1. Introduction

While contexture borders are discrete from the Aristotelian point of view, they are continuous from a non-Aristotelian standpoint: “For the classic tradition there is a complete break between Life and Death. It is theoretically, although not practically, possible to fix the moment of Death as the time when the soul departs from the body. From the poly-contextural aspect of a living body this is on principle impossible, because Death means only a gradual decrease of the discontexturality of Matter” (Günther 1976-80, II, p. 304). Perhaps the most known example for discontexturality is the meeting between Alice and the Red King in Lewis Carroll’s “Through the Looking-Glass”: “No matter how loud the discourse between Alice and the Tweedle brothers may get, it will not wake the Red King, because the existence or mode of Reality of Alice and the Twins is discontextural with the physical body of the King who is – or seems at least – to be lying in front of them in the grass” (1976-80, II, p. 253). No wonder, therefore, that from a non-Aristotelian viewpoint, there are also transgressions between contextures that are separated in a mono-contextural world. The most famous example for a transgression is the turning of Dorian Gray into his picture in the novel by Oscar Wilde (1890).

2. Models of transgressions

Transgressions between contextures can therefore only exist in a philosophical theory that is non-Aristotelian, since it involves more than the one contexture of the Aristotelian logic. In 1962, Günther introduced transjunctional operators into cybernetic ontology: “By doing so we obtain a linear sequence for potential classic systems of logic; or to be more precise, we locate the very same two-valued system of logic in a linear sequence of ‘places’ (...). It goes without saying that such a linear sequence of exchange relations does not yet represent a many-valued calculus, let alone the idea of a new trans-classic system of logic” (Günther 1976-80, I, p. 79). In 1973, Kronthaler introduced trans-operators into his Qualitative Mathematics (Kronthaler 1986, pp. 52ss.). But as soon as we leave the area of pure quantity, we are confronted with meaning and sense and thus with semiotics. On this reason, in 2003, I introduced trans-operators into polycontextural semiotics. Transgression can therefore be described logically, mathematically and semiotically. Since qualitative mathematics is based on polycontextural logic and polycontextural semiotics is based on both of them, the semiotical trans-operators are sufficient to describe any type of transgression (Toth 2003a, pp. 36ss., Toth 2003b).

2.1. Transgressions between mono- and polycontextural systems

The first type of transgressions I’d like to discuss here is that between mono- and polycontextural systems. The example of Dorian Gray turning into his picture is already an example. Semiotically, we have here to deal with the crossing of the border between an object (Dorian) and a sign (the picture). In order to describe this transgression within polycontextural semiotics, we have to abandon the two limitation theorems of the transcendence of the object and the materiality of the sign (Kronthaler 1992) and to replace the sign (SR: sign-relation, 1: firstness, 2: secondness, 3: thirdness) by a keno-sign (KSR: keno-sign-relation, 0: zeroness; cf. Toth 2003a, pp. 21s.):

(1) \[ SR = (1, 2, 3) \Rightarrow KSR = (0, 1, 2, 3) \]
The transgression itself, however, is not due to bare adding zeroness and thus a fourth category from SR to KSR, but by applying the three Schadach-theorems (Schadach 1967) to KSR:

(2) \( \text{KSR}_p := \mu_1 \sim_p \mu_2 \Leftrightarrow \text{card}(A/\text{kernel } \mu_1) = \text{card}(A/\text{kernel } \mu_2) \), whereby card(\(A/\text{kernel } \mu\)) is the cardinality of the quotient set \(A/\text{Kern } \mu\) of \(A\) relative to the kernel of \(\mu\).

\( \text{KSR}_D := \mu_1 \sim_D \mu_2 \Leftrightarrow A/\text{kernel } \mu_1 \cong A/\text{kernel } \mu_2 \), whereby the isomorphism between \(A/\text{kernel } \mu_1\) and \(A/\text{kernel } \mu_2\) is defined by: \(A/\text{kernel } \mu_1 \cong A/\text{kernel } \mu_2 \Leftrightarrow \text{There is a bijection } \varphi: A/\text{kernel } \mu_1 \rightarrow A/\text{kernel } \mu_2 \) so that \( \varphi([a]_{\text{kernel } \mu_1}) = [a]_{\text{kernel } \mu_2} \) for all \(a \in A\). [\(a\) \(\text{kernel } \mu\)] is the equivalence class of \(a\) relative to the kernel of \(\mu\); [\(a\) \(\text{kernel } \mu\)] = \(\{a \in A \mid (a, a) \in \text{kernel } \mu\} \).

