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Between the devil and the deep blue sea: Negotiating ethics and method in communication research practice

Zwischen den Stühlen: Ethisch-methodische Abwägung im kommunikationswissenschaftlichen Forschungsprozess

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Abstract: Good research practice faces both ethical and methodological challenges that cannot always be met at the same time. The paper systematically relates research ethics to methodological issues discussing potential dilemmas. It sheds light on predicaments regarding every step of the standardized research process from study design to population and sampling, recruiting and refusal conversion, data collection and analysis as well as publication. We aim at increasing awareness of these dilemmas and encouraging scientific debate about possible solutions. We propose to make use of the rhetorical, case-based approach to research by McKee and Porter (2009) to meet this aim.

Keywords: Research ethics, Internet research ethics (IRE), questionable research practices (QRB), total survey error (TSE), rhetorical case-based approach, standardized methods, research quality

Zusammenfassung: Gute kommunikationswissenschaftliche Forschungspraxis muss sich sowohl an methodischen als auch ethischen Kriterien messen lassen. Von beiden Seiten werden dabei Ansprüche formuliert, die in Widerspruch miteinander stehen können. Der Beitrag setzt Forschungsethik und methodische Überlegungen systematisch in Beziehung und diskutiert mögliche Dilemmata, die auf einzelnen Stufen des standardisierten Forschungsprozesses entstehen können: Untersuchungsdesign, Stichprobenziehung, Rekrutierung, Datenerhebung und -auswertung sowie Veröffentlichung der Ergebnisse. Ziel ist, ein Bewusstsein dieser Dilemmata zu schaffen und eine fachöffentliche Debatte über Lösungsmöglichkeiten anzuregen. Als Basis wird der rhetorische, fallbezogene Ansatz von McKee und Porter (2009) empfohlen.

Schlagwörter: Forschungsethik, Internet research ethics (IRE), questionable research practices (QRB), total survey error (TSE), rhetorischer fallorientierter Ansatz, standardisierte Methoden, Forschungsqualität

1. Introduction

In 2014, the Proceedings of the National Academy of Sciences (PNAS) published an experiment giving evidence for massive-scale emotional contagion via social networks (Kramer, Guillory, & Hancock, 2014). For this, the emotions of almost 690,000 users were manipulated by reducing exposure to friends' positive or neg-

ative emotional content in their news feeds, respectively. To this end, participants were randomly selected based on their user ID and presented with manipulated news feeds. Subsequently, their postings were automatically analyzed with regard to emotional content. Participants were neither asked to consent nor debriefed after the experiment. The study was conducted by Facebook Inc. and data gathering procedures were consistent with the network's data use policy that every user agrees to prior to creating an account (Kramer et al., 2014, p. 8789). As Facebook obtained the data and the collaborating researchers only worked with an existing set, Cornell University's IRB determined that the project did not fall under its Human Research Protection Program and, thus, researchers were not obliged to adhere to the so-called Common Rule (the US Federal Policy for the Protection of Human Subjects) as it is usually PNAS policy (boyd, 2014; Deterding, 2014; Verma, 2014). Although Facebook's emotional contagion experiment revealed rather small effect sizes, the authors concluded that, "given the massive scale of social networks such as Facebook, even small effects can have large aggregated consequences […]. For example, the well-documented connection between emotions and physical well-being suggests the importance of these findings for public health." (Kramer et al., 2014, p. 8790)

Even though data were obtained legally, a discussion of the study's ethical implications was triggered in the aftermath (cf. Recuber, 2016). Jouhki, Lauk, Penttinen, Sormanen, and Uskali (2016) systematically analyzed the controversial discourse focusing on two crucial aspects: research as manipulation and informed consent. They show that a verdict on the authors' conduct is dependent on the underlying ethical perspective. From a utilitarian point of view, the Facebook experiment did little or no harm while yielding important scientific results. Deontologically speaking, however, human integrity should not have been violated regardless of the degree of actual harm (Jouhki et al., 2016, p. 81).

We use this study as an example because it illustrates ethical questions within the broad field of quantitative communication research. By this, we want to sensitize researchers to practical ethical questions in the research process in order to stimulate a discourse on how to conduct both ethically and technically sound standardized research. Among others, unethical conduct is one aspect of questionable research practice (Matthes et al., 2015; Vermeulen & Hartmann, 2015). Cumming (2014) names twenty-five guidelines for improving scientific research. The first one speaks to the promotion of research integrity by ethical practice, arguing that the adherence to ethical standards ensures professional conduct and generally enhances the quality of research (cf. APA, 2010). Thus, research ethics is a vital part of good scientific practice. It is guided by larger contexts of law and professional standards (Schlütz & Möhring, 2016). In everyday ethical conduct, communication researchers have to negotiate overlapping legal, institutional, and professional protocols (Neuhaus & Webmoor, 2012, p. 44), while on an individual level they are responsible for concrete decisions on every step of the research process.

This paper is therefore concerned with everyday research situations and the many mundane issues that researchers have to address at every single step of the standardized research process. Within this process, balancing ethical and methodological questions can be difficult at times, especially when one takes into ac-

count the constraints that every researcher has to deal with, for example lack of resources, time pressure, and the need for publishable results. These constraints influence decisions with both methodological and ethical implications. Student samples, for instance, are convenient in terms of recruiting and costs and thus very popular in everyday research practice (Meltzer, Naab, & Daschmann, 2012). It might not be the best methodological choice with regard to external validity, though. Furthermore, from an ethical standpoint it might violate fair sampling procedures (see below). This is an example of a dilemma, i.e., a problem that offers two or more solutions, neither of which is unambiguously acceptable and, thus, preferable. With these very situations in mind, our paper discusses research ethics in relation to methodological issues and sheds light on potential predicaments that researchers might be confronted with when conducting empirical studies in communication science. These predicaments are often "complex, multifaceted and resist simple solutions" (Henderson et al., 2013, p. 546).

