# 4 Biopsychosocial Medicine

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> A biopsychosocial model is proposed that provides a blueprint for research, a framework for teaching and a design for action in the real world of health care.
>
> George L. Engel (1977: 135)

*Abstract*: It is no surprise that the call for a "talking" medicine coincides with the paradigm shift from a *biomedical* to a *biopsychosocial* approach to understanding and treatment. Those who want to care for patients

according to the biopsychosocial model must increasingly find communicative access to the patient, and those who not only tolerate but intensify the conversation with patients will increasingly learn something about the biopsychosocial dimensions of their illness and its treatment possibilities. As will be worked out, the biopsychosocial model is both a cognitive and treatment model as well as a relationship and communication model.

Although we cannot give a historical-systematic outline here (Engel 1977/79, Engel 1981/88/92/96, v. Uexküll, Wesiack 1991, 2011, Roth 2001, Beckermann 2011, Hontschik et al. 2013, Smith et al. 2013, Egger 2017, 2020, Egle et al. 2020, Lugg 2022, Bolton 2022, 2023, Roberts 2023), some aspects of the justification and development of biopsychosocial medicine shall be elaborated upon, which concern the fact that the traditional biomedical approach to understanding soon reaches its limits.

On the one hand, this applies vis-à-vis to rather *external* developments, in which medicine must take account of changing disease patterns (acute vs. chronic diseases, demographic change, multimorbidity, etc.) and a new social awareness of disease and health under an active patient role. This new profile of requirements for the image of the doctor of the future will be pursued later in two steps. First the *structural and functional change* of medicine (§ 5) will be described and then the *key medical competences* required for this (§ 6) will be differentiated.

On the other hand, the limits of the biomedical approach can also be seen in the more *internal* developmental tendencies of medicine, which go hand in hand with the necessary overcoming of the traditional *dualism* of body and soul. In the following, we will first briefly look at the *mind-body problem* (§ 4.1), and then describe the paradigm shift to *biopsychosocial* medicine, which sees itself as an integrative approach to anamnesis, diagnosis, and therapy in everyday care practice (§ 4.2). This integrative approach will be exemplified by a case study which v. Uexküll and Wesiack have presented and analysed in detail, and which serves as an illustration and at the same time as basis for a *learning unit* on the introduction to biopsychosocial medicine (§ 4.3). Finally, we explore the central relational aspect of biopsychosocial medicine by asking how doctor and patient can "establish a shared reality" (§ 4.4). All sections (especially § 4.3) are designed in such a way that they can be used for teaching purposes as templates for learning units on the introduction to biopsychosocial medicine.

## 4.1 The Mind-Body Problem

The mind-body problem does not begin with Descartes' modern dualism of *res extensa* and *res cogitans,* nor is it merely a philosophical problem. Rather, it concerns different scientific disciplines, each with a specific relevance for our image of the world and of ourselves.[1] At the same time, these are relevant for our conception of patients as self-determined subjects who should take an active participatory role in medical treatment processes thus preserving their autonomy (esp. § 10).

### 4.1.1 The humanist self-image

Historically, the mind-body problem can be traced from modern neuroscientific brain research back to antiquity (Popper, Eccles 1989, Eccles 1994, Roth 2001, Beckermann 2011). It encompasses such diverse theoretical and empirical sciences as philosophy, theology, sociology, psychology, biology, medicine, etc., which, despite all attempts to distance themselves, cannot escape the theme of a dualism of whatever kind (v. Uexküll, Wesiack 1991, 1997, Uexküll 1995, Fuchs 2000, Langenbach, Koerfer 2006, Beckermann 2011, Tress 2011, Herrmann-Lingen 2012, Langewitz 2022). Overall, a number of pairs of opposites are often linked to the mind-body problem, of which the essential difference between body and spirit in the relationship between part and whole is already discussed in Descartes as a prominent example (Box 4.1).

| Box 4.1 | Of the divisible body and indivisible mind |
|---|---|

Now, first of all, I notice here that there is a great difference between spirit and body insofar as the body, according to its nature, is always divisible, whereas the spirit is absolutely indivisible. For indeed, when I con-

1 We cannot give a historical-systematic outline of the mind-body problem here, but only want to raise awareness of its importance in biopsychosocial medicine, to be introduced here in a problem-oriented and exemplary way. First of all, we would like to refer to further literature: on (Analytical) Philosophy (of Mind): Popper, Eccles 1989, Beckermann 2011 and specifically on medicine: White et al. 1988, v. Uexküll, Wesiack 1991, v. Uexküll 1995, v. Uexküll, Wesiack 1997, Alonso 2004, Meyer-Abich 2010, Tress 2011, Hermann-Lingen 2012, Smith et al. 2013, Hontschik et al. 2013, Egger 2017, 2020, Smith 2021, Langewitz 2022, Lugg 2022, Bolton 2022.

> sider this, i.e. myself, inasmuch as I am only a thinking being, I cannot distinguish any parts in myself, but recognise myself as a thoroughly uniform and whole thing. And although the whole spirit seems to be connected with the body, yet I recognise that if one cuts off the foot or the arm or any other part of the body, nothing is therefore taken away from the spirit. Nor may one call the faculties of willing, feeling, cognition, etc., its parts, for it is one and the same spirit that wills, feels, and cognizes. On the contrary, I cannot think of any corporeal, i.e. extended thing, which I could not easily divide into parts in thought and thereby recognise as divisible, and this alone would be sufficient to teach me that the spirit is entirely different from the body, if I did not already know it sufficiently from elsewhere.

Rene Descartes 1641/1960: 76f

Not only since Descartes, the following pairs of opposites have played a role in the discussion of the mind-body problem with a long tradition, which have become significant for different sciences to varying degrees:

- Mind - Body
- Part - Whole
- Outside - Inside
- Cause - Effect
- Freedom - Bondage
- Finitude - Infinity
- Mortality - Immortality etc.

The empirical relevance of such distinctions, which seem to prove themselves again and again as habits of speech and thought in scientific explanations, as well as in practical life actions, is precisely what makes the dualistic principle so suggestive. In all approaches to a "solution" of the mind-body problem, as claimed by different variants of *monism* versus *dualism*, *idealism* versus *materialism,* the proponents and critics of the various positions agree on the importance of the scope of Cartesian dualism, which Ryle, for example, seeks to refute as the "myth of the ghost in the machine" (1949/69: 80) (on the critique, e.g. Popper, Eccles 1977/dt. 1989: 139ff.). Ultimately, this involves nothing less than questions about the "freedom of will" of human beings, the answers to which directly concern our *humanist* self-understanding.

As already well-known metaphors of the "helmsman of a ship" (Plato, Popper) or of the "master(s) in his own house" (Freud) suggest, our human self-understanding can be modelled in many ways or also radically

questioned (Langenbach, Koerfer 2006). The question of human "freedom of will", which has been raised again and again, especially in the tradition of (linguistic-analytical) philosophy, is not a purely academic matter, but concerns the problem of the imputability of actions and thus of the responsibility of individuals in all of our everyday lives (Koerfer 1994/2013). As we will see in the medical field, it is often about the imputability and responsibility towards the health or illness behaviour of patients who, for example, gladly reject medical questions about their own resources ("What can you do about it yourself?").

The topic of "freedom of will" has been revived by current brain research, the results of which are discussed in theoretical concepts and models according to which the degrees of freedom of a self-determined human existence seem considerably limited (Roth 2001, Geyer 2004, Habermas 2004). In the attempts to "solve" Cartesian dualism, the issue is thus also always one of the "predominance" of mind or body, which in extreme cases can each be "prisoner" of the other, to which we will return shortly with medically relevant examples.

### 4.1.2 Dualistic interactionism

It is difficult to escape our everyday intuition that mind and body belong to different "spheres" and yet are "somehow" connected. It is seldom disputed that, under this assumption, mind and body are interrelated in some way, even if a satisfactory answer to the question of *how* has yet to be found:

| Box 4.2 | The questionable "how" of interaction |
|---|---|
| We know that body and mind interact, but we do not know *how*. | |

Popper in: Popper, Eccles 1977/1989: 194 (emphasis there).

As Popper continues, this state of research is not surprising, since we are not even clear about how "physical things" interact with each other or how "mental processes" interact with each other. A conclusive or even viable "solution" to the mind-body problem for all or even some disciplines as an answer to the question of *how* is not to be expected according to the current state of research (see above); at best, individual scientific and interdisciplinary "interim solutions" can be discerned. This is all that is suggested here, only to awaken an awareness of the

problem for teaching purposes, when we turn to a specific variant for "solving" the mind-body problem, the attractiveness of which consists solely in the fact that two prominent representatives of their philosophical or medical guilds have undertaken an interdisciplinary discourse in a joint work.