\( \text{KSR}_T := \mu_1 \sim_T \mu_2 \Leftrightarrow A/\text{kernel } \mu_1 = A/\text{kernel } \mu_2 \): [\(a\) \(\text{kernel } \mu_1\)] = [\(a\) \(\text{kernel } \mu_2\)] for all \(a \in A\).

We have thus three possibilities to accomplish the “qualitative jump” from the pure quantitative Peano numbers, to whom SR belongs according to (1): To the proto-kenosign \(\text{KSR}_p\), to the deutero-kenosign \(\text{KSR}_D\), and to the trito-kenosign \(\text{KSR}_T\). Thus, we get in the numeral notation according to (1):

(3) \( \text{KSR}_p = (0000, 0001, 0012, 0123) \)
\( \text{KSR}_D = (0000, 0001, 0011, 0012, 0123) \)
\( \text{KSR}_T = (0000, 0001, 0010, 0011, 0012, 0100, 0101, 0102, 0110, 0111, 0112, 0120, 0121, 0122, 0123) \)

Obviously, \(\text{KSR}_T \subset \text{KSR}_D \subset \text{KSR}_T\). Since \(\text{card}(\text{KSR}_p) = 4\), \(\text{card}(\text{KSR}_D) = 5\) and \(\text{card}(\text{KSR}_T) = 15\), we get already in a 4-valued KSR an increasing number of multi-ordinal proto-, deutero- and trito-signs.

In his novel “Das Wirtshaus zur Dreifaltigkeit” (“The restaurant “Trinity””), the German psychiatrist and writer Oskar Panizza (1853-1921) tells a story about a man who wanders through a Southern-German countryside, it is getting dark and he looks for a place where to stay overnight. Suddenly he sees a restaurant and asks for food and bed. It turns out that his host is God Father, the sun is Jesus Christ, the daughter is Mary, and the pig in the stable is the Devil, but the protagonist realizes this only after he pays the next morning and gets as change coins with the picture of the Roman emperor Augustus. He wonders and looks for his way home. Meanwhile he meets a laborer and asks him about the restaurant, but the laborer tells him that this hut is inhabited and used to be a slaughterhouse. In this story the protagonist obviously jumps, as soon as daylight stops, from his here-and-now-contexture (reality 1) to a contexture that is, although geographically and historically remote (reality 2), though embedded in this contexture (reality 2 \(\subset\) reality 1), and jumps back from reality 2 to reality 1 as soon as the sun rises again. As proof of his transgression he finds the antique coins in his pockets.

An example for a one-way transgression, hence a transgression without return, is the story of Dorian Gray: He changes his object-reality (reality 1) into his picture’s reality (reality 2), therefore Dorian becomes the picture, while the picture becomes Dorian. Here, we have no inclusion-relation of the two realities. Despite his sinful and dissolute live, Dorian doesn’t change over the years, but the picture does. The more often Dorian looks at it, the uglier it gets. At the end, he takes his knife and tries to destroy the picture. But his servants suddenly hear a cry and find Dorian dead, while his picture stays in its original beauty. In this case, reality 1 becomes reality 2 and vice versa, but as soon as this exchange is destroyed – and thus, the transgression abolished -, reality 2 becomes reality 1, but this time not vice versa.
2.2. Transgressions between polycontextural systems

The second type of transgressions are the transgressions between polycontextural systems. There are two possible types:

1. Transgressions between proto-, deutero- and trito-structure of the same contexture, formally:

\[
\begin{align*}
KSR_p & \Rightarrow KSR_D \\
KSR_D & \Rightarrow KSR_p \\
KSR_p & \Leftrightarrow KSR_D \\
KSR_D & \Rightarrow KSR_T \\
KSR_T & \Rightarrow KSR_D \\
KSR_D & \Leftrightarrow KSR_T \\
KSR_T & \Rightarrow KSR_p \\
KSR_p & \Leftrightarrow KSR_T
\end{align*}
\]