The scope of this paper is to systematically point out such predicaments within the research process, rather than to offer ready-made solutions. Instead, we propose to make use of the rhetorical, case-based approach to research by McKee and Porter (2009) to reach this aim. As our own research is mainly rooted in quantitative methodology, we will focus on this specific area, explicitly addressing *research ethics* (for discussions of research ethics within the qualitative field see Averbeck-Lietz & Sanko, 2016; Hesse Biber & Leavy, 2011; Mertens, 2014; Tolich, 2016). Within the German discourse about a communication science ethics – see, for instance, the debate surrounding the code of ethics of the German Communication Association DGPuK (Altmeppen 2016; Filipović, Klaus & Strippel 2016; Grittmann & Drüeke 2016; Stöber 2015, 2016) – this paper contributes to the emerging debate reflecting ethical questions with respect to quantitative, standardized methods (Döveling et al., 2016; Heise, 2017; Schlütz & Möhring, 2015, 2016, 2017).

2. Ethical standards impeding validity and reliability

Research answering high methodological and technical standards generates authoritative and meaningful data. It is therefore ethically justifiable per se. On the other hand, "poor science is unethical" (Wassenaar & Mamotte, 2012, p. 275). Thus, ensuring certain methodological standards should automatically safeguard ethical quality (Panter & Sterba, 2011). Although this notion is widely accepted, a systematic integration of ethics and method aiming at optimizing research quality seems to be the exception rather than the rule (Panter & Sterba, 2011, p. 2; see, however, Carrig & Hoyle, 2011 and ASA's Guidelines, 2016). In this paper, we will make this connection, specifically addressing the impact that ethical conduct might have on methodological quality rather than the other way around. In the remainder of the paper, we particularly focus on identifying situations where questions regarding ethics and methods have to be negotiated in order to arrive at the best solution possible. Of course, we cannot offer ready-made solutions. Instead, like Jouhki et al. "we tend to concentrate on raising questions rather than put forward any definite results" (2016, p. 76). To guide this process of raising

questions we propose McKee and Porter's (2009) case-based approach as a practical art of making ethical decisions: Building on general principles and norms as well as universal codes, the particular circumstances of a specific case are acknowledged, analyzed and categorized by a collaborative process of deliberation. McKee and Porter's approach applies general principles to particular circumstances in order to avoid "ad hoc particularism" (2009, p. 8; for a theoretical founding of ethics as process see Krainer & Heintel, 2010). Following Habermas, the authors lay an emphasis on intersubjective communication in this process. Casuistry is used for addressing ethical questions involving new circumstances (McKee & Porter, 2009, p. 13). Thus, the objective is procedural rather than prescriptive or descriptive aiming at improving the quality of the process of ethical deliberation and decision-making (McKee & Porter, 2009, p. 142). Pentzold (2015) gives an excellent example of such a process within a qualitative design.

Among others (DFG, 2013; DGPs/BDP, 2016; DGS/BDS, 2014; see also Schlütz & Möhring, 2016), the American Psychological Association (2010)[1] distinguishes general principles (aspirational in nature) from obligatory ethical standards. Principles like respect for autonomy, non-maleficence, beneficence, and justice are *prima facie*, i.e. they are valid unless rebutted by other evidence (Beauchamp & Childress, 2013, p. 25). Thus, each case has to be considered on the face of it. The APA code of conduct names five such guiding principles: 1) beneficence and non-maleficence, 2) fidelity and responsibility, 3) integrity, 4) justice, and 5) respect for people's rights and dignity. They are the foundation of ethical judgment. Complementary ethical standards deal with issues like human relations, privacy and confidentiality, research and publication, etc. Both principles and standards have to be adapted to the particularities of the case at hand (cf. Pentzold, 2015). In doing so, they might collide with specific methodological decisions. Although this might be the exception rather than the rule, we argue that there are circumstances where ethical conduct might introduce (systematic) errors impeding validity and reliability of an empirical study. Before addressing the research process in more detail, we present basic considerations with regard to validity and reliability of a quantitative study design (particularly regarding survey research).

Validity. One factor impeding the validity of a specific method is its reactivity (Scholl, 2013). The term designates the fact that each measurement process alters the social reality that it should merely observe. This may cause research artifacts. In practice, the research process sensitizes the subject influencing his or her reactions (answers and/or behaviors) which leads to systematic errors. Elaborated informed consent procedures – a cornerstone of ethical conduct – might make the role of the research subject salient. As a consequence, participants might get more attentive, (self-)observant, or sensitive. This might introduce unwanted effects like a social desirability bias (SDB). SDB is caused by a respondent's propensity to adapt his or her answers to a supposedly socially accepted norm. Consequently, he or she does not answer truthfully but adjusted to this norm. This behavior poses a threat to research validity as seemingly desirable attitudes are overre-

1 We will use the APA code of conduct as an example throughout the paper as it is well elaborated with regard to standardized research ethics.

ported while others are omitted. Other examples for systematic response biases are pseudo-opinions, satisficing (an answering heuristic that shortcuts the cognitive answering process; cf. Krosnick, Narayan, & Smith, 1996), or acquiescence (i.e., the tendency to confirm statements regardless of their content). All of them might impair the validity of survey answers as a consequence of the reactance of the method which might be influenced by the ethical decision to seek consent.

Reliability. The Total Survey Error Paradigm (TSE) systematizes effects on reliability (Groves & Lyberg, 2010). TSE comprises two basic sources of error: representation error and measurement error. Representation errors – like coverage, sampling und nonresponse errors – are due to sample type, size, and sampling technique. Thus, errors of representation are strongly associated with selection and sampling procedures. Sampling is an important source of systematic error, because propensity to participate depends on both study design and an individual's traits: The higher the covariance of proclivity to refuse and central research variables, the higher representation error. Ethical considerations might influence sampling processes (and outcomes) because special attention is placed on voluntary participation based on informed decision. Dependent on the consent procedure itself or the content of the consent form, return rates might differ. Measurement errors, on the other hand, are more prevalent with regard to data collection and analysis. They might be introduced by renouncing forced choice procedures in order to ensure voluntary participation throughout the whole questionnaire leading to item nonresponse (Al Baghal & Lynn, 2015).

McKee and Porter understand "ethics as an ongoing process of reflection, analysis, and action throughout a project" (2009, p. 145). Below, we will discuss the influence of ethical considerations on specific methodological aspects regarding aspects of validity and reliability of empirical studies in more detail. The discussion is structured along the stages of research and reflects on related ethical issues (McKee & Porter, 2009, p. 144) along every step of the process from study design to publication. In doing so, we will explicitly focus on standardized research methods.