A specific variant for "solving" the mind-body problem is *dualistic interactionism*, as advocated in part jointly by the philosopher Karl R. Popper and the brain physiologist and Nobel Prize winner John C. Eccles (Popper, Eccles 1989, Eccles 1994). This is about interactions under the assumption of a *three-world theory,* as advocated especially by Popper (1972, German 1994), but underpinned by both in their joint work on "The Ego and its Brain" (1977, German 1989). There and in a later work with the programmatic title "How the Self Controls Its Brain" (1994), in which the central control function of the self vis-à-vis the brain is elaborated, Eccles explicitly draws on Popper's *three-world theory,* which he has presented several times in clear diagrams (Fig. 4.1).

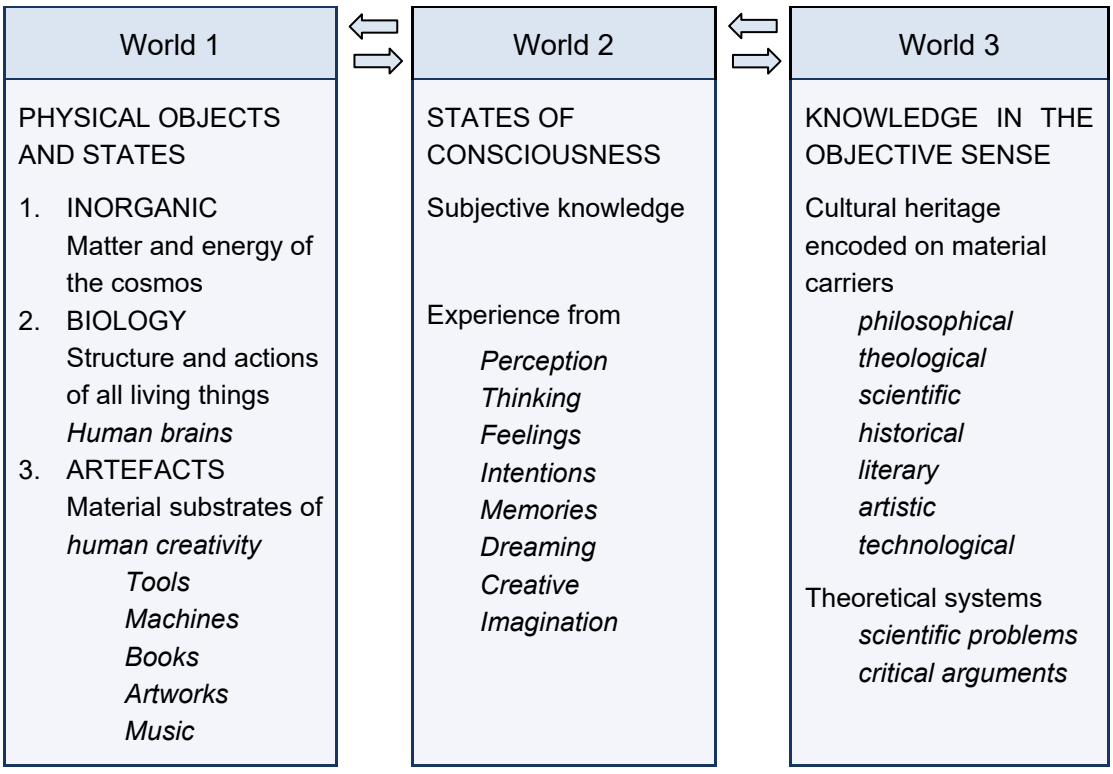


Fig. 4.1: Three Worlds Theory by Popper
(Illustration according to Popper, Eccles 1989: 433, Eccles 1994: 17).

In their joint work, but also separately, both authors have dealt with numerous alternatives and variants to their dualistic interactionism as well as with the criticism of their associated epistemological position

("objectivism", "scientism"), to which we can only refer here.[2] In this context, we are particularly interested in the aspect of *interaction*, which even *biopsychosocial* medicine (§ 4.2) will not be able to avoid.[3]

### 4.1.3 The consultation according to the "three-world theory"

Popper himself has illustrated his three-world theory several times (Popper, Eccles 1977/89, Chapter P2 and P3) using the medically relevant example of a visit to the dentist, which we will discuss in more detail here: A visit to the dentist as an action involves both physical processes in world 1 (caries in the tooth as a material, physicochemical process) and mental effects in world 2 (conscious attention, sensation of pain), and finally presumptions or knowledge from world 3 (ideas, plans and institutions). Popper plays through the example of the visit to the dentist using competing approaches to solving the mind-body problem, which we can only refer to here, although he gives a number of interesting details of the example that can be extended: Thus, I will not only use my memory in the case of acute toothache and accordingly dial the correct telephone number of my dentist, but qua cultural knowledge (world 3) I will also want to make an appointment with the dentist for reasons of *prevention,* even if I do not currently have any toothache sensations (world 2).

This would bring into play a different kind of "causality" ("good" *reasons*, *motives*, etc.) that would determine my health actions. The fact that I go to the dentist for preventive reasons of biological function preservation, "so that I can bite powerfully tomorrow", does not exclude that I could also decide to go to the dentist for aesthetic reasons, because a "gapless set of teeth" is part of my personal self-image.

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2 Not least because of this (three-world theory) variant, the dualistic interactionism of Popper and Eccles has been criticised in many ways, not only in principle from the perspective of the philosophy of mind (e.g. Beckermann 2011: esp. ch. 2.2), but also from a medical perspective (e.g. v. Uexküll, Wesiack 1991: esp. ch. 1.6.4), which we will return to in a moment under the specific aspect of "upward and downward movements" in a biopsychosocial model.

3 If you have time for this in your teaching and find sufficient interest, we recommend not only the scientific part of the book by Popper and Eccles (1977/1989), but also, especially in the appendix, the reproduction of their oral dialogue, which testifies not least to an open, interdisciplinary culture of discussion.

On the other hand, self-images, which are "maintained" primarily in interaction with world 3 (culture, etc.), can lead to biologically dysfunctional behaviour. Thus, the beauty craze in the variant of a slimness craze possibly seduces one to a self-damaging illness behaviour until the full clinical picture of anorexia is developed - with all the biological consequences of "organ diseases" (world 1), etc.

Compared to the then once developed (anorexic) addictive behaviour, the question of "imprisonment" in the relationship between mind and body often turns out to be very complex - as with all addictive diseases, which are therefore also difficult to treat. In many cases, it is even to be expected that the visit to the doctor is avoided altogether because the (seriousness of the) illness is denied.

In yet other cases, the illness behaviour can also be maintained against the "actually" preferred self-image. A self-harming behaviour is continued "against one's better judgement" because patients experience themselves as "powerless" in the face of their "drug addiction" or "obesity", for example (so that Freud's question of who actually is the master in the house arises again here). We will return to this with a case study of an obese patient (§ 4.3), which will be used to explain the mind-body problem in the form of "upward and downward movements" within the framework of biopsychosocial medicine.

## 4.2 Paradigm shift towards biopsychosocial medicine

At the beginning of this century, v. Uexküll (2001) explained the current "crisis of medicine" from the dualism in everyday health care practice, which consists of treating "bodies without souls" in *somatic* medicine on the one hand and "souls without bodies" in *psychological* medicine on the other. It is precisely this dualism in health care practice that must be eliminated in an integrative approach, which requires a *paradigm shift* from a *biomedical* to a *biopsychosocial* model of understanding. This paradigm shift on the "factual level" corresponds to the shift on the "conversational level", where a communicative approach to biopsychosocial issues must be sought. As will be shown, these partly "delicate" topics can only be gained through a different kind of conversation, which overcomes the reductions of the traditional, purely biomedical anamnesis.

### 4.2.1 Somatic versus psychological medicine

The traditional dualism between a *somatic* and *psychological* medicine is often metaphorically described as a "dualism of the hand and the word", for example by v. Uexküll and Wesiack (2011) (Box 4.3) in their scientific-theoretical introductory chapter to the handbook of "Psychosomatic Medicine".

Box 4.3 Dualism of hand and word

Our health care system suffers from a dualism: on the one hand, we have somatic medicine, which interprets the body according to the biomechanical model and *"acts*" with direct or indirect manipulations. On the other hand, we have psychological medicine that does not care about the biomechanically interpreted body and assumes mental phenomena for its interventions, which it *interprets* according to a completely different model.
One can describe this divergence as a dualism of a doctrine for interventions of the "hand" and a completely different doctrine for interventions with "words" and speak of a dualism of the hand and the word. Interventions of the hand can then be understood as all measures from physical therapy to treatment with ionising radiation, the prescription of molecular agents that act on specific cells or organs, and surgical interventions. Under interventions with words one can summarise all psychotherapeutic measures of a psychoanalytical, behavioural, or suggestive nature.

v. Uexküll, Wesiack 2011: 27

This dualism between *somatic* and *psychological* medicine, which is essentially determined by the "dualism of the hand and the word", will occupy us throughout, but especially under the question of how an abolition of the dualism is possible, i.e. how an integration of a doctor's instrumental *interventions* ("hand") and *communicative* interventions ("word") can be achieved (§ 7, 8). The problems and consequences of a dual medicine have been elaborated on by v. Uexküll and others in many different forms, whereby the theoretical explanations are sometimes very complex (v. Uexküll 1995, v. Uexküll, Wesiack 1991, 2011). These texts are relatively extensive and not always easy to understand, especially since they presuppose a certain basic theoretical and scien-

tific-historical knowledge (of the philosophy of science, systems theory, developmental psychology, psychoanalysis, semiotics, etc.).

