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Using Deception Ethically: Practical Research Guidelines for Researchers and Reviewers

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Abstract

This paper reviews highlights in the literature on existing recommendations for ethical use of deception in psychological research. We conclude that ethical guidelines and aspirational statements set out by research policies and advisory panels on ethics must eventually be operationalized into concrete terms when introducing deception into a research design. Specific directives for using deception are especially important for new researchers developing projects and also for university/departmental reviewers who are being asked to evaluate the ethical standing of proposed research. We offer a checklist designed to cultivate the understanding of junior researchers and to facilitate the review process by instantiating the relevant general guidelines into a set of Y/N questions about intended research. Finally, the paper presents empirical data from researchers and ethics reviewers who provided end-user evaluations of the tool.

Keywords: Ethics, deception, teaching, instruments, review

Using Deception Ethically:

Practical Research Guidelines for Researchers and Reviewers

Current ethical guidelines regarding the use of deception in psychological research are outlined in the recent revision of the Tri-Council Policy Statement (TCPS; Interagency Advisory Panel on Research Ethics, 2009) used in Canada, as well as in ethics codes of both the Canadian and American Psychological Associations. These documents, however, do not adequately operationalize deception or differentiate among forms of deception in a way that is as accessible as it could be for concrete implementation and discussion; something that is particularly important for a range of stake holders from student researchers to the members of research ethics review boards. Given that current ethical guidelines fail to provide a mechanism to ensure that, e.g., a junior researcher's professional judgment is well informed, this ambiguity is a hindrance to researchers attempting to conduct studies involving deception. Similarly, multi-disciplinary reviewers (particularly at the university and departmental level) tasked with evaluating the ethical suitability of a study are left without specific criteria by which to assess the acceptable use of deception. The result is that criteria for acceptable practice sometimes are a moving target: as membership of a review board changes, so too can the interpretation of general guidelines and ethical codes for using deception. Perhaps unsurprisingly, a considerable amount of inconsistency exists among both researchers and review boards regarding what constitutes the ethical use of deception in psychological research. A study by Ceci, Peters and Plotkin (1985), for example, documented considerable inconsistency even between two review boards located in the same community.

Pittenger (2002) has proposed several recommendations aimed at combating the current systemic limitations regarding the use of deception in psychological research. These include: (a)

the establishment of an official mechanism allowing psychologists to exchange information regarding the treatment of ethically-sensitive aspects of deception and impairments that require ethical attention immediately; (b) the development of a comprehensive definition of deception, including the differentiation of specific types of deception according to their associated risks; (c) transformation of the current informed consent process, with an aim to increase the protection of participants' right to autonomy in permitting the use of deception in a study of human behavior; and (d) a widespread requirement for researchers to include details of ethically-sensitive practices in their published work. These details should include: a recounting of the ethical rationale for researchers' procedures, the methods used to decrease harm, debriefing procedures, and a record of participants' reactions during debriefing on deceptive practices. Taken together, these recommendations are intended to enhance the systematic education of psychological researchers through the provision of objective information which is subject to evaluation by the community. Such an approach is consistent with the broader perspective that a research ethics review process should not only act as a bulwark against ethics problems, but also should include the promotion of beneficial research practices. From this perspective, ethics review might promote the ethical conduct of beneficial research while at the same time educating both researchers and members of review boards (Fiske, 2009).

We begin this paper by reviewing highlights in the literature with respect to existing recommendations for the ethical use of deception in research. As suggested by Pittenger (2002), however, procedural guidelines in the literature tend to be relatively abstract. While aspirational statements set out by regulatory bodies, research policies, and advisory panels on ethics are useful, they offer little in the way of concrete procedural guidance. The difficulty regarding abstract guidelines may be less obvious for established researchers in the field, who are familiar

with normative standards in the use of deception. Even so, we believe the operationalization of such guidelines is particularly important for three groups of interest: (a) novice researchers who are developing projects, (b) experienced researchers who wish to communicate clearly regarding the role of deception in their work, and (c) university or departmental-level reviewers, who may be from disciplines (e.g., natural sciences) in which deception is not used as a research tool, and who are asked to evaluate proposed research for ethical standards.

