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Ethical Decision Making and Research  
Deception in the Behavioral Sciences:  
An Application of Social Contract  
Theory

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Ethical Decision Making and Research Deception in the Behavioral Sciences:  
An Application of Social Contract Theory

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**Abstract**

Despite significant ethical advances in recent years, including professional developments in ethical review and codification, research deception continues to be a pervasive practice and contentious focus of debate in the behavioral sciences. Given the disciplines' generally-stated ethical standards regarding the use of deceptive procedures, researchers have little practical guidance as to their ethical acceptability in specific research contexts. We use social contract theory to identify the conditions under which deception may or may not be morally permissible, and formulate practical recommendations to guide researchers on the ethical employment of deception in behavioral science research.

Keywords: Deception in Research; Ethical Decision Making; Social Contract Theory

Ethical Decision Making and Research Deception in the Behavioral Sciences:

An Application of Social Contract Theory

Decisions about research and associated methodologies are inextricably bound to ethical considerations, a fact that has grown out of an extended process of self-reflection within the behavioral science disciplines. In little more than a quarter century, a mere heartbeat in the history of modern science, the ethical pendulum has swung from one extreme to the other for investigators of human behavior. More than ever, the ethical dimension presents a broad set of challenges for researchers already beset by the methodological constraints inherent in the study of sentient human beings. Although increasing protections are now offered to research participants, recent developments in ethical regulation have complicated the conduct of research. Confronted by a growing array of ethical guidelines and governmental regulations, investigators are compelled to weigh methodological and ethical requirements in order to choose whether and how to pursue particular research questions. The practical difficulties imposed by attempts to cope with these two sets of demands often are linked to the recognition that the most methodologically sound study is not necessarily the most ethical one.

The link between methodology and ethics is perhaps no clearer than in the case of deception for research purposes, which, of all the ethical issues that have aroused debate within the behavioral sciences, arguably has proven to be the most contentious. Once used as a matter of course in human participant research, deceptive procedures are now subject to rigorous scrutiny both within and outside the discipline: their use must be justified by the methodological objectives of the research investigation; their potential for harm must be determined and addressed; and their application generally must conform to professional guidelines, legal strictures, and review board oversight.

Apart from the more practical considerations related to the application of deceptive procedures, questions about the ethical acceptability of deception from the perspective of moral philosophy have been seriously neglected. As an intentional effort to mislead, the moral justifiability of deception is a question of critical importance because deceit is a way of making people act against their will and the most common reason for mistrust (Bok, 1978; 1992). Researchers often disguise their investigations to minimize demand characteristics and hypothesis guessing and yet can find themselves in the position of having to lie to their participants or to omit pertinent information as a necessary condition of fulfilling research objectives.

In this paper, we argue that deception in research is morally permissible to the extent that it is consistent with certain principles, a position akin to how lying is treated in everyday life. White lies are considered permissible because they are harmless, if not beneficial; lies to avoid greater harms are also often considered permissible. Nonetheless, it is important for persons telling the lies to be able to justify their actions in these situations to themselves and possibly others, not least because lying generally is considered wrong under all major religions and philosophical traditions. Researchers likewise need to reflect on their use of deception and to be able to justify it if it is used, perhaps even more so because they are using it in their professional capacity. This paper is intended to go beyond extant ethical strictures and guidelines in an attempt to offer insight into the conditions under which deceptive procedures can and cannot be ethically employed. We begin by considering the nature and kinds of deceptive procedures and typical arguments for and against their use. Following an assessment of extant policies and standards, we apply social contract theory to propose moral philosophy-based decision-making guidelines for deception in research.

## Deception in Perspective

For scientific disciplines oriented towards benevolent objectives associated with an understanding of behavior and social and mental processes, the language of behavioral science methodology is replete with terms bearing pejorative connotations. Words such as “deception,” “control,” “manipulation,” “confederate,” “coercion,” and the like have become so much part and parcel of the research process that it is easy to forget their original meanings outside the research context. With regard to deception, the everyday meaning of the term—the intentional effort to mislead people—carries over to the research context, where the nature of the deception that is employed may take different forms to satisfy research objectives. Research deception largely emerged within social psychology as a practical solution to the experimenter-participant artifact problem—the recognition that participants come to the research setting not as passive automatons who respond mechanistically to the manipulations to which they are subjected, but as conscious, active problem solvers who often attempt to guess the investigator’s hypotheses in order to do what they think is expected of them. Although readily embraced by investigators as a remedy for such methodological concerns, deception ultimately became a focal point for discussions of the ethical treatment of research participants, in no small part because of the debate stimulated by controversial deception studies, such as the Milgram obedience studies and Stanford prison experiment in psychology, the “tearoom trade” research in sociology, and the Tuskegee syphilis study in biomedicine (see Benjamin & Simpson, 2009; Bok, 1978; Diener & Crandall, 1978; Kelman, 1967; Kimmel, 2007).

Concerns about research deception arguably have been most fully articulated and empirically investigated within the discipline of psychology. Rarely implemented during the development period of the discipline, the use of deception increased significantly as subsequent generations of psychologists became more thoroughly committed to the laboratory experiment. By the mid-1970s, the practice of deceiving research participants in social psychology studies

had become commonplace, with estimates ranging from around 20% of published studies in 1960 to nearly 70% in 1975 (e.g., Adair, Dushenko, & Lindsay, 1985). Despite an apparent gradual decline in the employment of deceptive research procedures in recent years, evidence points to its continued use within a significant number of studies of human behavior (Kimmel, 2001, 2004; Nicks, Korn, & Mainieri, 1997; Vitelli, 1988). For example, a modest increase to 40% in studies utilizing active deception (see ‘Types and Severity of Research Deceptions’ below) was noted during the 2001-2002 period in two leading social psychology journals (Kimmel, 2004). The incidence of studies employing passive deceptions was more variable over the periods studied, consistently falling within the 30% to 35% range. These results indicate that although psychologists are using deceptive practices less than in earlier periods, deception still is a rather common practice, at least in some areas of psychological research.

Recent evidence suggests that the prevalence of deception is increasing in applied areas of behavioral research that have evolved out of the root discipline of psychology, such as consumer research (Kimmel, 2001, 2004; Smith, Kimmel, & Klein, 2009). A content analysis of leading marketing and consumer behavior research journals published from 1975 to 2007 revealed a steady increase in rates of reported deception from 43% to 80% for the coded investigations (Kimmel, 2001, 2004; Smith et al., 2009). Although a majority of the coded studies employed mild forms of deception (e.g., 70% during the 2006-07 period), deceptions that posed greater risks to participants (i.e., “severe deceptions”) were observed in a further 11% of the coded investigations.

In addition to these trends, developments in the behavioral science disciplines—including attention to new substantive domains and issues, such as preventive intervention research and health-related issues, and new contexts, such as the developing world—also point to an increasing likelihood that deceptions may cause inadvertent harm. Greater use of qualitative methodologies has brought researchers closer to their participants in terms of

physical proximity and intimacy, increasing the salience of ethical considerations linked to deception (Sojka & Spangenberg, 1994). Adding to these concerns, there is growing evidence that when deception is used by researchers, remedial measures are often ineffective or non-existent (Brody, Gluck, & Aragon, 2000; Kimmel, 2001, 2004; Toy, Wright, & Olson, 2001), and many researchers and ethical review board members appear to be ill-trained to deal with ethical dilemmas pertaining to deception (Kessler, 2002).

### Types and Severity of Research Deceptions

Researchers have utilized different kinds of research deceptions within both laboratory and field settings for varying purposes. In laboratory studies, participants are aware that they are involved in a study, whereas participants in field studies may or may not be aware of that fact. In either setting, deception may be of the active or passive sort. “Active deception” is deception by commission, as when a researcher blatantly misleads the participant about some aspect of the investigation (e.g., misrepresentation of the research purpose; untrue statements about the researcher's identity; use of research assistants or “confederates” who act out predetermined roles; false promises, including violation of the promise of anonymity or delivery of research incentives; incorrect information about research procedures and instructions; false explanations of scientific equipment and other measurement instruments, including “paper-and-pencil” tests; misleading settings or specified duration of the investigation).

“Passive deception” is deception by omission, as when the researcher purposely withholds relevant information from the participant (e.g., concealed observation; provocation and secret recording of negatively evaluated behavior; unrecognized participant observation; use of projective techniques and other personality tests not identified as such; unrecognized conditioning of behavior). The provision of a false purpose or cover story and making false statements about the procedure or study materials represent the most prevalent forms of active

deception utilized by investigators; withholding information about the purpose of the research or aspects of the procedure represents the most common form of passive deception (Gross & Fleming, 1982; Kimmel, 2001, 2004; Smith et al., 2009).