3. Ethical-methodological dilemmas within the research process

Ethical issues have to be considered at every step of the research process. As McKee and Porter (2009, p. xix) put it: „ethical considerations are inseparable from methodological considerations, and they occur throughout the entire research process." From study design to population and sampling, recruiting and refusal conversion, data collection and analysis as well as publication – every phase has its own ethical challenges. As a general rule, adhering to ethical principles will ensure good research practice. Sometimes, however, responsible ethical conduct might collide with methodologically sound research. We think that it is important to address and discuss these dilemmas for the sake of honesty and transparency (cf. Henderson et al., 2013). In the following, we will therefore contrast methodological and ethical arguments and systematically identify possible trade-offs at every step of the research process.

3.1 Study design

"Ethical research begins with a coherent, valid, and sensible research design" that has a "worthy purpose" benefiting society, science, or a special group (McKee & Porter, 2009, p. 142). The most appropriate study design in terms of validity and reliability might hold ethical challenges, though. Therefore, both methodological and ethical considerations should guide the research process from the get-go. The most basic question one has to ask is whether primary data collection is necessary at all: An early cost-benefit analysis must consider the costs and utilities of *not* conducting a specific study (Rosenow & Rosenthal, 2011, p. 46). Maybe a secondary analysis of existing data or a meta-analysis of several studies is also suitable for the research question at hand. Although collecting primary data might be the preferred choice in terms of validity, it might not be the preferential ethical one. If one decides to re-analyze existing data, one ethical question left is whether participants had consented to secondary data use as well. If primary data collection is vital, a power analysis prior to defining the sampling frame should make sure that only as many people are included in the research as to ensure statistical power but not more (Maxwell & Kelley, 2011; see also Mark & Lenz-Watson, 2011, pp. 199–202 on adaptive sample size planning).

Furthermore, the appropriateness of the research topic has to be examined with regard to ethical considerations. Even if communication science is somewhat less prone to unethical topics and procedures as opposed to medicine, for instance, there are ethically problematic research areas in media and communication research as well (as the introductory example shows). Researchers working in areas such as porn, media violence, digressive behavior, racism, addictive media use or deal with privacy issues in their research must weigh the importance of these questions and the societal utility of their being answered against the probability to harm subjects in the process (cf. Recuber, 2016). For instance, was it worthwhile to make people sad in the course of the Facebook experiment because there is a "well-documented connection between emotions and physical well-being [that] suggests the importance of these findings for public health" (Kramer et al., 2014, p. 8790)? Or is it warranted to covertly observe users of a closed pro-ana online community[2] because of "the potential benefit of [the] findings to the eating disorders clinical field" (Brotsky & Giles, 2007)? To evaluate the consequences of newspapers covering celebrity suicides, an experiment might be methodologically sound but ethically speaking out of the question. To study the so called Werther effect – undoubtedly a highly relevant topic – other designs can and should be used (like content analysis and public statistics; cf. Schäfer & Quiring, 2015). Content analyses, however, are not without problems as well, as coders might experience distress, for instance, when working within a project on news coverage of war (cf. Fröhlich, Scherer, & Scheufele, 2007).

Thus, when choosing a study design methodological and ethical questions have to be balanced out. Considerations range from very basic ones, like the questionable idea of man in early experimental research, to more practical ones. Some

2 Pro-ana communities are said to promote the eating disorder *anorexia nervosa*.

methods are regarded as being problematic on a basic level like covert observations (Hesse Biber & Leavy, 2011, p. 75; cf. Brotsky & Giles, 2007), potentially incriminating technical procedures (like fMRI), or others that cannot be controlled consciously (Fahr & Hofer, 2013). Mobile research methods (like MESM studies; e.g., Struckmann & Karnowski, 2016) increase validity by measuring media use *in-situ*. Because of their use of smartphones, however, they have to deal with privacy issues. For instance, additional to information the respondents give voluntarily, several more data can be collected automatically like logfiles, geodata, etc. Frequently, these methods combine survey and observational data without the respondents' (and sometimes even the researcher's) knowledge. This aspect should be considered when designing a study. At least it is necessary to communicate this information to the participants prior to their consenting to take part. We will get back to the point of informed consent later.

As survey participants supply information voluntarily and consciously, surveys are usually less prone to principal ethical problems, but even studies using questionnaires have to consider specific research ethics: Telephone surveys, for instance, can be seen as an intrusion of privacy and face-to-face interviews as well as postal questionnaires jeopardize anonymity. Even content analyses are not devoid of challenges because one has to consider other people involved in the research process like coders who might have to deal with awkward or even harmful content (see above). To employ automated content analysis instead of human coders might be the right choice in terms of ethics. Whether this also benefits the validity of the study depends on the complexity of the coding system as well as the particular method (Scharkow, 2012).

Furthermore, extensive ethical questions need to be considered when a research design includes the analysis of semi-public spheres like Internet forums (McKee & Porter, 2009, pp. 75–112) instead of mass media content. Internet Research Ethics (IRE) tend to issues like the nature of public spaces, privacy and its protection, online confidentiality and anonymity, the necessity of informed consent, the possibility to do harm in an online space, etc. (Buchanan & Zimmer, 2016; Eynon, Schroeder, & Fry, 2009; McKee & Porter, 2009). These discourses can guide ethical-methodological considerations (cf. Pentzold, 2015). For instance, a covert observation in a closed online community might be advisable in terms of validity (because the method is unobtrusive and therefore non-reactive) but it is presumably a poor choice from an ethical point of view not to inform members of their being used as research subjects (for a discussion see Brotsky & Giles, 2007).

Experimental designs involving manipulation of participants are often more questionable in terms of ethics than correlational studies or overt observations (Döveling et al., 2016). The Facebook experiment, for instance, might have been less hotly disputed if it did not involve manipulating the participants' feelings or if they had been asked for consent and debriefed (Recuber, 2016). Facebook's Chief Technology Officer Mike Schroepfer (qtd. in Jouhki et al., 2016, p. 80) conceded in retrospect that non-experimental ways to do the research should have been considered. As experiments (beside longitudinal designs) are the only sound way to measure causal relationships, a correlational design might have been less valid, though.