However, operationalizing the guidelines is especially relevant in the context of fledgling researchers (i.e., graduate and undergraduate investigators), for whom ethical research practices continue to be learned largely with experience and taught through corrections during the design stage of their projects (Fisher, Fried, & Feldman, 2009). In the United States, Fisher and colleagues (2009) conducted a national survey of 968 doctoral students and concluded that:

...research ethics values of the discipline of psychology are not transmitted to students simply by taking a course in ethics or having experience submitting IRB [Institutional Review Board] proposals but *require explicit direction from mentors and clear departmental policies that provide students with the resources to feel prepared to independently conduct research responsibly* (p. 515, italics added).

Moreover, this issue of junior researchers' "on the job training," at least with respect to the practical application of ethical principles, is often similar to committee members' training in research ethics review; an observation which is supported by the inconsistency of decisions among different review boards (Ceci et al, 1985).

With these concerns in mind, in the second part of this paper, we offer a concrete and detailed checklist that may be used to inform the development and review of research that uses deception. Some may consider the lack of suitable formal training itself to be an ethical issue for

researchers and reviewers, nonetheless, the purpose of this tool is to assist in preparing and reviewing ethical research protocols or to structure training, rather than to substitute it. Finally, in the third part of the paper, we provide empirical support from a sample of both researchers and review board members who evaluated the proposed tool from the perspective of end-users.

Deception: Weighing Risks and Benefits

Advantages to Using Deception

The advantages of using deception in psychological research have been well articulated. Deception can be utilized as a means of controlling a research situation (e.g., staging a heart attack to study bystander behavior; Darley & Latane, 1970). Establishing such control is often particularly important when one aims to study socially pertinent characteristics of behavior that can only be accessed when participants are uninformed (Weber & Cook, 1972; Roberts, Geppert, & Brody, 2001). In this way, deception can be used as a means of enhancing study validity by avoiding problematic (informed) participant responding, including negativistic responding (Masling, 1966), apprehensive responding (Rosenberg, 1965), and socially-desirable responding (Orne, 1962). Deception may also be used to misdirect participants to think the study is about a topic other than the one under investigation (Laney, Kaasa, Morris, Berkowitz, Bernstein, & Loftus, 2008).

In sum, the use of deceptive practices in research methodology enhances the researcher's ability to control the research environment and elicit spontaneous behavior from research participants. In this way, deception can be used as a tool to enhance both the internal and external validity of a study (for a well balanced evaluation of this, see Diener & Crandall, 1978). Moreover, proponents for the judicious use of deception argue that the potential risks resulting from the use of deception (i.e., damage to the participant-experimenter relationship or distress

from being deceived) can be addressed in post-session debriefing, which involves the repair of false information and negative feelings that resulted from the use of deception (Oczak & Niedzwienska, 2007). Such precautions do appear to be useful if conducted effectively, as evidenced by post-debriefing data from studies on sensitive topics such as false confessions (Russano, Meissner, Narchet & Kassin, 2005), and the experimental induction such as of negative mood states (Martin, 1990).

Deception: An Ongoing Source of Concern

While a host of practical concerns regarding the possible harmful effects of deception might be described as methodological-utilitarian, it should be obvious that while those concerns are very real, they are apart from another set of much broader issues regarding the need to protect values of human dignity and autonomy.

From a utilitarian perspective, opponents of the use of deception in psychological research argue that the use of deception is so widespread that many participants enter studies with the a priori expectation that they will be deceived. This expectation is thought to result in suspicious participants who are led to second-guess their responses. Thus, participants' behaviors are distorted by their suspicious reactions, and not sufficiently guided by the instructions or the research situation at hand (Ledyard, 1995). Moreover, when it comes to addressing deception, there is also the possibility that participants might not believe the debriefing and/or that it may not always work (Diener & Crandall, 1978). On a broader level, the widespread use of deception may potentially be harmful to the public image of psychology as a discipline. As a result, establishing trusting research relationships may prove increasingly difficult, and excessively-restrictive legislation aimed at overseeing the research process may eventually be proposed (Sullivan & Deiter, 1973).