Deceptions differ according to the degree of severity of their potential negative effects, a crucial consideration that must enter into decisions about whether or not to proceed with a study as planned (Lawson, 2001). “Severe deceptions” are those that create false beliefs about central, important issues related to participants’ self-concept or personal behavior, as when an experimental manipulation leads participants to believe they lack self-confidence. “Mild deceptions” are those that create false beliefs about relatively unimportant issues peripheral to participants’ self-concept, such as misleading them about the research sponsor or study purpose (Toy, Olson, & Wright, 1989). For example, mild deceptions are commonly used in studies measuring reaction time and memory, where participants are not forewarned that they will be faced with a recall test after exposure to stimuli or that their reaction time is being measured. Severe deceptions can be expected to create negative affect both during and after actual participation in the research (e.g., upset or anxiety linked to a reduced self-image), whereas mild deceptions are unlikely to create negative beliefs and affect until the debriefing session at the end of the study (e.g., disappointment that the study was not really supported by an alleged sponsor).

The fact that psychologists are more likely to employ severe deceptions that are relevant to the fundamental beliefs and values of research participants than are investigators in related fields, such as marketing and organizational research (Kimmel, 2004; Smith et al., 2009), to some extent explains why deception has long been such a central issue in psychology. There are many examples of deeply troubling, well-documented deception studies in the behavioral sciences that exposed respondents to substantial risks of harm, notwithstanding the use of remedial measures to mitigate the deception, such as debriefing

(e.g., Campbell, Sanderson, & Laverty, 1964; White, 1979). The nature and degree of deceptions used today mostly pale in comparison to those employed by researchers during earlier decades (Rosnow & Rosenthal, 2011), which no doubt is reflective of increased sensitivities to the dignity and welfare of participants and expanded regulatory oversight. Studies involving severe deceptions certainly are more difficult to justify when ethical principles are applied and are more likely to encounter problems when subjected to committee review, although mild deceptions also can be morally problematic. In fact, from some moral philosophy perspectives (e.g., certain duty-based theories), deception can be morally wrong even where the consequences are insignificant (Kimmel & Smith, 2001).

Deception in the research context may or may not be intentional (Baumrind, 1985; Keith-Spiegel & Koocher, 1985). “Non-intentional deception,” which cannot be entirely avoided, includes absence of full disclosure, failure to inform, and misunderstanding. “Intentional deception,” on the other hand, includes the withholding of information to obtain participation, concealment and staged manipulations in field settings, and deceptive instructions and confederate manipulations in laboratory research. Absence of full disclosure does not constitute intentional deception, so long as participants agree to the postponement of full disclosure of the research purpose. But when the investigator's purpose is “to take the person unaware by trickery” or to “cause the person to believe the false” for whatever reason, the study invariably involves intentional deception (Baumrind, 1985, p. 165).

The notion of non-intentional deception suggests that while full disclosure of all information that may affect an individual's willingness to participate in a study is a worthy ideal, it is not a realistic possibility. Even the investigator with a sincere desire to disclose all relevant aspects of a study's purpose and procedure to participants nonetheless may fail to reveal certain information. In part, this may be a function of the researcher taking for granted that participants have a basic level of knowledge about scientific procedures, testing

materials, and the research equipment or apparatus used. In other cases, information provided to participants, such as that involving complex experimental research procedures, may not be fully understood, and researchers themselves may lack an accurate understanding of participant preferences, reactions, and participation motives. Further, certain participant groups (e.g., young children and the mentally impaired) have cognitive limitations that seriously limit the extent to which fully informed consent can be obtained.

When considering potential dilemmas involving the use of deceptive research practices it is important to recognize that the effects of deception may benefit recipients or others (e.g., self-insight, increased understanding of science, scientific advancement and progress) or harm recipients (e.g., mental anguish, loss of trust, increased suspiciousness), short- or long-term, and immediate or delayed. Although deception is most readily thought of as a practice that is employed during the data collection stage, in fact it may be used at each stage of the research process (see Table 1).

(Insert Table 1 about here)

Because it is unlikely that researchers can convey everything about a study to participants, it may be that all behavioral research is opaque, if not disguised, in one respect or another and that the range of ethical questions related to the use of deception must be thought of as falling on a continuum. At least in terms of a consequentialist ethical analysis (see “Decision Making and the Morality of Deception” below), the style of the deception is not so much the issue as the researcher’s intent and the probable effects. The justification for using deception in research is of paramount importance because of its potential to move participants to act against their will (Bok, 1992; Darke & Ritchie, 2007).

#### Arguments For and Against the Use of Deception

Among the arguments most commonly put forth to justify deceptive research procedures (e.g., Bonetti, 1998; Bortolotti & Mamelì, 2006; Kimmel, 1988, 1998; Pittenger,

2002) are those that focus on the theoretical or social advances gained from the research findings, and the avoidance of misleading findings that might have resulted from the study had participants not been deceived (i.e., the deceptive procedure provided the necessary “technical illusions” for studying the variables of interest). Overall, five key arguments in defense of research deception have been posited:

(1) Deception enables the researcher to increase the impact of a laboratory setting, such that the experimental situation becomes more realistic, thereby enhancing the study’s internal validity.

(2) Deception can reduce the effects of participants’ motives and role-playing behavior in the experimental situation.

(3) Certain significant areas of human life or psychological constructs cannot be experimentally studied in an otherwise ethical manner; that is, deception can create a reasonable facsimile of the topic of interest without placing individuals in compromising or dangerous real-life situations for achieving research objectives.

(4) Potential negative effects resulting from deception (e.g., threats to self-esteem, guilt, embarrassment) can be reduced through intensive pre-screening of participants or removed through careful post-experimental procedures, such as debriefing.

(5) Participation in deceptive research can provide an involving learning experience for participants by providing insight into their own or others’ behavior, as well as the research process.

By contrast, critics of deception have decried its use on moral, methodological, and disciplinary grounds, which are summarized by the following points:

(1) Regardless of the anticipated research consequences, it is morally wrong to mislead research participants because deception violates the individual’s basic right to

informed consent, undermines the trust inherent in the implicit contractual relationship between the researcher and participant, and is inconsistent with the moral duty to be truthful.

(2) Deceptive procedures could harm research participants by lowering their self-esteem (via embarrassment or “inflicted insight”—i.e., undesirable self-revelations) and impairing their relationships with others, or by serving as a model for deceptive behavior in participants’ subsequent actions.

(3) Deception places participants in a subservient, powerless role in the research context and ultimately may help shape a negative attitude towards research participation.

(4) The use of deception may prove to be self-defeating to the extent that its use increases the suspicions of future research participants about investigators and the research process, thereby exhausting the pool of naïve participants.

(5) Deceptive techniques reduce the public’s trust in social scientists and give the research professions a poor reputation, thereby jeopardizing community and financial support for the research enterprise and public trust in expert authorities.

In general, the findings of studies that have examined the key issues associated with the use of deception are anything but clear-cut. Overall, the body of research points to the efficacy of deception in offsetting some of the undesirable methodological consequences associated with non-deceptive research, whereas other evidence suggests that under some circumstances deception actually may exacerbate methodological problems (Kimmel, 2006).

Clearly, there are compelling arguments both for and against the use of deception in behavioral science research. Some critics are opposed to any use of deception (e.g., Ortmann & Hertwig, 1997), whereas others favor a more restricted use and express concern that the extant standards for deception are to be applied within a cost-benefit framework that permits the researcher to consider whether the benefits of the research outweigh possible harm to participants (e.g., Broder, 1998; Kimmel, 1998, 2003; Korn, 1998). Although the argument

can be made that deception in research—whether by omission or commission—is never morally justifiable, it generally is understood that the application of such a position would preclude research on certain essential topics, such as placebo effects or social attitudes, and thus would provide a significant barrier to scientific advance. The recognition that deception may have beneficial or harmful consequences for participants, society, and the scientific discipline (see Table 2) has moved much of the ethical debate away from the question of whether deception should be allowed at all to a focus on the circumstances under which its use could be considered ethically acceptable (Kimmel, 2003, 2006; Smith et al., 2009). Such a shift may signal a movement away from an absolutist moral perspective on deception to one that is more attendant to the consequences of deception.

(Insert Table 2 about here)

#### Treatment of Deception by IRBs and Ethical Codes

Consistent with the increase in sensitivities regarding the rights of research participants and the corresponding obligations of researchers, there have been significant advances in the establishment of boundaries of acceptable research conduct. Within the contemporary research context, justification for deception is guided by ethical standards, governmental regulations, and external review.

#### Deception and Institutional Review

The impact of governmental regulation on the use of deception in human research has been substantial, particularly within the US. Prior to the establishment of federal regulations, few university departments of medicine (Curran, 1969; Welt, 1961) and probably no departments of social and behavioral science (Reynolds, 1982) required any type of committee review. Today, ethical review boards are commonplace in most research-oriented institutions, and now extend beyond psychology, sociology and anthropology to social science fields less typically associated with committee approval, such as history (Shea, 2000).

Although unfunded studies no longer require institutional review according to current US federal regulations, most universities, hospitals, and other research settings likely require some form of review for the approval and monitoring of all human research conducted at those institutions (e.g., Cohen, 2007; Rosnow et al., 1993; Rutecki, Youtsey, & Adelson, 2002).

