

ARISTOTLE: SOURCES, INTERPRETATIONS AND DISCUSSIONS

MARKUS RIEDENAUER (Vienna)

Basic Evaluation and the Virtuous Realisation of Values: The Integrative Model of Aristotle¹

Abstract

Human affectivity is a research topic situated at the intersection of psychology, philosophical anthropology, theory of action and ethics. This article reconstructs the Aristotelian theory of emotions in the context of his theory of aspiration (ὄρεξις) and in terms of their function as primary evaluators of situations, which forms the basis for virtue ethics. The Aristotelian model integrates desire, motivation and morality for a rational being in community. Affects (πάθη) reveal the profile of relevance of the world to a person as an indispensable basis for the work of practical reason. They are analysed in the dimensions of their cognitive core, their social, bodily, and motivational aspects. Affectivity constitutes a primary evaluative response to situations and thereby disposes human beings to realise their call to morally good, virtuous and fulfilling action.

Keywords: emotions, evaluation, virtues, desire, motivation.

The ethics of Aristotle is readily designated as "eudaimonian" or "eudaimonistic". This is reasonable, as the argumentation of the first chapters of the *NE* establishes the formal notion of the highest goal of human conduct, which is called by the generally recognised name of *eudaimonia* at 1095a 19, and in the following chapters, Aristotle enquires as to the content of this concept.

But presumably the remark that the best good is happiness is apparently something agreed, and we still need a clearer statement of what the best good is. Perhaps, then, we shall find this if we first grasp the function of a human being. (*NE* I, 7 1097b 22-25)

¹ The main text of this article has been translated from German by Stephen Lake (Australia).

Aristotle's ethics is likewise rightly regarded as an ethics of virtue, as in NE I,7, the achievable human good is understood as the "activity of the soul in accordance with virtue" (1098a 17), which is then explored in most of Books II-VI in the form of virtues of character and of intellect. A third, equally appropriate characterisation of Aristotelian ethics as "ethics of desire" or "aspiration-based ethics" has, however, found less acceptance.² Yet, on the basis of the text and its systematic interpretation, this last approach seems justified and in relation to questions of values, knowledge of them, their motivating force and their implementation, the motif of aspiration is particularly significant.

The basic concept of ο)recij / orexis is difficult to render into English with its range of meaning, because it is rooted in natural philosophy and can also be applied to unconscious tendencies, it includes human instincts and especially pathē, affects or emotions (which Aristotle discusses in his works *On the Soul*, the *Ethics*, and the *Rhetoric*), but equally, the desire for knowledge: "All men naturally desire knowledge".³ The term "desire" does not fully reflect this range of meaning; in the following, therefore, orexis is for the most part not translated, or it is rendered as "aspiration". It should become apparent that the integrating character of the Aristotelian model of ethics is grounded precisely in orexis, that the phenomena of aspiration, in particular the affects, provide the immediate fundamental evaluation and the motivation for the realisation of the good.

Aristotle has been regarded to the present as the founder of a scientific, i.e. rational ethics. In the modern period, however, a dichotomy between rationality and emotionality has developed which, from the fourteenth to the twentieth centuries, has complicated our interpretation of Aristotle's views on the soul, aspiration, and the emotions.⁴ Currently, there is nonetheless a renaissance of the idea of an ethics of virtue and aspiration, and de-

² The only English monograph about *Aristotle on Desire* assumes that "Aristotle's views on desire have yet to receive the attention they deserve" (Pearson 2012, 1). While this assessment is not wrong, it is still easier to maintain it by completely ignoring non-English research literature. The same holds true (with one exception) for Moss 2014. The extensive *Companion to Aristotle* (Anagnostopoulos 2009) does not pay sufficient attention to ὄρεξις – only three very general pages (Modrak 2009, 318-321), while Leighton (2009, 597-611) is limited to the context of the *Rhetorics*.

³ Πάντες ἀνθρώποι τοῦ εἰδέναι ὀρέγονται φύσει (*Met.* I,1 980a 21; cf. *Rhet.* I,1 1355a 15). Compare in more detail Riedenauer (2000, 279-289).

⁴ David Charles states that Aristotle's theory of aspiration as motivation "is not one of the familiar options of post-Cartesian philosophy... It should be seen rather as offering a radical alternative" (Charles 2011, 76). Nussbaum criticises a widespread ignoring of classical theories of the emotions: "Today, however, the accounts are almost always ignored in philosophical writing on emotion, which, therefore, has to reinvent laboriously (and usually falls well short of) what was clear there." (Nussbaum 1994; 508)

velopments in the psychological research of emotions once more render the Aristotelian model of ethics of the greatest interest.

The "cognitive turn" in psychology in the second half of the twentieth century, despite its anti-naturalist tendency supported by neurobiological research, and the associated proliferation of cognitive philosophies of the affects, displays structural parallels to the discourse in Antiquity, above all in relation to the cognitive and motivational dimensions. The understanding of particular feelings as cognitive phenomena seems to have been confirmed by neurobiology.⁵

The renaissance of theories of emotion is indebted not typically to a neo-Romantic or an anti-rational tendency, and rarely to a radical critique of *logos*, but rather to the characteristic of affects, which, in a sense to be specified, is designated as "cognitive". Recent discussion of the question in how far this means intentionality, propositions, judgements or some form of perception, has changed nothing in the prevailing cognitive approach.

It is then the thesis that emotions can be epistemically rational that is essentially responsible for the renaissance of interest in the emotions in current philosophy.⁶

Anthony Kenny provided impetus within the analytical tradition for this renewed interest when, in 1963, he criticised theories of emotion based upon Cartesianism, and against this developed a plausible concept of the affects in relation to behaviour with the assistance of the concept of intentionality and the attribution of formal objects to affects (1963, 187-198). Ernst Tugendhat acknowledged in 1979:

That this cognitive act of judgement belongs to the concept of the affects is today generally accepted in analytical philosophy.⁷

Kenny appealed to Aristotle and Thomas Aquinas, while within the phenomenological tradition, Martin Heidegger had achieved something structurally comparable already in 1927 with his book *Sein und Zeit*.

Affectivity as one form of aspiration with cognitive and/or evaluative components is a characteristic foundation for the integrative character of Aristotle's model of ethics. It combines natural philosophy, anthropology, psychology, ethics, and basic metaphysical

⁵ For a summary, see Goller (1995, 36-49).