For a comprehensive overview on how deception may or may not have methodological-utility implications for future research see Hertwig and Ortmann (2008). In sum, they conclude that although the effects of contaminating and creating suspiciousness in a participant population are real and non-negligible concerns, they may not be as problematic as once thought. Even so, with respect to the methodological debate on deception the findings are mixed and allow for differences of opinion. However the case, ethical concerns about the protection of human dignity and autonomy are perennial and central.

Following the recent replication of Stanley Milgram's obedience experiments, Miller's (2009) commentary argues that even in extreme cases of deception -- such as in Milgram's experiments which involved intense emotional distress, coercion, and several pieces of misleading information, -- the true crux of ethical controversy with respect to deception is that a researcher essentially limits a participant's ability to give free and fully informed consent. From this human values perspective, other authors argue that deceiving participants with respect to potential harms and important features of the study restricts their ability to make a self-determined and rational decision regarding their own participation in the study (Holms et al., 1974). In this way, participants' right to the ethical principle of autonomy and their ability to give informed consent are being undermined (Clarke, 1999; Benham, 2008). Thus, deceptive practices restrict a participant's ability to intelligently and freely choose which experimental conditions to be exposed to (Bortolotti & Mameli, 2006). While informed consent remains at the heart of ethical research involving human subjects, most codes of research allow for some conditional departures from the general principles of consent.

Existing Guidelines for the Use of Deception in Research

In view of the risks and benefits associated with using deception research, both regulatory and advisory bodies have outlined guidelines which address the ethical use of deception in psychological research. These guidelines are centered on the principle of minimizing harm to study participants. In accordance with this emphasis on preserving participants' well-being, the American Psychological Association (APA) deems the use of deception to be ethically sound only when the intended social benefits of the research are greater than the costs of deceptive practices, and non-deceptive alternative procedures are not feasible (APA, 2001). Similarly, the Canadian Psychological Association (CPA) Code of Ethics articulates that incomplete disclosure is to be avoided when alternative procedures are available. Moreover, the code states that incomplete disclosure and deception should be avoided if negative effects cannot be predicted or offset, or if lack of disclosure might impact an individual's ability to provide informed consent (CPA, 2000).

It is widely considered to be incumbent upon the researcher to demonstrate that these general criteria have been satisfied both when constructing a research proposal and when drafting a final research report (Hertwig & Ortmann, 2008). Prior to data collection, a researcher must demonstrate that critical information has not been withheld regarding the likely risks that might otherwise have influenced a participant's willingness to participate in a given study. After data is collected, a debriefing session is commonly advocated as a safeguard to mediate any potential harm to participants that may be caused by the deception. Moreover, researchers are advised to allow participants an immediate opportunity to access information regarding the nature, results, and conclusions to date of the study to which they are contributing. Consistent with this view, responsibility for correcting any harm resulting from mistrust in the participant-researcher relationship and other effects from deception practices are squarely on the researcher

(CPA, 2000). The unethical practice of deception in research is considered a contributing factor to the breakdown of social trust between scientists and laypersons.

In Canada, the TCPS (Interagency Advisory Panel on Research Ethics, 1998; 2009) distinguishes between two types of deception. *Partial disclosure* (i.e., limited disclosure) is understood to have occurred when the researcher intentionally conceals the true purpose of a study from participants. In contrast, *deception* (i.e., misrepresentation) is present when a researcher actively misleads participants regarding a study's aims. In each case, it is imperative that researchers ensure that the use of deception does not nullify any aspect of informed consent that would otherwise affect a participant's willingness to take part in research. Again, the use of post-session debriefing is strongly recommended. Such debriefing sessions are expected to include full disclosure of the deception, an explanation of the actual purpose of the study, a full explanation of the rationale for using deceptive practices, and finally a chance for participants to re-consent to the use of their data in research. (Though even the latter may have some special exceptions, as in the study of undesirable traits, i.e., racism, sexism).

