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Committed against the So-Called Evil
Amélie Mummendey's psychological research on aggression in post-1968 Germany

One day, most likely in 1969, the police students of the city of Mainz, near Frankfurt, received an unusual visitor during lunchtime: Amélie Schmidt-Mummendey[1], then a PhD student in psychology, had come to the headquarters of the riot police to recruit participants for her study on the conditions of aggressive behavior. This was not, however, disclosed opposite the aspiring policemen. The 200 and something young men who agreed to fill in the forms Mummendey distributed, were aware of the fact that they were participating in a social psychological study and that the study was conducted by the University of Mainz, they did not know what it was about. All they could see at present, was a small stack of paper with 235 statements printed on, which they were asked to confirm or deny by putting a cross in the corresponding square. While the original survey has not been preserved, Mummendey gives some examples of these statements in the publication following her research. "When I am angry, I slam the door.", "Children should be made to feel the great superiority of the parents.", "I worry a lot about possible difficulties.", were some of the sentences with the help of which the police students were asked to assess themselves.[2]

The policemen-to-be had been informed that some of them would be requested to come to the psychological institute for follow-up experiments. Here, the experimenters had to rely on the good-will of their subjects – contrary to the survey, which the researchers had been allowed to conduct during class, the experiments would have to be done in the police student's free time. However, it would "surely be of interest"[3] for them to get an impression of the work done in a psychological institute, as they were told.

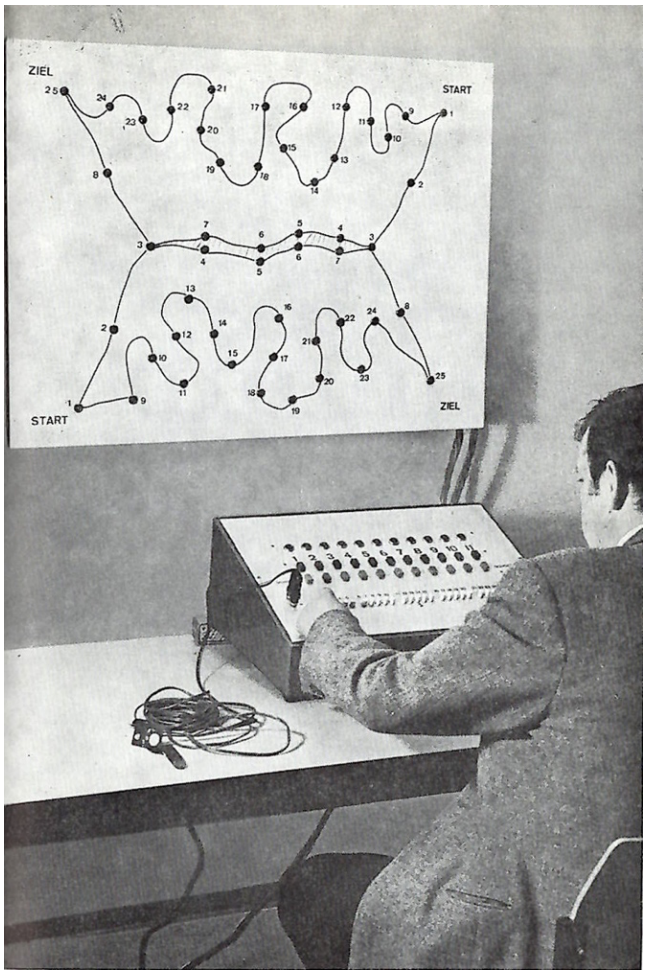
For some of the students, their evening at the university must have been quite an interesting experience indeed: They came in their plain clothes, alone or in pairs, to the psychological institute and started out having to solve simple tasks of a written test. Had they been able to concentrate fully, they would have been able to complete the test without much difficulty. However, there were several impediments to their progress. For one, the instructor was very unfriendly from the start. This must have been disconcerting enough – but it got worse when he repeatedly interrupted the students with questions about their usual performance in mathematics, and dropped comments that implied they were not doing well in the test. The young policemen – understandably - all "showed signs of tension like fidgeting on their chairs, heavy breathing, blushing, and halting speech."[4]

As one can guess, Amélie Mummendey had not simply employed a particularly unpleasant instructor. This person's speech and manner had rather been carefully planned and

[1] For continuity I will refer to her by her maiden name Mummendey, as she changed back to it only a few years after her PhD.
[2] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. S. 74-76. Translation my own.
[3] Ibid. S. 85.
[4] Ibid. S. 87.

thoroughly practiced in order to create “frustration“ in the participants. Here Mummendey built on fairly recent research in the US, where Leonard Berkowitz and his group examined the relationship between frustration and aggression[5].

Not all policemen were treated cruelly – a control group was warmly welcomed and encouraged throughout the written test. But all of them participated in the same experiment thereafter: a round on the “aggression machine“. “Aggression machine“ is the term Mummendey and other psychologists used to refer to an experimental setup designed to measure aggression through the vigor with which experimental subjects were prepared to punish their opponent in a competitive situation. In this case, the participant had to press buttons in order to move a blinking light along a track as quickly as possible. In the room next door, so the participants were told, another person would try to do the same thing. By the shape of the track, it was inevitable, that sometimes one of the parties came in the way of the other. When this happened, the participant could use electroshocks to punish the other person and make him move out of the way. Building on a similar experiment by US-American



1: Aggression machine as used by Amélie Schmidt-Mummendey.

[5] Schmidt-Mummendey mainly built on the following monograph: Berkowitz, Leonard: Aggression: A Social Psychological Analysis. New York 1962.

psychologist Arnold Buss[6], this specific set-up had been constructed to simulate traffic situations as this was considered to be closer to life and thus more engaging.[7]

The police students that Amélie Mummendey had invited to the psychological institute were told that together with another man, they would participate in an experiment dealing with the question of how a "contestant can influence the behavior of another in a competitive situation"[8]. After twelve rounds the instructor thanked the participant, asked him to fill in another questionnaire and then those men who had been "frustrated" before, were told that all had been part of the experiment and they need not worry about performing badly in the test.

Frustration was, however, not the only "condition of aggressive behavior" that Mummendey was interested in. Other factors that she supposed could have an influence on aggressive behavior were personality and learning.

To examine the influence of personality on the behavior shown in the aggression-machine experiment, Mummendey used the data from the large questionnaire her subjects filled in initially at the riot police headquarters. Although the participants could not see this, the questionnaire had been compiled from seven previously existing questionnaires, or rather their German translations, which several different experts[9] in the field had developed to assess "authoritarianism", "dogmatism", "intolerance to ambiguity", "rigidity", "neuroticism", "extraversion", "manifest anxiety", and "aggression". These questionnaires served primarily to examine correlations between certain personality traits and aggressive behavior – as defined by the experimental setting – in laborious statistical analysis following the experiments. But the scores on the questionnaire designed to assess aggression served a second cause. The aggression-"items"[10] also served to select the experimental subjects from the large cohort of 200 men who participated in the written assessment in the building of the riot police one lunchtime in 1969. Being interested in comparing the extremes of this group, Mummendey selected forty aspiring policemen: twenty which had scored particularly high in aggressivity and twenty which had scored very low compared to the rest of their peers.

While tools for the assessment of personality existed, there was no standardized method by which the influence of long-time learning on aggressive behavior could be studied. Mummendey offered a solution by choosing two "more or less homogeneous" groups, whose vocational training featured a greater or lesser "proximity to overt aggressive behavior"[11]. One of those groups – the one which was meant to include people confronted more directly with

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[6] Mummendey mainly relied on Buss's seminal work *The psychology of Aggression*: Buss, Arnold H.: The Psychology of Aggression. New York 1961.

[7] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. S. 78.

[8] Ibid. S. 89.

[9] Includes Adorno's study on the Authoritarian Personality, Rokeach's method to assess „dogmatism", Nigniewitzky's questionnaire for assessing „rigidity", Eysenck's N-Scale for measuring „neuroticism", and Buss and Durkee's aggression inventory for measuring „aggression". All of these assessment methods had been developed in the UK or in the US. They had been modified and translated to be used in a German context by other authors. Mummendey writes having translated herself only Buss and Durkee's aggression inventory.

[10] By „item" Mummendey meant a statement or question on a questionnaire below which the experimental subject had to cross „Yes, that is true" or „No, that is not true".

