

(3) *Inclination for the niche*: (a) Setting own goals; (b) Detecting deviations from own goals in the own niche only; (c) Pursuing self-realization alone; (d) Striving for independence.

(4) *Inclination for cooperation*: (a) Compromising on own goals and stipulating mutual goals; (b) Detecting deviations from mutual goals in the self and others; (c) Pursuing mutual goals with others; (d) Cooperative behavior.

Below we will analyze, if a given description of individual behavior contains at least one of these characteristics, and if there are no other contradicting descriptions. And if we find that, we classify the description as a contribution to our knowledge of one of the inclinations.

When we turn to *interactions*, i.e. to descriptions of the behavior of two or more individuals, we can try, if we can classify the behavior of all the parties involved as descriptions of certain inclinations, as specified above. Or we can try to identify the four modes of coexistence directly; here the criteria are obvious:

(1) *Conflict*: Both parties try to aggressively enforce their own goal-values against others.

(2) *Hierarchy*: At least one party submits to the goal-values of another.

(3) *Niche*: Parties avoid or minimize interactions trying to realize own goal-values widely alone.

(4) *Cooperation*: Parties are ready to negotiate, to compromise and to stipulate mutual goals-value to realize them in an egalitarian relation with others.

These are the criteria, which we will apply now, when we try to classify various descriptions of behavior.

4. Four inclinations: a basic scheme for individual psychology

Here we turn to psychology. We will try to apply the notions of the four *inclinations* to various descriptions of individual behavior and psychic states, which we find in different psychological theories, old and new. As stated above, we suggest that all these descriptions are basically related to one inclination for realizing a certain goal-setting process and with that aim at realizing a certain mode of coexistence. (If that individual inclination actually leads to the aimed at mode of coexistence can, of course, only show in particular interactions with one or more others).

Let us point out that we find in most schools of psychology and many old traditions, too, a split of the human psyche in *three* different aspects. Surprisingly this number three seems to be a constant, even if *very different authors* would have been free to distinguish any number of aspects. Now we suggest these three aspects are *at their core* related to our first three inclinations (for the upper and the lower position in a hierarchy, and the niche) *with fuzzy variations* around. The last inclination, cooperation, is only seldom addressed in theories on *individual* psychology, probably because it requires an interaction with equal minded persons, which might not be easily studied in a field dealing primarily with *single individuals*.

When we summarize the descriptions of some psychological schools below and relate them to one of the four inclinations, we will always keep the order (1) conflict/hierarchy upper position, (2) hierarchy lower position, (3) niche and (4) cooperation.

We start our classification of various psychological theories with some old, traditional schools, to illustrate that our scheme seems to have been observed since long. But then our main focus will be on suggesting an interpretation of the interrelation of current approaches. Table I gives an overview on the psychological theories we consider.

4.1 Traditional approaches to psychology

4.1.1 Hindu tradition: the three gunas and three yogas. Already in ancient Hindu thought, as expressed, e.g. in the Bhagavad Gita (Radhakrishnan, 1948), from ca. 300 BC, we find three categories of personal conduct determining the character of a person. They are summarized under the heading of the "*Gunas*": (1) "*Rajas*" is described as the nature of (aggressive) passion, attaching man to (external) action, (2) "*Tamas*" stands for (aimless) darkness, ignorance, dullness, heedlessness and delusion and (3) "*Sattva*" stands for clarity and goodness, and the pursuit of happiness and knowledge (independence, eventually cooperation). With Radhakrishnan (1989, p. 147) we suggest that we find in these descriptions sufficient parallels with the categories in later approaches discussed below and therefore with the four inclinations, too.

Furthermore the Hindu tradition knows three different developmental tracks, which enable the specific self-realization of persons of different "*Gunas*": (1) "*Karma-yoga*," the (aggressive) way of action; (2) "*Bhakti-yoga*," the (submissive) way of devotion; and (3) "*Jñāna-yoga,*" the (independent) way of knowledge (Radhakrishnan and Moore, 1989). These different paths seem not unlike the findings of Hall (2006), which we will discuss in Section 4.2.6 below.

4.1.2 Buddhist psychology: from avidya to vidya. Buddhist psychology offers a surprisingly rich and detailed categorizing (Brazier, 1995). Here we find the three roots of "*avidya*" ("basic ignorance"), which are seen as causes of all psychic troubles. Each one characterizes a negative personal trait. We suggest there are parallels to Horney's neurotic types, which we discuss in Section 4.2.5 below:

(1) *Hierarchy upper position*: "*Lobha*" ("greed") is overly attachment to an (aggressive) enforcement of certain ideas or states.

(2) *Hierarchy lower position*: "*Moha*" ("delusion") is an aimless state of confusion or dullness.

(3) *Niche*: "*Dosa*" ("hate" or "aversion") shows as detachment, separation or alienation.

What makes Buddhist psychological theory particularly interesting is that it aims at overcoming *all three* aspects of "*avidya*" on a developmental path toward "*vidya*" ("open mind"). So it points at a way toward the fourth mode, cooperation, which requires giving up something of the own position to arrive at compromises with others. Western individual psychology usually does not address that.

4.1.3 Western tradition: Plato's tripartite soul. According to Plato's *Republic* the human soul is divided into three parts. These parts are: (1) *thumos*, spirit, (aggressively) concerned with standards of honorable behavior, (2) *epithumia*, appetite, (aimlessly) concerned with bodily desires and (3) *logisticon*, reason, concerned with (independent,

cooperative) rational behavior. Men fall into three behavioral classes depending upon which part of the soul is dominant (MacIntyre, 2002).

Radhakrishnan (1989, p. 147) emphasizes the equivalence of Plato's (1) *thumos*, (2) *epithumia*, (3) *logisticon* with the Hindu concepts of (1) "*rajas*," (2) "*tamas*" and (3) "*sattva*" (see above).