Finally, when planning a research study, one has to consider whether the nature of cooperating with assistants – often students – might pose ethical challenges. At the least, assistants should be made aware of potential ethical pitfalls, for instance when dealing with participants (e.g., in a laboratory experiment on mood management where researcher assistants have to frustrate subjects as a treatment; Zillmann, 1988). In research with human subjects, certain precautions might be warranted like signing an agreement of confidentiality, working in pairs, and assigning a contact person for questions regarding ethical conduct if they themselves are likely to experience harm or stress. The need to take responsibility for one's coworkers and assistants has to be considered when choosing a design.

3.2 Population and sampling

Justice is one of the general principles named in the APA code of conduct (2010): All persons should have access to and benefit from the contributions of science. Reasonable judgment has to be exercised to ensure that unjust practices are avoided when defining the universe and sampling frame of the study. Researchers should ensure that the persons who participate in the research and carry most of the costs are the ones to also benefit most from the results (Wassenaar & Mamotte, 2012, p. 276) or are at least compensated adequately (Mark & Lenz-Watson, 2011, pp. 197–198).

In online research, justice is a basic problem due to limited Internet access for some parts of the population. In Germany, for instance, 90% of the population is online at least once in a while, but only 72% access the Internet on a daily basis; slightly less women (70%) and elderly people (60 years and older: 44%; Koch & Frees, 2017, p. 435). Thus, online research systematically excludes particular groups from scientific progress (Eynon, Schroeder, & Fry, 2009, p. 197). This, for once, is not a dilemma but both ethically questionable and methodically problematic because such sampling might lead to systematic representation error. Both aspects would benefit from samples more adjusted to the overall population (except maybe for studies specifically aiming at the online population).

Besides a just definition of the study universe, sampling has to be fair. Some sampling procedures introduce ethical problems because they violate confidentiality by qualifying anonymity (i.e., tracking the machine or server ID in online research, collecting contact information for random-route sampling frames, using ID numbers for response monitoring or in panel studies, etc.). As these data are necessary for orderly conduct of these kinds of research, though, this is another point where ethics and method collide.

Additionally, benefits and costs should not be unfairly divided between the participants of a research study. This can be the case in an experiment with different treatments such as manipulating emotions in a positive or negative way, respectively (Kramer et al., 2014). Usually, the control group is treated differently than the treatment group (Mark & Lenz-Watson, 2011). This can be an advantage (when the manipulation is unpleasant) or a drawback (when it is beneficial). As this is hardly avoidable in most of the cases without compromising the experimental design, one has to ensure that the respondents' assignment to one of the

groups is impartial. Thus, randomization is both ethically and methodically the method of choice. Mark and Lenz-Watson (2011, p. 188) favor quasi-experimental designs to circumvent grouping altogether. This, of course, might restrict internal validity of the study – if it is possible at all.

3.3 Recruiting and informed consent

After defining the universe and sampling frame of a research study, each potential participant has to be motivated to take part in a sometimes lengthy and strenuous study. In terms of method successful recruitment is crucial. Unfortunately, refusal rates have increased substantially over the last years (at least with regard to general population surveys; Dutwin et al., 2015, p. 412). In survey research three or more refusals for every one or two completed interviews is commonplace (Dutwin et al., 2015, p. 412). Thus, efforts have stepped up to ensure rapport. This is necessary in order to avoid refusal bias. As one component of the non-response bias, refusal bias might introduce systematic error into research impeding its quality. Addressing this technical problem, though, might pose "ethical concerns [because] efforts to minimize refusals can be perceived as coercive or harassing potential respondents" (Dutwin et al., 2015, p. 412). As far as our experience goes, suitable instructions (i.e., the use of simple, topic-related questions) can increase co-operation rates significantly (Meier, Schneid, Stegemann, & Stiegler, 2005) without posing ethical challenges.

In the USA, the recruitment plan is part of the informed consent process and has to be approved by a research ethic board (Buchanan & Zimmer, 2016, para. 4.2). In Germany, this practice has not been applied ubiquitously in communication research up to now. From an ethical standpoint, informed consent is a crucial part of good scientific practice, though. Each participant has to agree to take part in the research prior to enrolling. To this end, he or she has to be presented with all the information needed to make a well-considered decision either to accept or to decline the invitation to participate in the study at hand. This informed consent procedure is at the heart of respecting respondents' rights. The consent form should be given in writing, if possible. It should be comprehensible, comprehensive, and concise ("the 3Cs of consent;" Szala-Meneok, 2009, p. 512) for participants to be able to make a fully autonomous decision. The form should include basic information like the purpose of the research, its duration, procedures, and potential benefits but also risks, discomforts, or adverse effects of the procedure (like limits of confidentiality), the right to decline to participate and to withdraw from the research once it has begun, the consequences of doing so, incentives, and contact persons (APA, 2010, para. 8.02).

Consent must be given at least once. In panel studies, for secondary data analysis, or if conditions change re-consent can be necessary (Custers, 2016). Some authors suggest to consider consenting an ongoing process with the possibility to bail out at later stages of the research (Patry, 2002, pp. 61–62; Wassenaar & Mamotte, 2012, p. 278). The possibility of broad or open consent (frequently applied in life sciences) might be restricted in the future (at least in Europe, cf. Schaar, 2016).

The first decision when it comes to informed consent, though, is whether it needs to be obtained at all (for a heuristic grid to guide this decision see McKee & Porter, 2009, p. 21). In the Facebook experiment, for instance, consent was considered superfluous by the researchers because of the firm's data use policy (Kramer et al., 2014, p. 8789). Usually, the question whether consent is necessary is determined by the status of the data that are obtained. The need for informed consent depends on whether we deal with texts, human subjects, or published authors (Golder et al., 2017; cf. Schmidt's (2009) distinction between conversations and publications). In this respect Jouhki et al. (2016, p. 78) identify a general problem for large-scale studies "when the number of research subjects is so high, individually they tend to vanish in the haze of the overarching term 'big data.'" This could make researchers' personal accountability and, consequently, questions of informed consent apparently less of an issue. Thus, external relations between researchers and participants, the status of the participants' identities as well as technical challenges in obtaining consent have to be reflected upon (Neuhaus & Webmoor, 2012).

