In this article, I offer theoretical and empirical groundwork for the study of intergenerational issues and highlight the relevance of intergenerational behavior to organizations. I focus on situations involving conflict between generations in which a present generation must give up benefits or take on burdens to act on the behalf of future generations. I introduce the notion of intergenerational reciprocity and, in four studies, found that the behavior of previous generations influences how a present generation treats future generations.

As the son of a college professor and a professor myself, I hoped my sons would go to college. But after our oldest found that the courses he wanted to take at the university were full, he got discouraged. I went to the registrar. I'd heard he was a stickler for rules, so I was floored when the man asked, “What classes would he like?” and took care of the problem on his computer.

Seeing my surprise, he explained that years before, he was in the same situation as my son. He’d met a professor who took him to the enrollment and got him into every class he wanted. “That man was your father. By any chance, is he still alive?”

I nodded. He smiled. “Good,” he said. “Tell him we’re even.”

The above anecdote is a true story that captures the essence of reciprocity across generations. When the registrar was a student, the author’s father helped him to get enrolled in the courses of his choice. The registrar was not in a position to reciprocate the act of kindness to the professor who helped him. However, years later he was in a position to “repay the debt” by helping the grandson (who was now in a similar position) of the man who had helped him.

The focus of this article is the role that reciprocity plays in the relationship among generations. The theoretical literatures on intergenerational issues can be grouped primarily into two general approaches: philosophical and economic. In the philosophy and law literatures, discussions of what should be done on the behalf of future generations are based on ethics, existing laws, moral reasoning, and societal norms (e.g., Barry, 1989; Richards, 1982; Weiss, 1989). In the economics literature, arguments are made about what is the appropriate discount rate in contexts involving trade-offs between generations (e.g., Kotlikoff, 1992; Portney & Weyant, 1999). In contrast to these normative approaches that focus on making arguments about what a present generation should do on the behalf of future generations, my research examines factors that affect the extent to which the present generation will act on the behalf of future generations, while highlighting the relevance of intergenerational behavior to organizations.

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A discount rate refers to the extent to which future benefits are valued today (Brennan, 1995); the greater the discount rate, the less future benefits count compared to present costs.
decisions made by organizational actors affect outcomes to society and when these issues affect organizations' ability to perform well and survive over time. One of the most prominent examples of this relationship between societal intergenerational issues and organizational interests is global environmental change.

Organizations are the intermediaries that convert natural resources into usable products and, thus, corporate activities are fundamentally linked to problems of environmental sustainability across generations (Shrivastava, 1995). Business is arguably the most powerful institution on the planet (Harman, cited in Hawken [1993]), and as such may be the only institution in the modern world powerful enough to foster the changes necessary for ecological and social sustainability for future generations (Hawken, 1993). Social responsibility aside, since organizations act in an economic system that is inextricably intertwined with and dependent on ecological systems (Jennings & Zandbergen, 1995), their activities are circumscribed by the carrying capacity of the natural environment (Carroll & Hannan, 1995; Jennings & Zandbergen, 1995). Indeed, organizational theorists have highlighted that long-term ecological sustainability generates important contingencies for organizational survival over time and, thus, it is a desirable and necessary consideration for organizations (Starik & Rands, 1995).

Although intergenerational terminology has traditionally been applied to broad social issues, such as the one described above, or to family issues, such as the transfer of wealth from parents to children, thinking intergenerationally is also a useful way to conceptualize a set of issues within and among organizations that share characteristics with these more traditional applications. Past, present, and future sets of organizational actors can be thought of as different "generations" in organizations. Managers often make decisions involving long-term consequences for their organizations. Since organizational membership changes over time, a challenge business decision makers face is that what may be in the best interest of the present set of organizational actors is not necessarily what is best for future organizational actors.

In this research, I developed a theory of intergenerational behavior that is applicable to both (1) societal intergenerational issues relevant to organizations and (2) organizational contexts in which actors are usefully conceptualized as generations. My empirical investigation included both of these categories.