Despite these sound recommendations from advisory bodies, the existing recommendations tend to be stated in terms of abstract or general guidelines, rather than giving concrete instantiations (although the most recently revised draft of the TCPS, 2009, shows at least some improvement in this regard). For example, although a debriefing session is widely regarded as good practice, junior researchers are still left with limited instruction as to what specific details they should provide to their participants and what inquiries they might also put to their participants so as to ensure they have not been adversely affected.

The Windsor Deception Checklist

Rationale and Derivation

Ethical guidelines and aspirational statements for the use of deception in research must eventually be operationalized into concrete terms. We argue that existing guidelines fail to provide an effective mechanism to guide a researcher's professional judgment when it comes to actually using deception in research and interacting with participants in that context (Fisher et al, 2009; Pittenger, 2002). In addition, the absence of clear specifications can result in uncertainty or inconsistency when departmental or university level reviewers are evaluating the acceptability of deception in research (c.f. Ceci et al, 1985).

In the experience of the first author, as chair of a departmental ethics committee, students often stumble through the ethics application process without developing a clear sense of the ethical principles relevant for proposed research that involves deception. As we have seen, Fisher and colleagues (2009) also provide solid empirical support for this observation. Although ethical guidelines do exist, it seems there is no user-friendly checklist in the literature to help ensure that research involving deception is done ethically and comprehensively so. Ideally such a checklist would also cultivate the understanding of junior researchers (or serve as a summary reminder to reviewers) by instantiating the general guidelines already set out by our advisory bodies.

Out of the first author's work in the research review process, we have developed a tool for this purpose and are now using it successfully as a screening instrument for research in our department. The tool presented in appendix A is an elaborated Y/N checklist of ten questions. On one hand, these questions have been formulated top-down by examining and then reflecting the guidelines outlined by APA, CPA, and the Interagency Advisory Panel on Research Ethics. In fact, the most recently revised draft of the Canadian TCPS (Interagency Advisory Panel on Research Ethics, 2009) now outlines additional conditions for conducting research which

involves partial disclosure or deception, and the Windsor Deception Checklist presented in this paper develops concrete points that operationalize those, among other, conditions.

However, on the other hand, the questions have also been developed bottom-up through being informed by, and emphasizing, those points of common error found among the applications of student researchers that we have seen over several years of departmental ethics reviews. Each question is preceded by a statement of the key issue at hand and provides some tutorial-like direction in the process of considering these issues; it then requires the reader to make a (Y/N) judgment on the standing of a given study. The questions move from general to specific issues and are ordered to roughly reflect the temporal sequence of events while one is participating in a given study. This checklist had been developed with pragmatism and brevity in mind, its purpose is to provide a screen (and some education) of major concerns in the context of ethics reviews.

Application and Use

The checklist can be used by both researchers and reviewers in at least three ways. First, the questions are intended to be made available to researchers who are less familiar with the use of deception so it may act as a tutorial and help indicate possible points of concern during the design of a study. Second, reviewers can make use of these questions as a screening instrument to alert them to potential concerns when evaluating the ethical standing of a research proposal. Thus, from a strictly pragmatic perspective, publicizing and including the checklist of questions as part of the ethics review process helps to avoid problems among applications submitted for ethics approval.

Third, the Windsor Deception Checklist serves as a *framework* for communicating about some of the frequently encountered ethical issues related to deception as commonly used in

psychological research. Obviously, the list does not (and cannot) encompass all relevant ethical issues and such frameworks should serve as a supplement to, and never a substitute for, rational ethical reasoning. Even so, aside from its use as a screening tool, the checklist can provide a framework to help reviewers and researchers communicate more clearly. For example, by referring to specific questions in the list reviewers may concretely convey how their perceptions of risk do, or do not, align with what a researcher has indicated in a proposed study. Thus, this new kind of tool can assist the review process by offering a common language as well as modeling a method for documenting and approaching the discussion of issues at hand.

To that end, the use of this checklist and similar frameworks have the potential to improve mutual accountability between researchers and review boards. As Fiske (2009) notes, the mandate of review boards should go beyond prevention, and be balanced with the promotion of research as well as education about research. From this perspective, review boards provide ethical oversight and evaluation of risks, while simultaneously striving to avoid unnecessary impediments to research progress (for perspectives on harm associated with ethics board decision-making, see Hymen, 2006; Ceci & Bruck, 2009). One way that review boards may accomplish this balance is to articulate guidelines for addressing frequently encountered ethical issues. Indeed, the checklist described herein was devised for this very purpose and based on the needs of our review process.