4.1.4 Western tradition: Augustine's human faculties. In the form of Augustine's (354-430) theory even the Christian Trinity with (1) Father, (2) Son and (3) Holy Spirit may fit in the scheme of the inclinations. Augustine maintained that the Trinity has to be expressed in humans, since they were created as image of the Biblical god according to the Christian tradition. So he arrived, following Plato, too, at his three parts of the human psyche (1) "*memoria,*" (2) "*voluntas*" and (3) "*intelligentsia,*" corresponding primarily to the activities of remembering (pursuing – perhaps aggressively – traditional values), (submissive) loving and (independent, cooperative) understanding. These three parts became later known as human "faculties" and dominated western thought about psychology for more than thousand years (Levi, 2004).

4.2 Current approaches to psychology

4.2.1 Anxiety as driver: Riemann's basic forms of anxiety. Coming to current psychological concepts we want to start with Riemann's (1961) *four basic forms of anxiety*, which determine the behavioral preferences of persons:

(1) *Hierarchy upper position*: The "compulsive" personalities developed primarily an "anxiety of punishment" in the age of two to four years, which made them suppress their aggressions. Out of that they developed later an "anxiety of change" fearing that deviation from prescribed conduct will lead to punishment again. Therefor these persons tend to stick to given rules and aggressively enforce their pursuance. Depending on their personal strength they may become demanding leaders or just correct executers of orders. In both cases they may seek an outlet for their suppressed aggression.

(2) *Hierarchy lower position*: The "depressive" personality developed an "anxiety of being left alone and developing a self" resulting from early experiences (at an age of about 1/2 to 2 years) of helplessness and loneliness. Therefore these persons try to stick to other persons, subordinating their own desires to that of the others and even suppressing them, just to be accepted and to belong. Depending on their personal strength they may be supporting and caring lovers as well as servants of their communities, or the misused victims of others.

(3) *Niche*: The "schizoid" personalities lacked warmth and help from other persons in the earliest childhood (before age 1/2 to 1). So these persons primarily developed intellectual capabilities, trying to make sense out of their cold environment, while they could not develop their emotional side. So they developed an "anxiety of closeness," which makes them lead an independent and even autarkic life trying to realize their own goal-values in solitude. Depending on their personal strength they may become independent thinkers and critics, or outsiders, or even outcasts.

(4) *Cooperation*: Riemann's forth type does not fit clearly in our scheme, but seems to be the one most open at least to fleeting spontaneous coalitions with equals, if not lasting cooperation.

> The "hysteric" personalities developed an "anxiety of commitment" lacking any clear leadership in the age of four to six years. To deal with that situation these persons stick to "childish," unpredictable and defiant behavior, to get what they want or at least to get the attention of others. Their behavior shows one tendency aiming at an upper position in a hierarchy, opposing others and particularly stronger persons in a chaotic way to get it their own way. But there is, too, another tendency toward cooperation for these persons usually quickly recognize mutual interests with others, and enjoy or at least use such chances for mutual pleasure or experience. Yet that may remain short-term activities. Depending on their personal strength they may become creative artists, humorous entertainers, winning marketing men or incalculable chaotics.

Not unlike Horney (1950, see Section 4.2.5 below) Riemann (1961) emphasizes that we all do personally know *all* these anxieties, as well as the related forms of behavior. Yet in some persons one anxiety may be more dominant, or even prevail. The stronger a certain anxiety resulting from severe or even traumatic childhood experience, the stronger will be the tendency to stick to one form of behavior, i.e. to one inclination, as we suggest calling it.

Additionally Riemann points at the interrelation between certain inclinations and certain professions. And he mentions in passing that ideologies and cultures may favor and encourage one particular inclination for one certain mode of coexistence.

So we think Riemann (1961) shows the *negative psychic drivers*, which determine an inclination to seek or avoid a certain mode of coexistence: These are anxieties developed in early childhood, which may prevail and possibly determine our behavior for a lifetime. But Riemann emphasizes, too, that even if we remain confined to one of the psychic cages made of our anxieties, we may find a place to make a valuable contribution to society acting out of that cage (we suggest here is a correspondence to the "*Yogas*" mentioned above and the developmental tracks of Hall discussed in Section 4.2.6 below).

4.2.2 Internal conflicts before expressing an inclination: Freud's superego, ego and Id. Freud (1934) introduced the split of the psyche in three different aspects into modern western psychology. It may be difficult to relate Freud's (1934) pioneering, by somewhat opaque descriptions exactly to our inclinations, but perhaps the following interpretation may fit.

Freud seems to deal primarily with *intrapersonal* aspects of the psyche:

(1) *Hierarchy upper position:* The "superego" seems to be related to given (parental, societal) goal-values, which work like internal commands that should be applied and (aggressively) executed externally.

(2) *Hierarchy lower position*: The "Id" seems to be related to the (aimless, drifting) expression of uncontrolled personal drives.

(3) *Niche*: The "ego" is (independently, perhaps cooperatively) dealing with reality.

We suggest that we find here *internal* parts of the psyche, which seem to be related to different inclinations for different goal-setting processes (for externally expressing prescribed goals, bodily drives or situation-specific individual goals). These parts are engaged in an *internal conflict*, which goal-setting process should be chosen in a current situation. This conflict ends with a decision for one certain form of goal-setting; and so the internal part finally prevailing in this internal conflict determines the actual inclination shown in the effective *external* behavior.

4.2.3 Berne's ego states. Berne distinguishes in his transactional analysis (Berne, 1975; Stewart and Joines, 2000) three "ego states," which are types of behavior, which can be easily *observed* in every individual. Now we suggest these types of *externally* effective behavior are the result of an internal goal-setting process (in which Freud's intrapersonal aspects may have played a role) to pursue a certain inclination. The chosen inclination is expressed verbally and bodily:

(1) *Hierarchy upper position*: Persons acting out of Berne's (1975) "parent" ego state show demanding (aggressive) behavior and primarily forward their own view and give directives to other people (e.g. children or subordinates).