In the US, federal safeguards concerning the rights and welfare of human participants in research have been in place as part of US Public Health Service (PHS) policy since 1966, although the initial focus was limited to clinical research in the medical fields (McCarthy, 1981; Seiler & Murtha, 1980). Significant progress towards the development of guidelines for behavioral research came about with the signing into law of the 1974 National Research Act, creating the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and initial requirements for the ethical review of human research by institutional review boards (IRBs). Following several revisions, the formal regulations for human research were published by the Department of Health and Human Services (DHHS) in the January 26, 1981 issue of the Federal Register. Most noteworthy among the regulations were details concerning proper IRB review for the approval of DHHS-funded research projects, including the exemption of broad categories of research that posed little or no risk of harm.

For the approval of research covered by the federal regulations, an IRB at the institution where the research has been proposed must determine whether risks to participants are minimized by sound research procedures and are outweighed sufficiently by anticipated benefits to the participants and the importance of the knowledge to be gained; the rights and welfare of subjects are adequately protected; the research will be periodically reviewed; and informed consent has been obtained, which includes: (a) describing the overall purpose of the research; (b) telling participants their role in the study and why they have been chosen; (c)

explaining the procedures; (d) clearly stating the risks and discomforts; (e) describing the benefits of the research to participants; and (f) offering to answer any questions and stating that the participant may withdraw at any time without negative consequences. Although not rejecting the use of deception outright, the criteria for informed consent require researchers to justify the use of deception to review boards, unless the investigation constitutes a minimal risk study (i.e., research that is unlikely to create distress or harm and for which informed consent procedures are methodologically undesirable or unnecessary).

As behavioral scientists have become more vocal about the need for American researchers to broaden their investigative focus to the 95% of the world's population who are not Americans (e.g., Arnett, 2008; Cole, 2006; Sue, 1999), it is likely that an increasing number of studies by American researchers (as well as others) will be carried out in other country contexts where varying regulations concerning the use of deception apply. In fact, ethical review boards are a common feature of human research regulation in numerous countries around the world. For example, all members of the European Union adhere to a 2001 European Commission directive (Data Protection Directive 95/46/EC) requiring research ethics committees for research, although the extent of application of and adherence to the directive varies across countries. A survey of review procedures in European member states is available at <http://www.privireal.group.shef.ac.uk>. For an overview of research review regulations in other countries, see Kimmel (2007), Leach and Harbin (1997), and Seligman and Sorrentino (2002).

Despite the growing prevalence of institutional review, various limitations to this form of ethical regulation have been noted, particularly in terms of what constitutes acceptable use of research deception. Typically, review committees offer little specific guidance on deception a priori (feedback on rejected research protocols may generally refer to problematic use of deception or insufficient informed consent) and researchers depend on the preferences

of the individual IRB members who possess varying personal norms and sensitivities for assessing costs and benefits (Kimmel, 1991; Rosnow, 1997; Rosnow & Rosenthal, 2011). IRBs can maintain inconsistent standards across time and institutions, such that a proposal that is approved without modification in one institution may require substantial changes, or else be rejected, by a review board at another institution (e.g., Ceci, Peters, & Plotkin, 1985; Rosnow et al., 1993). Further, there are limits on information that can be requested of citizens in varying research contexts. Thus, researchers often will be guided primarily by departmental norms (including those of other departments where they have worked or trained). Although codes of the relevant professional associations often refer to an important role for IRBs, typically it would be necessary to make recourse to the codes themselves to obtain a priori guidance on the use of deception (Smith et al., 2009).

#### Professional Codification and Research Deception

As a model code of conduct for researchers, the current ethical standards of the American Psychological Association (APA, 2002; amended, 2010) are the result of a more than 50-year history of development and revision, including substantial strengthening of the research guidelines in the wake of debate about the use of deception in controversial studies (cf. Kelman, 1967). The research guidelines emphasize voluntary participation and informed consent as fundamental prerequisites for research with human participants, ethical requirements that date back to the 1947 Nuremberg Code, a general set of standards formulated to prevent atrocities like those perpetrated by Nazi researchers, and the forerunner to all subsequent guidelines governing experimentation with human participants (Schuler, 1982). In the current version of the APA (2002, 2010) code, Ethical Standard 8.07, Deception in Research, dictates that deception should be used only if (a) effective, non-deceptive alternative procedures are not feasible; (b) the research is not likely to cause physical pain or severe emotional distress; (c) deceptions that are integral features of the study's design are

explained to participants as early as possible during a debriefing; and (d) a study's results are likely to be sufficiently important (because of "the study's significant prospective scientific, educational, or applied value"). Standard 8.01, Institutional Approval, acknowledges that investigators may be required to obtain institutional approval through their IRB prior to conducting research.

Standard 8.07 is built upon an ethical dilemma, one that brings into conflict two of the profession's core values, the value of advancing the science of psychology through research (as explicated in APA's [2009] Vision Statement and Principle B in the Ethics Code, the latter of which emphasizes psychologists' "scientific responsibilities to society") and the promotion of truthfulness (as spelled out in the Ethics Code's Principle C, Integrity, which maintains that "Psychologists seek to promote accuracy, honesty, and truthfulness in the science . . . of psychology") (Behnke, 2009). Although the standard incorporates a cost-benefit approach for resolving this dilemma, it does not clarify how it can be determined that the results of a study are "sufficiently important" to adequately justify the use of deception. In fact, the various criteria put forth for the use of deception in the Ethics Code have fueled extensive debate regarding interpretation of the principles and their implementation (Kimmel, 2007; Schuler, 1982) and, despite obtaining feedback from researchers prior to the adoption of new versions of the code—the current version was subject to a five-year revision process entailing seven revision drafts and feedback from APA members (Behnke, 2009)—APA members never reached consensus as to the specific wording of the standards for research or how to apply them.

Despite its various limitations, the APA guidelines have served as a model for other professional associations, including the Australian Psychological Society, the Canadian Psychological Association, and the British Psychological Society (cf. Leach & Harbin, 1997; Kimmel, 2007). The criteria for the use of deception in research in the current code of the

American Sociological Association (ASA, 1999) are nearly identical to those of the APA (2002). The ASA utilizes the same cost-benefit approach, although it does allow a broader interpretation of harm and requires IRB (or equivalent) approval. Because sociologists commonly use non-experimental methodologies, such as naturalistic observation, the code acknowledges that informed consent may not always be possible or appropriate and suggests that it should not be an absolute requirement for all sociological research. Like psychology, the field has abundant examples of controversial deception studies (Allen, 1997; Reynolds, 1982).

The ASA code has been criticized on several grounds, including concerns about the lack of specifics regarding interpretation and application of its principles to research situations, as well as its focus on requirements that are not firmly grounded in moral principles (Mitchell, 1990). Similar concerns also apply to the American Anthropological Association's (AAA, 1998) ethics code, which also lacks recommendations that can be readily applied by a researcher who needs to resolve a specific research dilemma. However, the AAA code does refer to anthropologists' primary ethical obligations to those whom they study, and maintains that these obligations can supersede the goal of seeking new knowledge and can lead to a decision not to undertake an investigation.

In contrast to psychology, researchers in economics have taken a more straightforward approach to deception. Experimental economists have adopted a de facto prohibition of the use of deception in research, based largely on concerns that deception contaminates subject pools and fails to guarantee that participants will really believe what they have been told about the research environment, and as a means to establish a more trusting relationship between researcher and participant (Bonetti, 1998). Despite considerable debate, supporters of the policy have argued that the preponderance of economics research can be conducted without deception, through the development of alternative procedures and guarantees of participant

anonymity (e.g., Bardsley, 2000). However, it seems doubtful that forbidding deception would meet with similar success in fields such as psychology and sociology, where the range of research questions is broader and more likely to arouse self-relevant concerns and participant role playing.

In sum, the extant professional codes ultimately are ambivalent about the use of deception. The codes do not provide any sort of equation or formula for arriving at a decision regarding whether or not deception should or should not be used in an investigation. Critics have long argued that the cost–benefit approach and the qualified nature of the principles would simply make it easier for researchers to justify ethically questionable methods in light of worthwhile research goals (e.g., Baumrind, 1975, 1985; Bok, 1978, 1992). In this view, the personal rights of subjects are seen as violable at the researcher's discretion. The emergence of various alternatives to research deception such as role playing and quasi-controls (see Table 3) notwithstanding, behavioral scientists have yet to reach a consensus—and there is no reason to expect that they ever could—as to how to most effectively balance ethical and methodological demands regarding the issue of deception.

(Table 3 about here)

Despite the importance of codifying shared aspirations, existing codes lack specifics that would assist the researcher in decisions about whether it is appropriate, for example, to withhold certain information about a study, to provide inaccurate details about the nature of an investigation, or to mislead about particular elements of an experimental procedure. The codes suggest that the researcher ask whether such actions are justified by the value of the research, but how are such judgments to be made?