⁶ "Es ist also die These, daß Emotionen epistemisch rational sein können, die für die Renaissance des Gefühls in der Gegenwartsphilosophie wesentlich verantwortlich ist." (Döring 2005, 26). The concept of epistemic rationality is opposed to strategic rationality, as in de Sousa.

⁷ "Daß dieses kognitive, urteilsmäßige Moment zum Begriff eines Affektes gehört, wird heute in der analytischen Philosophie allgemein akzeptiert" (Tugendhat 1979, 201). Nussbaum summarises: "1. Emotions are forms of intentional awareness (...) 2. Emotions have a very intimate relationship to beliefs" (Nussbaum 1994, 80).

concepts. It is conceivable that there is still potential here for modern interest in and discussion around the formulation of a new ethics of aspiration. In this paper, the principal elements of the integrative Aristotelian ethics against the background of its multi-dimensional anthropology will be reconstructed.

I propose first to outline the basic structure of the theory of action based on the treatises *On the Soul* and the *Ethics*: self-movement through *orexis*. In the second and third sections, we will be concerned with the structure of the non-rational powers of the soul, in particular the emotions (*pathe*). The fourth and fifth sections will show that virtue results from the mediation of aspiration and reason, before we conclude with an assessment of the systematic findings.

1. The Basic Structure of Action Theory: Self-Movement through *orexis*

The Aristotelian approach to psychology and theory of action on the basis of his natural philosophy examines the phenomenon of the movement of living organisms – not merely bodily movement, but also the processes of growth and shrinkage, metabolism and reproduction etc. Living organisms have the origin of such movement within themselves – they have ψυχή as the principle of their self-movement (*DA* II,1 412b 17f). As the ἀρχή, it is the principle of becoming, of activity, and of self-development (*DA* I,1 402a 7f). While each individual being exists complete within itself and as a unified whole, the philosopher distinguishes various powers or δύνάμεις of the soul. (I generally prefer to use the Greek terminology, because translations often entail problematic connotations.) Various powers are attributed to the vegetative, the sensible, and the cognitive life. That *dynamis*, which is the origin of self-movement, is called by Aristotle *orexis*; every movement is a manifestation of either aspiration or flight. It is associated with sensuality, the αἰσθητικόν, and yet should still be perceived as an independent essential power. According to Aristotle, aspiration is active *in* all other powers, it is bound with the vegetative life, with sensible perception, and with knowledge (*DA* III, 9 432b 3-8; cf. *EE* VIII,2 1247b 18f. and *MM* 1187b 36ff). I therefore designate it as a "transcendental" essential power; it transcends the limits of the received division of psychological powers and, driving these, establishes a relation to the environment that lends a specific relevance to that which is perceived (and thus also to that which is remembered, imagined, hoped).

Human souls, however, do not have various powers beside or over one another (as in an hierarchical model), but rather unite vegetative and sensible powers with the rational. According to my interpretation, the affects are central concretisations of *orexis*; emotionality demonstrates this integration. For ethics, they are more important than those desires

which are concerned with metabolism, nutrition etc. The *pathe* are specific forms of aspiration (and avoidance) of concrete objects within the context of self-movement, which, however, are determined by each given situation. With this passive moment, a primary objectivity of the relationship to the world, to situations and objects, is guaranteed. The fundamental aspiration towards something is then not a diffuse appetitive movement in pursuit of something, but rather a dynamic relationship to something specific.⁸ This means that these objects in one way or another will always be aspired to (or avoided) as evaluated objects, that they will be judged as beneficial or harmful in axiological categories.

An affective aspiration is always a total answer to something concrete that appears to be good: φαivόμενον ἀγαθόν (*NE* III,4 1113a 23-25). The concept of the good is understood here in terms of psychological and behaviour theory, that is, as pre-moral.⁹ Affectivity allows good and bad to appear as such for the individual living organism. This evaluation is fundamental, because it is only on this basis that it can be distinguished whether that which *appears* to be good is indeed good or only *seems* to be so, and to what extent that which appears as bad really is so after rational examination.

The ethical writings of Aristotle, the leading focus of which is the teaching of successful living or happiness (*eudaimonia*), show another psychological approach. The distinction between psychological powers based on natural philosophy given above is not identical with the simplified division of human powers into those which possess *logos*, and those which are *alogos*:¹⁰

One [part] of the soul is non-rational, while one has reason (*NE* I,13 1102a 29f).¹¹

In order to avoid misinterpreting this in the sense of a disjunction, it is important to take into account Aristotle's anthropology. On that basis, the question, which in the next stage of

⁸ The relationship includes a passive and an active moment, the balance of which is discussed below in section 6.

⁹ Here I agree with Moss that φαivόμενον in the first instance means "subjective experience" (Moss 2014, 4); likewise with her judgement that the primary appearance of the good is more fundamental for the psychology and ethics of Aristotle than is usually recognised. Nonetheless, her interpretation of "appearing" "in a narrow, technical sense", "quasi-perceptually" (Moss 2014, 5), because it depends on empirical experience, seems to be an unnecessary reductionism. This "practical empiricism" underestimates the role of *orexis* as a special power of the soul and cannot explain the normative dimension – what the moral good should be beyond the pleasant or agreeable.

¹⁰ *DA* III, 9 432a 15-b 8 discusses the relationship between these two divisions.

¹¹ The translation by Rackham "the soul consists of two parts, one irrational and the other capable of reason" seems unfortunate because "irrational" sounds like the contradictory opposite of "rational". To talk of "parts of the soul" can hardly be evaded in English, but should be bracketed in light of the following sentence quoted above.

his argument Aristotle leaves open because it is not relevant to ethics in the narrower sense, can be answered:

Whether these [two parts] are really distinct in the sense that the parts of the body or of any other divisible whole are distinct, or whether though distinguishable in thought as two they are inseparable in reality, like the convex and concave sides of a curve, is a question of no importance for the matter in hand. (1102a 30-33)

The result of the considerations in *DA* II,2 413b 13-32 is that the powers of the soul are to be differentiated only conceptually (cf. *DA* III,10 433a 31-b 13).

The *orexis* of man distinguishes itself from that of animals: the concept is applied to both only by analogy. The reason for this is the unity of the human form, i.e. because man as a whole exists in a state of openness to *logos*: ἄνθρωπος ζῶον λόγον ἔχων (cf. *Pol.* I, 2 1253a 9f). Man lives in a sphere of accessibility to the *logos*, as a total entity. All of his powers of the soul within which aspiration operates therefore have another character, namely, a specifically human, including the powers called *alogon*. The interesting question here is that of the precise, differentiated relationship between *orexis* and *logos*. First, though, we must address, in addition to the transcendental and the analogical character of *orexis*, its teleological function.