Intergenerational Conflict

Intergenerational situations are problematic when there is a difference in preferences (or likely preferences) between generations about how decisions should be made or resources should be allocated. Intergenerational conflict arises when one generation of actors faces a decision of whether or not to incur costs themselves for the benefit of another generation. Situations involving intergenerational conflict are typically characterized by a combination of features, regardless of the nature of the conflict, context, or level of analysis. One of the most prominent characteristics is that there is frequently power asymmetry between the actors, with the present or older generation having all or most of the control over how issues will be handled or resources will be allocated, while the future, or younger, generation has little or no voice in these processes. This feature goes hand-in-hand with the fact that future or later generations often do not have the opportunity to reciprocate the behavior or deeds of previous generations. In addition, the consequences associated with a decision or action are often decoupled, so that benefits are accrued immediately by the present generation, while burdens fall to future generations at a later point in time. Acting on the behalf of future generations may require a reversal of that pattern in such a way that the present generation may have to endure or take on a burden so that future generations can benefit. This trade-off among the interests of different generations is at the heart of intergenerational conflict.

In my research, I define generation as follows: A generation occupies a role that may be an office, status, or set of responsibilities, and the time period in that role is limited in the sense that one generation does not occupy that role indefinitely. At some point, generational transition occurs, whereby one generation succeeds another and comes to occupy the roles formerly occupied by the generation that it replaced. The amount of time that one generation occupies a role can be either fixed (a class of MBA students is an example) or flexible (for instance, directors of departments in organizations).

Generations can be found in organizations and society at both the individual and group levels. At the individual level, a generation can be understood as a single individual while he or she occupies a particular role (CEO or dean of a college, for example). The previous generation would be the person who had occupied the role previously, and the succeeding generation would be the person replacing the present generation. Thus, the boundaries of a single generation are demarcated by an individual's tenure in that role. Note that not any-
one in any role would be usefully considered a generation. The conditions of potential intergenerational conflict must first apply; these are power asymmetry, decoupling of consequences, lack of direct reciprocity, and role transition between actors. In organizations, a common intergenerational context at the individual level is the situation in which there is frequent rotation through positions (internships, for instance). Intergenerational conflict comes into play when an outgoing employee—the preceding generation—makes decisions involving trade-offs between what is best for him- or herself and what is best for the incoming person, or succeeding generation; one context would be the use of discretionary funds associated with a position.

At the group level, generations are either "cohort-based" or "event-based" and can refer to smaller work groups as well as to organization-, industry- and society-level groups. At the group level, a common orientation, socialization process, and/or "psychological contract" with an organization can cause a group to be identified as a single generation. In cohort-based generations, a group of individuals demarcated as a generation has a common temporal starting point in a common role, which causes them to hold a certain status contemporaneously. For example, classes of Ph.D. or MBA students or groups of trainees in a management training program may be considered cohort-based generations.

Event-based generations are created when the occurrence of a significant event leads to the creation of different generations in organizations, or causes differentiation among generations to become meaningful, important, or apparent. A single generation shares a common set of experiences that shapes them in such a way that they share a set of paradigms. For example, the appointment of a new CEO and/or a major revision of an organization’s strategy can lead to downsizing the organization and layoffs of many workers, followed by the hiring of newer workers at a later point in time. In these situations, different generations may be differentiated by the nature of employees’ psychological contracts with the organization. The older generation may have understood themselves to have a psychological contract according to which they were loyal to a specific organization and expected to build their careers within it; in contrast, newer generations understand themselves to have a psychological contract whereby they are loyal to their own careers, do not expect job security, and expect to change organizations frequently to gain promotions and salary increases.

Intergenerational Discounting

Intergenerational decisions are further complicated when the consequences to future generations, whether they are positive or negative, increase over time. For example, long-term investments are expected to result in greater benefits for future members of organizations or society than were those foregone by present members by not using the capital for present gain. Similarly, future generations can experience more serious negative consequences as a result of the present generation leaving burdens for them than would be experienced by the present generation had they handled the burdens themselves. For example, several decades ago, the W.R. Grace Company disposed of toxic wastes by dumping them on the ground. This course of action turned out to be an easy and inexpensive solution only in the short term. After the chemicals contaminated the well water in Woburn, Massachusetts, and the contaminated water was linked to numerous cases of leukemia in children, the company incurred greater costs from reputation damage and lawsuits than it would have had it disposed of the chemicals properly in the first place (Plater, Abrams, & Goldfarb, 1992). Not only were the costs to the organization greater in the long run, but since the costs emerged many years after the decision to dump the chemicals on the ground, an essentially new set of organization members were required to cope with those consequences.