#### Decision Making and the Morality of Deception

Morality is a key element of human behavior, yet behavioral scientists often give it short shrift, not least in relation to how they conduct their own research activities. Decision

making regarding the propriety of using deception in a research investigation usually comes down to the weighing of potential costs and benefits, with the decision to proceed contingent upon a preponderance of likely beneficial consequences, assuming no alternative approaches could be utilized to satisfy research objectives. Although not formally grounded in theories of moral philosophy, this cost-benefit approach is consistent with consequentialist (e.g., utilitarian) theories, which hold that the morally right action would be the one that produces at least as good a ratio of good to bad consequences (e.g., in terms of welfare or utility) as any other course of action, including not carrying out the action at all (Pittenger, 2002). The cost-benefit approach derived from consequentialist theories is incorporated within the procedures utilized by most ethics review committees and provides a framework for the standards and guidelines that appear in most human participant ethical codes worldwide (Kimmel, 2007).

Nonconsequentialist (e.g., deontological) theories maintain that the ethical evaluation of an action would generally reflect an assessment of its consistency with binding moral rules or duties—such as to always tell the truth—and consequences are not of primary importance. Such an approach generally would preclude the use of any deception in research, because to deceive would violate an overriding obligation to always be completely honest with participants (Kimmel & Smith, 2001). The utilitarian approach, which underlies the weighing of costs and benefits in determining whether deception may be acceptable, is problematic in application because of the practical difficulties in identifying the likelihood and degree of all the potential consequences of an investigation and in objectively weighing them in order to determine whether the study can be carried out as planned.

As consumer behavior researchers, the authors have long been attentive to ethical developments within psychology research as well as within applied areas of business and management. Recommendations regarding the ethical application of deceptive methodologies have been suggested by researchers from those latter fields in an effort to

provide practical guidance for business research decision-making, although they ultimately come up short, in part because of a lack of any clear grounding in moral philosophy. For example, one simplistic guide offered by the Institute of Business Ethics (2005), suggests that the researcher first conduct three simple tests for a personal ethical decision, relating respectively to transparency (“Do I mind others knowing what I have decided?”), effect (“Who does my decision affect or hurt?”), and fairness (“Would my decision be considered fair by those affected?”). Along similar lines, Laczniak (1983) proposed a practical model for ethical decision making in marketing research based on eight questions or tests (substituting “deception” for the model’s “action A”): (1) Does deception violate the law?; (2) Does deception violate any general moral obligations: duties of fidelity?, duties of gratitude?, duties of justice?, duties of beneficence?, duties of self-improvement?, duties of nonmaleficence?; (3) Does deception violate any special obligations stemming from the type of marketing organization in question?; (4) Is the intent of deception evil?; (5) Are any major evils likely to result from or because of deception?; (6) Is a satisfactory alternative, which produces equal or more good with less evil than deception, knowingly rejected?; (7) Does deception infringe on the inalienable rights of the consumer?; and (8) Does deception leave another person or group less well off? Is this person or group already relatively underprivileged? These questions can be posed in an order dependent upon the situation, and a negative response to any one question would be grounds to conclude that the application of the action (i.e., research deception) would not be ethical. However, without further specification as to the criteria that should be utilized for conducting these tests in an objective and systematic manner, and how a determination should be reached about the ultimate decision taken, these test-based approaches are likely to arouse ethical sensitivities but ultimately prove inefficient for actual decision making regarding the use of research

deception. (See Rosnow & Rosenthal, 2011 for a similar approach to ethical decision making within the realm of data analysis.)

Similar limitations are evident in Cavanagh, Moberg, and Velasquez's (1981, 1995) approach, which draws on normative ethical theory to derive their URJC model for ethical decision making in business contexts. Although all ethical theories incorporate in one form or another normative principles to assess or justify actions and behavior, a normative ethical theory is clearly prescriptive in nature, specifying guidelines or norms that clarify how things ought to be or how people ought to behave (e.g., people ought to be honest). Cavanagh et al.'s URJC model synthesizes four categories of ethical obligation: (1) an obligation to promote *utility* (Does the act optimize the utility or satisfaction of all relevant constituencies?); (2) the obligation to respect *rights and duties* (Does the act respect the rights and duties of the individuals involved?); (3) the obligation to act *justly* (Is the act consistent with norms or canons of justice?); and (4) the obligation to act in a *caring* manner (Does the act arise from an impulse to care?). Within these general criteria, Cavanagh et al. identified two utilitarian norms (the avoidance of acts that represent inefficient means to ends and the avoidance of acts that give preference to narrow interests to the detriment of the greater good), various rights (e.g., the right of free consent, the right of privacy, the right of due process), specific norms of justice (e.g., individuals who are similar to one another in terms of relevant qualities should be treated similarly, whereas individuals who differ in relevant ways should be treated differently in proportion to those differences), and elements of caring interpersonal relations (e.g., trust, good personal relationships, clear communication). Practical ethical decision making based on these obligations follows the flow diagram depicted in Figure 1.

(Figure 1 about here)

With their emphasis on relevant normative obligations, we believe that the aforementioned business models represent a significant adjunct to the utilitarian principles of

extant behavioral science ethics codes and provide a good starting point for the development of practical, morally-based principles for research deception. Nonetheless, we believe that when it comes to actual research dilemmas in which investigators are torn between methodological and ethical demands, these approaches are lacking in terms of providing specific guidance regarding proper actions vis-à-vis the employment of deception. In our view, social contract theory better serves to identify the conditions under which deception in research may or may not be morally justifiable, and enables the derivation of specific guidelines governing its use.

#### Social Contract Theory: An Overview

Social contract theory originated in 17<sup>th</sup>-century Europe as a basis for evaluating the legitimate exercise of political power and subsequently developed into a more general ethical theory. Moral contractarianism became more prominent within philosophy in the late twentieth century (Sayre-McCord, 2000). This was due largely to the perceived shortcomings of competing ethical theories, such as utilitarianism, and for similar reasons it has also become increasingly evident in applied ethics fields such as business ethics (Donaldson & Dunfee, 1999; Dunfee et al., 1999; Wempe, 2005).

Thomas Hobbes (1588-1679), whose Leviathan (1651) provided a justification for sovereign authority, was one of the earliest proponents of social contract theory. He argued that to avoid a “state of nature” where life is “solitary, poor, nasty, brutish, and short”, people would reach an agreement and consent to sovereign authority (Solomon, 1984, pp. 161-162). This is illustrative of the classical contractarian approach whereby undesirable pre-agreement conditions provide the impetus for an actual or hypothetical agreement among those affected and their consent to the social contract that creates a more optimal situation (Becker, 1992). It is this assumption of consent to the terms of the contract that give it normative authority.

Kantian contractarianism reflects Immanuel Kant’s (1724-1804) insistence that acting from moral duty is at the core of the human condition, with the social contract approach used to identify what such a morality might consist of (Sayre-McCord, 2000). John Rawls (1971)

is the prime exponent of Kantian contractarianism. His ‘original position’ is the pre-agreement condition equivalent to Hobbes’ state of nature. A key feature of Rawls’ original position is the “veil of ignorance,” according to which he asks what principles governing behavior we might agree on were we to be ignorant of our individual circumstances and how we might benefit or suffer as a result of the principles specified. The impartiality required by this approach gives the agreed principles moral legitimacy. Further, this approach does not require the difficult forecasting and interpersonal comparisons of utility required by a cost-benefit analysis, with all the effort and potential for bias that might entail.

The mutual agreement of the contractarian approach means that morality’s demands can claim the allegiance of all and, by governing oneself through principles others could endorse, there is equal concern and respect for the self and others. As a result, there is less likelihood of unfair distributions of utilities or moral judgments inconsistent with commonsense morality. Thus, Kantian contractarianism addresses many of the perceived failings of other major normative theories of ethics (Sayre-McCord, 2000). In contemporary moral contractarianism, reliance generally is placed on hypothetical consent—what people might rationally be assumed to consent to under given circumstances. This shifts the basis for claiming normative authority to the reasons advanced for giving consent, rather than consent *per se*, which arguably is preferable to the possible coercion or fallible reasons that might underlie actual consent (Rawls, 1971).

In sum, social contract theory is based on the idea that the authority of moral principles can come from the agreement of those affected. Thus, as a normative theory of ethics, contractarianism goes beyond the normative strictures that comprise other ethical approaches (e.g., the URJC model) by claiming that binding moral obligations can be identified through the agreement (hypothetical or actual) and consent of moral agents. Applied to research, this suggests that normative justification for deceptive practices could

rest on an agreement between researchers, research participants, and other affected parties, within a social contract for behavioral research.