Human self-realisation occurs in action, to which affectivity disposes and impels. "Doing well is the End, and it is at this that desire aims."¹² To do what is morally good on the basis of *orexis* at the same time achieves the good of one's own being. In this dynamic final paradigm, a teleological aspiration of the *physis* towards the appropriate perfection of each organism is manifest. *Orexis* is the concrete manifestation of the disposition of man to the good. The goodness of action can be measured by the concordance with that perfection, as is demonstrated by the question of specific human activity, the ἔργον-argumentation in *NE* I, 7 (from 1097b 25). Central here is 1098a 7f: "The performance that is distinctive to man is the active exercise of the soul's faculties according to the *logos* or not without *logos*."¹³ The formulation of Aristotle that the specifically human activity is that of reason "or not without reason", embraces exactly the emotionality with its participating rationality. In the next section we shall examine this further. Here, we should note that the affects are not particular events, but rather concretisations of a movement towards self-realisation. They are only fully understandable within a comprehensive teleological concept that includes the

¹² ἡ γὰρ εὐπραξία τέλος, ἣ δ' ὄρεξις τούτου (*NE* VI,2 1139b 4f.).

¹³ ἔστιν ἔργον ἀνθρώπου ψυχῆς ἐνέργεια κατὰ λόγον ἢ μὴ ἄνευ λόγου. Again, I find Rackham's translation less convincing: "the function of man is the active exercise of the soul's faculties in conformity with rational principle, or at all events not in dissociation from rational principle".

human entelechy. Only a fully developed theory of aspiration (as presented in Riedenauer 2000) affords the correct hermeneutical parameters for a deeper comprehension of the relationship of Aristotelian psychology and theory of behaviour, and thereby, of the foundation of ethics.

2. The Specific Rationality of the *alogon*

The human psychological division of Aristotle's ethics distinguishes between τὸ λόγον ἔχων, the *logos*-possessing self, from ἄλογον, which is addressed in Book VI as a criterion of categorisation:

We said that there are two parts of the soul, one that has reason and one non-rational" (NE VI, 1, 1139a 5).¹⁴

The being that possesses *logos* has the ability to understand, to recognise and to think (the *theoretikon* and the *logistikon*), whereas the *alogon* seems at first sight to be what *De Anima* attributes to the vegetative and sensible powers. However, this simplistic parallel allows no place for the phenomenon that concerns us here: would the emotions, for example, merely be the exercise of sensory powers? Or would they be directly attributable to cognitive powers? Apart from the fact that neither alternative resolves the problem, such a parallel also fails to recognise the analogical character of psychological powers, on the basis of which human sensibility differs from that of animals. Therefore, it is not correct to translate *alogon* with "irrational", which would suggest the contradictory opposite to "rational" – "pre-rational" is to be preferred.

The *alogon* can certainly participate in the *logos* (NE I,13 1102b 26-30), and for this reason I denote it as pre-rational. A cognitive turn did not occur only with the psychology of the emotions in the twentieth century.¹⁵ NE I,13 concludes, almost provocatively: the *alogon* also has *logos* – as obeying.

The non-rational [part] then, as well [as the whole soul] apparently has two parts. For while the plant-like [part] shares in reason not at all, the [part] with appetites and in general desires shares in reason in a way, insofar as it both listens to reason and obeys it. This is the way in which we are said to 'listen to reason' from father or friends (NE I, 13, 1102b 29-33).

¹⁴ Rackham's translation again coarsens to "two parts, one rational and the other irrational."

¹⁵ This development is explained in Brüderl and al. (see Brüderl/Halsig/Schröder 1988). Richard Lazarus, founder of the cognitive-relational-motivational emotion theory, ultimately saw an astonishing parallel to the concept of *pathos* in the *Rhetoric* (Lazarus 1993, 17).

This decisive affirmation of the participation of affectivity in reason is in my opinion often under-appreciated. There is a concordance, a harmony of the entire person including his affectivity with the *logos*.¹⁶ Ultimately, it lies in the tendency of the teleological *orexis* itself that practical reason "takes over" the pre-rational movement and achieves a fully human activity.

The reason for this lies in the pre-rational evaluation of goals within the affective relationship to the world. Every aspiration already presents a provisional answer to that which shows and offers itself in a situation, it is respectively determined by the apparent good, the *φαινόμενον ἀγαθόν*. Human affectivity is then an openness to the possible meaning of specific objects, which is also influenced by the *ethos* of the respective cultural community. How, precisely, this occurs, is demonstrated by the structure of *pathos*, that integrates the essential dimensions of our humanity.

3. The Dimensions of *pathos*

The most extensive treatment of *pathos* by Aristotle is preserved in the *Rhetoric*, especially in the second book. This seems astonishing, but it contains insight that has long been overlooked (cf. the standard commentary Cope 1970, 117). Conley has even spoken of an "apparent boycott of II, 2-11" by interpreters (1982, 300). In fact, the *Rhetoric* displays an essential inter-relationship between affect (*pathos*), rationality and language (*logos*), community (*polis*) and the customs they preserve (*ethos*). These are dimensions of human existence, which, strictly speaking, implies that inter-relationship. Thus, this multi-dimensional theory of affects exposes the connection of the anthropological definitions in the *Politics*: man is the *ζῶον λόγον ἔχων* as *ζῶον πολιτικόν*, and associated with both is the third definition (the significance of which is often under-valued) as the kind of animal which alone is capable of recognising moral qualities and thus of living within a community. *Logos* is "designed to indicate the advantageous and the harmful, and therefore also the right and the wrong; for it is the special property of man in distinction from the other animals that he alone has perception of good and bad and right and wrong and the other moral qualities, and it is partnership in these things that makes a household and a city-state." (*Pol.* I,1 1253a 14-18)

In this way, Aristotle lays the foundation for a possible, comprehensive, rational conduct of life, in which individual and communal decisions are reflected upon and dis-

¹⁶ συμφωνεῖν τῷ λόγῳ (*NE* III,12 1119b 16); ὁμοφωνεῖ τῷ λόγῳ; κοινωνεῖ λόγου (*NE* I,13 1102b 28-30). The particular way in which Moss reinterprets these passages is significant (Moss 2014, 110, 119, 188).