Because concerns surrounding the use of deception were deemed inadequately addressed across numerous research proposals, the first author compiled this checklist to raise awareness so that the quality of future applications would presumably improve. Anecdotally, the quality of applications submitted to our departmental review (Psychology, University of Windsor) did improve once the Windsor Deception Checklist was introduced. As a case in point, a typical

proposed study that intended to use deception as part of its method often referred to a “debriefing” but provided little clarity on the specific details to be discussed, which, at best, left reviewers faced with only an implicit understanding of what the researcher intended to communicate during the debriefing. Similarly, when mood manipulations were being proposed, researchers often did not specify that they planned to inquire about, and facilitate, their participants returning to a neutral state. These two examples are commonly observed instances that were improved through the use of the checklist. For example, following item #7 (Appendix A), researchers could easily detail the essentials for debriefing participants using an established point of reference. Likewise, following item #6 reviewers could also quickly verify that the required precautions were in place following a proposed mood manipulation.

Most of the benefits we observed from requiring the checklist during our departmental review process were preemptive. If a researcher was using deception he or she was required to complete and submit the checklist as part of the application for ethics review. In doing so, the researcher often was reminded to reevaluate and ensure the clear articulation of key issues on the list. Similarly, reviewers on our departmental ethics committee are now able to more systematically and efficiently communicate to researchers about the evaluations; indicating, for example, that ethical concerns are for the most part suitably addressed, but that a single item was not adequately considered.

Empirical Support: End-users’ Evaluation of the Windsor Deception Checklist

A study was conducted to evaluate the perceived usefulness of the Windsor Deception Checklist. Given that this new tool is designed to (a) cultivate researchers’ understanding of the use of deception in research, and (b) to facilitate the ethical review process by instantiating

relevant general guidelines into a set of questions about the intended research, a range of intended end users were recruited to participate in the study.

Method

Participants. Participants were sought from two populations so as to include both researchers and ethics reviewers. First, researchers in psychology, including senior (i.e., 3rd and 4th year) undergraduate, graduate student, and faculty research supervisors (i.e., the “researcher group”) were invited via email to complete an on-line survey designed to evaluate the usefulness of the checklist. Second, members and chairs of Research ethics boards (REBs) from Canadian universities (i.e., “REB group”) were informed of the study indirectly, through their membership to on-line listserv communities related to research ethics (e.g., Canadian Association of Research Ethics Boards, National Council on Ethics in Human Research).

Measures. For the purpose of this study, we developed the “Windsor Deception Checklist Evaluation” survey, which consisted of 18 Likert-scale items designed to aid participants in assessing the Windsor Deception Checklist. The survey asks respondents to rate items appraising the value of the checklist (e.g., “I feel the checklist is likely to help researchers identify points of concern in their study designs”) on a scale of 1 (“strongly disagree”) to 7 (“strongly agree”). The evaluation survey made use of three subscales: usefulness (10 items), ease of use (4 items), and overall satisfaction (3 items). Cronbach’s alpha coefficients from the current study sample indicated high internal consistency and were .95, .80, and .83 for the three subscales, respectively (and .98 overall).

Procedures. Once participants had actively sought out the web-based survey (i.e., connected to it through an on-line link), they were first asked to review a copy of the “Windsor Deception Checklist”. Following their perusal, participants were asked to provide personal

demographic information and complete the deception checklist evaluation. Data collection was the same for all participants and was completely anonymous.

Results

In total, 66 participants actively sought out the web-based survey and downloaded a copy of the Windsor Deception Checklist (90% responding within the first five days of the study's announcement). Of these 66 individuals, 21 participants were excluded prior to analysis because they did not fill out any of the 18 survey questions, resulting in a research sample of N = 45.