[11] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. S. 82-84. Translation my own.

overt aggressive behavior – were the 200 aspiring policemen. The other group consisted of students of medicine, biology and law. Students were (and are) frequently employed as experimental subjects in academic psychology. The author of the discussed study was aware, however, that the prerequisite "no proximity to overt aggressive behavior" could not be taken for granted when regarding students in 1969. Mummendey writes: "For the differences in habits, that come with daily training, daily duties and professional demands to really be found when comparing the two groups, only students from disciplines which are not known to be particularly politically active were selected. For this reason […] psychology students were not considered."[12]

Studying aggression in context

In it is difficult to assess in retrospect whether the psychology students of Mainz were really more politicized than others. Certainly, Mainz was no island when it came to student demonstrations in the late 1960s. There was considerable protest after the shooting of student protester Benno Ohnesorg by a policeman in Berlin in June 1967, likewise after the attempted assassination of student protest leader Rudi Dutschke in the spring of 1968. What specific politics were concerned, much of the opposition was directed against the "Notstandsgesetze" – a set of laws designed to enable political leaders to act according to an emergency legislation in the case of war or other crisis. For fear that this might be exploited to ban protesting and to establish a totalitarian rule, the "Notstandsgesetze" crystalized into a major issue of the "Antiparliamentary Opposition" as the student-led protest was often referred to[13].

Just like in many other cities across Germany and beyond, the late sixties were tumultuous years in Mainz, too. But while Amélie Mummendey was concerned about the political activity of her experimental subjects and the familiarity with overt aggression it might imply, her own involvement in the events of the years surrounding 1968 remains unclear. Personal accounts of friends and family rather add to the difficulty of reconstructing Mummendey's politics in this period. Her son, born 1975, remembers his mother as left-leaning but very sceptic toward any political extremes. He lists communism, socialism, feminism and facism as „-isms" his mother would have opposed to and recollects his mother saying that she had always missed all important historic events (meaning "1968") because she was just a couple of years too old[14]. This contrasts with the recollection of Mummendey's long time student, colleague, and protégée Sabine Otten, who decidedly declares that "the late sixties were absolutely formative" for her supervisor and that Mummendey had been the head of a "clearly left-winged chair" at the University of Münster[15].

[12] Ibid. P. 83. Translation my own.

[13] For general overviews of „1968" in Germany see: Frei, Norbert: 1968. Jugendrevolte und globaler Protest. aktual. und erw. Neuausgabe. München 2017;Vinen, Richard: The Long `68. Radical Protest and Its Enemies. London 2018. For a recount of the events in Mainz, see Kißener, Michael: „1968" in Rheinland-Pfalz. Probleme und Erträge einer historischen Spurensuche. Jahrbuch für westdeutsche Landesgeschichte 35 (2009), S. 559-608.

[14] Interview with Robert Mummendey via telephone, March 27th 2023. Translations my own.

[15] Interview with Prof. Sabine Otten over Google Meet April 20th 2023. Translations my own.

Indeed, it is surprising that Mummendey should have missed the general turbulance, for in the years leading up to the culmination of student protests in the spring and summer of 1968, Mummendey was a student of psychology in her hometown Bonn – which was then the capital of the Federal Republic of Germany and therefore a magnet for political protests especially those directly concerned with the "Notstandsgesetze". These protests peaked in a whole month of lecture strikes in Mai 1968 with a mass demonstration in the courtyard of the university to which thousands of people travelled from all over the country[16].

As Mummendey moved in 1968 from Bonn to Mainz to begin her PhD, it is not clear whether she was present at the moment of the mass protest. But the unrest at the university had started much earlier and must have been very visible with several sit-ins and police operations recorded. In December 1967 the university was even granted a visit by the most prominent spokesperson of the Antiparliamentary Opposition in Germany, Rudi Dutschke, who conducted a "teach-in" in the main lecture hall[17]. That Mummendey seems to have been at least partially touched by the topics of the student revolts of "1968" is hinted at in her research publications – especially those that she published together with her husband at the time, Hans Dieter Schmidt. He was a social psychologist, too and was working in Mainz at the time when Mummendey was writing her dissertation there. When they married, couples were obliged to both carry the last name of the groom after the wedding. But this legislation changed in 1975 and the two psychologists went from being Hans Dieter Schmidt and Amélie Schmidt-Mummendey to Amélie and Hans Dieter Mummendey. It is of course possible that the name change had other reasons, but together with the fact, that the couple also edited a book about the social psychological aspects of misogyny[18], gives the impression that at least the feminist debates of the late sixties and early seventies did not go by unnoticed[19]. More than one person remembers Hans Dieter Mummendey to have been the more radically left-winged of the couple – one former student characterizes Mr. Mummendey as a "leftist lighthouse" during his time among the rather conservative faculty of the University of Köln[20]. Though it seems that the Mummendeys – or at least Amélie Mummendey – were not specifically involved in the student revolts of the late sixties, they might have been in the radius of what Richard Vinen calls "a penumbra of political militancy"[21]. They were people who were young enough at the time to be swept up in a wave of enthusiasm about the possibility of societal change, but not

[16] Zundel, Rolf: Das Notstands-Happening in Bonn. Beim "Sternmarsch": viele Reden doch wenig Argumente. DIE ZEIT 22 (17.05.1968).

[17] See the chronological table compiled by the archive of the University of Bonn. Request to the archive for access to the relevant documents pending.

[18] Schmidt, Hans Dieter, Christiane Schmerl, Krameyer Astrid, et al.: Frauenfeindlichkeit. Sozialpsychologische Aspekte der Misogynie. München 1973.

[19] Amélie Mummendey's son suspects that her great-aunt Martha Moers was also influential on her views on gender and academia: Moers was the first woman to become a lecturer at the University of Innsbruck and successfully pursued a career in academic psychology. Her reflections on gender are also cited in the couple's book on misogyny cited above.

[20] Interview with Prof. em. Manfred Bornewasser via telephone, March 29th 2023. Translation my own.

[21] Vinen, Richard: The Long `68. Radical Protest and Its Enemies. London 2018. P. 10.

politically involved enough to really have felt part of a movement. It is unclear, if they identify or would have identified as "alt-68er"[22].

Former collaborators carefully underscore the independence of Amélie Mummendey's political views from the research that was being done under her supervision the seventies. However, Amélie Mummendey herself seems to have suspected more than a historical contingency in doing social psychological research on aggression during and just after the student movement. In an overview from 1983 entitled "Aggression research in German-speaking countries", published in the *German Journal of Psychology*, Mummendey cites a study in which the authors analyzed the frequency of publications on aggression in the past. They had identified two points in time, when publishing on the topic of aggression was particularly active:

> The frequency peaks are cautiously referred to: first, the relevant monographs published by Buss (1961), Berkowitz (1962), Bandura & Walters (1963) and, second, the events occurring during the years of student revolts in German universities starting at the end of the sixties. Consistent with this view, the publication of several books by different authors during the early seventies (Dann, 1972, Lischke, 1972; Schmid-Mummendey & Schmidt, 1971; Selg, 1971, Schmid-Mummendey, 1972; Selg, 1974; Werbik, 1974) appears to be something like a response instigated by both events, the scientific as well as the social one: All these publications had in common a decided commitment against conception of an aggression drive presented by psychoanalytical conceptions as well as by a particular ethological viewpoint proposed by Konrad Lorenz some years ago. They argued, on the contrary, for conceptions proposed by the American authors mentioned above […]. The books published in the early seventies provided information about developments in American theories and research on aggression of that time and triggered in German psychology something like a starting point for empirical research on aggression as a particular kind of behavior[23].

Two things stand out in this paragraph. First, Mummendey made an explicit connection between her research on aggression in the early seventies and the student movement. With the cautious phrase that "The publication of several books by different authors [cites herself among other] appears to be something like a response instigated by both events, the scientific as well as the social one […].", Amélie Mummendey characterized her own research both as a "response" to a scientific event – the publication of a series of monographs on aggression by prominent US-American psychologists – and to a social event: the student revolts.