For easier understanding, we have therefore compiled the differences between *somatic* and *psychological* medicine in a contrasting representation, which can also be used as a blackboard illustration in teaching (Fig. 4.2). Our tabular presentation follows easily understandable texts (v. Uexküll 1991, 2001, 2002), which in our experience have also proven their worth in teaching under the aspect of didactic reduction.

What is initially still listed separately in this representation (Fig. 4.2) under the metaphor of care by "hand" or "word" is now to be brought together in an *integrated* medicine that considers all bio-psycho-social aspects relevant to the disease and healing in both diagnostics and therapy.

First of all, to avoid possible misunderstandings: The *paradigm shift* from biotechnical to *biopsychosocial* medicine called for by George Engel (1981, 1979, 1996) as well as Thure v. Uexküll (1995), Thure v. Uexküll and Wolfgang Wesiack (1991, 2011) does not mean neglecting or even ignoring the modern biomedical achievements and the resulting diagnostic and therapeutic possibilities, but rather achieving integration at all levels of knowledge and treatment.

The medically indicated treatment with the "hand" (bypass surgery, medication) is carried out just as unrestrictedly as the treatment with "words" is continued with an "organ-healthy" patient who, after thorough examination and diagnosis "without organ findings", regularly complains of "heart pain" in the consultation hour. The patient with "high blood pressure" is treated "with medication", while at the same time his personal possibilities for changing his "risky" lifestyle are "discussed" together with the doctor in the consultation.

The patient with diabetes mellitus (type 1) who is already "well controlled" can nevertheless make a change of treatment forms ("injections" versus "pump") the subject of conversation, in which doctor and patient jointly "discuss" the advantages and disadvantages of the two treatment alternatives in view of the patient's personal motives ("injection phobia" as a "mental problem") and his life circumstances (profession), to which we will return in detail with a concrete consultation analysis (§ 22.5).

| | **Dual medicine** | |
|---|---|---|
| | Somatic medicine | Psychological medicine |
| Terms/Metaphors | "Hand"<br>Mechanical action | "Word"<br>Psychological intervention |
| Disease theory | Spatially localisable disturbance in technical structures | Result of an individual socialisation failure |
| Subject | Open system:<br>"trivial machine" | Closed system:<br>"non-trivial machine". |
| Example | Valve defect in the heart<br>Enzyme defect<br>in the liver | Obsessive-compulsive avoidance reaction |
| Discipline | Surgery,<br>cardiology, etc. | Psychoanalysis,<br>behavioural therapy, etc. |
| Treatment/<br>Intervention | Manual interventions:<br>direct: surgical<br>indirect: medicinal | Have a conversation:<br>Coping through biographical (self-)education, behavioural suggestions |
| Destination | "Repair" | "Problem solving" |
| Reduction/consequence | Medicine for:<br>"Bodies without souls" | Medicine for:<br>"Souls without bodies" |

**Integrated medicine**
Biopsychosocial model

Fig. 4.2: Dual and integrative medicine (overview of tables compiled by us according to texts by v. Uexküll 1991, 2001, 2002, v. Uexküll, Wesiack 1991, 2011).

### 4.2.2 Integration of hierarchical levels

To overcome the dualism between a somatic "medicine for the body" and a psychological "medicine for the soul" with all the associated dichotomies (Fig. 4.2.), a biopsychosocial medicine has to achieve an integration of different hierarchical levels in theory and practice, even if this may be more or less successful according to the state of the art in each.

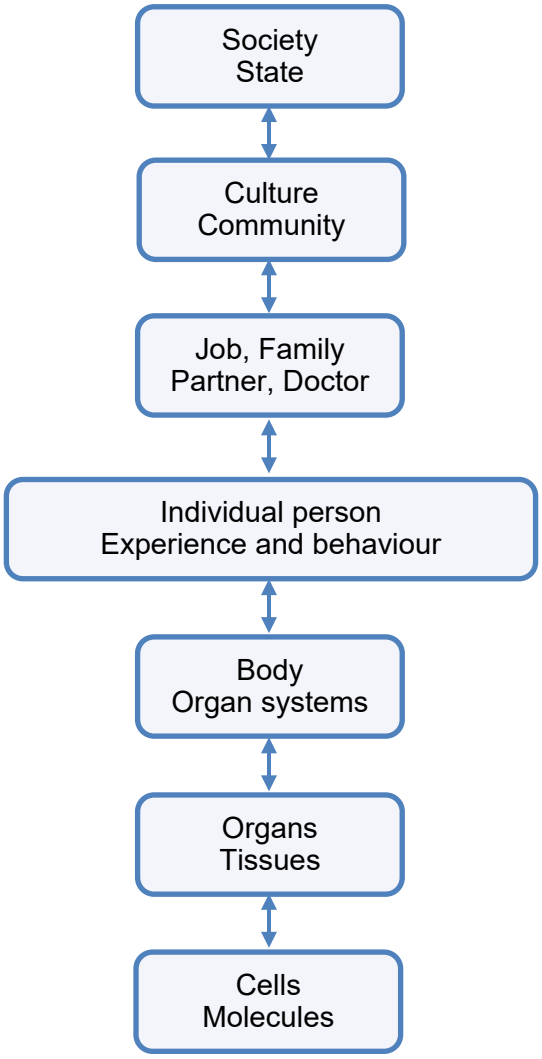


Fig. 4.3: Hierarchical system representation of the biopsychosocial model (simplified after Engel 1981, v. Uexküll, Wesiack 1991, Smith et al. 2013, Egle et al. 2020, Lugg 2022)

Here, the caveat already outlined with Popper above (§ 4.1.2), that research into the "*how*" of an interrelation between body and mind is still in its infancy, also applies to medicine as a single discipline, which is

not by chance beginning to open up to interdisciplinary cooperation with other disciplines (biology, bio-psychology, neuroscience, etc.). As in other disciplines, biopsychosocial medicine is about the integration of different levels in hierarchical systems (Fig. 4.3), ranging from the smallest units (particle, molecule, etc.) to the largest units (society, biosphere). The relationships initially shown schematically in figure 4.3 will be solidified in the following and specified using a case study which v. Uexküll and Wesiack used and discussed many times in their joint work to illustrate their approach, and which will serve us here as the basis for a teaching unit on biopsychosocial medicine.

Although the postulates and tasks for overcoming dualism within the framework of *integrative* medicine have now been elaborated in many ways (v. Uexküll, Wesiack 1991, v. Uexküll et al. 2002, Hontschik et al. 2013, Smith et al. 2013), in the following we will essentially limit ourselves to the *semiotic* and *systems-theoretical* conceptualisations of integrative medicine.

### 4.2.3 Semiotics and systems theory

The foundation and development of a biopsychosocial medicine is essentially influenced by *semiotic* (sign theory) and *system theory* traditions, which we can only mention briefly here (v. Uexküll 1981, Nöth 2000, v. Uexküll 1997/2013, 2000/2013). Both approaches and their interweaving are in turn based on the reception of the environmental theory of the biologist Jakob v. Uexküll that (his son) Thure v. Uexküll developed further in conceptions of a *biosemiotics* (1981, 1997) (cf. § 7.2). First, in a short presentation we refer to a review on the "Problem of a Biopsychosocial Theory" (1991) (Box 4.4), which we consider particularly suitable as an introductory text in teaching from the point of view of didactic reduction, in order to clarify the complex interrelationships between different *types of signs* (genetic, optical, tactile, acoustic signs etc.) and hierarchical *systems* (molecules, organs, organism, group, society, biosphere etc.).

| Box 4.4 | Signs and systems |
|---|---|

Living beings orientate themselves in their environment by signs of the most diverse kind, which show them the objects for their behaviour. Time and again, signs establish relationships between living beings and cer-

tain, relevant parts of their environment, which unite - "integrate" - both the living being and the relevant parts of the environment into units, i.e. into systems. These relationships may be of a fleeting nature, but they nevertheless show the principle according to which living systems come into being. By repeatedly merging simpler systems into more complex ones and these in turn into even more complex systems, "suprasystems" with hierarchical structures and "levels of integration" emerge, on which "emergent", i.e. unpredictable, new properties appear, properties which are not present in the systems of the simpler level of integration. In this way, we see how biological, psychological and social systems are formed and differentiated from each other at different levels of integration.

v. Uexküll 1991: 16

Interestingly, from the point of view of the history of science, which we cannot pursue further here, v. Uexküll and Wesiack not only refer to the founder of biopsychosocial medicine, George Engel, in their further system-theoretical considerations, which is obvious, but also *explicitly* refer to Popper (in Popper, Eccles 1989: Ch. P1: 34ff.) when they seek to substantiate his conception of "interactions of emergent stages" for the idea of "upward and downward movements" between hierarchical (sub-) and (supra-) systems, especially in the medical field (v. Uexküll, Wesiack 1991: 103ff, 155ff, 2011: 34). Since, despite all epistemological differences that we must leave aside here,[4] this conception of "upward and downward movements" between system levels is central to biopsychic modelling and will be reproduced here in detail (Box 4.5) before we seek to concretise it in several steps.