(2) *Hierarchy lower position*: Persons acting out of the "child" ego state show (aimless) childish, playful or humorous behavior, or insecure (submissive) behavior toward other persons (e.g. partners or superiors).

(3) *Niche*: Persons acting out of the "adult" ego state show (independent) self-confident and (perhaps cooperatively) considerate behavior; they live in the here and now, and are open for discussions.

In the view of transactional analysis (Berne, 1975; Stewart and Joines, 2000) healthy persons will show situation-specifically changes between the behaviors related to the "ego states," while usually showing slight preferences for one. We suggest this is in accordance with Riemann's dominant anxieties (Section 4.2.1 above) and Horney's neurotic types (Section 4.2.5 below).

We think that Berne's three ego states "parent," "child" and "adult" seem to be the best fitting descriptions of the three inclinations for hierarchy upper position, hierarchy lower position and niche, respectively, which are available in psychological theory today. And Berne's transactional analysis may offer the easiest accessible and understandable approach to psychology for practitioners outside the field. And Berne gives even a hint toward the fourth mode (see next section).

Furthermore, preferences for "ego states" can be determined with questionnaires (see e.g. Heinzel, 2007); so they are easily available for empirical research.

4.2.4 Berne's ok positions. Additionally Berne (1975) offers with his well-known ok positions a framework to consider attitudes toward oneself and others. We think there is a quite good match to the four inclinations:

(1) *Hierarchy upper position*: "I am o.k., you are not o.k." can be clearly related to conflict/upper position in a hierarchy.

(2) *Hierarchy lower position*: "I am not o.k., you are o.k." will easily lead to the lower position in a hierarchy.

(3) *Niche*: "I am not o.k., you are not o.k." will probably lead to retreat. This may be an attitude behind Horney's resigned neurotic types, discussed below.

(4) *Cooperation*: "I am o.k., you are o.k." seems to be the position necessary for any cooperation.

Taken alone this approach may not seem very sophisticated. But it indicates that an inclination for the fourth mode, cooperation, has psychological requirements going beyond the other modes.

Particularly it suggests that three goal-setting processes are involved, before cooperation can be sought: First, A has to be able to set own goal-values ("I am o.k.").

Only after that A is in a position to acknowledge the same right to B ("You are o.k."). And only if B is able to do the same, i.e. set own goal-values and acknowledge that right, too, there is a base to go beyond. Only after that the parties can apply their individual abilities to set goals, to finding compromises and to negotiate and set mutual goals for cooperation.

This complicated sequence is a basic description of the way from the psychology of the individual to cooperation. We will study that in detail in future work. It may be one reason, why the inclination for cooperation is usually not considered in individual psychology.

4.2.5 Horney's neurotic types. Horney (1950) distinguishes three basic "*neurotic*" types of observable exaggerated behavior in persons:

(1) *Hierarchy upper position*: The "vindictive-aggressive type" is ready for dispute and for fight, imposes his values on others and suppresses others in the hope to achieve fame and any confirmation of his supposed superiority.

(2) *Hierarchy lower position*: The "self-effacing type" subordinates all strivings to the will of others in the hope to find acceptance and love that way.

(3) *Niche*: The "resigned type" does neither relate much to other persons nor seek social contact, but is "appealing to freedom," trying to pursue own goals alone.

Horney maintains these behaviors can be found in everyone, but have to be judged as neurotic, when a person depends on realizing just one of them to feel personal well-being. We think there is a clear correspondence to Riemann's (1961) more dominant, or even prevailing anxieties (Section 4.2.1 above).

We suggest that Berne (1975) deals with 'normal' behavior, i.e. the permanent changes between three inclinations (his "ego states") in everyday activities, while Horney describes a "neurotic" dependence on just one inclination and the related preference to live according to just one mode of coexistence. We think there is a quite good match in their behavioral descriptions, differing only in the greater flexibility of 'normal' vs the strictness of "neurotic" behavior.

4.2.6 Developmental psychology: Hall's value tracks. Hall (2006) studies in his important, but unfortunately not well-known work different "goals values," which humans pursue in the course of their lives, using different "means values" to achieve them. And he identified three important "value tracks" characterizing repeatedly observed lifelong lines of personal development:

(1) *Hierarchy upper position*: Persons on the "vision" track actively (aggressively) pursue their career within the society.

(2) *Hierarchy lower position:* Persons on the "compassion" track place themselves more passively (submissively) in loyal and intimate relationships.

(3) *Niche*: And persons on the "courage" track finally are on an own (independent) individual way to their self-realization.

We cannot discuss here Hall's much more detailed account. We can just suggest that Hall's "value tracks" may lie within the scope allowed according to Riemann's (1961) anxieties. And they seem to correspond to a preference for a certain inclination (or a certain "ego-state" according to Berne, 1975, or a tendency toward a certain neurosis according Horney, 1950) and a related mode of coexistence.

And Hall's (2006) "value tracks" seem to show, too, some correspondence to the three forms of Hindi "*yoga*" (Radhakrishnan and Moore, 1989) mentioned in Section 4.1.1 above.

4.3 Summary psychology: emergence and expression of inclinations

These few authors have to suffice here to make our point. We suggest the following interpretation of the relations between these approaches and our concept of inclinations:

- Early experiences and related *anxieties* (Riemann, 1961) seem to determine if persons develop more or less strong preferences for a certain inclination.
- Freud (1934) seems to deal with the *internal conflicts*, which arise before a person decides for a certain inclination and starts expressing it in externally observable behavior. Riemann's anxieties seem to influence the likelihood, which inclination will be expressed.
- Once such a decision is made, the inclination considered as currently appropriate is expressed in *externally observable behavior*. Berne's (1975) "ego states" seem to describe the behavior expressing the inclinations and the 'normal' situation-specific changes between them.
- Horney (1950), finally, describes "*neurotic*" *behavior*, i.e. a strong preference for or even fixation on just one inclination (and the related strong preference to live according to just one mode of coexistence). Here one of Riemann's anxieties seems to prevail, and a 'normal' change between the inclinations (Berne's "ego states") seems not available to these persons.
- Starting from weak preferences or stronger "neurotic" determinants (Horney, 1950) persons can anyway find specific developmental tracks (the "value tracks" of Hall, 2006, or the forms of Hindi "*yoga,*" Radhakrishnan and Moore, 1989) to realize the strength of their personalities.