Demographic information. Of the 45 participants, 26 were researchers at various levels of education and with no REB experience, while 19 participants described themselves as either members or chairs of an REB, whether at a departmental or university level. The education level of all participants ranged from senior undergraduates (i.e. 3rd and 4th year) to faculty with a PhD. See Table 1 for a breakdown of the sample demographics. While 73% of the sample had submitted an ethics application for review at their institution, 36% similarly reported that they used deception as part of the methodology in their own research. Overall, 29 participants (64%) identified their primary discipline of study as psychology, four worked primarily in the field of research ethics, three in the natural sciences, two in the social sciences, and six in other disciplines (and one did not respond to this query). The distribution of disciplines was comparable for both researcher and REB member sub-groups.

Overall checklist evaluation. Participants consistently indicated that the Windsor Deception Checklist is useful, easy to use, and a satisfactory tool for both enhancing researchers' understanding with respect to the ethical use of deception in research and in facilitating the ethical review process (from the perspective of both researchers and reviewers). The three subscales of the Deception Checklist Evaluation survey were significantly correlated (Usefulness-

Ease of Use, $r = 0.43$; Usefulness-Satisfaction, $r = 0.53$; Ease of Use-Satisfaction, $r = 0.41$; all p 's (two-tailed) $< .01$).

Usefulness. On average, participants reported that they agreed with the usefulness of the instrument (7-point subscale: $M = 5.42$, $SD = .87$); modal responses for items on this subscale ranged from “strongly agree” (7/7) to “agree somewhat” (5/7). Despite relatively high ratings and a strong pattern of internal consistency ($\alpha = .95$, as reported above) an examination of participants' item-by-item responses revealed two outlier items with lower scores.

These two outlying items, (i.e., “I feel the checklist is likely to increase the productivity of researchers proposing a study involving deception” and “I feel the checklist is likely to be a useful tool for training myself”), elicited more varied responses than others on the subscale. Specifically, about one third of participants reported “neutral” (4/7) responses on these items although few, less than one in five, disagreed with them.

Ease of use. Participants reported that they found the Windsor Deception Checklist relatively easy to use ($M = 5.17$, $SD = 1.08$). Examination of participants' item-by-item responses revealed modal responses ranging from “agree” (6/7) to “agree somewhat” (5/7).

Satisfaction. Completed evaluations also indicated an overall satisfaction with the instrument ($M = 5.65$, $SD = .79$). Similarly, modal responses for items on this subscale ranged from “agree” (6/7) to “agree somewhat” (5/7).

Comparison of REB member vs. researcher sub-groups. Further analyses were conducted by separating participants into two groups: participants who have had experience sitting on an ethics review committee, and participants who have not. See the right side of Table 1 for details about each of these sub-groups. Among the 19 participants who reported having experience sitting on an ethics review committee (the REB member group) many had

participated at several levels. At the university level, 18 participants had experience as reviewers, while six participants had served as chairs. Similarly, at the departmental level, a total of 10 participants had served as reviewers, while three had chaired a departmental-level ethics review committee. As indicated, in Table 1, seven members of the REB group described their primary research area as involving the use of deception.

Results comparing REB members with researchers who had no REB experience did not reveal any significant differences on either the Usefulness subscale ($U = 237, Z = -0.25, p = .81$), the Ease of Use subscale ($U = 218, Z = -0.42, p = .68$), or the Satisfaction sub-scale ($U = 195, Z = -0.95, p = .34$). This non-significant finding is despite the observation that REB members held a higher level of education and have more experience with evaluating the ethical standing of research proposals. Item-by-item analyses also failed to produce meaningful differences between groups. However, researchers who did not have experience sitting on an ethics review committee were almost twice as likely to provide “neutral” (4/7) responses to survey items than the group of participants who did have experience sitting on an ethics review committee ($M = 2.04$ versus $M = 1.26$, respectively). Given that no significant differences existed between sub-groups in their overall evaluations, the difference in a “neutral” response pattern seems only to suggest that REB reviewers were more discerning or decided about the tools’ utility as compared to the opinions expressed by non-reviewers.

Finally, a number of both REB members and researchers alike provided written feedback, either confidentially as part of the survey, or by emailing the first author directly. These comments then informed further minor revisions of Windsor Deception Checklist as it is presented in Appendix A.