It is clear in what way her books in the early seventies were an answer to US-American theories of aggression: they took up these theories, elaborated on them and used them as a theoretical basis for further research on aggression in the same line. Mummendey does not specify, however, the connection between the "social event" (student revolts) and the "response" consisting of "a decided commitment against conception of an aggression drive presented by psychoanalytical conceptions as well as by a particular ethological viewpoint proposed by Konrad Lorenz". Why did Mummendey see contradicting psychoanalysis and Konrad Lorenz as a response to student revolts? Here it seems necessary to step back to consider the enemy

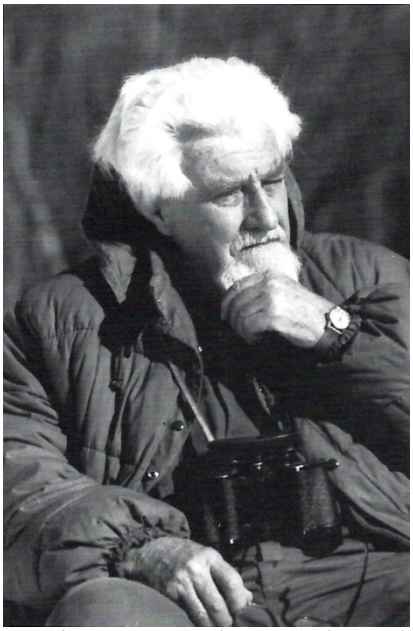
[22] For reflections on the German word „68er" and the French „soixante-huitard" and on how to characterize the group most influenced by the student revolts of the time see: ibid. P. 3-49.

[23] Mummendey, Amélie: Aggression Research in German-Speaking Countries. The German Journal of Psychology 7:4 (1983), S. 313-339. S. 313-314.

these young psychologists were “decidedly commited“ against and to study the “conception of an aggression drive“ and why it provoked opposition in the early seventies.

Aggression as “the so-called evil“

Konrad Lorenz was an ethologist or “animal psychologist“, as his discipline was also called at the time and Amélie Mummendey would maybe not have known him as a student if it were not for the fact, that Lorenz was a peculiar kind of scientist[24]. Born in 1903 into a wealthy Austrian family, Lorenz kept a wide variety of tamed wild animals from an early age on. Though he was initially trained as a doctor, his main interest was always zoology – or more precisely: animal behavior. He went on to build a career in animal psychology and through his theoretical and methodological innovations became known as one of the founders of an approach to animal behavior he called “ethology“. He arranged himself very well with national socialism and his academic career did not take any damage during the Third Reich – quite to the contrary. By the 50s and 60s he was an extremely well-known scientist and in the 1973 he won the Nobel Prize together with his friend and colleague Nikolaas Tinbergen and another ethologist called Karl von Frisch. After having led several, sometimes improvised institutes he spent nearly all of his post-war career as a director of the Max-Planck-Institute for Behavioral Physiology in Seewiesen, located in the Bavarian countryside close to Munich.[25]



2: Wuketits, F.: Konrad Lorenz. Leben und Werk eines großen Naturforscher. München 1990. P. 2.

The photograph of Lorenz shown on this page is taken from a work by his ardent fan and biographer Franz Wuketits titled “Konrad Lorenz. Leben und Werk eines großen Naturforschers“ – Life and Work of a great natural scientist. It depicts Lorenz in a rather pensive mood, seemingly plucking at his beard while deep in thought – perhaps pondering the future of humanity. This is of course speculation, but it would fit the public image of Lorenz in the 1960s and early 70s as widely respected analyst of the *conditio humana*.

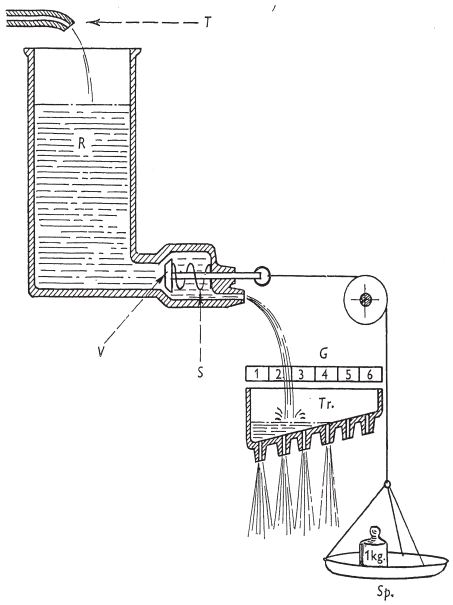
[24] In her detailed analysis of Lorenz’s extreme popularity in the USA and the entailing public discussions about human nature, Nadine Weidman calls Lorenz a „Pop-Ethologist“ – a term that implies both how broadly his work was received as well as a deliberate strategy of popularizing. See: Weidman, Nadine: Killer Instinct. The Popular Science of Human Nature in Twentieth-Century America. Cambridge Massachusetts London 2021.

[25] For a comprehensive history of the formation of ethology and the „founding fathers“ Lorenz and Tinbergen see Burkhardt, Richard W.: Patterns of Behavior. Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology. Chicago 2005. For further biographical details and an analysis of Lorenz’s involvement with national socialism see Föger, Benedikt und Klaus Taschwer: Die andere Seite des Spiegels: Konrad Lorenz und der Nationalsozialismus. Wien 2001;Föger, Benedikt und Klaus Taschwer: Konrad Lorenz. Biographie. München 2009.

For Konrad Lorenz' popularity with scientific laymen and women was not due to his scientific findings, but rather to his being the author of several books filled with anecdotes in which he made his work and his life with animals accessible to the public and in which he shared his thoughts about the way of life of humans in what he called "civilization".[26] Among the most popular of his books was *Das sogenannte Böse – eine Naturgeschichte der Aggression*[27]. This book was a huge bestseller when it first came out in German in 1963 and by the time Amélie Mummendey was writing her dissertation in 1970 it had already gone through twenty-five editions. The literal translation of the German title reads "The so-called evil – a natural history of aggression", in English the book was published as *On Aggression* in 1966.[28]

In this book, Lorenz' described many different instances in which he had witnessed aggression between animals of the same species to then proceed to lengthy reflections on human aggression, it's biological basis and the consequences that he believed were in store for humankind – if humans couldn't find ways in which to channel aggression to compensatory competitive behaviors like sports, aeronautics or science.

Much of Lorenz' reasoning – and much of the critique he earned – was based on his notion of "instinct". which is best explained by a model he himself developed and called "the hydraulic model of instinct". To explain this model, Lorenz suggested imagining a pot, into which a liquid was flowing. The liquid represented an endogenously produced instinctual "energy", which in Lorenz's view could be a hormone, for example. For every instinctual behavior pattern, so Lorenz theorized, the organism constantly produced instinctual energy. Because the organism could not, of course, always perform all behavior patterns all at once, the instinctual energy was collected in the pot for future use. The circumstances, in which the instinctual energy would flow out of the pot and result in a behavior pattern being performed depended on external or internal stimuli that fit like a key into a lock. In the model, this mechanism is represented through a small valve at the bottom of the pot, that is pressed open if weights



3: Hydraulic Model of Instinct. Konrad Lorenz: Comparative Method in Studying Innate Behaviour Patterns. Symposia of the Society for Experimental Biology, No. IV: Physiological Mechanisms in Animal Behavior. New York 1950. P. 221–268. P. 256.

[26] Lorenz, Konrad: On Aggression. London 1966. P. 237ff.

[27] Lorenz, Konrad: Das sogenannte Böse. Eine Naturgeschichte der Aggression. Wien 1963. The literal English translation of the title reads „The so-called evil – a natural history of aggression", however, the English edition came out three years later under the title *On Aggression*.

[28] For the history of how Lorenz's book was received in the USA see Milam, Erika Lorraine Creatures of Cain. The Hunt for Human Nature in Cold War America. Princeton, NJ 2019;Weidman, Nadine: Killer Instinct. The Popular Science of Human Nature in Twentieth-Century America. Cambridge Massachusetts London 2021.