So we suggest that anxieties basically determine individual preferences for certain inclinations for a mode of coexistence. 'Healthy' person have internal conflicts before they decide for one inclination and then express it in their current externally effective behavior. "Neurotic" persons strongly prefer or even stick to one inclination and the related behavior.

Now the individual preferences and strengths to express a certain inclination, i.e. the ability to set and pursue goal-values, predetermine and limit the possible modes of coexistence in interactions and in groups (for details see Nechansky, 2016, and there particularly the interaction matrix, Table II). We come to group dynamics.

5. From inclinations to modes of coexistence: interactions and group dynamics

Now we move to interactions of two and then to groups. While we found in individual psychology usually just three inclinations (with the interactive cooperation mostly missing), we find in group dynamics usually *four* categories. We suggest that these correspond to the four modes of coexistence.

When summarizing various behavioral descriptions of interactions below and relating them to the four modes we apply the criteria named in Section 3. And we will always keep the order (1) conflict, (2) hierarchy, (3) niche and (4) cooperation.

Field	Subcategory / Author	(1)	(2)	(3)	(4)
Cybernetics	Mode of coexistence (Nechansky, 2007, 2016)	Conflict / Hierarchy (upper position)	Hierarchy (lower position)	Niche	Cooperation
Group dynamics	Social interaction of cooperators and competitors (Kelley and Stahelski, 1970)	"Competitors"	(Types with a "acquiescence or yeasaying tendency")	("Isolationists")	"Cooperators"
	"The Drama Triangle" (Steiner, 1990)	Persecutor / Rescuer	Victim	(Solution: Independence / self-initiative)	(Solution: Mutual consent)
	Ranking positions (Schindler, 1957)	"Alpha": The goal-setting "leader" of the group	"Gamma": The goal-executing "member"	"Omega": The outsider and "scapegoat"	"Beta": The independent "expert" cooperating with "Alpha"
	Types of groups (Bion, 1968)	Fight / flight groups	Dependent groups	Pairing / Vision groups	Work groups

Table II.
The four modes of coexistence of goal-orientated systems in group dynamics; (see main text for details)

Again a few examples have to suffice here to make our point. Table II gives an overview on the approaches we consider here.

5.1 Kelley's and Stahelski's two types of individuals

Kelley and Stahelski (1970) investigated the behavior of two "types" of individuals, "competitors" and "cooperators," which set different goal-values when participating in prisoner's dilemma games:

(1) *Hierarchy upper position*: "Competitors" pursue selfish goal-values against others in the game, i.e. they try to maximize their personal gain.

It turned out that "competitors" stuck almost exclusively to competitive moves, assumed that other players were competitive, too and were blind to any signs of cooperative behavior. So they brought even cooperative players to turn to competition, while they did not notice any change of behavior, nor that they caused it, but just saw the proof of their initial assumptions.

(2) *Hierarchy lower position*: Kelley and Stahelski (1970, p. 85) only mention persons with an "acquiescence (or yeasaying) tendency"; i.e. there are other "types" then two they focus on.

(3) *Niche*: Kelley and Stahelski (1970, p. 82) only mention, too, "isolationists," i.e. persons with no outside orientated behavior.

They consider them as equal to their "competitors," because they show similar behavior in their prisoner dilemma games. Yet we think they may show aggression for different reasons: "competitors" (striving for hierarchy upper position) seem to show *proactive offensive aggression* to make others pursue their goals, while "isolationists" (with an inclination for the niche) may show a *reactive defensive aggression* to stop interference with their own goals (see Nechansky, 2016). Prisoner dilemma games may not allow differentiating these forms of aggression.

Let us mention here in passing that the distinction between reactive and proactive aggression plays an important role in developmental psychology (see e.g.

Dodge, 1991). And there seems to be evidence (see e.g. Vitaro *et al.*, 1998, 2006) that these forms of aggression continuously show with developmental tracks related to an inclination for hierarchy upper position and independence in a niche, respectively.

(4) *Cooperation*: Kelley and Stahelski's (1970) "cooperators" decide for mutual goal-values in the game, i.e. they try to maximize the overall gain of themselves and the other player.
"Cooperators" always started with cooperative moves, but when faced with continuous competition, turned to a competitive strategy, too. Out of frustration they may even get more competitive than the competitors. Yet they were aware that they reacted to behavior of the "competitors" and had changed their behavior. And "cooperators" tended to show flexibility, shifting back to cooperation, when faced with new moves of cooperative behavior of the other side.

We suggest that Kelley and Stahelski (1970) provide important insights in basic mechanisms leading from individual inclinations to *patterns* of interactions. They show that an aggressive inclination (aiming at hierarchy upper position) will lead mainly to aggressive responses, while the emergence of cooperation depends on partners with a cooperative inclination. This confirms the purely theoretical considerations of our interaction matrix (see Nechansky, 2016).

Let us mention that Kelley and Stahelski (1970) formulated a "triangle hypothesis" suggesting that "competitors" have a more narrow view of humans than "cooperators," which are aware of more differences in people on a cooperative – competitive scale; we could confirm and detail that with the interaction matrix, too (see Nechansky, 2016).