cussed, that which is to be done is evaluated and the good is realised. Accordingly, the *Rhetoric* analyses each *pathos* phenomenologically in its threefold relation to circumstances, to (also bodily) disposition, and to other people. In this structural analysis, we find the cognitive, bodily, motivational and social dimensions of affectivity, each of which will be briefly presented in the following.

a) The Cognitive Dimension

Many scholars have now rejected earlier misunderstandings, which tended to see in the *Rhetoric* a technique for the manipulation of feelings (Fortenbaugh 1975, Conley 1982, Leighton 1982 and 2009, Wörner 1990). In such a mistaken interpretation, it was assumed that rationality and emotionality functioned in fundamental opposition to one another, so that every appeal to affects immediately posed the risk of manipulation. This view more closely describes the older critique of affects, against which Aristotle argued: that of Gorgias¹⁷, Democritus ("wisdom cures *pathe* like medicine cures illness", fragment B31), Zenon (emotion as "irrational and contrary to nature"¹⁸), or certain writings by Plato¹⁹. In opposition to this, Aristotle proposed that the *pathe* already possess within themselves a specific rationality – a cognitive centre, namely, the spontaneous evaluation of whatever is encountered in a given situation. In my opinion, the most important and until now essential and fundamental achievement of the Aristotelian psychology of the affects is its clarification of the constitutive role of specific evaluative assumptions. The origin of any emotion lies – in distinction from sensory perceptions (e.g. of heat), pain, and somatically conditioned desires (e.g. hunger) – in a cognitive act that responds to something in the world (not only within the agent), that is, the spontaneous evaluation of whatever is encountered in a given situation as an affective 'object'²⁰. Here lies also the 'added value' in contrast to simple per-

¹⁷ *Helenes enkomion* excuses Helena by denouncing emotional motivation as a kind of sickness or drug (among other excuses) [cf. Euripides, *Medea* 446-450].

¹⁸ τὸ πάθος ... ἄλογος καὶ παρὰ φύσιν ψυχῆς κίνησις (Zenon: SVF I; n. 205; "sickness of the soul"). For Zenon, wrong judgements constitute affects, while Chrysippos identifies both (Diog. Laert. VII; 110 f.).

¹⁹ See mainly *Phaedo* (64d - 65c; 66b - 67a; 82d - 83d) and *Gorgias* (492d - 494b) in the context of the body-soul-dualism. Cf. the image of the soul as a carriage (*Phaidros* 247b 3-6) and the metaphors in *Politeia* IX 588 c-e, *Timaios* (69c5 - d4). A greater appreciation and different view of emotions and lust shows *Philebos* 21ff. and 32 ff.

²⁰ See *Topics* (IV,6 127b 30-32; VI,13 151a 16f.; VIII,1 156a 32f.; cf. *DA* III,3 427b 21-24). Aristotle further elaborates the view of the *Philebos*, that emotions arise "with" opinions (μετά), and replaces it with a causal connection; δῖά. In *Rhetoric* (Rhet. I, 11) he differentiates irrational desires (mostly

ceptions – therefore, perception theories of the emotions ought to become evaluation theories. Affects assess the significance of what is real and also what is possible in a given situation, immediately and in a totality, as useful or damaging, as things to pursue or to avoid, as a good or an evil. The general affective openness for significance is determined by each object under specific formal criteria, and through this the world in its meaningfulness becomes accessible in a nuanced fashion.

The example of anger is illuminating; it has routinely been examined as a paradigmatic basic affect (cf. Lazarus 1991, 217). Aristotle defines *orge* as "a longing, accompanied by pain, for a real or apparent revenge for a real or apparent slight, affecting a man himself or one of his friends, when such a slight is undeserved" (*Rhet.* II,2 1378a 30 f.). We can see how many assumptions specify and concretise a general desire for a recognition of my person or my concerns so that precisely this affect is formed. Now, I emphasize merely the central moment: something always appears *as* something to the person experiencing an emotion, and this is the origin of this feeling. Some fact is interpreted by the angered individual *as* an irritation, by a fearful individual *as* a threat, by a shamed individual *as* dishonouring etc. Such assumptions differentiate the various *pathe* from one another. They entail a provisional, but fundamental assessment of that which is for me in this moment good or bad. I designate this as the primary evaluation of a situation.

On the basis of the example of anger, an additional moment of anticipating evaluation is evident, insofar as this affect contains the hope of satisfaction (*Rhet.* II,2 1378b 2f.; II, 2 1379a 23f. and *DA* I,1 403a 30f). The imagination even assesses future possibilities, the evaluation of which is included in anger.

The affective hermeneutics of a situation is essential in the sphere of action, which is generally determined by the contingent, where theoretical knowledge is insufficient and the best way to act cannot be deduced by rationality unaided by affectivity.

b) The Social Dimension

People always react to comparable situations in somewhat different fashion, because what appears to any affectively affected individual of existential significance is already coloured by their specific character and experience. This disposition is influenced by both their physical constitution and the constellation of their social environment, by their position within their community and their particular self-image. For example, the above-

originating in the body) from desires which are rational in so far as they are experienced on the basis of a conviction (1370a 18-32).

mentioned definition of anger includes the seemingly undeserved slight. *Rhet.* II, 12-17 summarises in which existential situations people are particularly susceptible for specific affects.

The belonging to others (e.g. in the family) likewise determines their affective openness (cf. *Rhet.* 1379b 2-4). Aristotle concretised the respective social aspects accordingly in the psychology of the *Rhetoric*, while feelings that are independent of one's belonging to others scarcely play any role. Thus, in the case of anger, its public nature is significant for the irritation experienced (φαινομένη; *Rhet.* II,2 1378a 31). On the other hand, it has a positive, restorative function for the community: κατάστασις (II, 3 1380a 9). I interpret the rhetorical context of the Aristotelian psychology of emotions thus, that only within the sphere of an *ethos* of a community of communication does affectivity unfold its entire power of manifesting situational relevance within the framework of a verbal consensus about the respective good, the necessary or useful, and their opposites. The *pathos* unites the individual with the communal *ethos* and its *logos*. The spontaneous affective reaction of a child is always formed by the value system of the community and the parents – which, of course, can change – through its upbringing. From a contemporary perspective, this context of the respectively dominant *ethos* is the basis for the historical and cultural differences in evaluations. This is already reflected in the *Rhetoric* itself, which classifies anger as the answer to perceived injustice, unlike the account we find in Homer, according to which anger is more strongly grounded in the idea of honour; to this extent, Achilles' anger was of a different kind.²¹

c) The Bodily Dimension

The physiological foundation of the multi-dimensional emotion theory of Aristotle remains the starting point for classical theories of the affects, and similarly, the modern beginnings of the scientific study of psychology. Emotions are conditioned by age and physical circumstances, such as an illness, and the likelihood of their manifestation can be enormously strengthened or weakened. The brief definition of affect in *De anima* as "incarnated *logos*" emphasizes its physicality in union with their participation in *logos*: τὰ πάθη