Box 4.5 Bio-psycho-social ups and downs

The hierarchical order (...) can be described as a "bio-psycho-social model" or "bio-psycho-social theory". It gives the doctor an orientation scheme; because at every level of integration of hierarchically structured, living systems, disturbances can occur which have effects in the system

[4] Despite the explicit reference to Popper in the question of interactions between system levels, v. Uexküll, Wesiack (1991: 53ff) distance themselves from Popper as the "advocate of 'objective knowledge'" as well as Popper's and Eccles' three-world theory (see above § 4.1), in favour of the position of *constructivism* for example as advocated by von Glasersfeld (1981). It remains to be seen to what extent the adoption of one approach is consistent with the rejection of the other.

as a whole via "somato-psychosocial upward effects" from the cell to the social group, and via "socio-psycho-somatic downward effects", from the social level to the cell. The doctor can "localise" disorders at the different levels of integration with the help of the orientation scheme. He can link disorders at the level of the cells, e.g. an immunodeficiency, with disorders at the level of the organs and the organism that arise as consequences of the immunodeficiency, and link these again with problems that arise with such a disorder at the psychological and social level of integration (...) Instead of the traditional theory, which understands reactions of living entities as consequences of mechanical effects, the biosemiotic theory interprets reactions as responses of living systems to signs.

v. Uexküll 1991: 16f

In order to concretise the model of bio-psycho-social interaction of integration levels, v. Uexküll and Wesiack have discussed a number of cases in various works, one of which we want to take a closer look at here. It is the case of a patient (§ 4.3) who reports nocturnal "attacks of acute shortness of breath" at the beginning of the consultation. The case study is embedded here in a learning unit that has often been tested in this or similar ways in teaching and further training.

## 4.3 Learning unit: "An everyday medical history"

The following case study has repeatedly been used by v. Uexküll and Wesiack as the starting point for their justification of biopsychosocial medicine, as "an everyday medical history" in their "Theory of Human Medicine" (1991) as well as in various variants of their science-theory oriented introductory chapter to the handbook of "Psychosomatic Medicine". We refer here to the 7th edition (Uexküll v., Wesiack 2011), from which the case report is first reproduced verbatim (Box 4.6), supplemented by a second part (from: v. Uexküll, Wesiack 1991). At the same time, the case report serves as an introduction to a learning unit on bio-psycho-social medicine, as it was developed and differentiated in several steps in the lessons given in our clinic.

Box 4.6 "An exemplary case of illness"

(Part 1) A woman of about 50 enters the consulting room for the first time and reports that she has had attacks of acute shortness of breath twice a night over the last three weeks. She had lost her breath and thought she was going to die. When the doctor asked her to describe the circumstances under which the attacks of breathlessness had occurred, she reported with a deep sigh that she was married to a foreigner in a bad marriage; he neglected her and often stayed out all night. The attacks of respiratory distress, which she perceived as so threatening, had begun when her eldest son (18 years old) had declared that he wanted to separate from the family and move away. After saying all this in a rather reproachful tone, she bursts into tears.

During the patient's report, the doctor's mood changes. On entering, he perceived a small, obese - as it turned out later, she weighed 108 kg at 161 cm tall - and short-tempered woman with somewhat cyanotic lips, who initially made a "scruffy" and unsympathetic impression on him, although, as he later noticed, she was by no means unkempt. This dismissive mood of the doctor, evoked by the first impression, changed into benevolent interest and helpfulness during the patient's report.

Further examination of the patient revealed signs of heart failure due to obesity and mild hypertension with left (ventricular) hypertrophy of the heart and a slight increase in blood lipids.

(Part 2) Later she reports that she had already felt unloved and rejected at home, had already been teased by her classmates at school because of her incipient obesity, and had already become pregnant at the age of 18 and fled into marriage, where she again experienced no love and warmth but only rejection.

v. Uexküll, Wesiack 1991: 13 (= part 2) and 2011: 4 (=part 1)
(cf. v. Uexküll, Wesiack 1997 (in: Adler et al. (eds.) (English edition): 12)

We can only briefly discuss this case here, which v. Uexküll and Wesiack discuss again and again in their introductory chapter on the theory of science (2011) as well as in their book on the "Theory of Human Medicine" (1991) (spread over more than 600 pages) to explain their theory of biopsychosocial medicine under diverse (semiotic, system-theoretical, constructivist, developmental psychological, psychoanalytical, etc.) aspects. Here we attempt a didactic reduction for teaching purposes, which is to be reversed if necessary - in case of doubt by recourse to the original sources mentioned.

We initially present the case the way it has often been discussed in a course unit in this or a similar way in the practice of teaching at our clinic. Ideally, the knowledge of the critique of dual medicine and the justification of the paradigm shift to biopsychosocial medicine - as explained above (§ 4.2) - can already be assumed. The case discussion can then be placed at the centre of the following learning unit, whereby the teaching-learning process can take approximately the following course with the following didactic-methodological steps.[5]

### 4.3.1 Biopsychosocial anamnesis

If participants (in class) are initially asked (as "unbiased" observers up to that point) to summarise the "information" pertaining to the anamnesis obtained through the report in "essential bullet points", one will receive - as often happens in class practice in one way or another - approximately the following list, which we number here only for ease of reference:

1. Gender: female
2. Age: 52 years
3. Size: 164 cm
4. Weight: 108 kg
5. Obesity
6. Breathing difficulties (dyspnoea)
7. (Mortal fear)
8. Married (early escape into marriage)
9. Potentially broken marriage
10. Son (moving out soon)
11. Left ventricular hypertrophy of the heart (moderate)
12. Hypertension (moderate)
13. Hyperlipidaemia (moderate)
14. Rejection (in childhood, youth, marriage)
15. Depression (?)

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5 In the following, we present a learning unit on biopsychosocial medicine based on this exemplary case, which has been repeatedly tested in our clinic in this or a similar way, whereby the realisation of the individual didactic-methodical steps is also a question of the time unit, which is why this learning unit offers corresponding possibilities for shortening or extending.

As mentioned, this exemplary list for the anamnesis is only a "collection of material" for the reported case, which is compiled in this or a similar way by students, with or without the additions (here in brackets), which are often omitted by "minimalist" material collectors.[6]

In a first learning phase, instructions for further structuring, sorting, classifying, etc. often lead to classifications such as "findings" or "diagnoses", which can be differentiated according to different types of "data collection". According to this, "data" are roughly differentiated according to whether they can be obtained "only later" through physical examinations and laboratory work or "already immediately" during the consultation itself, and on different levels of "observation", for example in which a doctor can perceive certain non-verbal data ("sighs") more or less attentively or also "overhear" or "overlook" them. All in all, the following types of data are distinguished in this case study, which are

- perceived directly by "sight" ("obesity")
- through communicative (non-verbal) perceptions such as tone of voice, sighs, tears, etc. ("depression")
- experienced conversationally through shared content ("rejection" in childhood, youth, marriage, etc.)
- obtained later through examinations and laboratory work ("hypertension", hyperlipidaemia", etc.).

A further classification according to *bio-psycho-social* topics usually leads to the following allocation of the topics (numbered above) in the learning group:

- *bio* (1-6, 11-13)
- *psycho* (7, 14-15)
- *social* (8-10)

Once the "data" worked out in this way are presented for the learning group in this form as a "collection of material", connections should be made, which tend to make a diagnosis and possible therapy appear plausible. In teaching, a representation of the case (Fig. 4.4) can be used for this purpose, which ideally can be developed, supplemented or

6 The impressions of the doctor-patient relationship itself, i.e. phenomena of transference and counter-transference ("unsympathetic"), usually do not play a role in the students' first collection of material, but they should be taken into account later in a further step (§ 4.4).

corrected interactively with the learners on an ongoing basis during and after reading selected text passages (from: v. Uexküll, Wesiack 1991, 2011) in class as a "blackboard picture".

The "blackboard" or "slide image" (Fig. 4.4), which can thus be used deductively (if time is short) as well as developed inductively in class with the students during text work, is intended to help promote text comprehension and subsequently serve above all to elaborate the circular *upward and downward movements* in the biopsychosocial model.

### 4.3.2 Upward and downward effects

The starting point in teaching is usually the *current* reason for the patient's consultation, which is identified in the case report as "nocturnal breathing difficulties". If one initially follows the questions of the attending physician (about the "circumstances") and the patient's narrative style in teaching, then the son's moving out is usually recognised as the "trigger" for the patient's current "symptoms", but an "explanation" is located at a "deeper" level of the development of *relationship patterns* in an "older" past that goes back beyond the now broken marriage to early childhood (Fig. 4.4).