Perhaps the most important insight of Kelley and Stahelski (1970) is that "competitors" – i.e. persons with an inclination for the upper position in a hierarchy – expect competition and prepare for it, consider any offers for cooperation as mere tricks and act competitive from the start. With this aggression they finally make others actually compete: so their expectations are confirmed, and they will enter the next interaction with reinforced expectations, which will be confirmed and reinforced again. Kelley and Stahelski (1970, p. 90) draw a disquieting conclusion, that seems to be important to know and to consider when dealing with persons with a strong inclination for conflict/hierarchy upper position: "All present evidence implies is that cooperators have little effect on the beliefs of competitors in the normal course of affairs."

5.2 Steiner's drama triangle

Steiner (1990) investigated a pattern that shows in groups, and particularly in groups of three. The positions of persons in a group may shift in a process called the "drama triangle" (Berne, 1975; Steiner, 1990), where different hierarchies and forms of cooperation occur sequentially.

A first hierarchy emerges, when one person called the "persecutor" acts out of a "one-up" position (1 – *hierarchy upper position*) against a "victim" kept in a "one-down" position (2 – *hierarchy lower position*). This "victim" may turn to a third party, called the "rescuer" for help (4 – *cooperation*), to give support and advice to the "victim."

Now a second hierarchy may form, if the "rescuer" confronts the previous "persecutor" to defend the interests of the "victim," thus becoming a new "persecutor" acting now out of a (1) "one-up" position and brings the previous "persecutor" into a (2) "one-down" position, turning him into a new "victim."

If the new "victim" asks the previous "victim" for support (4 – *cooperation*) against the current "persecutor" the shifting of hierarchies and cooperation may go on and on. This process is often to observe in groups as well as in families and organizations.

So Steiner's "drama triangle" shows how interactions can get stuck in certain modes of coexistence, i.e. here (1) conflict, (2) hierarchy and (4) small scale cooperation. And Steiner's therapeutic solution is to help the parties find a balance between independent achievements (within their *niches* – i.e. the previously missing mode 3 and a *large scale cooperation* mode 4 pursuing mutual goal-values all can agree on.

And our point here is that Steiner's (1990) pattern is, of course, bound to the four modes of coexistence, for that is all there is, even if always called differently.

5.3 Schindler's rank dynamics

Schindler (1957) found that group members take *four* different ranking positions in the process of the formation and structuring of small groups. They come with different functions within the group and different relationships to other members:

(1) *Hierarchy upper position*: The "Alpha position" is the place of the "leader." The leader proposes the goals, which are accepted by most group members as the best thing to do in a given situation. So the leader comes in a position allowing to aggressively enforce these goals, which are his or her goals, within the group and particularly against outsiders.

(2) *Hierarchy lower position*: The "Gamma position" is the place of the anonymous average group "member." The members identify with "Alpha," accept the goals proposed, and take the position and make the work demanded by "Alpha." They may become the subject of the aggression of "Alpha," if their performance is bad; they pass on this aggression to "Omega."

(3) *Niche*: The "Omega position" is the place of the new or weak group member, the "scapegoat" with the weakest bond to the group. The scapegoat is open to alternatives to the group, to external options and other goals than proposed by "Alpha." This makes the scapegoat an object of the aggression of "Alpha." The scapegoat plays the important role to unite the group against him or her, and to introduce unusual ideas. Mostly the scapegoat will forward such ideas.

(4) *Cooperation*: The "Beta position" is the place of the "expert." The expert serves the group with needed special skills or knowledge and consults "Alpha." Unlike "Alpha" who is legitimated by inspiration and drive, "Beta" is legitimated by the quality of his or her work. So the success of the group depends widely on the cooperation of the "expert." This makes him or her widely independent of group.

A change of the external situation or an internal demand for new goals may lead to a shift of the positions of some or even all group members (Schindler, 1957).

According to Schindler (1957) entering a group requires taking one of these positions and playing the according role. We suggest that is a necessity, because these positions correspond to a mode of coexistence, and one of them has to be pursued. The character required by a position may interfere with the character of the person (Schindler, 1957), i.e. with his or her preferred *inclination*.

Let us emphasize that these positions can be determined with sociometric methods; so they are available for empirical research.

5.4 Bion's group dynamics

Bion found in his seminal work on group dynamics exactly *three* types of what he called "basic groups" and one seldom occurring fourth type, called "work group":

(1) *Conflict*: In "flight/fight groups" the group members engage in internal conflicts or aim as a group to dominate other groups.

(2) *Hierarchy*: In "dependent groups" strong leaders dominate weaker persons and give odd, unequal couples or groups, yet where both parties obviously need each other.

(3) *Niche*: In "pairing" or "vision groups," some persons will strive for their niche, for a pair or just a few of them, ignore whatever all the others do, and aim at pursuing their own visionary goals.

(4) *Cooperation*: In "work groups" the members temporarily overcome their inclinations for other modes and work together to solve problems.

In the sections above we discussed aspects of the *dyadic dynamics* of personal interactions between group members. Now we suggest that Bion's work describes the *overall picture* resulting from these interactions, i.e. the prevailing *internal* mode of coexistence *on the group level*: in his "basic groups" the majority of the group members strive for the modes of conflict ("flight-fight" group), hierarchy ("dependent group") or niche ("pairing group"), respectively, while in his "work group" it strives for cooperation. This prevailing internal mode seems to result from a temporary alignment of the majority of the group members toward the temporarily accepted goal-values; and these were forwarded by the current leader and express his or her currently prevailing inclination. So the prevailing internal mode of coexistence seems to result from an adjustment of the group members to the currently prevailing inclination of the leader.

We suggest, furthermore, that "flight-fight" groups are the (instable) association of persons with an inclination for the upper position in a hierarchy. *Bion's other groups, the "dependent," "pairing," and "work" group, seem to be (stable) associations of persons pursuing matching inclinations for a hierarchy, for a niche or for cooperation*. We showed these stable modes of coexistence, where all parties get what they want, in the interaction matrix (Nechansky, 2016).