If data are considered public because they are publicly accessible, it is argued that no consent is needed because posting data online can be judged as implied consent (Mahrt & Scharkow, 2013, p. 26). Analyzing them is therefore comparable to content analyzing news coverage. One could also consider these data private, however, because they resemble communicative traces (Heise, 2015, p. 45) and the participants might consider them private (Henderson et al., 2013). Then consent would be necessary. These data might even be seen as artifacts comparable to published material that should be cited (Golder et al., 2017). Thus, there is a basic difference between text-based and person-based types of research and non-intrusive vs. engaged analysis that imply different codes of conduct (McKee & Porter, 2009, p. 75, 83). When deciding whether informed consent is necessary, McKee and Porter (2009, pp. 88, 97, 132, 136) propose to consider privacy, topic sensitivity, degree of interaction, and subject vulnerability. The more distinct each of these research variables (more private, more sensitive, more intrusive/manipulative, more vulnerable), the more pronounced the need for informed consent (see also Pentzold, 2015, pp. 76–78; Schmidt, 2009, pp. 42–43).

From the point of view of the TSE, however, a consent procedure might introduce errors impeding validity and reliability. With regard to validity it might trigger reactivity (see above) whereas the particular content of informed consent might introduce methodological errors restricting reliability. We will discuss these in the following in more detail with reference to voluntariness and level of information.

Voluntariness. Within the informed consent procedure, it is vital to ensure understanding that participation is strictly voluntary for prospective research subjects. Consent only applies to the consenting person. It is not permissible to include third party data (like news feeds as status update of users' Facebook friends) without additional consent by them. The participants' decision process must be free from any kind of coercive power and based on the knowledge of all costs and benefits (Hogan, 2008, p. 952; see also the following paragraph "level of information"). To this end, researchers should ensure that all relevant informa-

tion is not only given but also understood (Escobedo et al., 2007). Coercion might be exercised by excessive or inappropriate incentives that are therefore forbidden (Hogan, 2008, p. 952). From a methodological point of view this is not controversial, because empirical evidence does not support the coercive power of valuable incentives anyway (Singer & Couper, 2008). In order to motivate potential participants, however, other benefits (both immaterial ones like gaining insights for oneself or for science and material ones like compensation) should be named. Reasonable incentives are an effective way to motivate participants and to decrease refusal rates without causing systematic error (Medway & Tourangeau, 2015).

Another illegitimate means of coercion is the exploitation of power relations (APA, 2010, para. 3.08). This might be the case when Facebook abuses users who are dependent on the service and "opting out becomes equal to opting out of a significant part of one's social life" (Jouhki et al., 2016, p. 80). In other studies, personal relations might be exploited to talk someone into participation or dependent students are recruited for experiments (see for instance Delforterie et al. (2014) where undergraduate students had to browse pro-ana and automutilation websites for course credits). As student samples are an everyday reality in scientific research – be that a good or a bad thing in terms of method with regard to their explanatory power in communication theory (Meltzer et al., 2012) – the aspect of possible coercion should be weighed against the advantages of recruiting such convenience samples.

In terms of voluntariness it is also important to accept a refusal from a potential participant. Survey researchers, however, distinguish between "two operational types of refusals, interim and final," although the categorization varies from study to study (Dutwin et al., 2015, p. 413). Research agencies have developed elaborate measures to converse interim or soft refusal into responses. To this end, interviewers undergo a so-called refusal aversion training in order to limit refusal rates as much as possible (Groves & McGonagle, 2001). It is open to discussion, whether these argument-based persuasion strategies (complete with fall back statements, Bänziger, 2009, pp. 141–153) are a legitimate methodological measure or a problematic means of coercion. At least it seems to be important to ensure that recruiting strategies negotiate "legitimate survey methodology and respondent rights" and "respect the rights of individuals sampled for surveys" (Dutwin et al., 2015, p. 418) while at the same time eliciting satisfactory response rates.

Another important aspect with regard to voluntariness is that respondents have the right to withdraw from the research even after having originally consented. From an ethical point of view, declining must not have negative consequences for the participant who wishes to drop out during the study. The fact that students often get compensated for their participation by receiving course credit might have a bearing on the voluntariness of the decision to enroll and to stick to this decision throughout the whole procedure, however. Thus, there should be alternatives on offer for students who feel uncomfortable and want to drop out. In terms of method, dropouts are a problem with respect to representation error. Regarding the Facebook experiment (Kramer et al., 2014), it is conceivable that a considerable part of the participants would not have consented

voluntarily to participate thereby introducing (systematic) error. Another problem is how to identify dropouts and how to handle the data provided prior to leaving the study. In a lab experiment this might be feasible but what about an online survey? Is every termination of the questionnaire before the end of the survey an implicit dropout that has to be eliminated completely from the data set (rendering it a unit non-response)? Or do we treat such a case simply as one with several item non-responses still including it in the analysis (which might be preferable, technically speaking)?

Another issue arises when participants want to drop out even after completing the whole study, for instance after learning about the "true" purpose of the study in the debriefing (see below, dispensation and deception). The first question is how they make this wish known when the study is not conducted face-to-face or in a laboratory setting. In an online questionnaire, for instance, articulation can be difficult. Surveys would have to include an additional consent question at the end of the questionnaire. In experimental research this might introduce a systematic error, however, when ex post dropout rates correlate with group membership. If, for instance, significantly more members of the treatment group withdraw their consent afterwards (e.g., due to discomfort elicited by the stimulus) than of the control group, randomization fails.

Level of information. Participants have to be informed thoroughly and truthfully about the purpose of the research, expected duration, and procedures (APA, 2010, para. 8.02; cf. Escobedo et al., 2007). In intervention research, the experimental nature of the treatment has to be clarified at the outset. In the Facebook experiment, the participants' consent was inferred from their accepting the general data use policy, specific information on the emotional contagion experiment was not given (Kramer et al., 2014). It is debatable, though, whether information on data use policy is read at all. Furthermore, potential participants have to be informed about the type of the treatment (and the lack of it if one is assigned to the control group), the assignment procedure, treatment alternatives for those who do not wish to participate or who withdraw, and compensation for participation (APA, 2010, para. 8.02). Escobedo et al. (2007) propose to test for possible misunderstandings regarding methodology, purpose, costs, and benefits of the study to ensure an informed decision.