These biographically significant connections for the patient, which thus extend from early childhood to the present of her nocturnal respiratory distress attacks, are described by v. Uexküll and Wesiack in the following way (Box 4.7), again with reference to Popper (see above), as "upward and downward effects in a hierarchical system".

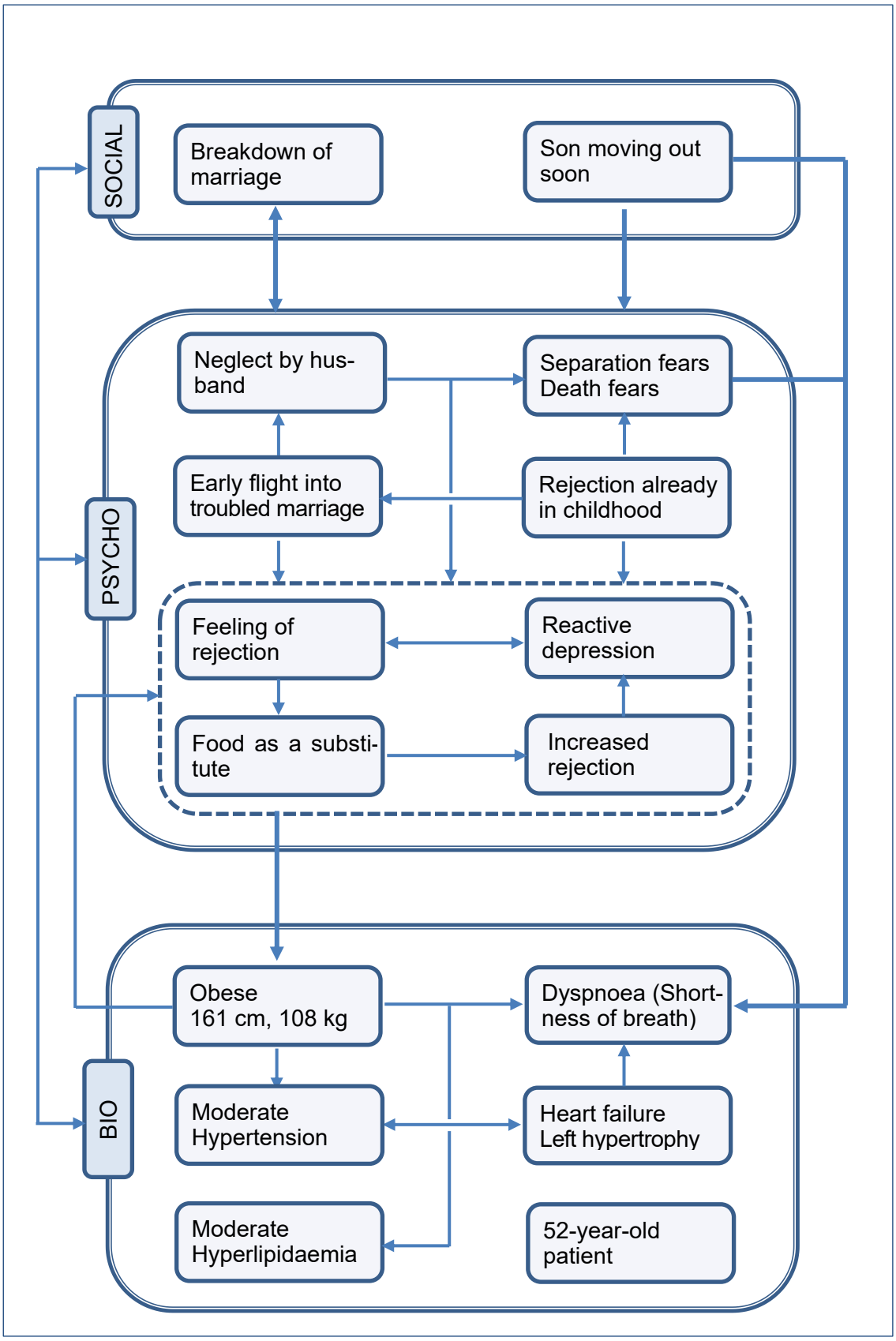


Fig. 4.4: Schematic representation ("blackboard") of the biopsychosocial upward and downward effects (according to texts by v. Uexküll 1991, v. Uxküll, Wesiack 2011)

Box 4.7 Upward and downward effects in the hierarchical system

At the organism level, hormones and nerve action currents mediate the exchange of information between organs; and at the next more complex level, psychological processes mediate the connection between organism and environment. The problem of how to conceive of the connections between these different levels can be formulated in systems theory terms as the question of how *upward and downward effects* come about in a hierarchical system (Popper 1977). It can be solved with the assumption that the sign systems of the different levels are connected through translations or transmutations.
Within the framework of such an approach, the so-called psychophysical problem is only one among others. For the problem posed by the patient's story described at the beginning, these backgrounds offer the practitioner clarification and orientation in his everyday work: The somatic sign systems of an endocrine and nervous nature, which regulate the patient's cardiac, circulatory and pulmonary functions, are coupled with psychic sign systems, which inform the patient about the - for her vital - aspects of her environment. Husband and son are meaning carriers, i.e. they convey messages that decide what aspect the environment has for the patient and what somatic provision of the organs is required in each case. Couplings of meaning, in which reference persons acquire such importance, have usually been established in early childhood.

v. Uexküll, Wesiack 2011: 34f
(cf. v. Uexküll, Wesiack 1997 (in: Adler et al. (eds.) (English edition): 28f)

With thecouplings of meaning described in this way (Box 4.7, Fig.4.4), both the current conflicts and the patient's previous coping patterns can be identified, which are currently threatening to fail. If the patient sought to compensate for previous conflict situations of rejection and mortification by eating as a substitute, which is self-damaging enough in itself, this type of coping attempt fails in the face of the imminent separation from her son.

While the "moving out" of an adult child – despite all the problems of detachment on both sides – should usually be able to be integrated into everyday family life as an expected "normal case" without major problems, in this case the detachment process turns into an individual catastrophe in view of the patient's previous history, in which she develops attacks of breathlessness with fear of death: "the air had gone out

of her and she thought she was going to die". A visit to the doctor as a request for help can hardly be justified in a more dramatic way, which needs to be looked at more closely under the aspect of the relationship between doctor and patient. Before that, the "diagnostic" résumé should be noted with v. Uexküll and Wesiack, which the patient describes in a *vicious circle* (Box 4.8), which had already developed in her childhood and continues to shape her present.

Box 4.8 Vicious circle

It becomes apparent that this is a person who was already rejected in the primary family, fled from there into marriage, in which the patient again felt rejected, became reactively depressed and began to eat more as a substitute, whereby a vicious circle of weight gain, increased rejection and increased food intake developed. In this vicious circle, we can observe very well the couplings of meaning between the different levels of integration and the downward and upward movements from the psychosocial system level to the physical level and back again. Because the patient feels rejected, she begins to eat more and becomes obese. Due to this physical change, she now encounters more rejection, which makes her more depressed and she eats even more food.

v. Uexküll, Wesiack 2011: 39

Finally, as far as the "completeness" of the case analysis is concerned, with v. Uexküll and Wesiack, further ups and downs are to be added, which consist, for example, in the fact that the weight gain gradually led to secondary diseases (relative heart failure with left ventricular hypertrophy, slight hypertension, suspected asthma-cardiac conditions), with the conclusion: "Now the patient is 'heart sick'" (2011: 39). Under this aspect, the perspective of a purely organ-related treatment (heart or circulatory system) could then arise, which as the (only) therapeutic perspective would certainly not do justice to the complexity of the case.

### 4.3.3 Diagnostic-therapeutic circle as a process

Once the case has developed in such a complex way, the return to a *reductionist* understanding of disease is obstructed, according to which individual phenomena or symptoms ("shortness of breath", "hypertension", "obesity") could be treated in isolation. Here again, there would be

a danger of falling into a treatment dualism in which "bodies without souls" or "souls without bodies" would be treated separately (§ 4.2). Integrative medicine is also characterised by an integration of diagnosis and therapy, which v. Uexküll and Wesiack (1991: 291ff, 2011: 39) have repeatedly described in this example as a "diagnostic-therapeutic circle" (Box 4.9), which is above all a continuous *communication process* between doctor and patient.