²¹ Konstan elaborates this cultural variability, which seems explicable on the basis of an Aristotelian theory of evaluation: "It is at the level of evaluation that cultural differences in the determination of the emotions are most salient... such an appraisal will involve a whole range of socially conditioned values and expectations." (Konstan 2006, 24)

λόγοι ἔνυλοί εἰσιν (DA I,1 403a 25 f.).²² Accordingly, any emotion can also be considered in physical terms, because "all *pathe* of the soul are physical"²³ and inseparable from physical matter²⁴. Despite having only minimal empirical knowledge of the somatic processes, Aristotle ascribed the greatest significance to this physiological dimension of emotionality, without, however, reducing the respective significance of the other three dimensions. It is conceivable that he would readily have integrated the findings of neurobiology in their relative importance into his theory. The emotional characteristic of feelings or experiences, often emphasized in psychology since the nineteenth century, which is combined with an inescapable sense of being personally affected, is implicit in the physical dimension. If somebody said, "I am very afraid, but it doesn't bother me!", we would not be able to understand him. This element of feeling was perhaps in Antiquity not a prominent topic, because it is a natural and self-evident phenomenon that was not yet compromised by a Cartesian abstraction of the self from the body, and hence from the world, as a result of which polarisation the perceived proximate relationship between 'subject' and 'object' was seen to require an explanation.

From a teleological perspective, the reason for the significance of the somatic phenomena is to be seen in the fact that behaviour ultimately also necessitates the mobilisation of physical powers – which is included in the concept of motivation, properly understood: to bring to movement. With this observation, we come to our fourth structural moment of *pathos*.

d) The Motivational Dimension

Emotions combine cognition and motivation, in that they dynamically situate us within a context that is understood pre-rationally, and they evaluate its significance. They impel to conscious, rational, moral decisions (*προαίρεσις*) by means of the motivating tension between pleasure and pain (*ἡδονή, λυπή*)²⁵. In this way, they dispose and motivate man to a full and intentional *actus humanus*. This is a unified, felt reaction to that

²² Hett's translation "formulae expressed in matter" is misleading, therefore better translations from DA are proposed.

²³ The *Rhet.* does not intend to treat the *causa materialis* of affects, but the *causa efficiens* and often also the *causa finalis* (DA 403a 17; cf. MA 7 701b 23f).

²⁴ τὰ πάθη τῆς ψυχῆς ἀχώριστα τῆς φυσικῆς ὕλης τῶν ζώων (DA I,1 403b 17f.). Further Aristotle discerns the fundamentally different perspectives of the dialectician and of the researcher of nature (DA 403 a29ff.).

²⁵ Hence the component of "feeling" an emotion as a whole being, which is placed in the foreground by Jamie Dow's interpretation of emotions "as pleasures and pains." (Dow 2011)

which appears to be good or bad within its respective context, and constitutes the beginning of goal-oriented self-movement, which in turn forms the foundation of virtue ethics.

Emotion's specifically human significance is achieved in the rationally guided perfection of the individual's spontaneous reaction, i.e. a free and conscious cultivation of the affects that adapts each primary response to the response given by practical reason to specific situations, and that improves its long-term 'appropriateness'.

4. Rational Aspiration and Aspiring Reason

Προαίρεσις: The central concept of Aristotle's theory of behaviour, that of moral decision, cannot and need not be explored here. I wish merely to emphasize one aspect, the significance of which only becomes apparent in relation to the treatment of *orexis*: the dynamic unity of desire and rationality in its implementation. Aristotle defines decision-making as "aspiring reason or rational aspiration": ἡ ὀρεκτικὸς νοῦς ἢ προαίρεσις ἢ ὀρεξις διανοητική (*NE* VI,2 1139b 5f).²⁶ *Orexis* achieves here its moral purpose; it becomes effective, decisive willing, and reveals the extent to which Aristotle understood action as aspiring movement. *Proairesis* is not simply to be construed as a sub-category of aspiration, but rather as its highest form of realisation in his analogous-dynamic theory of action. Not only is the origin of decision-making "desire and reasoning directed to some end"²⁷, but *proairesis* is itself reflective *orexis*.

The decision realises the aspiration as teleological power, its finality towards fully human activity, and thereby the self-realisation of man. Decision-making also establishes a new and higher relationship of the agent himself: he determines *himself* – he actively assumes his existence.

There are phenomena in the face of which the conceptual differentiation between individual powers, in this case, between reason and aspiration, fails. In *proairesis*, a unity is operative – it is a complete act of human correspondence. Man as aspiring and *logos*-endowed determines himself. For a good *proairesis*, says Aristotle, "both the *logos* must be true and the aspiration right" (*NE* VI,2 1139a 25). The combination of this requirement – true and right – could already indicate that the *logos*-character of self-determination is not limited to finding the appropriate means in goal-oriented rational calculation. Aristotle emphasizes that practice is also called to realise the human power to bring forth truth: ἀληθεύει (*NE* VI,3 1139b 15); he speaks explicitly of practical truth: ἀλήθεια πρακ-

²⁶ Rackham's translation "thought related to desire or desire related to thought" unduly weakens the grammatical construction in Aristotle's text.

²⁷ "Purpose partakes both of intellect and of desire." (*NE* VI,2 1139a 32; cf. *MA* 6, 700b 23)

τικῆ (NE VI,2 1139a 27). The capacity of man to realise the truth is absolutely not restricted to theoretical knowledge. The philosopher stipulates that truth in relation to practical reason consists in "conformity to the right aspiration": ὁμολόγως (ibid. a 31). This means in turn that without *orexis*, there are no human 'truths' in the sphere of action.