Bion's (1968) four types of groups and the corresponding *prevailing internal modes in a group* (conflict, hierarchy, niche or cooperation) *probably go parallel with an external inclination of the group* toward other persons or social units (Nechansky, 2016): the leaders, and with them the majority of the group, will make acts of goal-setting in relation to other groups (primarily for the other, none, for the own niche only, for mutual goals); and with that comes a temporary *external inclination* of the group for a certain mode of coexistence in relation to others (conflict/hierarchy upper position, hierarchy lower position, niche, cooperation).

It seems likely that these external inclinations correspond to current internal modes of coexistence: "Flight-fight" groups seem to aim at an upper position in an external hierarchy, too, and will not avoid conflict to achieve that. "Dependent groups," where the mass of members accept a lower position in a hierarchy internally, will probably be ready to do that externally, too. And "pairing" or "vision" groups will seek independence in their niches, while "work groups" may strive for wider cooperation to get more things done.

5.5 Summary group dynamics: the alignment of inclinations and modes of coexistence
Now we suggest that the works of these authors show a clear relation to our inclinations and modes of coexistence:

- Kelley and Stahelski (1970) show primarily how an individual inclination for an upper position in a hierarchy, i.e. trying to enforce own goals, leads to conflict and makes cooperation impossible.
- Steiner's (1990) "drama triangle" describes how patterns of interactions may shift unproductively in small groups between the modes of coexistence conflict, hierarchy and restricted small scale cooperation.
- Schindler (1957) describes internal struggles within small groups, which lead to rankings and establish more permanent modes of coexistence between group members. We find clearly that goal-setting for others (typical for the inclination for hierarchy upper position; Nechansky, 2016), which are here the group members, is a prerequisite for leadership ("Alpha") and comes with aggression, while aligning to these goals (typical for the inclination for hierarchy lower position) leads immediately to a lower status ("Gamma").
- Bion (1968) finally describes the prevailing internal mode of coexistence within the group (fight/flight i.e. conflict, fixed hierarchy, closed niche or solution-orientated cooperation). This results from the temporary alignment of the majority of the group members toward temporary accepted goal-values forwarded by a current leader.
  This internal mode seems to go parallel with an external inclination of the group to achieve a certain mode of coexistence in relation to other groups (conflict, hierarchy, niche or cooperation).

So we suggest that these descriptions illustrate how individual inclinations to realize a certain mode of coexistence determine individual behavior in interactions, which in turn leads to a ranking process and a rank order within groups. And furthermore these descriptions illustrate, too, that an overall alignment of group members toward currently accepted goal-values determines a temporarily prevailing mode of coexistence within the whole group. This in turn seems to go parallel with an inclination of the group to achieve a certain mode of coexistence in relation to other social units.

6. Summary: psychology and group dynamics

In a previous paper we showed that there are just four different goal-setting processes, which a person can use in relation to another, i.e. setting goals (1) for the other, (2) none, (3) for the self only, (4) for mutual goals (Nechansky, 2016). And we showed that there are just four modes of coexistence, (1) conflict, (2) hierarchy, (3) the niche and (4) cooperation (Nechansky, 2007, 2016), i.e. four ways how two systems can adapt to each other (Ackoff and Emery, 1972).

Based on that, we suggested that these four different goal-setting processes correspond to an *inclination* to achieve a certain mode of coexistence in relation to another party, namely, (1) conflict/hierarchy upper position, (2) hierarchy lower position, (3) the niche and (4) cooperation.

If this inclination can be realized, i.e. leads actually to the mode of coexistence aimed at, depends primarily on the inclination of the other party. Placing the inclinations of the parties in a 4×4 interaction matrix shows, which modes of coexistence become available to them (Nechansky, 2016).

Now in this paper we wanted to relate this deductive theoretical approach to inductively derived descriptions of actually observed behavior. Primarily we tried to show:

- We suggested that we can find correspondences between the inclinations for (1) hierarchy upper position, (2) hierarchy lower position and (3) the niche, and the three basic behavioral categories, which are distinguished in most schools individual psychology.

  We tried to show that this holds for traditional schools like Hinduist and Buddhist, as well as Platonic and Christian, and for the scientific approaches of Freud (1934), Riemann (1961), Berne (1975), Horney (1950) and others.

  We pointed out that the mode cooperation is only seldom addressed in individual psychology.
- We suggested that we can clearly relate behavioral descriptions of group dynamics to aspects of the four modes coexistence:

  We find aspects of them in Kelley and Stahelski's (1970) investigations of conflict and in Steiner's (1990) "drama triangle" consisting of unproductive shifts of modes. And we could identify all four modes in Schindler's (1957) ranking processes and in Bion's (1968) types of groups.

Furthermore we indicated that personal inclinations seem to influence individual developmental tracks and ranking positions in groups:

- Individuals tend to develop preferences for certain inclinations in early childhood, driven by anxieties (Riemann, 1961). These preferences may be only weak, or may be even strong and "neurotic" (Horney, 1950). Anyway, these preferences seem to make it likely that persons take characteristic developmental tracks (Riemann, 1961; Hall, 2006; Radhakrishnan and Moore, 1989).
- Furthermore preferences for certain inclinations seem to influence, too, which position a person is likely to seek and realize in the ranking processes of groups (Schindler, 1957), and which type of group according to Bion (1968) he or she will prefer.

  So there seems to be evidence for an alignment of preferences for certain inclinations, for certain developmental tracks and for seeking certain positions in and types of groups. But, of course, what we could present here can only hint in that direction and requires further verification.

We pointed at possibilities to empirically verify that approach:

- On the individual level preferences for "ego states" according to transactional analysis (Berne, 1975, Stewart and Joines, 2000), which seem to correspond widely to our inclinations, can be determined with questionnaires (see e.g. Heinzel, 2007).
- On the group-level ranking positions can be determined with sociometric measurements.