Box 4.9 Diagnostic-therapeutic circle

The patient receives the information coming to him from the doctor through various verbal and non-verbal channels and reacts to it with trust or mistrust and fear. He will behave accordingly and give or withhold further information. This is how that specific communication process is formed between doctor and patient, which we would like to call the diagnostic-therapeutic circle, because the diagnostic and therapeutic efforts of the doctor are almost inextricably intertwined from the very beginning. Experienced doctors have therefore rightly pointed out time and again that the treatment of the patient begins with the first handshake and that the diagnostic process is never completely finished as long as doctor and patient deal with each other.

v. Uexküll, Wesiack 1991: 292

Although interim balances are possible and useful in the diagnostic-therapeutic circle, the communication process must in principle be kept open for new developments.[7] If this does not happen, valuable diagnostic insights and therapeutic possibilities for action can be lost, as can easily be shown according to v. Uexküll, Wesiack (1991) (Box 4.10) in the preceding case example, if one were to reduce oneself as a doctor to the perspective of a biomedical treatment approach.

7 Of course, v. Uexküll and Wesiack (2011: 39) recognise the logic of the sequence that cognition precedes action, but they emphasise unity in the sense that cognition is not possible without action.

Box 4.10 Biomedical reduction

A doctor interested exclusively in somatic findings would stop his diagnostic efforts as soon as he had diagnosed obesity, relative heart failure, hypertension and mild hyperlipidaemia and had also established that an acutely threatening organ event could be ruled out at present.

v. Uexküll, Wesiack 1991: 294

The extent of the reduction can be brought into view in class with the preceding "blackboard picture" (Fig. 4.4), where it becomes clear what information is lost when one focuses on the "lower biomedical third" and ignores "everything else" as well as the references between the "biopsychosocial" data. This kind of "data" would not have been collected in the first place by a purely biomedically oriented doctor who would have limited himself predominantly to "objective" symptoms.

Likewise, the reduction to remaining therapies for obesity, heart failure, hypertension, hyperlipidaemia becomes clear. Here, sport and diet recommendations as well as medication (to support the cardiovascular system, lipid-lowering drugs, etc.) will hardly be successful in the long term if the *vicious circle* described above is not considered and the patient's understanding of the disease is not promoted accordingly. This promotion of the patient's understanding of the disease can only be achieved *by talking to the patient,* namely in continuation of a kind of consultation, as it had already been started according to the case report. If the doctor and the patient want to continue to work together successfully, they must once again engage in the described *diagnostic-therapeutic circle* as a *communicative* process (Box 4.9), which will be discussed in more detail below.

### 4.3.4 The internal perspective of communication

By now turning to the (presumed) communicative course of the consultation, we switch from the previous external perspective to the *internal perspective* of communication, in which we tentatively place ourselves on the standpoint of the actors involved (patient, doctor). Although adopting the participation perspective of the actors involves specific problems, it cannot be methodologically circumvented (Habermas 1981,

Stern 1998, 2010, Koerfer 1994/2013). If the analysis of action and communication is not to remain "blind" to the communicative achievements of the acting subjects, it must attempt - however approximatively - to adopt the participatory internal perspective. This methodological approach, which we will practise in particular in our empirical communication analyses (§ 18-23), can only be applied here to a limited extent because of the reduced data available in a case report.

This means that a further step has to be taken in class, namely, to reconstruct the "consultation hour" hypothetically as a "diagnostic-therapeutic communication process" (see above) in relation to the case. The case report presented to us by von Uexküll and Wesiack in their summary (on less than one page) (Box. 4.6) is based on a longer communication process between doctor and patient, which in the end must have brought to light everything in terms of form and content that is ultimately available to us as a "communicated" result condensed into report form.

As we explained at the beginning (§ 2) about the methodology of conversation analysis, reports about remembered communication are not to be confused with the communication itself. This is why a plea was made there for the audiovisual recording and transcription of doctor-patient communication. In the present case, such an empirically based communication analysis would pursue the following questions about the possible course of the conversation, which also arise in a loose sequence in a learning group, if one is to draw conclusions from the case report about the real underlying communication:

- How did the doctor open the conversation?
- How did the patient introduce her concern, her complaints ("ticket", "presenting symptom")?
- What was then developed thematically and in what form?
- When and how did the "sensitive" psychosocial issues ("son moving out", "broken marriage") come to be discussed in particular?
- Which concrete conversation techniques (verbal and non-verbal interventions) of the doctor have promoted (initiated, maintained, deepened) these psychosocial theme developments?
- Which conversation techniques have hindered (slowed down, completed, aborted) these psychosocial theme developments?
- When exactly does the patient "burst into tears"?

- At what point and exactly how did the doctor's perception and mood change from "rejection" to "benevolent interest and helpfulness"?
- To what extent has this change in the doctor's attitude been reflected in a change in conversational behaviour ("empathic feedback")?
- How did his possible empathic conversational behaviour affect the patient's conversational behaviour and the further course of the topic?
- When and how exactly did the patient's childhood and adolescence become the subject of conversation?
- When was the term "rejection" introduced, by whom and when - if ever - was the matching term "grievance" used by whom?
- To what extent did the diagnostic-therapeutic circle (see above) promote the patient's understanding of her illness (in the sense of the *vicious circle* described above)?
- How did the doctor and patient continue with which treatment perspective?

While some of these questions (especially about the order) can be answered approximately by corresponding notes in the case report (cf. report in Box 4.6: "after", "later", "during"), it quickly becomes apparent that many of the questions concerning the concrete communicative form of the case must remain unanswered. In the learning group, it becomes clear how little has been learned about the concrete "reality of the conversation" between doctor and patient, despite a good case report, which is to be worked out in the further course of the lesson.

### 4.3.5 Scripts and role plays

In order to close the communicative experience gap to some extent, further teaching impulses can be provided by the following didactic-methodological steps. The teaching materials can either be prepared or worked out together in the group.

- Script
- Role-play
- Acceptance test

All three teaching variants serve to take over the participation perspectives from the internal perspective of the patient and the doctor. In the role-play, the role-players can experience the communication "first-hand", which is the whole point of the role-play (§ 13.5). In our case, the experience can be structured according to the following questions:

- Patient: "How does it feel to play the obese patient who is 'rejected by everyone'?"
- Doctor: "How do I deal with a patient who tells me that she is 'rejected by everyone' and how do I react to that?"

The three forms of teaching (role-play, script, acceptance test) were tested in general, but also specifically on this case study. They can also be used in combination. As is well known, role-plays can be designed as *free* role-plays as well as in the form of (trans)*scripted* role-plays ("scripts") (Koerfer et al. 1996, 2008), which we discuss separately in the context of OSCE examinations conducted with *actor-patients* (SP) (§ 13. 41).

*Script-supported* role-plays naturally require preparation, which in our case lends itself as "homework" for the next lesson, namely to a student who is preparing for the role of the "obese" patient. If the "homework" is assigned beforehand - possibly with the help of the lecturer - the role-play on the present case of the role of the patient can be used in such a way that the role of the doctor can also be played "blindly" by learners, because the case is not yet known.

Whether the case is known to some/all group members beforehand or not: In all game variants, the participants experience how the "reality of the conversation" can turn out very differently with comparable "input" (role script as "script" based on the above case report), especially regarding the placement and development of "sensitive topics" in the conversation.

Nevertheless, despite all the variance, there are also "communicative rules" here that follow a general interaction logic and psychodynamics of conversations. According to these rules, even or especially in the doctor-patient relationship, trust must be built up to a certain degree before further trust can be established, for example to address "delicate" topics (§ 20, 21). This rule, according to which "delicate" topics require sufficient trust and time for discussion, can also be "discovered" in class without much preparation by the participants using their own

communicative competence through acceptance tests, which will be illustrated in the following case study.

### 4.3.6 Communicative acceptance

The validity of communication rules in everyday life, such as at a doctor's visit, can be "discovered" by subjecting disputed or questionable cases to an *acceptance test* (Koerfer, Neumann 1982, Koerfer 1994/ 2013, Koerfer et al. 2008). This procedure can also be applied to our case in class by creatively constructing possible as well as improbable cases ("scripts") and testing them for acceptability: In class, using the patient's case discussed above, for example, the following example constructions were spontaneously rejected as cases of the "improbability" of conversation beginnings, regardless of the type of opening question the patient ultimately answers:[8]

| E 4.1 | | Opening sequence (construction 1) | Comment |
|---|---|---|---|
| 01 | D | so Mrs A, what brings you here? . | Opening question: Reason for consultation |
| 02 | P | my son is moving out ... | Unlikely answer 1 |

| E 4.2 | | Opening sequence (construction 2) | Comment |
|---|---|---|---|
| 01 | D | so Mrs A, what's is the problem? . | Opening question: Concern |
| 02 | P | I ran away early into a marriage that is now in danger of failing .... | Unlikely answer 2 |

[8] In class, depending on the time available, there is an active and a more passive variant of learning to achieve "aha" effects: One lets the learners form "improbable" opening cases themselves or presents them to them one after the other, which usually triggers cheerful reactions, which at the same time is a sign of the "unacceptability" of the examples (1-3) for all participants.

| E 4.3 | | Opening sequence (construction 3) | Comment |
|---|---|---|---|
| 01 | D | so Mrs A, what can I do for you? . | Opening question: Offer |
| 02 | P | I was often teased as a child ... | Unlikely answer 3 |

Although in all cases this is a common *type of opening medical question,* which we will return to separately (§ 19.2), the first three hypothetical patient answers are all "unlikely" or "deviant", while the fourth answer is highly probable, or at least fully acceptable because "normal".

| E 4.4 | | Opening sequence (construction 4) | Comment |
|---|---|---|---|
| 01 | D | so Mrs A, what brings you here? . | Opening question: Reason for consultation |
| 02 | P | I've been having shortness of breath lately, especially at night.... | Probable answer 4 |

Obviously, the communicative (behavioural) rule of having to start with "somatic" complaints as a "*ticket of entry"* (Roter, Hall 2006: 7) (§ 18.7, 19.4, 23.4) applies in the consultation, i.e. conversely, one cannot "barge in" and start with one's marital problems or even one's "difficult" childhood. Here it quickly becomes clear which commandments/prohibitions apply to all of us when visiting the doctor: Since the "doctor games" of childhood, we have all been socialised by real visits to the doctor in such a way that we know "what you can go to the doctor with" and what you cannot; or in other words: what are acceptable ("valid") *tickets* to the consultation and what should be "brought up" only later, if at all.