#### A Normative Social Contract for Deception in Behavioral Research

Despite other references to social contracts in behavioral science research (e.g., Jourard, 1967; Lawson, 1995; Rosnow, 1997), only Schuler (1982) and Smith et al. (2009) appear to have developed the idea to any great extent. However, Schuler's purpose in identifying a social contract was primarily descriptive, and his largely implicit (utilitarian) criterion for evaluating the ethics of a study was whether there is a balanced exchange of costs and benefits among researchers and participants. Smith et al. (2009) developed a detailed normative analysis on which we build, but limited their examination of the implications of social contract theory to the use of deception in consumer research. To date, an application of social contract theory to the important and unique ethical issues faced in other behavioral science areas is lacking. In the remainder of this paper, we advance a normative social contract that identifies conditions under which deception in behavioral science research is or is not morally permissible.

Consistent with the classic contractarian approach, our starting point in applying social contract theory to deception in research is to conceive of a pre-agreement condition that would provide sufficient impetus for researchers and their participants to seek agreement on how research might be conducted. The terms of this hypothetical agreement ("contract") must be demonstrably acceptable to the affected parties. This is at the core of contractarianism, for it is on this basis that we might presume consent and thus the normative authority of the moral principles identified (Sayre-McCord, 2000). We believe that a contractarian approach whereby individual researchers and their research participants would develop an actual agreement governing their interaction and the research procedures and methods used would encounter some of the same limitations and difficulties inherent in

professional ethics codes (e.g., differences in power between researcher and participant; the possibility that participants might consent to costs that they are uncertain of). This argument does not obviate the need for written consent forms, which can serve to clarify mutual obligations and responsibilities of the various parties in the research process.

A plausible pre-agreement condition that serves here is a situation where no deception in research is permitted. In this (as yet) hypothetical world, much current research would not be permissible and, although many research topics might be examined using non-deceptive procedures, some topics likely would be inadequately investigated or not at all (e.g., memory). This no-deception starting point likely would provide sufficient incentive for most researchers to seek an agreement whereby some deception is permissible. Research participants likely would have an incentive to seek such an agreement because of the potential benefits of knowledge creation and the more direct possible benefits of research participation (and studies have shown that participants are accepting of some forms of deception; e.g., Christensen, 1988). We also incorporate in this pre-agreement condition a quasi-Rawlsian original position, whereby researchers and participants are unaware of their respective roles in research. Not knowing whether they are to be researchers or research participants, we ask, what principles governing deception in research would they agree to?

As a starting point, we believe it is reasonable to assume that our “contractors”, acting rationally, would at minimum be consistent in their principles with the relatively modest constraints on deception specified by existing professional ethics codes. This argument is particularly appropriate in the case of the APA (2002, 2010) Ethics Code, given its basis in part on extensive feedback from association members. Coinciding with the Ethics Code’s criteria pertaining to the use of deception (and consistent with the URJC model’s obligations of rights and duties, justice, and caring) are principles and standards reflective of a

commitment to voluntary participation, informed consent, and a respect for human dignity.

Thus, we would expect agreement of our contractors on the following:

1. Fundamental to any research study is respect for human dignity and a commitment to voluntary participation and informed consent.
2. Participants are reminded that their participation is voluntary and that they can and should withdraw from a study at any time, without penalty.
3. Deception is used only where remedial measures are employed, including forewarning and debriefing, as appropriate.
4. Harmful deceptions are never permissible.

These four general constraints also are likely to emerge from a first principles social contract analysis. Respect for human dignity represents a logical basic starting point for our social contract between researchers and participants. It is a central feature of Kantian contractarianism and, more broadly, is well established in philosophy and commonsense morality as fundamental to any worthwhile human endeavor. We thus would anticipate that our contractors (hypothetically) would agree to act to preserve human dignity at all times. Voluntary participation and informed consent are derivative of a respect for human dignity, and they have evolved as fundamental research principles dating back to the Nuremberg Code. Human dignity presumes autonomy, and so would be valued by our contractors and exercised in a research context by informed persons freely choosing to participate.

Despite essential agreement with the basic ethical principles in extant codes, our social contract makes no mention of deception being justified by the prospect of significant scientific benefit; additionally, a commitment to voluntary participation and informed consent does not presume that they are unconditional, obligatory requirements. As noted, scientific benefit, voluntary participation, and informed consent are fundamentally problematic to establish in practice or because of conflicting methodological concerns. However, in addition

to the general guiding principles evident in the APA code (and others), our social contract approach suggests additional principles that go substantially beyond existing codes by more explicitly incorporating the participant's perspective.

Principle 1. The use of deception as a last resort, once all alternative procedures are ruled out as unfeasible. This principle is consistent with the investigator's commitment to the protection of human dignity, which we identified as the starting point for our social contract between researchers and participants. We claim that our contractors, unaware of whether they are researchers or participants, would mutually agree that some scope for deception is desirable due to the potential benefits that deception studies might accrue. Critically, because it is widely held that deception is problematic as a social practice (e.g., Bok, 1978), our contractors—who might be participants themselves who could be misled—would surely wish any deception to be minimized to the greatest extent possible, if not avoided altogether.

Asserting that deception is a last resort eliminates some degree of ambiguity in extant codes because it obliges researchers to first evaluate alternative non-deceptive methodologies having the potential to achieve research objectives. Our social contract clarifies that deception only is adopted to address methodological shortcomings clearly identified in non-deceptive designs. Given our contractors' commitment to voluntary participation and informed consent, we also would expect them to assert that researchers always have the obligation to identify and eliminate procedures that might have caused persons not to participate, were they to have known in advance of the procedure.

In addition to serving as reasonable alternatives to deception, certain research approaches, such as those utilizing role playing, simulations, and quasi-control techniques, can be practically useful in ascertaining the circumstances requiring at least some degree of deception for methodological reasons or for identifying procedures that would be deemed unacceptable to participants. Our proposal that researchers use their methodological skills to

determine if or to what degree deception is needed thus argues for a renewed attention to the approaches appearing in Table 3.

In sum, we would expect our contractors to agree that researchers should not simply assume that deception is necessary; instead, they should question this assumption, if not test it through empirical analysis. The investigator has an obligation to systematically assess whether there are valid alternatives to the use of deception in any given study. Further, we suggest that such analyses be reported so that researchers can accumulate knowledge of which types of deception are unnecessary and which alternative practices could be used. This would provide a valid basis not only for individual decision making, but also for review board judgments concerning research protocols involving deceptive procedures.

Principle 2. Researchers using deception increase the scope of informed consent and explicitly forewarn that deception may be used in behavioral science research. Given their desired respect for human dignity and commitment to voluntary participation and informed consent, our contractors would likely insist on the use of forewarning and debriefing to the fullest extent possible, but—because they also value research—without fundamentally compromising the study undertaken. This principle reflects our contractors’ presumed desire to reduce the information asymmetry that typically exists between researchers and participants and which threatens to limit the scope of informed consent and voluntary participation.

Individuals should know what to expect from participation in research studies, beginning with a “pre-brief” overview of the research process at the start of the experimental session (before consent forms are signed). During this initial phase, participants can be notified of the possible employment of deception and the methodological rationale for its use. More generally, participants should receive an overview of research procedures, particularly those that might influence their decision to participate, but without overburdening them. Our

principle goes beyond conventional forewarning and informed consent procedures by making the acknowledgement of the use of deception explicit.

Principle 3. Researchers anticipate and make allowances for possible vulnerabilities of participants in developing studies that use deception and in seeking informed consent. We expect our contractors also will be cognizant of the many variations in characteristics of potential research participants and would wish to protect those who are vulnerable. Thus, researchers would consider the possible vulnerabilities of participants that might conceivably provide barriers to understanding the nature and possible consequences of deception, and might affect participants' experience of and reactions to any deceptions to which they are exposed. Persons selected from well-defined, often vulnerable groups, such as children, the elderly, the mentally disabled and handicapped, and the underprivileged may have certain limited capacities to choose freely whether to participate in research, thereby raising serious ethical concerns for deception studies. This principle may well require pre-tests and related steps to assess the vulnerabilities of target populations.

Granting that both researchers and participants can never fully anticipate individual responses to research situations, we believe that our contractors would require that participants be clearly reminded in any specific study that their participation is voluntary. Extending current behavioral science guidelines, participants would be told at the outset that they not only can but should withdraw from the study at any time if they have concerns about procedures used and, further, that they will receive their promised compensation in full. This highlights the need for a greater understanding of the inherent limitations to the informed consent process than may currently exist among many researchers, and suggests a focus for researcher training.

Principle 4. Researchers never expose participants to procedures or risks that they themselves would be unwilling to accept if similarly situated. Because we envisage our

researcher and participant contractors in a Rawlsian original position, we assume that they are unaware of their respective roles in research. Accordingly, as a minimum condition, they must agree that researchers would not be willing to impose procedures or risks on participants that they themselves would be unwilling to accept. This principle also finds support in the Golden Rule (i.e., not to do unto others as you would not have them do unto you), which is evident in the positive or negative form in every major religion and philosophical tradition.