Discussion

Conclusions

Overall, the evaluation taken from prospective end-users indicates that the Windsor Deception Checklist was viewed as useful and easy to use. Analyses by sub-group suggest that while participants with experience as REB members may be slightly less neutral in their appraisals of the checklist, nevertheless the evaluations provided by REB members are quite consistent with those of researchers. This evidence supports our assertion that the use of this checklist has potential benefits beyond the education of novice researchers. The articulation of benchmark standards in this way will likely improve communication between researchers at all levels of experience and reviewers.

From the perspective of researchers, a checklist like this can aid them when evaluating the role of deception in their proposed work, and facilitate the submission of applications which use concepts and terminology familiar to members of a local review board. Tools like this also help researchers to identify issues which reviewers consider important, and thus they can more clearly communicate risks and the ways by which they are addressing those risks in a research protocol. From the perspective of reviewers, review boards could use a checklist like this as a basis for articulating concerns about deception in an application when an issue is deemed to have been inadequately addressed. Furthermore, when reviewers' perceptions of risk do not align with those of a researcher, the checklist can serve as a mutually shared framework for identifying, discussing, and resolving ethical concerns. Finally, when either a researcher or reviewer identifies an ethical concern regarding deception which is not addressed by the checklist, the list itself may be revised to become more comprehensive.

By providing concrete guidelines, such as in the Windsor Deception Checklist, a research board may convey both the importance of an issue, and the expectation that deception will be

addressed thoroughly and clearly in the applications being submitted. This should result in applications which are more carefully thought out and articulated. In the end, the guidelines can help with producing clear, relevant, and ethically reasoned communiqués back to researchers. Improved applications have the additional benefit of shortening review times.

Future Directions

The checklist presented in this paper could be adapted by ethics review bodies and modified to address local perspectives regarding the use of deception in research. Different checklists might also be developed for use by the same reviewing body to address divergent types of deceptive research. For example, the ethical issues around deception are qualitatively distinct for studies involving the administration of placebos in randomized medical trials.

Alternatively, where concrete guidelines have not been provided, researchers might submit the checklist along with their application to review boards to demonstrate the ethical reasoning they used to identify and address ethical dimensions of their research. Researchers may wish to consider encouraging local review boards to consider adopting this or a similar framework to assist with their review process.

In general, the availability of concrete guidelines or checklists is likely to aid researchers in orienting to the ethical standards for deceptive research at a given institution. Experienced researchers who join an institution can refer to local guidelines when submitting their established research protocols to their “new” review board. Indeed, knowing that well reasoned, publicly articulated standards regarding the use of deception exist may be attractive to established researchers when deciding whether to move their research program to a given institution.

In closing, although an excessive focus on concrete procedural requirements should never be allowed to eclipse a principle-based decision process regarding ethical research designs, the

otherwise lack of concrete specifications has posed problems for research. This difficulty is particularly the case for fledgling researchers (undergraduates and graduates) and for those who are reviewing various levels of research. However, the proposed tool is in keeping with recommendation for the development of good practices in general, and may, as such, provide an example for user-friendly guidelines that are also suitable for advanced researchers as well.

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Table 1. Demographics of sample evaluating the checklist

	Researchers (n = 26)	REB members (n = 19)	Total (N = 45)
Education:			
Senior undergraduates	6	1	7
MA candidates	4	2	6
PhD candidates	9	0	9
Faculty (MA)	0	5	5
Faculty (PhD)	3	11	14
Did not respond	4	0	4
Uses deception in research:			
Uses deception in research:	9	7	16
Did not respond	2	0	2
REB experiences and involvement:			
Departmental reviewer/chair	0	10	10
University level reviewer/chair	0	15	15

Note. The “Research group” (n = 26) only refers to researchers with no REB experience. When participants were active researchers and had experience on an REB they have been assigned to the “REB group.”

Appendix A: Windsor Deception Checklist (WDC)

All of the following items present Yes/No questions. Answering “Yes” to any one of these questions *may* indicate that the particular use of deception raises ethical concerns and the study should be re-examined.