Every good doctor must reckon with this self-censorship of patients and immediately ensure a conversation atmosphere in which patients can "bring up everything that is on their mind" as early as possible. The fact that doctors often do the opposite by not *building bridges* for their patients to *talk,* but rather by *putting obstacles in their way,* will be discussed in detail in empirical analyses of consultations and visits.

This is fundamentally about the problem of the extent to which doctor and patient succeed in "creating a shared reality" (v. Uexküll, Wesi-

ack 1991, 2011). Before we finally return to the "everyday medical history" of an "obese" patient with "respiratory distress attacks" discussed above, we would like to change the perspective of the individual case analysis and look at the function of biopsychosocial medicine in the spectrum of traditional doctor roles that are still more or less consciously adopted and practised today.

## 4.4 Creating a shared reality

Beforehand, the theory and practice of biopsychosocial medicine had been explained in advance, first by analysing an individual case and then by using coronary heart disease as an example. In order to open up the possibility of experiencing the "reality of conversation" between doctor and patient “first hand”, we proposed (in § 4.3) scripted and free role-plays as well as dialogue exercises from the doctor's and patient's perspective. In order to expand on these previous experiences from the internal perspective of the acting subjects, the aspect that the doctor and patient must above all "create a common reality" in the "consultation hour" (v. Uexküll, Wesiack 1991: 398ff, 554ff, 2011: 13ff) should be dealt with in the last part of the lessons. In this process, they make reciprocal typifications and exercise complementary roles through which they continually renegotiate and shape their relationship in actu.

### 4.4.1 Types and roles

In the consultation hour, there is only specialised application of what also happens in other social encounters between people and has been described in the tradition of *understanding sociology* (Schütz 1932/1974) as the "social construction of reality" (Berger, Luckmann 1966/1980). These social constructions are not only valid in everyday life, but also in institutional communication (Koerfer 1994), in which they experience an institution-specific manifestation, as in the consultation hour. Our everyday and institutional communication only functions smoothly to a large extent because the actors can rely on their everyday as well as institutional knowledge, which they routinely use again and again in all problems, conflicts, misunderstandings, be it as *professional knowledge* of teachers, judges, doctors etc. or as *lay*

*knowledge* of pupils, defendants or even patients, who often have their own subjective ideas of illness and health (§ 22). Von Uexküll and Wesiack also refer to this *sociological* approach to *knowledge* when they draw corresponding conclusions (Box 4.11) for the situation between doctor and patient, following on from the typifications described by Berger and Luckmann (1966) in "vis-a-vis situations".

Box 4.11 Doctor and patient types and roles

For medicine this means: the doctor grasps the patient as a type (e.g. as a neurotic, as a heart patient, etc.) and the patient in turn grasps the doctor as a type (e.g. as an omnipotent father, as a distant, rejecting stranger or as warm-hearted and understanding as the mother, etc.). Both are also in a typical situation (namely the doctor-patient action prescribed by society and its role system). We call the types according to which the doctor grasps the patient "diagnoses"; there is still relatively little research on the types according to which the patient classifies his doctor.

v. Uexküll, Wesiack 1991: 555

Despite the lamented lack of research, Uexküll and Wesiack nevertheless differentiate several *doctor's roles* as they have developed historically and are repeatedly exercised in the common "role play" or are offered to the doctor by the patient as "co-players". The doctor's *roles* described in detail by v. Uexküll and Wesiack (1991: in a separate chapter 8.1 on approx. 30 pages) will be characterised here in *brief* for teaching purposes:

1. **The doctor as magician.**
   Here, the function of the medicine man and the shaman is still active, whose rituals and spells may have survived into the present day as *suggestion therapy.* The ontogenetic root can be seen in the mother-child relationship, in which the mother knows how to soothe and give security through words and caresses.

2. **The priest doctor.**
   At a later stage of development (1st and 2nd millennia BC), which is characterised by the *self-responsibility* and thus culpability of man and the "discovery of the logos, the power of the word and

the thought" (1991: 580), the role of the healer is closely linked to priesthood.

3. **The doctor as educator.**
   In Western philosophy, from antiquity (Sophists, Socrates) to more recent cultural and intellectual history, enlightenment and pedagogical elements have been handed down, which have led to the new role of the doctor as a teacher: "The physician, the scholar, the 'doctor' knows what is good or bad for the patient" (1991: 582). This tradition also includes the specific way of conducting dialogue, which has also found its way into psychotherapy as the *art of midwifery* (*maieutike techne*), to which we will return separately (§ 9.5).

4. **The doctor as a friend.**
   In the *Hippocratic* tradition, the doctor not only practises his medical art (*techne iatrike*), but also links this especially with the love of people (*philanthropia),* but also with the love of the art of healing itself (*philotechnia)*, of nature (*physiophilia*) and finally of wisdom (*philosophia*). However, a historical-critical consideration must take into account that "social class" differences were reflected, for example, in the treatment of "slaves" and "free citizens" with different attitudes towards them (cf. also Meyer-Abich 2010: 121ff), which may continue up to today's "care mentalities" on both sides.

5. **The doctor as helmsman or gardener**
   The concept of health as a "balance of forces" and the doctrine of humoral pathology, which assumes an incorrect mixture of bodily fluids, were prerequisites for the view of the human being as part of all-encompassing nature, in which the doctor can now "create nothing original“ but can only care for and protect his patients as *gardener* and *helmsman.*

6. **The doctor as Samaritan**
   Under the influence of Christian anthropology, the essential idea of Christian neighbourly love and charity (*caritas*) as well as compassion and mercy (*misericordia)* is taken into account, which should apply indiscriminately to all, including the poor or incura-

bly ill, to whom help should finally also be given in relation to their social needs and fears.

7. **The doctor as technician (homo faber)**
   With the development of natural sciences and technology in highly industrialised societies, where advances in medicine are reflected in measurable and visible results in prolonging life (for example, through organ transplantation), demands are made on a technical "miracle medicine" or on "demigods in white" that make the doctor the omnipotent doer and controller of health.

8. **The doctor as a partner**
   As the flip side of scientific and technical progress, the doctor increasingly became a specialist and expert, making himself the objective observer and the patient the object of observation. It is not only the *reintroduction of the subject into medicine* (also in the tradition of v. Weizsäcker) that was called for, which should make both actors "equal partners in interaction", but (beyond v. Uexküll and Wesiack at that time) the current discussion about *shared decision making* (§ 10), which makes a partnership-based relationship design seem (predominantly) *appropriate* in modern medicine.

Some of the doctor's roles described above may be historically outdated, others may continue to exist in a "concealed" form. In practice, the described doctor's roles are certainly not only used alternatively, but can also occur in combination, for example when the doctor is at the same time a friend, partner and expert or is also perceived as such by the patient. Thus v. Uexküll and Wesiack (1991) (Box 4.12) *sum up* their *historical-critical* overview of the doctor's roles as follows:

| Box 4.12 | Medical task and role diversity |
|---|---|

All the roles of doctors mentioned so far, each of which was predominant in different epochs, do not only claim historical interest. The doctor of the present day can only optimally cope with his diverse tasks if he is able to fulfil all the roles mentioned, depending on the requirements of the situation.

v. Uexküll, Wesiack 1991: 596

This *situation-appropriate* assumption of roles will concern us here throughout with aspects of the shaping of relationships, some of which will only be mentioned here in advance: The role of the doctor has been discussed up to the present day under theoretical and practical aspects of the shaping of the relationship between doctor and patient (esp. § 8-10). Balint's (1964) dictum of the "apostolic function" of the doctor or of the "drug ‘doctor’" is still current, if only under the empirical aspect of the placebo effect in drug research (e.g. Brody et al. 2012).