Also, costs like expenditure of time, potential risks like distress or actual harm have to be specified. One aspect of harm might be the loss of privacy. Therefore, ensuring confidentiality and anonymity is an important part of the informed consent procedure. Confidentiality concerns both the participation itself and the generated data (Sue & Ritter, 2012, pp. 28–29). Researchers have to take adequate provisions to protect the privacy of their subjects (Buchanan & Zimmer, 2016, para. 4.1) and to explain how this is ensured exactly (Trepte, Masur, Scharkow, & Dienlin, 2015). This includes collection and storage of data as well as reporting of the results (see below). Buchanan and Zimmer (2016, para. 4.1), however, show that in the age of the Internet we have to reconsider what personally identifiable information is. Data which is kept confidential and data that is truly anonymous are two different things. In Germany, anonymity legally means that a piece of information cannot be assigned to a natural person (or only with great effort;

Pflüger & Dobel, 2014, p. 492). Pseudonymization, that is the linking of a specific code with personal data, is not sufficient, even if research information and personal data are stored separately (Pflüger & Dobel, 2014, p. 493; see also Buchanan & Zimmer, 2016, para. 4.3 on the specifics of data storage and data sharing). Strictly speaking, it would therefore be untrue to warrant anonymity in any kind of longitudinal research where such links are indispensable. Thus, measures should be taken to ensure privacy as completely as possible and participants should be correctly informed about how these issues are actually handled.

As a rule, informed consent has to be documented in writing. For laboratory research, postal or face-to-face surveys this is unproblematic. For online surveys, there are several possibilities to register consent with varying degrees of costs involved: We might define the click on the forward-button after reading information on the study as an implicit form of consent. Alternatively, we might seek explicit consent by having affirmed a text field reading "I have read and fully understood the information provided above. I thus voluntarily agree to participate in this study" before the first question is shown. One might even offer a PDF consent form to download including possibilities to withdraw (Pflüger & Dobel, 2014, p. 495). Buchanan and Zimmer propose a consent portal (2016, para. 4.3). Only after having agreed the participant is forwarded to the questionnaire. For documentation, some form of electronic signature is utilized. From a methodological point of view this might pose a problem because insisting on a signature might imply de-anonymization with possible effects on the willingness to participate (Mühlichen, 2014, p. 101). Either way, it is rather difficult to secure the real-life identity of the person consenting (for instance if a study is not suitable for minors; Buchanan & Zimmer, 2016, para. 4.3.1). Thus, it is a challenge to obtain online informed consent in an ethically satisfactory way.

If done by the book, gathering informed consent is a lengthy and arduous affair, especially if one would actually test for possible misunderstandings (see above). Methodologically speaking, this might pose several problems. First, the process might make certain study specific costs salient and consequently discourage people from participating. If refusal rates are distributed unequally (i.e., if people who attach specific importance to privacy issues decline the invitation to participate more often than others) systematic errors are introduced. This is especially problematic if these characteristics correlate with issues related to the research question, not uncommon in current communication research (cf. Dienlin & Metzger, 2016). In this case, unit non-responses might lead to representation error, restricting the study's validity and generalizability.

The question is, whether the possibility of increased refusal bias is reason enough to dispense with a meticulous informed consent procedure, at least in part, or whether ethical considerations outweigh this and, thus, take precedence because informed consent is seen as the *sine qua non* of good scientific research practice.

Dispensation and deception. Under specific circumstances informed consent can be dispensed with (APA, 2010, para. 8.05; BDSG § 4a Abs. 2; DGP/BDP, 2005, C.III.6). This is the case, "where research would not reasonably be assumed to create distress or harm" (APA, 2010, para. 8.05) or in non-interventionist online research (Eble, Ziegele, & Jürgens, 2014, pp. 136–143). Following the above-

named codes of conduct, this holds true for studies conducted in educational settings by anonymous questionnaires, naturalistic observations, or archival research where confidentiality is protected. In online research, the necessity to seek informed consent is often discussed with regard to the type of information (sensitive vs. non-sensitive) and the degree of seclusion of the sphere in question (private vs. public) (McKee & Porter, 2009, p. 21; see also Eble, Ziegele, & Jürgens, 2014; Heise & Schmidt, 2014; Murphy et al., 2014; Pflüger & Dobel, 2014). The suggestion is, the more public a sphere and the less sensitive the information gathered, the less it is necessary to seek informed consent. Open social media are classified as public spaces by the German law where data collection is permissible without consent (Pflüger & Dobel, 2014). Whether this is eligible from an ethical point of view is a disputed question as definitions and expectations of privacy are "ambiguous, contested, and changing" (Markham & Buchanan, 2012, p. 6). In many online forums lurking (observing people while remaining invisible) is not tolerated (Kozinets, 2010, p. 147). Disclosure of a research project, however, might affect reactivity and even create reactance, consequently limiting validity, or rendering the study impossible altogether (cf. Brotsky & Giles, 2007, p. 96).

Deceiving participants (i.e., leaving them in the dark as to the true purpose of the study) is legitimate if it is justified by the study's significant scientific value (APA, 2010, para. 8.07; DGP/BDP, 2005, C.III.8). In the case of deception, however, participants have to be debriefed subsequently and have to be permitted to withdraw their data (APA, 2010, para. 8.08). The debrief should contain information about the (true) nature of the research that is apt to correct any misconceptions that might be based on the deception. If harm was done, researchers must take reasonable steps to minimize it and offer participants help and compensation if necessary (Kelly & Lavrakas, 2008; for an example see Delforterie et al., 2014, p. 326).

Debriefing and the ex-post possibility to withdraw consent, again, may introduce systematic errors when the experimental group is more prone to do so as a consequence of the treatment than the control group. The participants in the Facebook experiment (Kramer et al., 2014), for instance, could have been informed of the manipulation afterwards. It is conceivable that particularly participants from the sad mood condition would have dropped out, thereby introducing error. Additionally, the ex-post-facto disclosure might lead to problems when samples are generated via snowballing and the actual purpose of the study is revealed to the person that is being recruited before answering the questionnaire.