The basis of this capacity to respond, of the moral capacity to conform, is that the self finds itself as a being that aspires. The affective experience of being in pursuit of something opens the world first for self-determination in the *logos*.

5. Virtue as the Balance of Affective Responses

Aristotelian ethics is characterised by the central role assumed by virtue (ἀρετή). It is the habitually good evaluation of a situation, aiming at the rationally determined balance, the "middle" between an excess and a deficiency of affective responses to the given situation. Here, we are concerned merely to indicate its relationship to *pathos* and *orexis*. Human life is meaningful and successful through good actions (εὐπραξία). Both aspects are already contained within the meaning of the Greek word: on the one hand, good actions, and on the other, happiness, well-being, fortunate success. *Eupraxia* as constant virtuous action is possible if there are established dispositions to act well: good habits, ἔξεις. These dispositions stabilise the being in pursuit of the good, and strengthen the appropriateness of concrete desires. They contribute essentially to the mediation of aspiration with rationality.

The receptivity of man for objects of action which appear as good or bad can be malleably shaped within certain parameters. The affective susceptibility can be too high or too low – as the example of anger shows: Neither the individual disposed to become angry very often or very strongly, nor the opposite type, who lacks sufficient aggression and an ability to assert himself, is able to respond appropriately to situations of conflict. However, the sense of a good balance of reactions cannot be replaced with the application of general rules. As useful as practical principles may be, which may commonly apply, and which preserve useful experiences of successful and failed conduct, they can never perfectly and accurately grasp the contingent situations (see *NE II*, 2).

The evaluative response to situations by *pathos* is therefore essential. The ἔξεις mediate the concrete affective level of response with the balance determined by the *logos*, and ensure that the primary reaction of the individual will ordinarily be appropriate. The virtuous individual loves that which is good for him and abhors that which is genuinely damaging (*NE II*, 3 1104b 10-16). His emotions dispose him in such a manner that within his circumstances, he is always in a balanced appropriate state and in an optimal relation to everything. He is affectively oriented "at the right time, on the right occasion, towards the

right people, for the right purpose and in the right manner" (*NE* II,6 1106b 21f). The measure of the good becomes apparent in broad openness and affective susceptibility for appearing possibilities to act. It manifests itself in so far as the virtuous individual habitually situates himself in the right balance and actively adapts to the respective reference points of that environment.

Virtue thus not only disposes to the best decision, but also already forms affective susceptibility. Insofar as emotionality is indirectly malleable, man has a responsibility for the way in which the world appears to him and affects him (cf. *NE* II, 2 1104a 19-27). The claim in the *Magna Moralia* is then reasonable "that, contrary to the opinion of other [moralists], it is not the *logos* which originally points the way to Virtue, but rather the passions" (*MM* II, 7 1206b 17-19). I can here only indicate a particularly important consequence of this: insofar as each affect is co-formed through the behaviour provoked by previous, similar situations, the emotions mediate the past of our life history to our future potential conduct.

It follows from this that the horizon of reason is not first revealed in a conscious resolve, rather, that its objectivity is facilitated and prefigured in the well-balanced affective evaluation. To live rationally (*κατὰ λόγον*) implies fundamentally the disclosure of the relevance of a situation through the emotions – not least because in quotidian circumstances, human behaviour remains uncompleted, i.e. without conscious, rational decisions. Rapid reaction often demands an impulse reliably determined by habit (see *NE* III,6 1115b 1ff. for the example of fortitude). To not allow one's responses to be dominated alone by *pathos*, i.e. not allowing one's self to be emotionally determined, means (in normal cases) not a struggle of reason against feelings, but consists in the total teleology of human affectivity as pre-rational and as co-operating with reason. Inversely, it can also be said with Aristotle that exclusively rationally controlled behaviour without affectivity (*απάθεια*) would no longer be good conduct (*euprattein*) – apart from the fact that it would be an illusory ideal. Such an individual would also thereby be deprived of pleasure in such activity.

6. Affective Disclosure of the Integral Responding Relationship to the World

Man as a physical, reasoning and social being is always in pursuit of something. The world is accessible to him in its meaning and value profile, because he is engaged and aspires, while ultimately he is concerned with himself, with his own being. Emotions like anger manifest personal aspirations like the need for respect for oneself, one's relatives or friends, one's values or achievements. Other emotions like fear manifest natural needs for nourishment and protection, as do non-emotional phenomena of desire directed at survival

like hunger or thirst. Although somewhat malleable, they show a natural teleology which Thomas Aquinas subsumes under *inclinationes naturales* (cf. *Summa theologiae* I-II 94, 2; 94,3-4; cf. 91,2 and 91,6).

On the basis of the human being in pursuit of something, the affects first grasp reality in a manner that involves one sensibly and completely in an irreducible value dimension: that of the good (or bad).²⁸ Ronald de Sousa calls this cognitive dimension of human affectivity "axiological rationality" and speaks of the essential "semantics of the affects", which are learned by every individual (constituting the foundation for a certain variability in meanings²⁹).

The grasping of the axiological dimension of reality in relation to which the individual finds himself through affectivity is, in psychological models, usually not recognised in its irreducible uniqueness. It is more than research on coping strategies is able to reveal and to define, which describes emotions as a process of control and adaptation. The pre-rational evaluation of the existential and normatively relevant aspects of a situation through affective susceptibility and spontaneous evaluation unfolds the situation's potential axiological significance. The relationship with the conscious interpretations explains, moreover, the multiple possibilities of false interpretations, distortions of affective evaluation through to self-manipulation (see de Sousa 1997, chap. 9). The affective experience of a situation implies a provisional interpretation in reference to its existential significance, of whatever good or evil is important to the individual.

The relationship of man to the world is thus configured as dynamic. It is characterised through the four specified dimensions of the affects, as a physically incarnated, motivational, intentional-cognitive, and socially embedded relation. This understanding of the essential affective disclosure goes ultimately beyond the "cognitive-relational-motivational theory of emotions" of the pioneer of cognitive affect psychology, Richard Lazarus, who recognised the relational aspect as one of the three structural moments, but not as the basis of all other moments.

²⁸ "Affectivity is ... constitutive for the interestingly reflective relation of the person and everything else, for the fact that everything has a meaning for the life of the person, the background being that the person cares for her own life and how she lives. Therefore, it could be said that it is exactly in affectivity that an integral relation to one's own life is founded." (Wolf 1994, 115). See also Hastedt (2005, 141 ff.) and Solomon, for whom feelings – somewhat simplified – are simply the meaning of life (Solomon 2000, XII).