Regarding medical decision making (*shared decision making*), we will discuss in detail (esp. § 10) to what extent the doctor can be committed to a strictly *partnership-based* role or to what extent he should continue to perform *paternalistic* functions (of a fatherly friend) when patients ask him to fulfil this role in specific interactions.

In his educational function, the doctor will mostly retain a *teacher* or educator role of some kind, however tolerant, strict, or punitive. Under the more modern title of *patient education*, it becomes clear that a doctor must also guide and lead patients "pedagogically", which begins first and foremost with the motivation to change behaviour, which is ultimately based on learning processes that can be set in motion especially by a good "teacher".

The doctor's task of "getting what is possible out of the patient" is best achieved with the art of midwifery (*maieutike techne*) (§ 9.5), which helps bring to light what the patient can contribute to solving the problem with their own efforts (resource activation), without already knowing it. We will also deal with this conversational technique of the doctor throughout and especially under the aspect of *tangential* conversation (§ 17), with which an "overtaxing" of patients with regard to their self-exploration is to be avoided.

After all, doctor-patient communication is always about dealing with truth, in which the doctor can easily get into a conflict of maxims between *protecting* or *clarification*, so that *protecting (gentle) clarification* may appear from the outset as a contradictio in adjecto (§ 10). The doctor may experience this as a conflict between his *role as an expert* (truth) and his *role as a Samaritan* (protection), which in itself points to the role and ambivalence conflicts to which doctors are often exposed.

### 4.4.2 Relationship medicine and transference relationship

In the medical consultation, it is not only a question of the patient's *history of illness* and disease, but a common *relationship history* is also always developed between doctor and patient. In this relationship history, doctor and patient must establish a *common* reality in which their *individual* realities are sufficiently mediated. Under no circumstances can the doctor exclude his or her own individual reality, but he or she must use it precisely as a diagnostic and therapeutic instrument in the *transference relationship* with the patient (Box 4.13), who can often live in a reality of his or her own that is difficult to access and that requires special professional communication (for *decoding*).

| Box 4.13 | Shared reality and transference relationship |
|---|---|

Sick people often live in realities that differ considerably from the realities of healthy people. An exchange of signs only leads to communication if both sides find the same code to decode them (...) The doctor's chance to build a shared reality with a patient is based on the fact that the doctor can become a part of the sick person's social environment, and that there is social learning (...) If the doctor has learned to reflect in this way the images according to which he builds his individual reality, and to modify them in the interaction with the patient, the patient can usually also learn to correct the image he has of the doctor to such an extent that a common code emerges (...) Put differently: in order to build up a common reality with the patient, the doctor must bring in his individual reality as a diagnostic and therapeutic instrument in the interaction with the patient, or, as psychoanalysis calls it, be able to deal with transference and countertransference.

v. Uexküll, Wesiack 1991: 619f

This last aspect of creating a shared reality, which is not only cognitively exhausted in the shared knowledge of the history of the disease and illness, but which must be *emotionally* complemented by the interplay of transference and counter-transference, had also become clear to the doctor treating the patient in the case discussed above (§ 4.3), when he initially met the patient with the same rejection as the patient was used to from her relevant environment.

In this specific case of the 52-year-old patient, it was not only about the medical *history* of obesity or heart failure as well as the *medical history of* a long-standing *grievance* of the patient, which extended from childhood to the present, with her broken marriage, but also "the story of a doctor-patient relationship" developed (v. Uexküll, Wesiack 2011: 5). In this story, the doctor did not behave as a "neutral observer", as "classical medicine demands of him", but he noticed his initially negative attitude towards the patient, who had initially seemed "unsympathetic" to him, as well as his change of feeling, which was reflected in "benevolent interest, compassion and helpfulness" (ibid., cf. above Box 4.6). Only this self-perceived and reflected change of feeling allowed him to come to a different understanding of the patient that concerned her as a person: only through this third story of the relationship between doctor and patient can the first story of the illness and the second story of the sick person be put into perspective as a person (Box 4.14).

| Box 4.14 | History of illness, disease and relationships |
|---|---|

The patient thus became a different person: the "unsympathetic and scruffy creature" became a "thoroughly well-groomed", unhappy woman who had only experienced slights and disappointments in her life. The doctor began to wonder about the connection between social rejection, psychological mortification, and physical illness. With the second and third story, the "cause of medicine" had changed: A biomechanical event and factual data of an anamnesis had condensed into the story of an unhappy human life that "touched" the doctor. Now he sought to understand her illness as the result of an interaction of biological, psychological, and social processes. A medicine that had to do with two things - the sick person and the disease - had become a medicine that, as defined in the Corpus Hippocraticum (ca. 410 BC), encompasses three things: the disease, the sick person, and the doctor.

v. Uexküll, Wesiack 2011: 5

Even if not explicitly, here v. Uexküll and Wesiack are probably not unintentionally paraphrasing the well-known book title by Balint, who formulated "the matter of medicine" with a triadic relationship in a different order: "The doctor, the patient and his illness" (Balint 1964). This formulates the programme of a *relational medicine*, which we will also repeatedly refer back to with Balint, especially in justifying the communicative paradigm shift from the *interrogative* to the *narrative* anamnesis

technique (§ 9, 19), which goes hand in hand with the paradigm shift from biomedicine to biopsychosocial medicine shown above.

To establish this connection, since the biopsychosocial model is to be understood at the same time as a *model of cognition and communication,* will occupy us as a permanent problem in this textbook, not only in theory but also in empirical conversation analysis, in which the medical conduct of conversation is to be subjected to critical evaluation.

### 4.4.3 "Talking“ medicine

Before we further pursue the theory, didactics, empiricism and evaluation of medical conversation in the following chapters of the textbook, we will conclude here with v. Uexküll and Wesiack's *humanistic* and at the same time *rational* plea for a "talking“ medicine (Box 4.15), in which doctor and patient must ultimately establish a "shared reality".

| Box 4.15 "Shared Reality" in a "Talking Medicine" |
|---|
| A talking medicine that knows how to construct shared realities between doctors and patients is not only the imperative of humanity. It is also the way to overcome the dualistic idiosyncrasies of medicine in theory and practice. |

v. Uexküll, Wesiack 2011: 40

The *construction* of a *shared reality* takes place in an *institutional* communication situation, which is not by chance designated as a "consultation hour", in which individual actors meet with their individual realities. Accordingly, the still quite *impersonal* formulations in the plea of v. Uexküll and Wesiack are to be turned in such a way that we ask about the *personal* actors of "talking" medicine themselves and their possibilities for action, which they can perceive or dismiss.

In the following, we are interested in how *individual* doctors and patients in their changing roles as speakers and listeners "know how to construct" their *shared realities* in a "talking" medicine and how they "bring up" which *topics* in which *context* at which *time* in which *order* and for what *purpose* or, on the contrary: How they "obfuscate", "disguise" or even completely "conceal" or "taboo" which topics, so that common understanding is "avoided" or "prevented" and thus the crea-

tion of a common reality is missed. However, as has already been explained under the methodological aspects of *comparative* conversation analysis (§ 2), insights into *ideal* communication can be gained precisely from the analysis of its *failures* in the sense that, as is well known, one can also "learn from one's mistakes".

## 4.5 Further information and references

The relatively short articles by Engel (German 1979) (first published in English in 1977 in: Science 196, 129-136) and v. Uexküll (1991) are easily understandable introductions to biopsychosocial medicine. The science-theoretically oriented works by Engel (1988) (German 1996), Engel (1997) and by v. Uexküll 1995 (English), v. Uexküll and Wesiack (1991) and (2011) (English in: Adler et al. (Eds.) 1997) are more demanding.

Historical and systematic overviews of the mind-body problem are given by Popper, Eccles 1989, Roth 2001, Meyer-Abich 2010, Beckermann 2011; specifically from a medical perspective, Alonso 2004, Tress 2011, Herrmann-Lingen 2012, Smith et al. 2013, Smith 2021, Egger 2017, 2020, Egle et al. 2020, Langewitz 2022, Lugg 2022, Bolton 2022, 2023, Roberts 2023.

The volume edited by Hontschik et al. 2013 contains topic-specific contributions on biopsychosocial medicine in addition to (reprints of partly older) works by v. Uexküll. An overview of developments and perspectives in psychosomatic medicine is given by Herzog et al. (2013) and Deter (2018).

The consequences of biopsychosocial medicine for training are elaborated with regard to the development of key medical competences (§ 6) and in the contributions to main part III ("Didactics and methodology").

The further consequences of biopsychosocial medicine for medical communication are discussed e.g. by Engel 1997, Koerfer et al. 1994, 2000, 2008, Smith et al. 2013, Smith 2021 and in this handbook continuously and especially under the aspects of a *dialogical medicine* (§ 7), *biographical-narrative anamnesis taking* (§ 9, 19) and *dialogical decision making* (§ 10, 22) as well as in specific *types of diseases* (in main Part V: "Specific fields of competence").

## References

Further references on doctor-patient communication can be found in other topic-specific chapters and in the complete bibliography of the handbook.


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