(=stimuli) are placed on the attached pan. Incoming stimuli that fit, would cause the valve to open and allow the instinctual energy to deplete in the form of behavior.
The quantity of instinctual energy produced was, so Lorenz claimed, adapted to the frequency with which the corresponding behavior pattern was required in the life of the animal.[29]
Some important consequences follow from the hydraulic model of instinct. First, the driving force behind the instinctive behavior does not come from outside the animal but is internally produced. From this means that when the instinctual energy – the hypothetical fluid in the model – builds up, the pressure could be strong enough to force open the valve without or with very little stimulus and thus produce a spontaneous outburst of action. Second, Lorenz claimed that a filled reservoir was subjectively felt as a kind of tension by the animals he observed and that these animals would deliberately seek out situations that allowed them act out their instinctive behavior patterns. "Appetitive behavior" was the term employed for the searching out of adequate stimuli when "pressure" on the outlet was rising. According to Lorenz, the performance of instinctive behavior patterns was deeply satisfactory to the individual – a fact, he claimed, that was obvious to anyone studying the expressive movements of animals and humans.
In *Das sogenannte Böse*, the main work cited by his critics, Lorenz did not reprint the famous illustration of the hydraulic model of instinct, but he did go to some lengths trying to explain his theory of instinct to the layperson. In the German version, though not in the English one, each chapter starts with a quote from Goethe[30] and in the case of his chapter on "The parliament of instincts" Lorenz chose: "Wie alles sich zum Ganzen webt, Eins in dem anderen wirkt und lebt!"[31] – referring to the way he imagined all instincts having their place and function in the complicated but coordinated thing called organism. In the original text – the canonical play *Faust* – the protagonist is actually referring not to an organism but to nature as a whole. He is humbled by the complexity of the phenomena around him and goes on to wonder "Wie fass' ich dich, unendliche Natur?" – "How then can I grasp you endless Nature?". Lorenz seems to have been beyond such questions. On the majority of the four hundred pages of his book, Lorenz mixed descriptions of his research, recounts of the research of other scientists, anecdotes from his personal life, general reflections about the world and other stories to substantiate his claim of an inborn aggressive "drive" with remarkable self-assurance. The chapter on instinct is, however, an exception to this eclectic style. With the social psychologists' "commitment" against Lorenz in mind, some of his writing on instinct are interesting to consider more closely. For one, Lorenz particularly emphasized the misunderstanding, that "drives" could count as explanations for behavior. He explicitly pointed out, that a "reproductive instinct" or a "instinct of self-preservation" explained behavior just as little as the concept of an "automobile force" would explain the movement of a car.[32] Describing the behavior of well-fed dogs on walks, he exemplified instinctive

[29] Lorenz, Konrad: On Aggression. London 1966. P. 77.
[30] On rare occasions Lorenz also chose quotes from Schiller, the poet Christian Morgenstern or the Bible.
[31] „How each to the Whole its selfhood gives, One in another works and lives!" Goethe, Johann Wolfgang von: Faust. Der Tragödie erster Teil. [1808] Translation by A.S. Kline, Poetry in Translation, Luxemburg 2003. Lines 447-448.
[32] Lorenz, Konrad: On Aggression. London 1966. P. 73.

behavior patterns as being independent of the motivation that usually produced them. A dog, for instance, would sniff, chase, snap, and shake objects – behavior patterns attributed to hunting for prey – also when it was not hungry, just because the dog "had to" perform these instinctive behavior patterns. „Each of these hereditary co-ordinations has its own spontaneity and causes its own appetitive behaviour."[33] – "Still, if the dog is very hungry, he does all this quantitatively more."[34] Lorenz wrote.

Second, Lorenz's theory of instinct comprised the idea that these „everyday, common, 'cheap' fixed motor patterns" were at the disposal of four "big drives", as he called them: feeding, reproduction, flight and aggression. Although Lorenz admitted to have mistakably called everyday patterns "tool activities", he emphasized that "This does not mean that such motor patterns lack their own spontaneity. […] [T]he tool instincts possess their own spontaneity, they are driven, in this case by hunger, to perform more than they would if left alone. Indeed, a drive can be driven."[35]

In the rest of the chapter, Lorenz gave detailed descriptions of how he thought the intricate relations and interdependences of different instincts could be studied. Listing examples of studies of cats, geese, cichlids, and stickleback fish, Lorenz depicted the study of instinct as a painstaking endeavor requiring careful observation of the most inconspicuous behaviors. Only then, so the impression left by his elaborations, was it possible to disentangle the single "voice" from the "the concert of drives"[36] and clearly analyze a single instinct from among the crowd of instincts governing an organism.[37]

Interestingly, in the chapter on instinct, Lorenz completely abstained from exemplifying his theory with anecdotal descriptions of human behavior. This is not the case for the chapter on "The Spontaneity of Aggression" which became most famous. Though being exceptionally short – in the English edition this chapter comprises only six of the over two hundred and fifty pages – it became the chapter most referred to by his critics. Here Lorenz gave two examples for the spontaneity of instinctual behavior in general and five examples for the spontaneity of aggression and nearly all of them became examples for why Lorenz could not be taken seriously.

The scene is set with a terrifying depiction of humanity as being at the brink of extinction:

> "[Aggression is] essential for [a species'] preservation. However, this must not raise false hopes about the present situation of mankind. Innate behaviour mechanisms can be thrown completely out of balance by small, apparently insignificant changes of environmental conditions. Inability to adapt quickly to such changes may bring about the destruction of a species, and the changes which man has wrought in his environment are by no means insignificant. An unprejudiced observer from another planet, looking upon man as he is today, in his hand the atom bomb, the product of his intelligence, in his heart the

[33] Ibid. P. 74.
[34] Ibid. P. 76.
[35] Ibid. P. 76.
[36] Ibid. P. 90.
[37] In *On Aggression* the words „instinct", „drive" or „motivation" are used interchangeably. This terminological variety is characteristic of ethological publications throughout the period of time I am studying, though some authors did address the issue in the 1970s e.g. Heiligenberg, Walter: Ursachen für das Auftreten von Instinktbewegungen bei einem Fische (Pelmatochromis subocellatus kribensis Boul., Cichlidae). Zeitschrift für vergleichende Physiologie 47:4 (1963), S. 339-380.

> aggression drive inherited from his anthropoid ancestors, which this same intelligence cannot control, would not prophesy long life for the species. Looking at the situation as a human being whom it personally concerns, it seems like a bad dream […].[38]

The problem according to Lorenz was therefore not aggression itself, but its maladaptation to present circumstances, namely, human beings having atomic weapons at their disposal. Lorenz urged his readers to acknowledge the instinctual character of aggression so as not to underestimate the danger they were in. The most dangerous aspect of aggression being an instinct was the possibility of spontaneous outbursts of aggressive behavior – if aggressive energy had not been vented. The examples Lorenz chose to illustrate the spontaneity of (human) aggression contrasted starkly with the elaborate descriptions of animal behavior used to depict the working of instincts more generally. Though in in one case Lorenz referred to experience from his animal-keeping practice, most of them were anecdotes centering on humans. For instance, Lorenz quipped about a visiting researcher from the US, who spent time in Seewiesen and asked to prolong his stay so as not to be home when his sister in-law was visiting with her "non-frustration" children. The visiting scientist meant by this term that they were being brought up according to the idea of sparing children from every kind of frustration – and implied that they were particularly tiresome. Lorenz took the anecdote to illustrate the inadequacy of social psychological theories of aggression centering on the idea that aggression was caused by frustration and to advocate his theory of a spontaneous aggressive drive in humans. For according to Lorenz, there was a reason why this "American method of education" to prevent aggression was producing the exact opposite: these children were not provided with adequate situations in which they could release their instinctual aggressive energy.[39]

Releasing aggressive energy was crucial in Lorenz's view, and what happened if this was ignored could be observed in the cichlids in his institute: If the male of a cichlid-couple had the opportunity to "fight"[40] with a neighbor, the couple would remain harmonious. In lack of a sparring partner, however, the cichlid husband would tear apart his partner "with predictable regularity"[41] within a couple of days. Lorenz further illustrated the importance of venting aggression on scapegoats with a description of the "regularly predictable behaviour"[42] of his aunt. This lady would hire a new maid at an interval of eight to ten months. Praising her new servant highly at first, the aunt would discover more and more faults in the young woman. Finally, the old lady would have a violent fight with her maid and dismiss her. Apart from calling his aunts behavior "analogous"[43] to that of the inhabitants of his aquarium, it is unclear, which parallels Lorenz drew exactly. Did he imply that his aunt had no other possibility to

[38] Lorenz, Konrad: On Aggression. London 1966. P. 40.
[39] Ibid. P. 41.
[40] In the publications by Lorenz's coworkers who conducted the research referred to here, „fight" could signify both a violent encounter with tissue damage as well as simple threatening gestures without physical contact. See e.g. Oehlert, Beatrice: Kampf und Paarbildung einiger Cichliden. Zeitschrift für Tierpsychologie 15 (1958), S. 141-174.
[41] Lorenz, Konrad: On Aggression. London 1966.
[42] Ibid. P. 45.
[43] Ibid. P. 45.

release her aggressive energy because she had no other family members? Was eight to ten months the period he believed it took for human aggression to build up enough for a spontaneous outburst? Would his aunt have been nicer to her maid, had she had the opportunity to quarrel with a nasty neighbor or do karate? Some of Lorenz's contemporaries criticized him for this and also for another of his examples: "Exactly the same phenomenon"[44] as he had observed in his aunt, Lorenz claimed to have experienced in the Russian prisoner of war camp where he was interned after the war. The "Polar disease" would "attack small groups of men who are completely dependent on one another and are thus prevented from quarreling with strangers or people outside their own circle of friends"[45]. These men would lose their tempers over completely insignificant incidents like snorts or sneezes of their fellow inmates. The only way one could be sure not to kill a friend in such a situation, Lorenz warned, was to have insight into the workings of the aggressive instinct and sneak out of the barrack to loudly destroy an inexpensive object. "[T]he human being without insight has been known to kill his friend." Lorenz ominously concluded. As we shall see, these claims were not always well received.