²⁹ De Sousa argues that emotional semantics are derived from "paradigm scenarios" which allow the individual to learn a repertoire of feelings and to define the formal objects of emotions (De Sousa 1997, 284).

The obvious vagueness of the concept of cognition, indiscriminately used by psychologists, can be eliminated by a clarification of the relational dimension of affectivity as a differentiated structure of challenge and response. Thus, the psychological concept of "emotional response" and the principle of relational meaning (Lazarus³⁰) are understood on a fundamental, philosophical-anthropological level. The human capacity to respond is graded between unconscious, instinct-analogous goal-orientation, cognitive activity in the sense of pre-rational but conscious, and rationality in its fullest sense, on the basis of the active openness of the human condition as being concerned with meaning. Affects, so understood, do not exclude freedom and rationality.

According to my interpretation of emotions as responses, they are initial answers, and not merely reactions in the literal sense of the word with their connotation of passivity and automatism. The typical state of affective passivity is an experience, a qualified type of enduring, that is at the same time the beginning of an answer, which is only appropriate to human beings as physical, sensitive, self-moving, social, speaking and thinking beings.

In the same way that the philosophy of emotions since Aristotle has argued against an over-emphasis of the pathetic element, so the interpretation of the emotions as cognitive in twentieth-century psychology has opposed the modern tendency to denigrate emotions as "passions" juxtaposed against rationality. De Sousa designates this fundamental problem of the theory of feelings, that has been present since Antiquity, the antinomy of passivity and activity (De Sousa 1997, 21 f. and 35 f.). The response interpretation of the formulation of a relationship to the world by the affects avoids this dichotomy, and integrates passive and active aspects: the passivity of emotions enables a primary objectivity of the responses and is biologically based. This is not incompatible with the view that they are subject to cultural modifications. For at the same time, the active and activating aspects of the primary evaluation of a situation are accorded their appropriate place. Furthermore, the one-sidedness of the judgement theory of the emotions is eliminated, which overlooks the pathetic aspect of being affected and the capacity to be affected. If man is understood as an aspiring and responding being, who is in all situations concerned with himself (from his physical self-preservation to the necessary conditions of living together in a community), then even less specific, less intentional phenomena of feelings, such as moods, can be interpreted meaningfully, which purely representational theories have difficulty in doing. Neither one's relation to one's self, which is fundamental in all affectivity, nor its irreducible relation with the

³⁰ "This principle states that each emotion is defined by a unique and specifiable relational meaning... constructed by the process of appraisal, which is the central construct of the theory." (Lazarus 1991, 39) Speaking of "constructing" meaning should probably not be misunderstood in a technical sense, and I therefore prefer to speak of a responsive formation.

world, is excluded. In order to nurture its openness and thereby also its essential disclosing capacity, even more seems necessary than Aristotle's treatment of the cultivation of the concrete affects to virtues (which, certainly, constitutes an essential counter position against the Stoic ideal of *apatheia*): a kind of self-care and self-formation which aims to preserve my ability to feel on all levels, so that the world is of concern to me, to ensure that people, things, real and possible situations affect me, gain relevance and value, and can motivate me to act. Only for a being who can be moved by the affects is the world accessible and valuable, so that he can engage with it.

In this manner, man is first addressed and challenged (the philosophical interpretation of the relational dimension); second, he experiences this engagement in a totality and inescapably (the physical dimension and component of feeling); third, he evaluates this spontaneously in terms of the good and the bad (the cognitive dimension); which, fourth, is influenced by diverse factors from social interaction to cultural norms (the social dimension); and finally, he finds himself moved to provide his answer in action (the philosophical interpretation of the motivational dimension). What follows is the critical review or re-appraisal of the spontaneous, pre-rational evaluation by practical reason.

The elaboration of *orexis* as the underlying constitution of aspiration allows us to view human existence as the implementation of a naturally grounded state of pursuit that is attracted to the good. Intentionality already on the level of affectivity is grounded in a finality that is not a metaphysical postulate, but rather concretely experienced and that is receptive to the hermeneutic of a philosophical psychology and anthropology.

The Aristotelian conception of *orexis* also has far-reaching consequences for the self-understanding of human reason, which here can only be briefly mentioned. Aspiration is the basis of the theoretical relation to the world, as the first sentence of Aristotle's *Metaphysics* emphasizes, which has not been taken with sufficient seriousness: "All men naturally desire knowledge" (quoted already in footnote 3). We should avoid interpreting human understanding and practical reason as restricted to the rational faculty. The aspiration-ethical approach avoids an aporetic dualism between an abstractly conceived rationality, and the phenomena of volition. Aristotle, however, regards willing in its concrete decision-making as the highest rational form of aspiration. Reason is not somehow applied to *praxis*, but as the rational capacity of orientation of a self-moving being, it always already exists within the realm of *praxis*. We humans find ourselves always already in a pre-evaluated world that affects us. Affectivity with its specific participation in *logos* achieves a primary comprehension that lies beneath the differentiation between rational and volitional faculties. *Orexis* constitutes a fundamental positioning of man in the world before the distinction

between active and passive, in a characteristic susceptibility and responsiveness that underpins all *praxis*.

Prof. Dr. Markus Riedenauer, Institut für Christliche Philosophie,
Katholisch-Theologische Fakultät, Universität Wien,
markus.riedenauer[at]univie.ac.at