Together that forms a base to empirical test this approach: Preferences for inclinations can be determine with questionnaires; then the determined preferences can be related to developmental tracks of persons, as well as to achieved ranking positions in groups and types of groups sought.

So inclinations, as well as the related developmental tracks and alignments can be empirically verified. To the best of our knowledge such investigations relating individual characteristics to developmental tracks are rare (see e.g. Vitaro *et al.*, 2006), and to group patterns seems to be even less existing.

7. Some illustrations and an outlook

In the paper introducing the theory to this approach (Nechansky, 2016), we presented a short example using four well-known historical figures to illustrate that here seems to be an alignment of individual psychological inclinations and modes of coexistence in larger social units. Now we can add more substance to that suggestion:

(1) *Hierarchy upper position*: We suggested that Hitler was a person clearly expressing this inclination (if not already a vindictive-aggressive neurosis according to Horney, see Section 4.2.5). Now based on our analysis here we suggest that if a person with that inclination succeeds in the ranking process of a group (see Section 5.3) and convinces the group members to pursue the suggested aggressive goal-values, the whole group will show a behavior with characteristics of Bion's "fight/fight" group (see Section 5.4). And then the whole group will show an inclination for conflict/hierarchy upper position in relation to other groups.

(2) *Hierarchy lower position*: We took Mother Teresa as an example for this inclination. She joined a religious order, took the related vows seriously and applied them selflessly to serve others. And she succeeding in attracting and convincing others to follow her and take the same approach. We suggest the resulting group shows characteristics of a "dependent group" according to Bion. And as a whole this group showed again an inclination to serve others, i.e. for hierarchy lower position.

(3) *Niche*: As example for this inclination we suggested Einstein. He was an abstract thinker in need of time in solitude, with no prime concern for a position in an organization.

(4) *Cooperation*: Finally we presented Gandhi as an example for this inclination. If such a person succeeds in the ranking process (see Section 5.3) and convinces other group members to proceed cooperatively, the group character will more correspond to a "working group" according to Bion (see Section 5.4); and the whole group will seek agreement and cooperation internally and externally.

So, based on our analysis in this paper we suggest there are the following alignment processes:

- A leader who is successful in a ranking process (see Section 5.3) will attract those group members with similar prevailing inclinations, while encouraging others to express this inclination, even if not prevailing. So a new leader may turn the mode of coexistence of a group.

  As illustration let us mention here that Gandhi repeatedly was criticized of acting too soft and weakly (Kulke *et al.*, 2006); now if these critics would have succeeded to forward a leader (someone more like Hitler) more attractive than Gandhi and outranking him, they might have formed a new leading group turning the whole Congress party toward conflict.

- So, we suggest there seems to be an alignment of personal inclinations of leaders with the corresponding inclinations of group members, leading to prevailing modes of coexistence in the whole group.

  Should there actually be persons, which are attracted by Hitler's approach, then they will probably not be attracted by Gandhi's way, and probably even less

consider joining the order of Mother Teresa. Imagining any exchange of these leaders and their followers simply does not work.

- Persons with totally different inclinations than the ones prevailing in the group will probably leave the group, or will go in opposition (taking the role of Schindler's "Omega," see Section 5.3) or go underground (seeking to retreat to some niche, or at least trying to remain unnoticed in the mass of silent group members, Schindler's "Gammas," see Section 5.3).

These considerations of alignment processes based on our analysis here, suggest that the alignment goes on in larger social units (we will investigate that in future work).

The aggressive party leader (like Hitler) forming a core "fight/flight group" may succeed shaping an aggressive political party (like the Nazis); coming to power this party may reinforce the aggressive inclinations of the persons within the society and shape its institutions accordingly (e.g. preparing for war).

On the other hand a cooperative leader (like Gandhi) forming a core "working group" may succeed shaping a cooperative political party (like the Congress); coming to power this party may reinforce the cooperative inclinations of the persons within the society and shape its institutions accordingly (e.g. avoiding conflict with England, trying to create a more egalitarian society by overcoming the Indian caste system).

Of course, so far we presented only some basic evidence for this view, by analyzing the insights of a few schools and considering them as contributions to our knowledge of the four modes of coexistence. But we think there is some support for our thesis that the cybernetic necessity of setting goal-values for decisions determines temporary psychological inclinations of individuals, which in turn determine temporary sociological patterns. Let us mention, this thesis brings us in opposition to the claim of Durkheim (2013, originally published in 1895), that sociology should be a science independent of psychology; but it is in accordance with a Weberian individualistic view of sociology (Weber, 2008).

8. Conclusion: a basic scheme for the human and behavioral sciences

We started from the consideration of control as a goal-orientated activity. Controller systems make goal-orientated decisions: they relate current observations to goal-values, determine if the observations are different from the goal, and if there are such deviations, they trigger corrective goal-orientated actions, to change the deviation in the direction toward the goal.

Then we asked how two controller systems can try to apply control in relation to each other (Nechansky, 2007), and particularly how that may look like if these "controller systems" are persons or social units (Nechansky, 2016):

(a) There we found that there only are four goal-setting processes with which a person or system can approach another person or system (setting goals for the other, setting no own goals, setting goals for the self only, aiming at mutual goals). These goal-setting processes correspond to an *inclination* to realize a certain mode of coexistence in the interaction with the other.

(b) There are *four modes of coexistence* with which two persons or systems can interact (conflict, hierarchy, the niche and cooperation). These modes result from the previously chosen inclinations or goal-setting processes of both parties, and the application of their respective goal-values in their decisions controlling their personal behavior.

Here we applied this approach to psychology and group dynamics:

(a) We showed how to relate psychological descriptions of *individual* goal-orientated behavior to a certain inclination.

(b) And we showed how to relate descriptions of *interactions* between two persons or systems to a certain mode of coexistence.