It is not hard to see that the return-paths are here at least as difficult like in the case of transgressions between mono- and polycontextural systems, since

\[
(0000, 0001, 0012, 0123)
\]

i.e. the Korzybski-principle applies (cf. Kronthaler 1986, p. 60), which says that each proto-, deutero- and trito-sign has an exact number of possibilities, but since this number is increasing from proto- to deutero- and to trito-structure, the ways forward and backward have not to be same ones. As already stated, the most important difference between a sign and a keno-sign is the multi-ordinality of the latter. While a sign is unequivocal, a keno-sign is equivocal, but at the same time restricted by the possibilities offered by the three Schadach-theorems (“Korzybski-equivocation”). Moreover, in trito-structures, the position of a keno-sign counts, while this restriction doesn’t apply in deutero-, proto- and in monocontextural structures.

An example for the transgression between proto- and deutero-structures we find in Gertrude Stein’s “Birth and Marriage” (1924): “In that and there lay in that in their way it had lain in that way it had lain in their way it had lain as they may it had lain as they may they as it lay may she as it lay may he as it lay as it may he as it lay may she as it lay may (…)”. Here both the syntactical structure and the semantics of this text do not follow the rules and possibilities of monocontextural linguistics; moreover the syntax is maximally random, i.e. the position of the word representing therefore not a sign, but a keno-sign is free.

As illustration for a transgression between proto- and deutero-structures on the one side and trito-structures on the other side we can take the following part from Lewis Carroll’s “The White Knight’s Song” (1872): “But I was thinking of a plan / To dye one’s whiskers green, / And always use so large a fan / That it could not be seen. / So having no reply to give / To what the old man said, / I cried, ‘Come, tell me how you live!’ / And thumped him on the head”. Since here the syntactical structure is formed according to the rules of English grammar, each word – and therefore keno-sign - has its “right” place (from the standpoint of monocontextural linguistics), but nonetheless, the whole poem belongs to “another world”, because its meaning does not accord with the semantics of any monocontextural language.
2. Transgressions between polycontextural systems, formally:

(6) $PS_i \Rightarrow PS_{i+1}$

Here, of course, $PS$ can be a proto-, deutero- or trito-structure, too.

While in Aristotelian logic the individuality of men is eliminated by Death, it is at least unclear, if this also happens in polycontextural logic, since already a 3-valued polycontextural logic has three negations: $1 \equiv 2$: 1st identity (classical logic), $2 \equiv 3$: 2nd identity, $1 \equiv 3$: 3rd identity (cf. Günther 1976-80, III, pp. 2, 11s.). In polycontextural logic, the elimination of individuality can therefore lead to the existence of parallel-persons, doppelgangers, strange mirror images, persons without shadows etc. as we find them f. ex. in the work of E.T.A. Hoffmann. About Hoffmann’s work „Princess Brambilla“ (1820), Kremer wrote: „From the reader they [H's paradoxical constellations, A.T.] require nothing more then to accept their logic of contradiction“ (1993, p. 318), and it is clear to which logic Hoffmann’s logic contradicts: to Aristotelian logic. It thus may be interesting to illustrate transgressions between polycontextural systems like human beings (cf. Günther 1976-80, II: pp. 283-306, cf. also Mitterauer 2006) by means of the „Princess Brambilla“.

The dressmaker Giacinta is engaged to the actor Giglio. It is the time of the Roman carneval, and there is rumor that the world-famous princess Brambilla from Ethiopia has already moved to Rome, because she believes to find amongst the masks her fiancé, the Assyrian prince Chiapperi. Now, Giglio tries to find Brambilla, but Giacinta appears him as Brambilla. Thus, Giglio chases Brambilla, while Giacinta dreams to get married to Chiapperi. Furthermore, Giglio thinks himself that he is Chiapperi. Referring to the original text and to my article (Toth 2007), we get the following scheme:

Giglio ———<———> Chiapperi

Giacinta ———<———> Brambilla,

in which we discover the pro-emial relation which constitutes according to Günther each relation – and therefore also the relation of Aristotelian logic, since it “defines the difference between relation and entity, or – which is the same – between the differentiation and what is differentiated, and this turns out to be the same again like the difference between subject and object” (Günther 1999, S. 22f.). According to Kaehr (1978, p. 6) the pro-emial relation (PR) can be formalized as follows:

(7) $PR_{(R_{i+1}, R_n, x_n, x_{i+1})} = \begin{array}{c}
R_{i+1} \rightarrow x_{i+1} \\
\downarrow \\
R_n \rightarrow x_n \\
\downarrow \\
R_i \rightarrow x_i \end{array}$

The proemial relation thus crosses the difference between subject and object by allowing them to change their positions. Since in the scheme above both Giglio and Chiapperi on the one side and Giacinta and Brambilla on the other side stand in an exchange relation and since both times a male stands in an order relation to a female, we can insert the persons into the chiastic scheme ($R_{i+1}, R_n, x_n, x_{i+1}$).
3. Conclusions

In this contribution we have investigated examples for transgressions both between mono- and polycontextural and between polycontextural systems. The transgressions between polycontextural systems can be differentiated in transgressions from proto- to deutero- and to trito-structure and between polycontextural (i.e. proto-, deutero- and trito-) systems generally. We started from the fact already stated in Toth (2003a, 2003b), that logical rejection, mathematical trans-operation and semiotic trans-operation are one and the same type of “transjunctional” operations on the three different scientific levels mentioned. Finally, we came to the conclusion that what makes operations transjunctional is that they are based on the chiastic pro-emial relation that constitutes each logic. In order to close the circle we thus must have a look on the minimal, i.e. 3-valued polycontextural logic. This logic has already 24 negation steps (Günther 1976-80, II, p. 317):

\[ p \equiv N_{1,2,3,2,1,2,3,2,1,2,3,2,1,2,3,2,1,2,1,2,3,2,1,2,1,2,3,2,1,2,1,2,3,2,1,2} p \]

(8) describing thus a Hamilton circle and a “permutograph” (Thomas 1994). Since one can assume that at the end of the process of an infinite self-reflection, thus when all Hamilton circles of the subjective negativity are passed through, that logical form will be reached where the whole individuality of the object of self-reflection will be eliminated, Kremer is right in describing Brambilla as a princess “who wants to get rid of her contour and identification in an infinite mythical dance” (1993, p. 324). It is also true that Hoffmann’s novel “refuses each hermeneutic obtrusiveness” (1993, p. 324), since the hermeneutic-formal process of polycontextural logic diminishes with each new Hamilton circle that has to be passed through. Hoffmann himself uttered this fact as follows (translation by the present author): “I think my own Ego through a kaleidoscope – and all the figures that turn around me, are Ego’s” (Hoffmann 1981, p. 107).

We thus come to the conclusion that transgression is based on negation steps describing Hamilton circles in which all steps stand for increasing subjectivity until the final dissolution of the object is reached. Provided that life is (according to Günther) polycontextural and the reflected object in a polycontextural logic with at least 3 values is a person, the dissolution of individuality is nothing but the generalization of negation in the form of self-reflection.

An excellent example we find in Rainer Werner Fassbinder’s movie “Despair – A Trip into the Light” (1977). The protagonist Hermann Hermann (doubling of the name!) starts to see himself (i.e. mutual exchange between subject and object, system and environment) while having sex with his wife. He recognizes a similarity between the unemployed fairgrounder Felix Weber and himself, while there is in our reality none (transgression of mono- and polycontextural systems). In exchanging his outer appearance, Hermann Hermann believes to be capable of transcending the borders of his life and to be able to start a new one by killing (negation!) Weber and taking his identity (proemial chiastic relation). With the disappearance of Hermann Hermann’s projected Ego Weber, also the process of self-dissolution (negation steps in Hamilton circles) announces itself that culminates with the real Ego being at the end not anymore identical to itself and the dissociation of the personality being complete (i.e. the reaching of maximal subjectivity). Sitting in a hotel room, the protagonist’s trip into the light (the “kenomatic light in the pleromatic darkness”, Günther 1976-80, III, p. 276) ends in a bright Alpine mountain village, when from the monocontextural viewpoint he gets fully insane and considers the reality to be a movie, whose director he is and whose acting he is able to control.
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