3.4 Data collection and analysis

Ethical considerations are relevant to data collection as well. The basic question here is which data are allowed to be measured with regard to the consent given (if explicit consent was given at all; cf. Kramer et al., 2014). Online questionnaires, for instance, usually store more data than just the answers. As mentioned above, digital trace data and activity-based data points like machine or server ID, remote address, external host (domain), used browser, http-referer, page history, etc. are gathered by many online survey software programs by default (cf. Boase, 2016;

Freelon, 2014). At least machine ID is problematic if it can be traced back to a certain PC. Cookie-based log files collect even more data (Welker, 2014). These data are usually not accounted for in the informed consent procedure. Ethically speaking, this is necessary, though, for an informed decision. From a methodological perspective, on the other hand, completeness might be ill-advised as addressing these aspects might rise concern about privacy and anonymity and thereby harm response rates.

Another question arises with regard to the aspect of voluntariness discussed above. As this right extends to every single question in a survey (Losch, 2008, p. 336), forcing response should not be an option in online surveys. The idea of ongoing voluntariness speaks against general completion checks used to minimize item non-response. These checks consist of the automatic prompting if answers are omitted and sometimes the failure to continue without the given answer. This technique is routinely used in many online surveys to minimize item-nonresponse. Strictly speaking, even so-called forced-choice questions without middle position and no 'prefer not to answer' option transgress the rule of voluntariness. This question format, however, is useful to impede pseudo-opinions and therefore important to validly answer specific research questions (Krosnick et al., 2002). Thus, compulsory answers avoid bias and decrease item non-response (and therefore measurement error) but might be considered problematical in terms of voluntariness. The resulting missings can be dealt with statistically (imputation), but this is not undisputed as well (Enders & Gotschall, 2011, p. 370). To minimize item non-response without breaching ethical standards one could use immediate reactive prompts, i.e., motivational questions right after the omitted item (Al Baghal & Lynn, 2015) that do not hinder progress of the questionnaire.

When transmitting, storing, analyzing, and visualizing research data, data safety and confidentiality are crucial (Neuhaus & Webmoor, 2012). Data intrusion or misappropriation have to be prevented by technological means (Buchanan & Zimmer, 2016, para. 4.3). When it comes to data processing and collaborative work flows, further ethical issues have to be considered (Buchanan & Zimmer, 2016, para. 4.4). When using cloud computing, cloud-based services (like Google Docs or Dropbox), or crowdsourcing to analyze data (for instance with Amazon's Mechanical Turk) data privacy and security have to be ensured.

3.5 Publication

Publishing research results is a crucial part of the scientific endeavor. Visibility and transparency is a prerequisite for reproducibility and, thus, necessary to avoid questionable research practices. The so-called "file drawer problem," i.e., the issue that non-significant research findings are less likely to be published (Vermeulen & Hartmann, 2015, p. 190; see also Dwan et al., 2008), impedes transparency. Full transparency, however, is a requirement to assess whether further research is warranted or not (see above).

Furthermore, transparent publications adhering to specific publication standards (JARS Group, 2008) are the basis for replication studies and meaningful meta-analyses. On the other hand, detailed data publication and interpretation

must not transgress ethical boundaries (Sue & Ritter, 2012, pp. 29–30). Data must be made anonymous in a way that re-identification of participants is prevented to secure confidentiality, especially in online research (cf. the case study by Zimmer, 2010). This is crucial because in online environments both utterances and avatars are traceable (sometimes even after profiles have been deleted), different profiles can be re-combined, and meta-data (like location, time, and author) may be added to create comprehensive narratives of people's lives (Henderson et al., 2013). Thus, published "research has to solve the problem of guaranteeing privacy and ethical standards while also being replicable and open to scholarly debate" (Mahrt & Scharkow, 2013, p. 26).

4. Conclusion: Case-based approaches to research ethics as a means to negotiate dilemmas

This paper showed that conducting both methodologically and ethically sound research – though each is a prerequisite for good research practice – can be challenging in everyday university settings. Adopting an adaptive perspective to ethical deliberation like McKee and Porter's (2009) rhetoric, case-based approach, our aim was to acknowledge the complexity of ethical decision making in order to promote critical awareness of these complexities (cf. Neuhaus and Webmoor (2012) on "agile ethics"). In doing so, we did not want to discourage empirical researchers, because "research ethics is complex, not impossible" (McKee & Porter, 2009, p. 141). We think, however, that it is helpful to address potential dilemmas in a systematic way. To this aim we highlighted the fact that each step of the research process involves another risk-benefit appraisal process (Rosnow & Rosenthal, 2011) that has to be gone through with due diligence. This should be seen as an opportunity, rather than a challenge, because "ethics are a doorway to reflexivity" (Hesse Biber & Leavy, 2011, p. 72). Contrasting the Facebook experiment by Kramer and colleagues (2014) with other infamous experiments, Recuber (2016) laments their remarkable lack of ethical reflection. In contrast, we want to encourage the communication research community to discuss ethical challenges openly and to deliberate on feasible solutions a priori. As Henderson et al. (2013) put it:

> [We] call for researchers to report on the ethical dilemmas in their practice to serve as a guide for those who follow. We also recommend considering research ethics as an ongoing dialogical process in which the researcher, participants and ethics committee work together in identifying potential problems as well as finding ways forward. (p. 546)

Such a process might "provide opportunities to expand knowledge and develop a stronger science" (Rosnow & Rosenthal, 2011, p. 50). This is important, as ethical conduct and ethical practice are ongoing considerations. The rapid development of and within the field of media and communication science – regarding both its object of research and its methods – requires a continuous discourse about ethical questions within and beyond the scientific research community. It should be institutionalized (for instance under the umbrella of a scientific associa-

tion) and aim at designing a code of conduct with special reference to communication research practice (cf. Schlütz & Möhring, 2016). Otherwise, individual researchers are left to their own devices when it comes to acknowledging, facing, and dealing with ethical-methodological dilemmas. Then, they have to resort to individual values, current practices, tips of more experienced colleagues, or existing codes of conduct to solve the problem at hand. This approach might be sufficient in some cases but unsatisfactory in others.

Such a discourse could benefit from adopting McKee and Porter's (2009) rhetorical, case-based approach to research ethics. The authors advocate an ethical decision-making process that "must be systematic, deliberative, collaborative, and multidisciplinary in order to be valid" (p. xxii). The deliberative process involves visual heuristic grids that guide decisions, for instance, whether to strive for informed consent or not (McKee & Porter, 2009, p. 23), that could be tailored to communication research (cf. Schlütz & Möhring, 2016; for an example see Pentzold, 2015).