The „Problem" of Aggression

The social psychologists "committed" against Lorenz's theory of aggression did not seem to doubt the urgency of studying aggression scientifically: "Aggressive behavior of humans, the conditions of its occurrence and foremost its consequences have not without reason attracted scientific interest over the past decades. For a more or less quiet course of social life, a peaceful coexistence of single individuals or also of groups, is most vulnerable to aggressions of every kind; in extreme cases their very existence might be in danger of destruction."[46] Mummendey writes in the introduction to her dissertation. In an edited volume published together with her then-husband in the same year, the couple struck a similar tone: "Aggressive behavior is a phenomenon prevalent throughout history and throughout all layers of society and profession. It has such unpleasant, often disastrous consequences, that an analysis of its causes and the development of ways in which to control aggressive behavior are doubtlessly indispensable."[47]

The other "committed" authors Mummendey referred to later in her life, also portrayed the problem of aggression as a pressing issue: "The topic of 'aggression' is of very high practical relevance. One could almost speak of a pragmatic pressure, that seeks to force solving of the problems at hand."[48] Hanns-Dietrich Dann wrote. His doctoral advisor had introduced his work writing of "times in which violence and aggression threaten so many orders of life" and another author, Hans Werbik, started his book listing the "countless examples of violence in

[44] Ibid. P. 45.

[45] Ibid.

[46] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. P. 7. English translation my own.

[47] Schmidt-Mummendey, Amélie und Hans Dieter Schmidt: Aggressives Verhalten. Neue Ergebnisse der psychologischen Forschung München 1971. P. 9-10. English translation my own.

[48] Dann, Hanns-Dietrich: Aggression und Leistung. Stuttgart 1972. P. 11. Translation my own. In a similar vein p. 9: „In a time in which violence and aggression endanger so many orders of life, science should ask the question what aggression is and how it relates to human nature." Translation my own.

our daily life“ like the war in Vietnam, the “conflicts of race“ in the USA, and terrorist attacks.[49] For these authors, however, the problem did not consist in aggression being instinctive and the general public having to be warned against the danger lurking within their biology. Much to the contrary. The danger they perceived lay in the public being led to false conclusions about the feasibility of peace, if they were constantly told that aggression was inevitable. Herbert Selg, for instance, wrote that “the talk of an aggressive drive is dangerous, it encourages the further spread of aggressive behavioral tendencies and increases the danger of war in international relations.“[50]

Also, they shared the view that Lorenz's theory of aggression – along with similar psychoanalytical conceptions – was predominant in public opinion about aggression and that something had to be done about this.[51] Amélie Mummendey, for instance, lamented that “these [speculations, models, and theories] have shaped the public opinion to such an extent, that the modification of generalized ideas like the notion of 'the so-called evil' in humans for example […] or the inevitably conjunction of frustration with aggressive action, can only be attained through an intensive clarification process.“[52]

She and her husband reiterated this observation in their edited volume, writing that „Consistent with the significance of aggressive behavior for human coexistence, there have been many publications on the topic lately. We deem that psychology, the science of behavior has not had its say, especially in the German-speaking world. Because psychoanalytical and animal-psychological interpretations dominate in public, these approaches are neglected [in our book] in favor of psychological ones.“[53] Presumably, there existed areas of society, in which these dominant theories led to tangible effects. For Mummendey continues: „Strangely, results of modern aggression research are not discussed in public. Considerations on the control of aggression, for instance in the realm of kindergarten education or education in general, or within the penal system, are frequently based on claims or hypotheses by old masters [Mummendey here refers to Lorenz], that have long since been falsified by the science of behavior – which is psychology – but whose uselessness at present does not seem to be known yet.“[54]

Selg also wrote of the “aggression-drive hypothesis“ as being very popular in Germany. So popular, that he saw justification for another – his – book about aggression, the large number

[49] Werbik, Hans: Theorie der Gewalt. München 1974. P. 9. This book was considered so relevant for the academic public, that it was selected to be published as an UTB soft-cover book in the „red series“. This joint project of 11 different publishing houses was launched in 1971 and had the goal to make important literature affordable for students and academic staff.

[50] Selg, Herbert (Hrsg.): Zur Aggression verdammt? Psychologische Ansätze einer Friedensforschung. Stuttgart Berlin Köln Mainz 1971. P. 9. Translation my own.

[51] For a detailed study of the connections between psychoanalysis and popular ethology see Herzog, Dagmar: Cold War Freud. Psychoanalysis in an Age of Catastrophes. Cambridge 2017.

[52] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. P. 8. Translation my own.

[53] Schmidt-Mummendey, Amélie und Hans Dieter Schmidt: Aggressives Verhalten. Neue Ergebnisse der psychologischen Forschung München 1971. P. 7. Translation my own. In the same vein they call their area of research a „socially highly relevant topic“ – ein „sozial äußerst relevantes Thema“ p. 7.

[54] Schmidt-Mummendey, Amélie: Vorstellungen und Erklärungsversuche zum aggressiven Verhalten. In: Schmidt-Mummendey und Schmidt (Hrsg.): Aggressives Verhalten. Neue Ergebnisse der psychologischen Forschung. München 1971, 9-24. P. 10. Translation my own.

of existing publications on the topic notwithstanding. For the books available in Germany, so Selg claimed, were quite "one-sided" – meaning, that they did not, in his view, portray *psychological* research on aggression adequately. He thus saw their popularity in stark contrast to their "scientific and societal value". [55] Werbik, though more subtle, also seems to have seen simplistic theories of aggression as problematic for the public: "I want to strongly emphasize: There do not exist 'cooking receipts' for preventing violence. […] it is a grave error to ascribe *one* 'cause' to violence. The person who offers 'cooking receipts' for the prevention of violence and/or disallows more than one 'cause' for violence acts irresponsibly: By seducing the reader to follow incorrect lines of reasoning, he prevents a long-term solution to the problem of violence."[56] Though he did not explicitly refer to Lorenz here, it can be assumed by the ample criticism of Lorenz's theory of aggression further on Werbik's book that Lorenz was indeed considered a propagator of "cooking receipts".

It is interesting to note in passing, that though these authors named misconceptions of the public as a main motivation for writing their books, theirs works are far from what we today would consider popular science writing. Especially Werbik's book is very technical and the others almost equally so. This points to a more general observation, namely that at least in the German context of the 60s and 70s, it is very difficult to separate monographs and edited volumes that addressed a purely scientific community, from books that were in some way or other aimed at the public. I cannot make a valid claim about other fields, but the difficulty of identifying "popular-science books" in the 1970s extends to the monographs published by prominent ethologists like Lorenz, Wolfgang Wickler, and Irenäus Eibl-Eibesfeldt, which were received both as scientific publications and as popular writing.[57] The difficulty of determining the recipients of books does not extend to articles. Here a distinction between "Fachzeitschriften" (scientific journals) on one side and journals or magazines sold to the general (lay) public on the other is much easier in most cases.[58]

Arguing against "the so-called evil"

Though the handful of psychologists that Amélie Mummendey retrospectively called a group committed against Lorenz agreed on the detrimental influence of Lorenz's popularity, they tried controverting his claims in different ways.

Hans Werbik, who had entered academia with a "Habilitation" on the emotional effects of music and turned to studying aggression after 1970, directed most of his criticism against Lorenz's theory as not being falsifiable.[59] This, Werbik implied, discredited Lorenz's ideas to

[55] Selg, Herbert (Hrsg.): Zur Aggression verdammt? Psychologische Ansätze einer Friedensforschung. Stuttgart Berlin Köln Mainz 1971. P. 9. Translation my own.

[56] Werbik, Hans: Theorie der Gewalt. München 1974. P. 9. Translation my own, italics in the original.

[57] For reflections on the term „popular science" in the context of behavioral science see Weidman, Nadine: Killer Instinct. The Popular Science of Human Nature in Twentieth-Century America. Cambridge Massachusetts London 2021.

[58] One example is Lorenz's collaborator Doris Zumpe, who published her results on aggressive behavior in fish both in a scientific journal and in a magazine for aquarium lovers: 1) Zumpe, Doris: Labaratory Observations on the Aggressive Behaviour of some Butterfly Fishes (Chaetodontidae). Zeitschrift für Tierpsychologie 22:- (1965), S. 226-236. And 2) Zumpe, Doris: Kampfverhalten bei Chelmon rostratus. DATZ 17:7 (1964), S. -.