This article specifically examines intergenerational conflict situations in which consequences to future generations increase over time, such as those described above. That is, every unit of benefit consumed by the present generation costs future generations more than one unit, and every unit of burden left by the present generation translates into more than one unit of burden for future generations. In these cases, power asymmetry among generations is exacerbated, since the parties who have control over the decision process (the present generation) are not the parties with the most at stake (future generations) and thus, the dependency of future generations on the present generation is intensified. Although not every case of intergenera-

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2 Note that one person can be the decision maker acting or deciding on the behalf of a generational group; such is the case with organizational leaders such as CEOs and public policy makers.

3 Members of such cohorts may eventually be promoted at different rates, causing them to have different levels of status, at which point it may no longer be useful to view them as a single generation in certain contexts.
Intergenerational Reciprocity

Although philosophers and theorists have cited the lack of immediacy of future consequences as one reason why people often do not act on the behalf of future generations, they have pointed more strongly to the absence of traditional bonds of reciprocity as a factor thwarting sacrifice for future generations (Care, 1982). One generation itself typically does not benefit from the sacrifices it makes for future generations. This feature of intergenerational decisions raises the following question: Why would, should, or does one generation ever act on the behalf of future generations?

Philosophers and ethicists who advocate intergenerational justice try to answer this question by focusing on the notion of “moral reciprocity,” in which the present generation treats future generations as they would like to have been treated themselves by the preceding generation (Rawls, 1971; Richards, 1981). The presumption is that everyone would prefer to be treated fairly by others, and so people should treat others fairly as well. Note, however, that moral reciprocity, or how one would like to be treated by others, may or may not correspond to how one is or was actually treated by others. When making decisions affecting outcomes to future generations, individuals may consider how they would like to have been treated by previous generations, but they may also be influenced by how they were actually treated by previous generations.

Reciprocity typically refers to the mutual reinforcement by two parties of each other’s actions (Blau, 1964; Gouldner, 1959, 1960; Parsons, 1951). This most traditional form of reciprocity has been labeled “mutual reciprocity” or “restricted exchange” (Ekeh, 1974) and is characterized by a “quid pro quo” mentality. The principle of reciprocity, however, has also been used more broadly to refer to situations in which people feel obligated to reciprocate others’ actions, not by directly rewarding their benefactors, but by benefiting other actors implicated in a social exchange situation that includes their benefactors and themselves (Levi-Strauss, 1949). This type of reciprocity has been labeled “univocal reciprocity,” “generalized exchange” (Ekeh, 1974; Levi-Strauss, 1949), and “circular exchange” (Malinowski, 1939). Generalized exchange involves three or more actors who are linked in an integrated transaction in which reciprocations are indirect, not mutual (Ekeh, 1974). Generalized exchange is characterized by the lack of one-to-one correspondence between what two parties directly give to and take from one another; this is the primary quality distinguishing generalized from restricted exchange.

In this article, I introduce and examine a related phenomenon called intergenerational reciprocity. In situations in which people cannot reciprocate the good or evil left to them by previous generations, I propose that they instead “reciprocate” by behaving similarly to the next generation. In other words, people can pass on benefits (or burdens) to future generations as a matter of retrospective obligation (or retaliation) for the good (or bad) received from past generations. This notion is consistent with the theoretical argument made by Becker (1986) that some obligations to future generations have their source in the good received from past generations.

Indirect reciprocation is a feature shared by generalized exchange among contemporaries and intergenerational reciprocity. There are, however, important differences between the two exchange situations. In generalized exchange among contemporaries, the actors typically exist in the social ex-
change structure simultaneously. Thus, at the time of contribution individuals can still potentially benefit from the system at some point in the future. In contrast, in the intergenerational context, some actors (past generations) are removed from the social exchange situation over time and therefore no longer have the opportunity to benefit from the exchange structure, while new actors (later generations) are added. Another important difference is that, because of the temporal aspect of intergenerational relations, actors generally participate in the exchange in a clear sequence. Intergenerational actors are at the receiving end first, with the opportunity to contribute coming at a later point in time. With generalized exchange, the actors’ opportunities to contribute and benefit are often random and determined by fate.