Based on that we suggested how previously unrelated views might fit together. We suggest this approach has unifying power, and can form a base for all human and behavioral sciences:

Now we can search existing descriptions of behavior and determine what they can contribute to our knowledge of a certain inclination or a certain mode of coexistence. We suggest that allows us to mine immense bodies of accumulated knowledge, pre-scientific as well as scientific, which all use these categories since long, but named them differently. And so we can draw conclusions from seemingly very different approaches and can combine them to statements overcoming previous limits between different sciences.

References

Ackoff, R.L. and Emery, F.E. (1972), *On Purposeful Systems*, Tavistock, London.

Berne, E. (1975), *What Do You Say After You Say Hello?* Corgi, London.

Bion, W.R. (1968), *Experiences in Groups*, Tavistock, London.

Brazier, D. (1995), *Zen Therapy*, Wiley, New York, NY.

Dodge, K.A. (1991), "The structure and function of reactive and proactive aggression", in Peppler, D. and Rubin, K. (Eds), *The Development and Treatment of Childhood Aggression*, Erlbaum, Hillsdale, NJ, pp. 201-218.

Durkheim, E. (2013), *The Rules of Sociological Method*, Palgrave Macmillan, Houndmills.

Freud, S. (1934/1999), "Psycho-analysis", in Freud, S. (Ed.), *Gesammelte Werke*, Vol. 14, Fischer, , Frankfurt, pp. 297-307.

Hall, B.P. (2006), *Values Shift*, Wipf and Stock, Eugene, OR.

Heinzel, H. (2007), *Zielwirksam führen aus transaktionsanalytischer Sicht*, Expert Verlag, Renningen.

Horney, K. (1950), *Neurosis and Human Growth*, Norton, New York, NY.

Kelley, H.H. and Stahelski, A.J. (1970), "Social interaction basis of cooperators' and competitor's beliefs about others", *Journal of Personality and Social Psychology*, Vol. 16 No. 1, pp. 66-91.

Kulke, H. and Rothermund, D. (2006), *Geschichte Indiens*, Beck, Munich.

Levi, A. (2004), *Renaissance and Reformation*, Yale University Press, New Haven, CT.

MacIntyre, A. (2002), *A Short History of Ethics*, Routledge, London.

Nechansky, H. (2007), "Elements of a cybernetic epistemology: the four modes of coexistence of goal-orientated systems", *Kybernetes*, Vol. 36 No. 2, pp. 157-174. doi: 10.1108/03684920710741206.

Nechansky, H. (2008a), "Elements of a cybernetic epistemology: decisions, control and principles of societal organization", *Kybernetes*, Vol. 37 No. 1, pp. 83-93. doi: 10.1108/03684920810851005.

Nechansky, H. (2008b), "Functional and structural requirements for goal-orientated systems", in Trappl, R. (Ed.), *Cybernetics and Systems 2008, Proceedings of the 19th EMCSR*, Austrian Society for Cybernetic Studies, Vienna, pp. 185-190.

Nechansky, H. (2011), "Cybernetics as the science of decision making", *Kybernetes*, Vol. 40 No. 1, pp. 63-79. doi: 10.1108/03684921111117933.

Nechansky, H. (2012a), "Elements of a cybernetic epistemology: pattern recognition, learning and the base of individual psychology", *Kybernetes*, Vol. 41 Nos 3/4, pp. 444-464. doi: 10.1108/03684921211229514.

Nechansky, H. (2012b), "Elements of a cybernetic epistemology: sequence learning systems", *Kybernetes*, Vol. 41 Nos 1/2, pp. 157-176. doi: 10.1108/03684921211213007.

Nechansky, H. (2013a), "Elements of a cybernetic epistemology: elementary anticipatory systems", *Kybernetes*, Vol. 42 No. 2, pp. 185-206. doi: 10.1108/03684921311310567.

Nechansky, H. (2013b), "Elements of a cybernetic epistemology: complex anticipatory systems", *Kybernetes*, Vol. 42 No. 2, pp. 207-225. doi: 10.1108/03684921311310576.

Nechansky, H. (2016), "The interaction matrix: from individual goal-setting to the four modes of coexistence", *Kybernetes*, Vol. 45 No. 1, pp. 87-106.

Radhakrishnan, S. (1948/1989), "Bhagavadgita", in Radhakrishnan, S. and Moore, C. (Eds.), *A Sourcebook in Indian Philosophy* (Translated by S. Radhakrishnan), Princeton University Press, Princeton, NJ, pp. 101-163.

Radhakrishnan, S. (1989), *Eastern Religion and Western Thought*, Oxford University Press, New Delhi.

Radhakrishnan, S. and Moore, C. (Eds) (1989), *A Sourcebook in Indian Philosophy*, Princeton University Press, Princeton, NJ.

Riemann, F. (1961), *Grundformen der Angst*, Reinhardt, Munich.

Schindler, R. (1957), "Grundprinzipien der psychodynamik in der gruppe", *Psyche*, Vol. 11 No. 5, pp. 308-314.

Steiner, C. (1990), *Scripts People Live*, Grove Press, New York, NY.

Stewart, I. and Joines, V. (2000), *Die Transaktionsanalyse* (Translated by W. Rautenberg), Herder, Freiburg.

Vitaro, F., Brendgen, M. and Barker, E.D. (2006), "Subtypes of aggressive behaviors: a developmental perspective", *International Journal of Behavioral Development*, Vol. 30 No. 1, pp. 12-19. doi: 10.1177/0165025406059968.

Vitaro, F., Gendreau, P.L., Tremblay, R.E. and Oligny, P. (1998), "Reactive and proactive aggression differentially predict later conduct problems", *Journal of Child Psychology and Psychiatry*, Vol. 39 No. 3, pp. 377-385.

Weber, M. (2008), *Wirtschaft und Gesellschaft*, Zweitausendeins, Frankfurt.

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