[59] Werbik, Hans: Theorie der Gewalt. München 1974. P. 54-60.

an extent, that they could not serve as a serious scientific theory. As Werbik saw it, the non-falsifiability of the ethological aggression-drive hypothesis was linked to the way in which Lorenz presented his evidence. By blending "principally verifiable observations"[60] with interpretations of the observed, that presupposed the idea of an aggressive drive, Lorenz rendered his theory useless for scientific inquiry. The difficulty of pinpointing which behaviors Lorenz deemed "aggressive" posed a further problem for Werbik: "Lorenz does not classify behavior according to previously determined rules. He rather *construes* behavior as being functional for basic drives postulated beforehand."[61] Finally, Werbik argued that the breadth of behaviors Lorenz claimed could be ascribed to aggression, including love and friendship, simply prevented his theory from being helpful because it tried to explain too much. Lorenz's examples of the workings of the aggressive drive in humans – the pugnacious aunt and "polar disease" –were in Werbik's view not even worthy of consideration as they were "downright ridiculous"[62] and unfalsifiable anyway.

Werbik's own solution consisted in psychological experiments that involved a randomized sample of experimental subjects, a strictly defined number of variables to be studied and uniform experimental conditions. His scientific interest was, so Werbik proclaimed, led by the wish to formulate general statements open to falsification.[63] Werbik hereby positioned himself squarely within positivism, but also in a debate that had been going on for some time in German psychology and has come to be known as "Methodenstreit" – the dispute on methods. While on the surface, this conflict circled around the weight that should be bestowed on "quantitative methods" versus more intuitive interpretation of data, it was also a debate between younger scholars who were keen to rebuild their discipline from scratch after the war and thus eagerly imported theories of human behavior and empirical methods from the USA and academic psychologists who relied on theoretical foundations and methodology, often home-made in Germany, from before the Third Reich.[64]

Lorenz's theory did not, in Werbik's view, fit requirements of a falsifiable general statement also because it had been formulated through the logically inadmissible procedure of induction. But even if, as Werbik wrote, one assumed that Lorenz believed in general laws governing the behavior of all species, his statements on human aggression would have to be discarded on the basis of Lorenz's own observations of differences between species regarding aggressive behavior.

This last point of criticism is curious insofar, as it was clearly Lorenz's conviction, that one could speak of the general laws of instinct. Instinct was for Lorenz something so basic, so fundamental to how life itself worked, that concluding from the behavior of one species to that of another was not at all problematic. Because the way in which instincts worked had to

[60] Ibid. P. 57. Translation my own.
[61] Ibid. P. 58. Translation my own.
[62] Ibid. Translation my own.
[63] Ibid. 43-44. Translation my own.
[64] See for an analysis of the links between the „Methodenstreit" and „Americanization" of Psychology in Westgermany: Métraux, Alexandre: Der Methodenstreit und die Amerikanisierung der Psychologie in der Bundesrepublik 1950-1970. In: Ash und Geuter (Hrsg.): Geschichte der deutschen Psychologie im 20. Jahrhundert. Opladen 1985, 225-251.

be – in Lorenz's view – quasi universal, you could examine the workings of the aggressive drive in geese or fish and easily extrapolate to humans. Just like you did not have to examine oxygen transport in every species in order to understand oxygen transport in general, it sufficed to study aggression in some species in order to make general statements about aggression in all.[65]

Though not in the most central points of his critique, some of Werbik's criticism relied on the work of British ethologist Robert Hinde. An early opponent of energy models of motivation à la Lorenz, Hinde's work[66] was partly responsible for Lorenz calling the British ethologists "communist pigs"[67] for their endorsement of environmental causes in the development of behavior. In his role of public scrutinizer of Lorenz's work, Hinde became a popular reference for German psychologists arguing against drive theories of aggression.
Amélie Mummendey also referred to Hinde for support, she did not list him, however, in her examples of "current authors of comparative behavioral research"[68]. Here only Konrad Lorenz and his pupil Irenäus Eibl-Eibesfeldt were named as the most prominent exponents of the field. It is perhaps not a coincidence, that these authors, though their ideas had been highly contested within animal behavioral research for several years, were also the two German ethologists with the widest popular outreach. Irenäus Eibl-Eibesfeldt – Mummendey consistently misspelled his name, omitting the "t" – repeatedly appeared on TV and wrote several successful books about his ethological research on humans in a cross-cultural setting[69]. He loyally adhering to Lorenz's theory of instinct at a time when it had disrespectfully come to be known as the "flush-toilet-model" in other research groups.[70]
However, Mummendey's main concern with ethological theories of aggression went beyond the theoretical disputes around "instinct" or "drive". For all these biological explanations of aggression were, in her view, simply useless when confronted with the "problem of diversity of human behavior". The answer to the question if aggression was inborn could not offer anything like an estimate of how likely a certain behavior of an individual with a specific learning history at a given point in time under certain conditions was to occur.[71]
Individual differences *between* humans were what mattered for those like herself who were "looking for conditions and possibilities of a less aggressive and more peaceful coexistence among individuals and between societies."[72] – like herself. If aggression was portrayed as having a (solely) instinctual basis, the phenomenon it all its variety would "receive in every case the exculpation and resigned acceptance which all things inevitably natural are awarded

[65] Example my own.
[66] E.g. Hinde, Robert: The nature of aggression. New Society (1967), S. 302-304.
[67] The expression „communist pigs" is used in a letter from Lorenz to his colleague, the Max-Planck director Jürgen Aschoff, who studied the diurnal rhythm. Content of the letter known, request for access pending.
[68] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. P. 9.
[69] E.g. Eibl-Eibesfeldt, Irenäus: Liebe und Hass. Zur Naturgeschichte Elementarer Verhaltensweisen. München 1970;Eibl-Eibesfeldt, Irenäus: Krieg und Frieden aus Sicht der Verhaltensforschung. München und Zürich 1975.
[70] As remembered by Prof. Anne Pusey, interview via telephone, April 21st 2023.
[71] Schmidt-Mummendey, Amélie: Bedingungen aggressiven Verhaltens. Bern 1972. P. 12-13.
[72] Schmidt-Mummendey, Amélie und Hans Dieter Schmidt: Aggressives Verhalten. Neue Ergebnisse der psychologischen Forschung München 1971. P. 12. Translation my own.

with."[73] Her own research aimed at the exact opposite, namely the study of conditions of aggressive behavior that could be modified after they had been determined scientifically.
The acceptance of aggression as a unfortunate byproduct of human biology was one consequence, that Lorenz's critics feared. Just as dangerous, according to educational psychologist Hanns-Dietrich Dann was the concept, that aggression was a byproduct of achievement more generally. For supporters of this idea, so Dann worried, the „abolition of aggression" was not even desirable.[74]

Committed to peace and other issues

So though both Lorenz and the young psychologists opposing his ideas were concerned with maintaining peace in the broadest sense, both sides saw the other as standing in the way of their cause. The psychologists we have met were convinced that if aggression was regarded as something inborn, humanity was doomed because people would neglect to prevent aggression through adequate regulations and educational measures. Lorenz on the other side, emphasized the impossibility of abolishing aggression due to it being an inborn instinct. He warned against attempts to inhibit aggression and instead recommended redirecting aggressive energy by enabling competition by other means – human extinction looming if his advice was not taken to heart.
Though there were voices in the 1970s who proclaimed that individual aggression had nothing to do with international relations and that psychological or ethological research on aggression would not shed light on how to prevent World War III[75], the connection between aggression research and peace was omnipresent in the late 1960s and 1970s. Nearly every publication on the subject of aggression in the examined time-period in some way referred to how aggression was presumably related to peace. The psychologists mentioned in this paper, for example, all participated in conferences and wrote chapters in several edited books on the subject. Often the link between psychological research on aggression and "peace research" consisted in contributions to educational science.[76] Though the fear of nuclear escalation between the two blocks of the Cold War might have been particularly pronounced in Germany – a country which sat on the borderlines of the conflict and was still recovering from the extreme destruction of World War II – the idea that studying aggression was connected to peace was not especially German. In 1972 a nationally mixed group of people founded the International Society for the Study of Aggression and started publishing an interdisciplinary journal on the topic called *Aggressive Behavior.* According to the society's own self-historiography, in "the shadow of Cold War, the Vietnam War and social unrest throughout the United States", "these researchers discussed how their knowledge, skills, and research efforts might be applied to