The cost-benefit approach utilized in existing codes opens the door for deceptions that could bring lasting (albeit unanticipated) harm to participants. For example, the current APA (2002, p. 1065) standard on the avoidance of harm states that “psychologists take reasonable steps to avoid harming their clients/patients, students, supervisees, research participants, organizational clients, and others with whom they work, and to minimize harm where it is foreseeable and unavoidable.” We expect that our contractors, although likely to agree that harm should be avoided and minimized to the greatest extent possible, would nonetheless be uncomfortable with the APA standard’s concluding phrase, which recognizes that harm may emerge as an outcome of an agreement to participate. That is, wishing to avoid harm to themselves and others, and suitably skeptical of the claims of the anticipated benefits of any individual investigation, our contractors would instead agree that researchers should not knowingly expose participants to significant risks of harm. This would apply regardless of the nature of the potential harm (e.g., physical injury, psychological stress, loss of trust)—or potential benefit.

In some psychological investigations (e.g., on topics like embarrassment or shyness), the risk of a low level of harm can be quite high, yet the benefits of the research could be impossible to achieve without deception. It is likely that our putative participants would agree to such studies taking place subject to adequate debriefing (as well as the other principles identified here); however, they also are likely to require no lasting harm. Various

ethics codes and governmental guidelines acknowledge that certain types of investigations are unlikely to create distress or harm; thus, they do not require extensive informed consent procedures and may be subject to an expedited review process. Typically included among categories of minimal risk research—assuming certain safeguards are taken—are studies of normal educational practices, studies involving anonymous questionnaires, naturalistic observations, oral history, focus groups, and public archives (APA, 2002; DHHS, 2001).

Going beyond the extant codes and regulations, we stress an obligation not only to identify risks of harm, but also to differentiate between risks of long-lasting or permanent harm that would be impermissible, and risks of temporary low levels of harm that participants might agree to and that would be permissible (assuming participants are given the opportunity to opt out). Our contractors likely would define risks of low levels of harm as being comparable to what might be experienced in everyday life (e.g., mild embarrassment, shocking events in news reports), and not likely to create false beliefs about central, important issues related to one's self-concept or personal behavior.

Principle 5. Research participants cooperate fully and in good faith in research studies they have accepted to participate in. A social contract approach requires a consideration of the responsibilities of all the parties involved, and in so doing emphasizes an omission in virtually all behavioral research ethics codes. Thus, our final principle reflects the obligations of research participants to the researcher. We would expect our contractors to agree that participants should carry out the investigator's instructions as directed and strive to avoid practices that might reduce the study's effectiveness, such as the transmission of relevant information to prospective future participants (so-called "leakage"). This could be communicated during the pre-briefing envisaged under Principle 2.

Among participant responsibilities especially relevant to informed consent and deception are those requiring the need to (a) take the research seriously, (b) listen carefully to

the researcher and ask questions in order to understand the research, (c) understand what happened, once the study has been completed, and (d) honor the researcher's request to not discuss the study with anyone else who might be a participant (Korn, 1988). Unless the participant carefully attends to the researcher and understands what the research involves, anything approaching informed consent cannot be given. In short, these participant responsibilities are consistent with the contractual nature of the researcher-participant relationship, recognizing that both parties have certain rights and obligations.

### Applying the Social Contract in Practice

Investigators often are compelled to weigh methodological and ethical requirements in order to choose whether and how to pursue particular research questions. In our view, the principles we derived from a social contract analysis suggest a practical approach for decision making regarding the acceptability of using deception.

The initial step in the decision-making process is the determination of whether a planned study calls for the use of any active or passive deceptions. Given likely constraints in identifying passive deceptions (and the possibility of unintended deception), researchers need to consider whether they would wish to be provided with certain omitted details of the study if similarly situated (Principle 4 above). A second step is to assess the availability of effective alternatives to deception (Principle 1) when deception is identified. For example, as an alternative to negative mood manipulations that have aroused ethical concerns, such as those involving the presentation of false feedback to participants concerning their skills or intelligence (e.g., Hill & Ward, 1989), participants could instead be asked to write an essay describing one of the sadder experiences in their lives. This way, the negative mood would be invoked, but not by deception.

Should it be determined that alternatives to the original deception are unavailable, a third step would require the researcher to make a careful determination of the potential risks

imposed by the deception, even assuming the use of such remedial measures as forewarning, debriefing, and desensitization. Given the difficulties of predicting the potential harmfulness of a procedure, researchers could employ persons to serve as quasi-controls (see Table 3) who are representative of those who would participate and have them evaluate a scenario describing the study's procedure, with appropriate researcher probes (e.g., "If something were to upset you about this study, what would it be?"). In this way, researchers could identify potentially harmful aspects of the research and modify procedures accordingly (or drop the study). Should the alternative also prove upsetting when considered by quasi-controls, another alternative would be needed; if none are available, a decision must be made about whether to conduct the study at all in its present form.

Given that exposure of participants to potentially lasting harm is not permissible, this stage of the decision-making process requires the determination of potential risks when investigating vulnerable populations whose members may be particularly susceptible to the harmful consequences of deception (Principle 3). Researchers could consider the potential effects of deception on the most vulnerable members of the participant population (e.g., by imagining the reactions of vulnerable participants, such as the shyest student or least secure friend) or again by employing quasi-control participants. Should risks to vulnerable participants be identified, procedures that enable the screening out of such individuals from research participation would be necessary.

Beyond ensuring that participants are not harmed, a final step in the decision-making process would require that participants be treated with dignity as important stakeholders in the research process. Participants might be thought of as another granting agency, giving researchers their time instead of money (Rosenthal & Rosnow, 1991). It can be argued that deception undermines the dignity of research participants in the sense that to be lied to is to presume that one is unworthy of the truth; however, the use of forewarning (Principle 2)

helps to preserve dignity by enabling participants to “opt-in” to the deceptive situation (Smith et al., 2009; Wendler, 1996).

Throughout this decision-making process, researchers must make efforts to assure that participants cooperate in good faith in their research role (Principle 5). If individuals who served in a study arouse suspicions among future participants by communicating information about the procedures employed, this could obviate the utility of deception in the first place and lead to the possibility that participants would be skeptical of informed consent procedures and expect to be deceived even where no deception is used. A variety of screening methods could be employed to determine whether individuals understand the details provided to them concerning the study, know what is expected of them, and are willing to fulfill their responsibilities as participants. For example, consent forms could be specially designed or an oral question-and-answer protocol could be followed to assess the individual’s understanding of the research procedure and requirements.

If this decision-making process is carefully followed and deception is unavoidable, its use would be considered as ethically justified, subject to four caveats: (1) participants’ awareness of the research process and possible use of deception; (2) participants’ knowledge of the right and obligation to withdraw; (3) use of remedial measures (forewarning, debriefing, desensitizing; and (4) compensation for participation (e.g., education, payment). If the foregoing tests have been followed conscientiously and, despite the researcher’s best efforts, the deception is unavoidable, the study would be consistent with the principles identified in our social contract analysis of deception and on that basis may be asserted as morally justifiable.

#### Example 1: Manipulating Mood in the Psychology Laboratory

We next provide a case example of how our principles can be applied to inform decisions about the use of deception in behavioral science investigations. As an illustration of

some of the decision-making hurdles that must be overcome to justify deception, we consider the case of mood manipulation procedures. For example, in one published study (Hill & Ward, 1989), participants were instructed to play a computerized game that ostensibly was presented as a promotional game designed for a local automobile dealership. After completing an initial trial, some participants were randomly selected to receive positive feedback about their performance (e.g., “Incredible—few people perform that well at this game!”), while others received no feedback. This was done in part to study the effects of the positive mood manipulation on participants’ perceived self-efficacy and decision making. Although the deceptions utilized in the study may arouse ethical concerns, few people are likely to have complaints about relatively benign deceptive manipulations that induce research participants to feel better (i.e., that put them in a good mood). When similarly situated, we would assume that the researchers would not object to undergoing similar, minimal-risk manipulations.

By contrast, had the mood manipulations been intended to have the opposite effect—that is, to arouse negative feelings, such as annoyance or depressive feelings (e.g., “Unfortunately, your performance on this game was one of the worst we have observed.”)—ethical concerns would be more salient. Despite a conclusion that the negative mood manipulation is essential because of the likelihood that a fully informed consent would arouse participant artifacts, and is justified by the importance of the research and anticipated scientific benefits (APA, 2002, 2010), our ethical principles would require the following sorts of questions to be addressed: (1) would the anticipated benefits of the study be valued by the research participants?; (2) would the researchers accept to undergo the negative mood induction procedures?; and (3) can the hypotheses or research objectives be explored by inducing positive mood states rather than negative ones? Which would the researchers prefer as participants?

The decision to conduct this mood induction study also would require an assessment of the availability of valid non-deceptive alternatives (Principle 1) when deception is identified. The essential consideration is whether there are valid non-deceptive alternatives for achieving the research objectives. For example, it may be possible to conduct the experiment in a naturalistic setting in which the desired moods would be naturally aroused (e.g., at a sporting match where a home team win or loss would likely induce positive and negative affect in fans, respectively). If so, the proposed study will have failed the ethical requirement that deception could only be accepted as a last resort, subject to the unavailability or impracticality of alternative non-deceptive procedures and adherence to additional ethical principles.