McKee and Porter urge not to confuse casuistry with "situation ethics" (2009, p. 25) as it is an analysis of ethical issues guided by general norms that are applied to specific cases. The underlying principle is 'do no harm' – but in order to judge the potential and degree of harm procedural principles are useful the authors argue. As mentioned above, the goal of this approach is procedural rather than prescriptive or descriptive: It aims at improving the quality of the process of ethical deliberation and decision-making (McKee & Porter, 2009, p. 142). The course of action fits the line of argument adopted in this paper. The process comprises all steps of the research process including recursive loops with regard to both past decisions and future issues: "ethics as *an ongoing process of reflection, analysis, and action* throughout a project – a process requiring assessment, decision-making, and productive practice open to revision" (McKee & Porter, 2009, p. 145, emphasis original). The approach rests upon four key procedural features (McKee & Porter, 2009, p. 23) that render it useful for everyday decision making:

First, it is guided by relevant general norms and universal codes guiding ethical considerations, such as respect for autonomy, non-maleficence, beneficence, and justice. General principles matter as much as circumstantial details but abiding by guidelines, regulations, and laws is the *sine qua non* of ethical action. The recent discussion within the German communication association DGPuK about the necessity of ethical standards and codes (and their particular embodiment) reflects this notion (cf. Altmeppen, 2016; Filipović, Klaus, & Strippel, 2016; Grittmann & Drüeke, 2016; Stöber, 2015, 2016). Unfortunately, the particularities of research ethics (specifically with regard to standardized methods) only play a subordinate role in this discussion (Döveling et al., 2016; Möhring & Schlütz, 2016).[3]

Second, the researcher acknowledges gray areas, human diversity, exceptions, context as well as particular circumstances of the study in question with all its potential methodological pitfalls when faced with a specific problem:

3 This also applies to the international level. The International Communication Association (ICA), for instance, does not offer an ethics code or specific research ethics guidelines.

> Overall, a casuistic approach acknowledges the general principles and maxims one needs to follow in the process of deciding right conduct (e.g., 'do no harm') but also insists that these principles should not be applied in simplistic or dogmatic ways to the complexity of human experience. On a general level these principles have moral imperative, but they do not answer with certainty problematic ethical questions related to the specifics of particular cases. The tough issues of ethics and equity lie in the exceptions and borderline cases. (McKee & Porter, 2009, p. 25)

Thus, third, the researcher analyzes, compares, and taxonomizes the cases looking for paradigm or problematic ones. One might, for instance, distinguish text-based vs. person-based types of research (i.e., published work vs. interpersonal communication), non-intrusive vs. engaged analysis, sensitive vs. unproblematic topics, vulnerable vs. inviolably research subjects, public vs. private research spheres, the role of the subject as author vs. person, and the researcher's role accordingly as reader vs. observer and so on and so forth. Each aspect of the study at hand can be assessed systematically according to these (or additional) criteria and linked to methodological considerations. Ethical questions like the necessity for informed consent and its specific content are then decided according to where the study at hand is located on these dimensions without neglecting methodological necessities. In addition, study specific constraints (in terms of content or resources) can be included to contextualize particular decisions. Making such an ethical-methodological process of deliberation transparent and comprehensible opens it up to discussion and – in the long run – to comparison and replication.

Finally, the researcher enters a collaborative process of deliberation to solve the problems at hand. This might be a one-off discussion or a more institutionalized discourse involving papers, conferences, or professional training. Within this discourse, ethical-methodological challenges researchers are confronted with can be addressed. Sometimes they face dilemmas in the sense that both possibilities are not unambiguously acceptable while neither one is truly preferable. More often than not, the individual researcher has to tackle these problems more or less spontaneously in the course of research. We argue that this process is so frequent and the problems so recurrent that systematic decision-making with multiple parties or stakeholders would make sense.

We therefore propose to make use of a case-based approach regarding research ethics by default. It provides a framework as well as productive tools to support practical action while at the same time acknowledging complexity, continua, and nuances in empirical research. "Because of its underlying critical-interpretative outlook on the complexity of human interactions and its critical suspicion of easy answers, absolute binaries, and hardened categories" (McKee & Porter, 2009, pp. 141–142) it is very well suited to guide ethical decision making while also taking into account related methodological problems. We agree with McKee and Porter (2009, p. 166) that what we therefore need are not so much clear-cut *guidelines* but rather elaborated *processes* that are helpful in the ever-transforming circumstances in which communication researchers find themselves. Ethics as process organizes collective self-reflexivity thereby exonerating individuals (Krainer & Heintel, 2010, pp. 207, 210, 221). As Henderson et al. (2013, p. 556) put it:

> We have found it useful to approach research ethics as a dialogic process, in which there is an ongoing conversation with participants, ethics committees, methodology, and analysis to identify dilemmas and jointly moving forward.

It is important to have flexible and adaptable tools at hand for ethical decision-making with regard to methodological judgments in standardized research, rather than guidelines carved in stone. Such tools and processes, however, should be systematically implemented, be it in scientific discourse (i.e., in journals, at conferences), in the education of students and training of scientists (cf. Wassenaar & Mamotte, 2012), or in textbooks. By doing so, researchers can shape ethical conduct (Krainer & Heintel, 2010, p. 16). Furthermore, researchers should make such implementation processes transparent, for instance within journal articles (i.e., in the method section of manuscripts), publications (like the RatSWD working paper series), online forums (see, for instance, the methods and ethics section of the AAA website or globethics.net), or archives (i.e., collecting and publishing "good practice" examples and further orientation material, cf. Cassell, n.d.; Jacobs, n.d.). We therefore propose to establish opportunities and routines to discuss cases, elaborate on possible solutions, and to introduce best practice examples and handy tools. Such a discourse – embedded in a broader academic culture – could foster individual self-reflexivity with regard to research ethics. We argue that this discourse would gain relevance and reach within the field by focusing on research questions specific to communication science and the interconnected challenges for research ethics. Such a pointed debate on communication research ethics with particular regard to standardized methods has yet to be established. It seems worthwhile to seize the suggestions made above and to engage in such a deliberative process on communication research ethics. This would assist researchers in conducting both methodologically and ethically sound empirical research within the field of communication science without finding themselves caught between the devil and the deep blue sea.

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