- (1) Researchers must justify their use of a deception procedure. This means they should consider and indicate how the benefits of the deception outweigh the potential costs. *Have all reasonably possible costs and benefits been accounted for in considering whether deception may be justified?*(Y/N)
- (2) If deception is needed for the results of this study, the degree to which research participants are misled should be minimized wherever possible. Again, this has to do with being sure the benefits of the deception outweigh the costs. *Is there any way that this study could be done either without, or with a lesser degree, of deception?* (Y/N)
- (3) Some research paradigms in psychology typically make use of deception and these paradigms are well documented in peer-reviewed literature. If the study makes use of an established or previously used deception-paradigm, the research should:
 - a) Cite research relevant to the procedure, especially research indicating whether there were or were not harmful effects to participants.
 - b) Provide and consider the year of the study on which a procedure is based.
Does this study use a new deception paradigm that is unknown in the literature? (Y/N)
- (4) Given that level of risk is one of the key elements for deciding if a research proposal needs to be reviewed more extensively, there should be some explanation of the risks for a study that

involves deception (including physical, psychological, and all other types of risk). *Are there possible risks that may have been overlooked in the description of this study?* (Y/N)

(5) *Is the deception associated with more than minimal risk?* (Y/N)

(6) Research manipulations intended to affect participants' health puts them in a unique place of vulnerability. It may be acceptable to inform participants that they will be randomized between interventions without disclosing which group they will be in. However, it is not acceptable to actively mislead or deceive participants about issues related to clinical or diagnostic interventions. *Does the deception used in this study involve a therapeutic intervention, or other clinical or diagnostic interventions?* (Y/N)

(7) Sometimes deception is used to maximize participants' emotional involvement in a study or to shift their expectations in some way. If a study does this, then before moving on to a debriefing, it is often good practice to:

- a) Provide a follow-up (corrective) intervention to help participants return to a positive or at least neutral state after data is collected for the study. This "mood neutralizer", for instance, could be in the form of a relaxation exercise or imagining/remembering some positive experience.
- b) After a "mood neutralizer", it is good practice to ask participants to rate their current level of distress or anxiety on a scale of 1 to 10; this is a manipulation check to ensure that participants feel "normal" again before they leave.

As the study is, are there any reasons to believe that, when leaving the study, participants may have lingering bad feelings or high arousal as a result of participating in the study?

(Y/N)

- (8) A debriefing in which the true nature of the study is disclosed to participants and in which they have an opportunity to ask questions is an important part of concluding data collection from human participants. A good debriefing can be done in several ways but it usually involves at least six points:
- a) Engage the participant as a collaborator to discuss the process he/she was involved in.
 - b) Disclose to the participant, in plain everyday language and in sufficient detail, exactly what has happened in the data collection process and the true nature of the study.
 - c) Explain the rationale for using deception in this particular study.
 - d) Provide an opportunity for participants to ask questions of clarification.
 - e) Provide, in writing, resources and/or contacts for participant who may have concerns that have come to bear through the nature of the study.
 - f) Explicitly confirm that the individual continues to consent to being a participant in the research; this, in light of his/her new and full understanding of the study's purpose and procedures.

Are any of the six debriefing points, above, inadequate or left out? (Y/N)

- (9) In general and especially when deception is part of the design, debriefing must take place immediately after data collection is complete. Delaying debriefing as a way of trying to ensure participants do not disclose the nature of a study is unacceptable practice. (Note: Once the rationale for deception has been made clear then researchers may ask participants to not discuss the study with others. Generally, the better participants understand why they were deceived the more likely they are to cooperate and keep the study's true nature confidential).

Is there any delay between a participant's involvement and the delivery of debriefing? (Y/N)

- (10) Ultimately, research participants have volunteered to participate in whatever the study entails. In doing so they entrust themselves to the researcher and the institution that is hosting the research. As part of the effort to protect participants' dignity, it is important to ensure that they do not feel embarrassed or betrayed as a result of research procedures. *When the study and debriefing is complete, is there a reasonable possibility that participants may still perceive the deception as having been a betrayal of trust, somehow unfair, and/or leave them feeling denigrated in any way? (Y/N)*