[73] Ibid. P. 12. Translation my own.
[74] Dann, Hanns-Dietrich: Aggression und Leistung. Stuttgart 1972. P. 13.
[75] Schmidt, Hans Dieter: Zur Problematik psychologischer Bemühungen um Analysen internationaler Konflikte. In: Schmidt-Mummendey und Schmidt (Hrsg.): Aggressives Verhalten. Neue Ergebnisse der psychologischen Forschung. München 1971, 233-251.
[76] For example Schmidt-Mummendey, Amélie: Verhaltenswissenschaftliche Aspekte der Verringerung von Gewalt. Zeitschrift für Pädagogik 19 (1973), S. 213;Wulf, Christoph (Hrsg.): Friedenserziehung in der Diskussion. München 1973a;Wulf, Christoph (Hrsg.): Kritische Friedenserziehung. Frankfurt am Main 1973b.

the very real, personally devastating, and socially costly problems of individual and collective violence."[77]

Of the „committed" group, Herbert Selg was the one who most ardently connected peace research and psychological research on aggression. His book, a presentation of the «most important» theories of human aggression would, so Selg announced, lead the reader *en passant* to the conclusion "that the respectable aggression research of our time is at one and the same time the best peace research"[78]. Though Selg was open to other kinds of psychological explanations, he himself strongly adhered to learning theories of aggression, emphasizing the importance of model behavior on the occurrence of aggressive behavior and warning against violence on TV. In contrast to Lorenz, who saw the universality of aggression as a proof of an inborn aggressive instinct, Selg explained the ubiquity of aggression with the claim that everywhere in the world society was structured in a way that aggressive behavior was rewarded with success – but that this did not have to be.[79]

Selg was also the one who most explicitly made a connection between Germany's role in World War II and Lorenz's theories on aggression. He showed himself particularly irritated by Lorenz's claim that humans would not kill conspecifics if it were not for long distance weapons which masked their inborn reluctance to murder. To Lorenz's apology that "no mentally healthy person would even go hunting for rabbits if he had to kill his prey with his teeth and fingernails", Selg indignantly replied: "Has he, who […] believes no human could kill a rabbit with his bare hands only superficially or not at all read the reports of concentration […] camps?"[80] Selg was convinced, that the so perceived German hesitation to accept the social causes of aggression was grounded in the experience of the horrors of war: "The effect [of the war] was that science, caught in a kind of rigor mortis (or guilt?) kept silent for years on the topic of 'human aggression'. Only 15 years after the war did a discussion revive. In Germany, Lorenz became spokesperson." This, according to Selg, was due to his style as well as the fact that Lorenz's theory offered an acceptable excuse for all those "whose slate had not stayed clean"[81] – in the sense that if aggression was a drive and it had to be vented, Germans could not be held responsible for what had happened. Indeed, Lorenz's text is easy to read in this way. Portraying man as at mercy of his own inventions, Lorenz wrote: "Good, honest men, fathers of children, have laid carpets of bombs. An appalling and nowadays nearly incredible fact! Demagogues obviously command exceptional, if only practical, knowledge of human instinctual behavior as they shrewdly misuse the concealment ["Abschirmung", in the sense of distance, shield] from aggression-inhibiting situations of the party to be hated ["zu

[77] The society still exists, the cited statements can be found on their website: https://www.israsociety.com/about/history. Consulted April 3rd, 2023, 10:52. See also: Rosenzweig, Saul: The Origins of ISRA. Notes form the Archives of the International Society for Research on Aggression. . Aggressive Behavior 13 (1987), S. 53-57.

[78] Selg, Herbert (Hrsg.): Zur Aggression verdammt? Psychologische Ansätze einer Friedensforschung. Stuttgart Berlin Köln Mainz 1971. P. 9. Translation my own.

[79] Ibid. P. 49.

[80] Ibid. P. 52.

[81] Ibid. P. 50.

verhetzende Partei"] as an important tool."[82] One does not have even have to take into account the fact that Lorenz himself was once a member of the NSDAP in order to interpret this sentence as a portrayal of the Germans as victims of Hitler (the demagogue), who shrewdly kept the "good and honest" at a "distance"/"shielded" (in what sense remains unclear) from the Jews the so as to enable their mass murder. Interestingly, this reference to German history is omitted in the English edition and replaced by a depiction more fitting to American feelings of guilt.

For Selg, Lorenz was not only a man excusing those "whose slate had not stayed clean" – Lorenz's own Nazi-membership was not yet known at the time – but he was also more generally an "authority" who commanded more than the adequate amount of interpretational sovereignty. "It adds to Lorenz's popularity that we are accustomed to blindly accepting statements by authorities. Lorenz is an authority as an animal scientist, but he also constantly cries out for help to the „Dichterfürsten" [lit. „princes of poetry", meaning Goethe and Schiller]. Citing Goethe is not a scientific method, but it 'comes across'."[83]

Thus criticizing Konrad Lorenz's theory of aggressive instinct became not only a scientific, but also a political issue. Lorenz was much more than a scientist popularizing his theory about aggression, he can also – so I argue – be seen as an ideal figure against which core concerns of a huge number of politically sensitized young Germans could be defended. Lorenz embodied much of what the „68er" protested against: he was apologetic of Nazism, he was doubtlessly an "authority", and he was perceived as a danger for peaceful coexistence of humans of all origins.[84] All this, plus his infuriating self-assurance made him into a walking provocation and into a wonderful opportunity for articulating opposing views. The dislike was also by no means one-sided, as can be seen in Lorenz's and psychiatrist Detlev Ploog's joint proposal for the foundation of a separate research unit dedicated to "human ethology" under the leadership of Irenäus Eibl-Eibesfeldt. "The demolition of tradition through youth rebellion" was, so they argued, a "pathological" symptom of the derailment afflicting "civilized" humanity's system of social behavior and therefore human instinctual behavior

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[82] Lorenz, Konrad: Das sogenannte Böse. Eine Naturgeschichte der Aggression. Wien 1963. P. 353. Translation my own. The original reads: «Gute brave anständige Familienväter haben Bombenteppiche gelegt. Eine entsetzliche und heute beinahe schon unglaubhafte Tatsache! Demagogen besitzen offenbar ganz ausgezeichnete, wenn auch nur praktische Kenntnis des menschlichen Instinktverhaltens und benutzen die Abschirmung der zu verhetzenden Partei gegen aggressions-hemmende Reizsituationen zielbewußt als ein wichtiges Werkzeug.»

The English edition reads: "[P]erfectly good-natured men, who would not even smack a naughty child, proved to be perfectly able to release rockets or to lay carpets of incendiary bombs on sleeping cities, thereby committing hundreds and thousands of children to a horrible death in flames. The fact that it is good, normal men who did this is as eerie as any fiendish atrocity of war!" A demagogue is not mentioned on these pages. Lorenz, Konrad: On Aggression. London 1966. P. 208-209.

[83] Selg, Herbert (Hrsg.): Zur Aggression verdammt? Psychologische Ansätze einer Friedensforschung. Stuttgart Berlin Köln Mainz 1971. P. 50.

[84] Interestingly, although there would have been plenty of material in Lorenz's writing, none of ther German critics of Lorenz problematized the gender roles implicit in his claims. Even Amélie and Hans Dieter Mummendey, who edited a book about the social psychological aspects of misogyny, did not refer to the sexism inherent in several ethological texts on human behavior at the time. See Schmidt, Hans Dieter, Christiane Schmerl, Krameyer Astrid, et al.: Frauenfeindlichkeit. Sozialpsychologische Aspekte der Misogynie. München 1973.

demanded scientific attention.[85]

Here it is important to note that many of the problems critics saw within Lorenz's theory of aggression, they also found in the theories of Sigmund Freud. In all the critiques analyzed in the present paper, the two men are discussed in the same chapter and many of the arguments against Freud repeat in the section on Lorenz. This is no coincidence, for Lorenz indeed felt indebted though not to Freud but to contemporary US-psychoanalysts for introducing him to revised interpretations of the Freudian "death drive" concept[86]. Criticizing Freud, however, was much more complicated for young, left-leaning Germans as he was also a point of reference for much of the student movement.[87] Konrad Lorenz – also because he was still alive – was a target easy to agree upon.