References

- Aristotle. *On the Soul* [abr. *DA*]. (Aristotle Vol. VIII, The Loeb Classical Library No. 288). English Transl. by W. S. Hett. Cambridge and London: Harvard University Press, 1986.
- Aristotle. *Eudemean Ethics*, in idem. *Athenian Constitution. Eudemean Ethics. Virtues and Vices* [abr. *EE*] (Aristotle Vol. XX, The Loeb Classical Library No. 285) English Transl. by H. Rackham. Cambridge and London: Harvard University Press, 1935.
- Aristotle. *Parts of Animals. Movement of Animals. Progression of Animals* [abr. *MA*]. (Aristotle Vol. XII, The Loeb Classical Library No. 323). English Transl. by E. S. Forster. Cambridge and London: Harvard University Press, 1937.
- Aristotle. *Metaphysics* [abr. *Met.*] (Aristotle Vol. XVII and Vol. XVIII, The Loeb Classical Library No. 271 and No. 287). English Transl. by H. Tredennick. Cambridge and London: Harvard University Press, 1956 (books I-XIX) and 1969 (books X-XIV).
- Aristotle. *Magna Moralia*, in idem. *Metaphysics X-XIV. Oeconomica. Magna Moralia* [abr. *MM*] (Aristotle Vol. XVIII, The Loeb Classical Library No. 287). English Transl. by G. C. Armstrong. Cambridge and London: Harvard University Press, 1969.
- Aristotle. *Nichomachean Ethics* [abr. *NE*] (Aristotle Vol. XIX, The Loeb Classical Library No. 73). English Transl. by H. Rackham. Cambridge and London: Harvard University Press, 1990.
- Aristotle. *Politics* [abr. *Pol.*]. (Aristotle Vol. XXI, The Loeb Classical Library No. 26). English Transl. by H. Rackham. Cambridge and London: Harvard University Press, 1998.
- Aristotle. *Art of Rhetoric* [abr. *Rhet.*] (Aristotle Vol. XXII, The Loeb Classical Library 193). English Transl. by J. H. Freese. Cambridge and London: Harvard University Press, 1975.
- Arnim, Hans von (ed.). *Stoicorum Veterum Fragmenta I* [abr. *SVF*]. Leipzig: Teubner 1905.
- Brüderl, Leokadia, Norbert Halsig, and Annette Schröder. "Historischer Hintergrund, Theorien und Entwicklungstendenzen der Bewältigungsforschung", in Leokadia Brüderl (ed.). *Theorien und Methoden der Bewältigungsforschung*. München: Juventa, 1988. 25-45.
- Charles, David. "Desire in Action: Aristotle's Move." in Michael Pakaluk, and Giles Pearson (eds.). *Moral Psychology and Human Action in Aristotle*. Oxford, 2011. 75-94.
- Conley, Thomas. "Pathé and Pisteis: Aristotle Rhet. II, 2–11." *Hermes* Vol. 110 (1982): 300-315.
- Cope, Edward. *An Introduction to Aristotélés Rhetoric*. Hildesheim–New York: Olms, 1970.
- De Sousa, Ronald. *Die Rationalität der Gefühle*. Frankfurt: Suhrkamp, 1997.
- Döring, Sabine. "Die Renaissance des Gefühls in der Gegenwartsphilosophie." *Information Philosophie* Vol. XX n. 4 (2005): 14-27.

- Dow, Jamie. "Aristotle's Theory of the Emotions: Emotions as Pleasures and Pains." in Michael Pakaluk, and Giles Pearson (eds.). *Moral Psychology and Human Action in Aristotle* Oxford, 2011. 47-74.
- Euripides. *Medea*, in idem. *Cyclops. Alcestis. Medea*. Edited and translated by David Kovacs (Loeb Classical Library 12). Cambridge and London: Harvard University Press, 1994.
- Fortenbaugh, William W. *Aristotle on Emotion*. London, 1975.
- Fortenbaugh, William W. "Aristotle's Rhetoric on Emotion." in Jonathan Barnes, Michael Schofield, and Richard Sorabji (eds.). *Articles on Aristotle*. Vol. 4. London: Duckworth, 1979. 133-153.
- Goller, Hans. *Psychologie. Emotion, Motivation, Verhalten*. Stuttgart: Kohlhammer, 1995.
- Hastedt, Heiner. *Gefühle. Philosophische Bemerkungen*. Stuttgart: Reclam, 2005.
- Kenny, Anthony. *Action, Emotion and Will*. Bristol: Thoemmes, 1963.
- Knuuttila, Simon. *Emotions in Ancient and Medieval Philosophy*. Oxford: Clarendon, 2004.
- Konstan, David. *The Emotions of the Ancient Greeks*. Toronto: University Press, 2006.
- Lazarus, Richard. *Emotion and Adaptation*. New York–Oxford: Oxford University Press, 1991.
- Lazarus, Richard. "From Psychological Stress to the Emotions." *Annual Review of Psychology* Vol. 44 (1993): 1-21.
- Leighton, Stephen. "Aristotle and the Emotions." *Phronesis* Vol. 27 (1982). 144–174.
- Leighton, Stephen. "Passions and Persuasion." in Georgios Anagnostopoulos (ed.). *A Companion to Aristotle*. Chichester: Wiley-Blackwell, 2009. 597-611.
- Modrak, Deborah K.W. "Sensation and Desire." in Georgios Anagnostopoulos (ed.). *A Companion to Aristotle*. Chichester: Wiley-Blackwell, 2009. 310-321.
- Moss, Jessica. *Aristotle on the apparent good: perception, phantasia, thought, and desire*. Oxford: University Press, 2014.
- Nussbaum, Martha. *The Therapy of Desire. Theory and Practice in Hellenistic Ethics*. Princeton: University Press, 1994.
- Pakaluk, Michael, and Giles Pearson (eds.). *Moral Psychology and Human Action in Aristotle*. Oxford, 2011.
- Pearson, Giles. *Aristotle on Desire*. Cambridge: University Press, 2012.
- Pearson, Giles. "Aristotle and Scanlon on Desire and Motivation." in Michael Pakaluk, and Giles Pearson (eds.). *Moral Psychology and Human Action in Aristotle*. Oxford, 2011. 95-118.
- Riedenauer, Markus. *OREXIS & EUPRAXIA. Ethikbegründung im Streben bei Aristoteles*. Würzburg: Königshausen & Neumann, 2000.
- Rorty, Amélie. *Explaining emotions*. Berkeley, Calif.: University Press, 1980.
- Rorty, Amélie. "Aristotle on the Metaphysical Status of Pathé." *Review of Metaphysics* Vol. 84 (1984): 521-546.
- Solomon, Robert C. *Gefühle und der Sinn des Lebens*. Frankfurt: Zweitausendeins, 2000.
- Tugendhat, Ernst. *Selbstbewußtsein und Selbstbestimmung. Sprachanalytische Interpretationen*. Frankfurt: Suhrkamp, 1979.
- Wolf, Ursula. "Gefühle im Leben und in der Philosophie." in Hinrich Fink-Eitel, and Georg Lohmann (eds.) *Zur Philosophie der Gefühle*. Frankfurt: Suhrkamp, 1994. 112-135.
- Wörner, Markus. *Das Ethische in der Rhetorik des Aristoteles*. Freiburg–München: Alber, 1990.