The inability to find an alternative to the original deception next would require the researcher to evaluate the potential harmful effects of the deception, even presupposing the use of such remedial measures as forewarning and debriefing (Principle 2). If it is determined that the procedure has the potential to cause severe and long-lasting harm, the decision would be made not to conduct the deceptive study. If it is unclear whether the negative mood manipulation is likely to pose the risk of significant discomfort or harm for participants, pilot testing would be required. One possibility would be to provide a scenario of the study's procedure to respondents representative of those who would participate and have them discuss how they would feel about participating. By asking them to describe what, if anything, would upset them about the study, it would be possible to identify potentially harmful aspects of the research and modify procedures accordingly (or drop the study). An alternative to falsely informing participants they performed poorly on a task in order to make them feel unhappy would be to ask them to write an essay describing an incident in which they performed poorly. This approach to assessing harm and determining more acceptable deceptive manipulations is akin to the employment of quasi-control participants, as previously described. A variety of possible harms might be foreseen by our role players in the case of the negative mood induction

study, such as the temporary discomfort experienced upon receiving the feedback or the resulting embarrassment at having been duped by the researcher. By contrast, the participants might point out that receiving bogus information is a regular occurrence in their everyday lives, that the feedback would not likely cause undue duress, and that they would readily accept such minor falsehoods for the good of science.

Principle 3 also would require that participants be screened to check for vulnerabilities to conditions that might be exacerbated by the mood induction (e.g. depression) and that the alternatives to a decision to participate will be salient and clearly explained. The dignity of participants would have to be considered prior to the decision to employ the intended mood manipulation. That is, it is imperative to consider whether prospective participants will consent to take part in a study involving mood manipulations and the possibility of deceptive procedures. During participant recruitment, these possibilities might be presented to persons who then would have the opportunity to opt out of such studies.

It is not difficult to imagine that our analysis of an investigation involving negative mood manipulation, based on application of the principles and ethical tests derived from social contract theory, might lead to the conclusion that the proposed study is ethically problematic in a number of respects. That is, several possible decision-making outcomes could result in a determination that the research not be carried out as planned and should be modified so that the research objectives can be satisfied in a more ethically appropriate manner. By contrast, an assessment of the acceptability of the investigation based solely on adherence to existing professional guidelines pertaining to deception (e.g., APA, 2002) could lead to a quite different conclusion. Without more than a cursory judgment concerning the possible risks of harm the mood manipulation may entail, or careful consideration of valid methodological alternatives, an application of the cost-benefit approach required by existing ethical principles might well lead a researcher to decide that the anticipated significance of the study outweighs any potential

drawbacks and thus can be carried out as designed (Baumrind, 1975; Kimmel, 1991). This decision may be buttressed by an assumption that a post-experimental debriefing will readily eliminate any negative effects the deception might have. Further, such an approach may fail to recognize the inviolable nature of human rights, thereby resulting in a judgment that serves to undermine a fundamental obligation to preserve the human dignity of participants. From a contractarian perspective, the latter outcomes are unlikely to be palatable to either researchers or participants.

#### Example 2: The Milgram Obedience Studies Revisited

It often is argued that some of the classic research investigations in the behavioral sciences could not have been carried out in the contemporary regulatory context (Diener, 2001; Kimmel, 2006; Rosnow, 1997). However, we suggest that researchers might have pursued their same worthy research goals in today's ethical climate by incorporating some of the guidelines and recommendations derived from our social contract approach.

One of the best-known examples of research at the center of long-standing ethical scrutiny is the series of experiments on obedience to authority carried out by social psychologist Stanley Milgram at Yale University between 1960 and 1964. At the time of the research, deception had not yet become a common fixture in psychological research laboratories. Yet Milgram's project, perhaps more than any other, aroused initial concerns about the ethicality of using deception to satisfy research objectives and gave impetus to the development of internal standards regulating the use of deception within the discipline of psychology (Benjamin & Simpson, 2009). Milgram (1963) misled his volunteer participants into believing that they were administering dangerous electric shocks to an innocent victim, an experimental confederate who was portrayed as an ordinary research participant. The central deception in the obedience studies involved presenting the experiment as one pertaining to the effects of punishment on learning, with the volunteers instructed to deliver

increasingly stronger electric shocks (up to 450 volts) each time the learner/confederate made a mistake on a simple memory task. In actuality, the learner did not receive shocks, but made a number of preplanned mistakes and feigned pain upon receiving the punishment. The goal was to observe the extent to which participants obeyed the authority of the experimenter, who ordered them to proceed with the procedure despite their protests and the confederate's apparent agony.

Milgram received high praise for his ingenious experiments, which in a broader sense were intended to shed light on the Nazi atrocities committed in obedience to the commands of malevolent authorities during World War II, and his research continues to resonate to this day (e.g., a 2009 special issue of American Psychologist was devoted to the obedience research). But the research eventually became the target of scathing attacks (e.g., Baumrind, 1964; Kelman, 1967), which centered on the potential adverse outcomes stemming from the deceptive methodology; specifically, that Milgram had subjected participants to extreme levels of stress and guilt as a result of their believing that they harmed innocent victims; that he should have terminated the experiment at the first indications of discomfort on the part of the participants; and that he alienated participants from future participation in psychological research and harmed their image of the discipline.

In his partial replication of the Milgram obedience studies, Burger (2009) incorporated several safeguards consistent with the ethical decision-making approach proscribed by social contract theory. Based on his observation that the 150-volt level of Milgram's procedure enabled accurate estimates as to whether participants would continue to be obedient or not to the end of the research paradigm (e.g., 79% of Milgram's participants who continued past that "point of no return" continued all the way to the end of the shock generator's range), Burger employed a "150V solution"; that is, the study was stopped seconds after participants' decided what to do at the critical juncture. This modification of

the original procedure did not represent an alternative to deception, but it substantially reduced the risk of harm by eliminating the likelihood that participants would be exposed to the intense stress levels experienced by many of Milgram's participants. It may be conjectured that any alternative to the original deception procedure utilized in the original obedience studies would have undermined the intent of the replication, which in part was to determine whether obedience levels in the current era are similar to those obtained by Milgram some 45 years earlier. Among the other safeguards included in the replication to further ensure the welfare of participants were a two-step screening process for identifying and excluding vulnerable participants; a repeated assurance to participants that they could withdraw from the study and still receive the monetary incentive; immediate feedback to participants that no shocks were received by the learner; and the choice of a clinical psychologist to run the experiments who was instructed to stop the procedure as soon as any signs of adverse effects became apparent.

Prior to running the study, Burger also might have conducted pilot tests to gauge representative participants' reactions to a description of the research procedure, and actual participants might have been forewarned about the possibility of deception (assuming this could be done without unduly arousing suspicions about the legitimacy of the shock apparatus) or asked to agree to participate fully knowing that certain procedural details would not be revealed until the end of the research experience. An alternative approach, which would have avoided the requirement for a confederate, would have been to conduct a role-play scenario, with participants assuming the role of learner or teacher (see Orne & Holland, 1968; Patten, 1977).

## Conclusion

Deception continues to pose moral and methodological dilemmas for behavioral science researchers. Although we believe that the core values inherent in the current ethical codes are

largely consistent with our social contract analysis, we believe our analysis reveals limitations to their standards' over-reliance on cost-benefit assessments and offers researchers specific guidance regarding circumstances under which deception could be deemed ethically acceptable or unacceptable. Our proposed solution is not without cost: it requires researchers to expend additional effort and resources, it induces reviewers and editors to adjust perceptions of what constitutes good research, and it adds complications to the investigation of some research topics. However, as trained researchers, we are not without the skills and creativity necessary to conduct research that is both ethical and valid. Through a modest increase in pilot studies we can develop a better understanding of when deceptive practices are absolutely necessary to preserve validity, and we can take a more informed approach to designing deceptions that do not cause severe or lasting harm.

If ethical concerns about deception are to be truly addressed, the behavioral science disciplines will have to continue their pursuance of an action-oriented agenda, through increasing dialogue with legislators and governmental committees eager to impose more rigid regulations and review mechanisms on the human research enterprise (Diener, 2001). The expanded influence of external review has brought with it a growing concern that review boards are overstepping their intended role in an overzealous effort to force behavioral and social research into a biomedical mold, thereby making it increasingly difficult for many researchers to proceed with their studies. As deception continues to be employed in research, these threats are likely to grow stronger. However, the first line of defense for the protection of the various interests involved in and affected by the research process consists of researchers themselves. We presume that most researchers would agree that a more rigorous analysis of deceptive research from within the discipline is preferable to the imposition of greater restrictions imposed from external sources.

The time has come for the behavioral sciences to develop their own knowledge base and norms about when deception is, or is not, necessary. In this vein, we believe our discussion points to the need for a reinvigoration within the disciplines of research on the efficacy of role playing and quasi-control techniques, a research program designed to identify procedures that truly constitute examples of minimal-risk research, the elaboration of informed consent procedures that protect research validity as well as the egalitarian investigator-participant relationship required by a normative social contract perspective, and greater attention to methods for determining participant vulnerabilities and effective means for the recruitment of non-student samples.