Ignoring the "so-called evil"

The effect of Lorenz's theory as an invitation for contradiction diminished with a perceived lessening of Lorenz's influence. In her overview from 1983, Amélie Mummendey stated that "the ethological discussion on the use of the concept of an aggressive drive or behavior specific energy has lost most of its relevance"[88] and proceeded to discuss current biological approaches to the study of aggression favorably. Eibl-Eibesfeldt, Lorenz's student mentioned above, is barely mentioned as the only one who "did not yet abandon the drive concept"[89]. Though Eibl-Eibesfeldt, too, was a successful popularizer, he seems not to have been perceived as quite the same threat as Lorenz. This is surprising if one accounts for the fact that contrary to Lorenz, Eibl-Eibesfeldt did not extrapolate from animals but studied humans directly.[90]

His research on aggression was mainly performed in a cross-cultural setting. In the Kalahari desert, for example, Eibl-Eibesfeldt lived for several weeks in the proximity of a couple of families belonging to a larger group he called the "!Ko-Bushmen", which to that point had been considered as a particularly peaceful society by Western social scientists. Eibl-Eibesfeldt had a list of behaviors he categorized as aggressive behavior like hitting, kicking, and biting, but also sticking out one's tongue or display of buttocks and his research method consisted of counting the occurrence of these behaviors in a group of children during a certain timespan.[91] His findings convinced him of the innateness of aggressive behavior also in humans. As late as 1977 Eibl-Eibesfeldt published an article in *Aggressive Behavior* in which he supported his

[85] Konrad Lorenz and Detlev Ploog to Adolf Butenandt, President of the Max-Planck-Gesellschaft, 20.10.1969. Konrad-Lorenz Archive, Altenberg. See also: Lorenz, Konrad: On Aggression. London 1966. P. 229.

[86] Ibid. P. IX.

[87] For a detailed study of Freud's come-back in Germany in the 1960s, the role of his popularizer Alexander Mitscherlich and the connection to Konrad Lorenz see Herzog, Dagmar: Cold War Freud. Psychoanalysis in an Age of Catastrophes. Cambridge 2017. For a comprehensive analysis of the rise of psychotherapy (psychoanalytical and other) and the role of „1968" in Germany see Tändler, Maik: Das therapeutische Jahrzehnt: der Psychoboom in den siebziger Jahren. Göttingen 2016.

[88] Mummendey, Amélie: Aggression Research in German-Speaking Countries. The German Journal of Psychology 7:4 (1983), S. 313-339. P. 315.

[89] Ibid.

[90] For Eibl-Eibesfeldt

[91] Eibl-Eibesfeldt, Irenäus: Die !Ko-Buschmann-Gesellschaft. Gruppenbindung und Aggressionskontrolle bei einem Jäger- und Sammlervolk. 1972.S. 103.

mentor's claims and said: "We quite agree that, as yet, there is no actual proof of an innate aggressive drive in man. Neither do claims to the contrary, however (e.g., Rattner, 1970) rest on any better an empirical foundation. We remain largely dependent upon circumstantial evidence. Here, in our opinion, the scales are tipped in favor of an innate drive for aggression. A strong indication is the fact that some manifestations of aggression can be observed even in basically peaceful societies."[92]

Although it might be that Eibl-Eibesfeldt continued to be a respected scientist outside Germany, it seems that in his own country he was not considered a serious participant of the scientific discourse around the topic of aggression. When psychologists Reinhard Hilke and Wilhelm Kempf invited the who's who of German aggression research to participate in a symposium on the "Foundational Problems of Aggression Research" as part of the 31. conference of the German Psychological Society in 1978, they included several biologists but not Eibl-Eibesfeldt. To their own surprise, communication between the attending biologists and social scientists was better than expected, with both sides eager to settle the ongoing dispute between different approaches and to work on a comprehensive survey of current german-speaking aggression research.[93] Amélie Mummendey, who participated both in the symposium as well as in the following publication, indeed continued to review the work of those biologists favorably thereafter.[94] Noticeably, these were all biologists who had been influenced by the paradigmatic shift occurring in animal behavior research in the 1970s away from group-selectionist explanations of behavior towards kin-selectionism. They all conceptualized aggression not as a motivation in itself but rather as functional and thus subordinate to survival. This shift was not identical with, but depended heavily on the publication of Edward O. Wilson's *Sociobiology*[95]. Here it is interesting to note, that while in the USA the appearance of *Sociobiology* entailed animated and politically charged debates about biological determinism, in Germany the advent of theoretical concepts propagated by Wilson seems to have had the effect of reconciling different disciplines previously divided on the question of aggression.

Epilogue: Dropping aggression

In the years after her dissertation and after the experiments with the police students of Mainz, aggression stayed central to the research of Amélie Mummendey. First as an assistant professor, then as a full professor in Münster, she led a group of students and collaborators in the quest for the conditions of aggressive behavior. Financially well supported through a large grant by the Deutsche Forschungsgemeinschaft – the state funded German Research Foundation – she and her research group continued researching the influence of frustration, learning and personality measures on aggression. This quest – retrospectively – came to an abrupt ending in 1982. For that year saw the "culmination" of her research, as her then-

[92] Eibl-Eibesfeldt, Irenäus: Evolution of Destructive Aggression. Aggressive Behavior 3 (1977), S. 126-144. P. 137.
[93] Hilke, Reinhard und Wilhelm Kempf (Hrsg.): Aggression. Naturwissenschaftliche und kulturwissenschaftliche Perspektiven der Aggressionsforschung. Bern Stuttgart Wien 1982. P. 7-8.
[94] For example in Mummendey, Amélie: Aggression Research in German-Speaking Countries. The German Journal of Psychology 7:4 (1983), S. 313-339.
[95] Wilson, Edward O.: Sociobiology. The New Synthesis. Cambridge Massechusetts London 1975.

postdoc Manfred Bornewasser calls the event, in the shape of a paper with the title *Aggressiv sind immer die anderen. Ein Plädoyer für eine sozialpsychologische Perspektive in der Aggressionsforschung*[96]*.* This translates as '*Aggressive' applies always to others. A Plea for a Social-psychological Perspective in Aggression Research* and the title encapsules its content quite nicely. In this paper, Mummendey summarized her findings of the past years and concluded that studying aggression as an individual trait or behavior was useless. Aggression, she claimed, should be seen as an interaction between two or more parties. As such, aggression was not something definable in absolute terms – as some of her psychologist colleagues had attempted to do[97] – it was rather a label one party ascribed to the acts of another and which the proclaimed aggressor often did not agree with. The conditions necessary for a behavior to be labeled as "aggressive" were not to be found within the individual but were rather interactional and social conditions that depended on judgment. Mummendey stated the necessary conditions to be norm violation, damage and ascribed intention. This completely changed the questions Mummendey was interested to ask. From studying the conditions of aggressive behavior, the research group slowly shifted to examining innergroup processes, communication and norms.

Amélie Mummendey seems not to have been the only scientist within psychology gravitating away from aggression. In the introduction to the 6. edition of his book *Zur Aggression verdammt?*[98] published in 1982, Herbert Selg concludes "Aggression is not in fashion anymore". It is unclear at present if historical analysis allows to confirm Selg's diagnosis. Further research will hopefully shed light on this issue.

Conclusion

Research approaches to the "problem" of aggression in West-Germany sometimes went along political boundaries that newly arose/were strengthened around "1968". Centering on the person of Amélie Mummendey and following the lines of reasoning, with which social psychologists distanced themselves from the old "authorities" on the topic of aggression, it could be shown how in this episode of the history of science political turbulence coincided with and matched onto scientific disagreement about a so perceived politically pressing topic. While it seems that the topic of aggression became less contested in Germany in the course of the 1970s, the reasons for this trend remain to be examined and might well lie in innerscientific developments for which an analysis of the political context cannot provide adequate explanations.

[96] Mummendey, Amélie, Manfred Bornewasser, Gabriele Löschper, et al.: Aggressiv sind immer die anderen. Plädoyer für eine sozialpsychologische Perspektive in der Aggressionsforschung. Zeitschrift für Sozialpsychologie 13:3 (1982), S. 177-193.

[97] Herbert Selg, for instance, had lamented the vagueness of what aggressive behavior was in Lorenz's writing and pledged to adhere to his own definition: „Aggression is a behavioral sequence, which aims at damaging an organism or a substitute for an organism" in Selg, Herbert (Hrsg.): Zur Aggression verdammt? Psychologische Ansätze einer Friedensforschung. Stuttgart Berlin Köln Mainz 1971. P. 12. Translation my own.

[98] Selg, Herbert (Hrsg.): Zur Aggression verdammt? Ein Überblick über die Psychologie der Aggression. [1971] 6. Aufl. Stuttgart Berlin Köln Mainz 1982. P. 11. Translation my own.

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