Rather than calling for the prohibition of deception, as is the case in economics research, our approach argues for a careful evaluation of the circumstances under which it is acceptable or unacceptable. Having stressed that deception should be a last resort, our proposed principles provide the basis for practical recommendations for decisions about studies that might call for deception. Thus, we offer behavioral researchers a solution to the dilemmas involving deception and a basis for justifying its use to themselves and others.

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Table 1

Use of Deception at Various Stages of the Research Process<sup>1</sup>

| Participant Recruitment                              | Research Procedure               | Post-Research/Application                        |
|--|----------------------------------|--|
| Identity of researcher and/or sponsor                | Misrepresentation of purpose     | Violation of promise of anonymity                |
| Purpose of research                                  | False information                | Breach of confidentiality                        |
| Participation incentives                             | about procedures, measures, etc. | Misrepresenting implications of research results |
| Involving people in research without their knowledge | Withholding information          | False feedback during debriefing session         |
|  | Concealed observation            |  |

<sup>1</sup>Adapted from Kimmel and Smith (2001).

Table 2

Potential Costs and Benefits of Deception Studies<sup>1</sup>

| Recipient   | Benefits  | Costs   |
|-------------|---|---|
| Participant | <p>Increased understanding of science and the research process</p> <p>Feeling of having contributed to science</p> <p>Self-insight (from personal content revealed by deceptive probes)</p> | <p>Inflicted insight</p> <p>Embarrassment</p> <p>Image of science lowered</p> <p>Mistrust of others</p> <p>Reduced self-confidence</p>    |
| Researcher  | <p>Capacity to elicit spontaneous behavior from participants</p> <p>Increased degree of methodological control</p> <p>Enhanced reputation from successful research endeavors</p>            | <p>Legal sanctions (e.g., if confidentiality breached)</p> <p>Undermines integrity and commitment to the truth</p> <p>Tarnished image</p> |
| Profession  | <p>Facilitates attempts to determine validity of theories, previous research, and assessment instruments</p>  | <p>Exhausts pool of naïve participants</p> <p>Jeopardizes community/industry support for the research enterprise</p>                      |
| Society     | <p>Scientific advancement and progress</p> <p>Increased understanding of behavior</p> <p>Insight into applications toward the betterment of humanity</p>                                    | <p>Undermines trust in expert authorities and science</p> <p>Increased suspiciousness (e.g., self-consciousness in public)</p>            |

<sup>1</sup>Adapted from Kimmel and Smith (2001).

Table 3

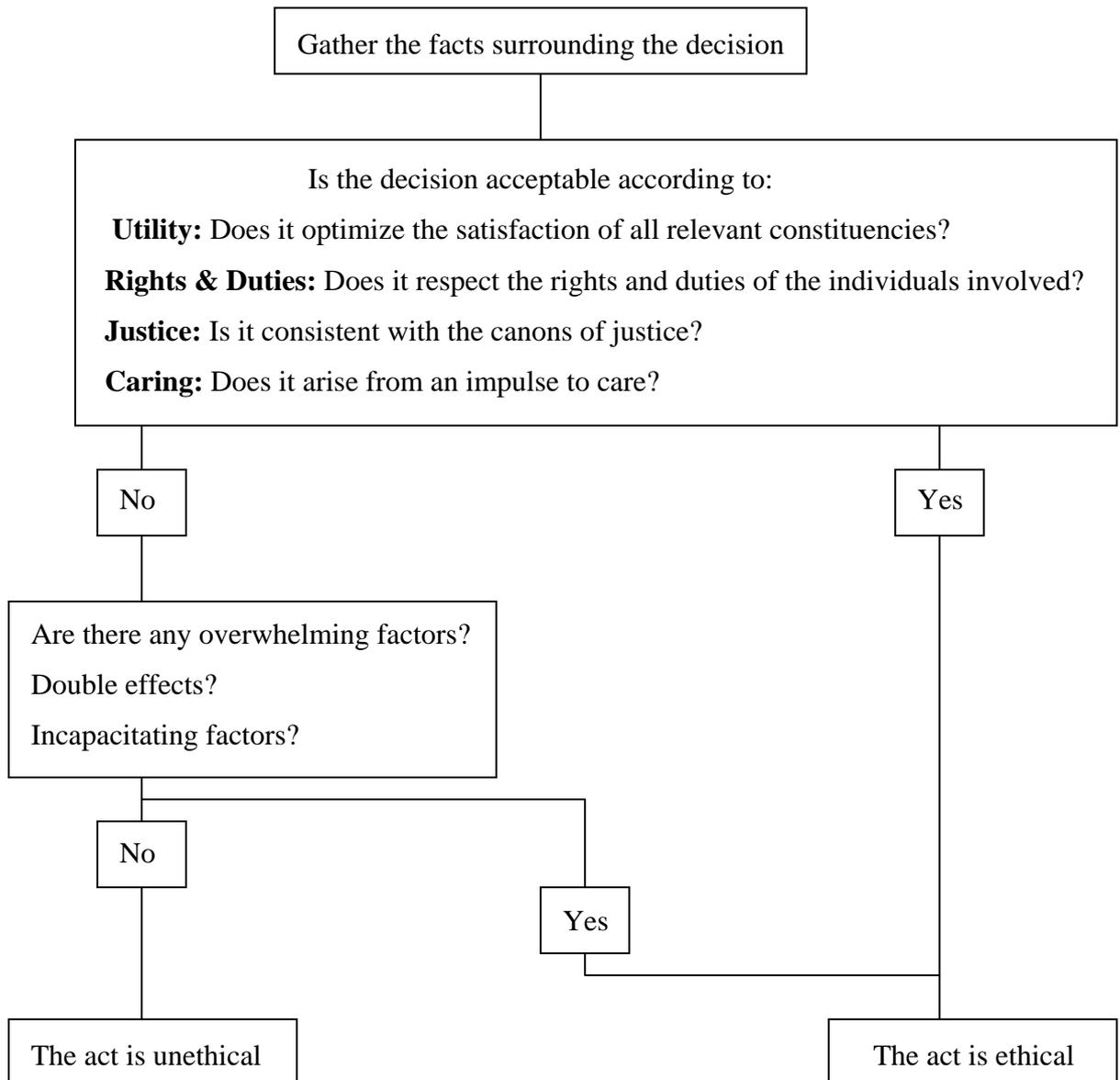
## Research alternatives to deception and other coping procedures

| <i>Research Alternative</i>                          | <i>Methodology</i>  |
|--|---|
| 1. Quasi-controls<br>(e.g. Rosenthal & Rosnow, 1991) | Participants are asked to reflect on what is happening during a study and to describe how they think they might be affected by the procedure. If no demand characteristics are detected, the researcher would develop a less deceptive manipulation and have the quasi-controls once again reflect on the study. If they remain unaware of the demands of the study, the researcher could then use this lower level of deception to carry out the intended investigation. ( <i>Key strength</i> : Deception can be minimized without risking a corresponding increase in demand cues. <i>Key drawbacks</i> : Quasi-controls are somewhat time consuming and often costly to carry out.) |
| 2. Forewarning<br>(e.g. Allen, 1983)                 | Prospective research participants are informed before a study begins that deception may be used and are then given the opportunity to agree to place themselves in a situation in which they might be misled or else decline further participation. ( <i>Key strength</i> : Forewarning reduces the ethical problems associated with deception by having subjects agree to the possibility that they may be misled. <i>Key drawback</i> : Forewarning may arouse subjects' search for demand characteristics and efforts to discover procedures involving mistruths.)   |

3. Simulations  
(e.g. Geller, 1982)
- Conditions are created that mimic the natural environment and participants are asked to pretend or act as if the mock situation were real. Variations include field simulations (simulations in highly realistic staged settings), role-playing simulations (see the next item in this table), and game simulations (participants take on roles in staged situations lasting until a desired outcome has been attained or a specified length of time has passed). (*Key strength:* This approach preserves the key elements thought to underlie the dynamics of the real-world phenomenon under study. *Key drawbacks:* Simulations are sometimes characterized by intrinsic deceptions; mundane realism is sometimes suspect.)
4. Role playing  
(e.g. Greenberg, 1967)
- Research participants are enlisted as active collaborators in the investigation. Each participant is told what the study is about and is then asked to play a role as if he or she were actually participating in the actual study. (*Key strengths:* In contrast to deception studies, participants in role-playing studies are fully informed; the strategy allows for a wide latitude of response, is capable of exploring complex behavior, and is a more humanistic alternative to deception research. *Key drawback:* Role-playing results may not replicate the results that would have been obtained in traditional research, especially counter-intuitive ones.)

Figure 1

Cavanagh, Moberg, and Velasquez's (1995) URJC Model: Flow Diagram for Making Ethical Decisions



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