These differences affect the respective incentive structures of the exchange situations. The opportunity to benefit from the system is a primary motive for contribution in generalized exchange. This motive, however, is absent in the intergenerational scenario at the time the actor decides how much to contribute to future generations. Instead, actors who benefit from actions of previous generations may be motivated by a sense of obligation to “repay the debt” (as in the case of the opening anecdote) by providing future generations with similar benefits. (Or, conversely, they may not feel obligated to do so if the previous generation did not help them.) This sense of obligation can also be present in generalized exchange among contemporaries if an actor has already benefited from the system without yet contributing. Theorists examining generalized exchange among contemporaries, however, have not pointed to this factor as the primary motive for contribution; instead, they have focused on the desire to contribute to the exchange system in order to keep it functioning and to thus preserve the opportunity for potential future self-benefit (Ekeh, 1974).

The lack of opportunity for future benefit in the intergenerational case causes a potential free rider problem greater than the one that can arise with generalized exchange among contemporaries. Yamagishi and Cook (1993) pointed out that since the rewards that an actor receives usually are not directly contingent on the resources provided by that actor in generalized exchange, free riding can occur (that is, an actor can receive benefit without contributing). Theorists have therefore highlighted the important role of trust in generalized exchange systems. “Depersonalized” or “group-based” trust operates when individuals expect the probability of reciprocity within a particular group to be high (Brewer, 1981). It is not contingent on the belief that the specific recipient of a beneficial act will return the favor, but rather, is based on confidence that group members will reciprocate helpful behaviors, even if the specific recipient of past favors is missing or unable to fulfill his or her obligations (Kramer, 1993). In the intergenerational case, however, where actors benefit first and later have the chance to contribute with little or no probability of benefiting again, trust in the future reciprocation of others cannot be a motive for contribution.

The empirical investigation of intergenerational reciprocity that follows includes four studies that examined the allocation of resources across generations in the presence of intergenerational conflict (that is, a trade-off between the interests of different generations). I propose that individuals’ perceptions of what the previous generation left for them will affect what they leave for the next generation in such a way that the more the previous generation acted on the behalf of the present generation, the more the present generation will act on the behalf of future generations. In all four studies, resources increased over time, so that self-interested behavior on the part of the present generation indicated the discounting of benefits to future generations. The studies were designed to capture and reflect the combination of features (discussed previously) that characterize intergenerational situations, including power asymmetry, decoupling of consequences, lack of direct reciprocity, and role transition among actors.

**STUDY 1**

In Study 1, I took the first step in the empirical exploration of intergenerational reciprocity by examining a context in which limited benefits are allocated across generations. In this initial study, I predicted that the greater the amount of desirable resources a present generation perceives a previous generation as having left, the greater the amount that the present generation will leave for future generations.

The intergenerational context for Study 1 was based on the real-life crisis in fisheries around the world, where stocks of many species of fish are near collapse and there is much concern as to how a sustainable level of harvesting can be maintained. The collapse of the fisheries is a striking example of an intergenerational situation that involves both society-level concerns and generations of organizational actors (illustrating that these are not mutually exclusive). From the perspective of a single generation, it appears that it is in the economic best interest of fishing companies to catch as much fish as they can as fast as possible so that they can maximize their immediate economic gains. Such behavior is detrimental to the long-term economic
interests of the industry because by following this course of action over time, the fishing industry puts itself out of business by mismanaging its assets. In other words, it eventually destroys the resource on which it depends for its sustenance and profits. The intergenerational conflict here is that by harvesting at an unsustainable level, the earlier generations experience benefits that pale in comparison to the costs that later generations must bear (bankruptcy) as a result of the overfishing.

Methods

Participants. The Study 1 data were gathered through a simulation involving a business decision based on the fisheries crisis described above (a real-life intergenerational issue at an industry level). Fifty-seven graduate students in an MBA program at a university participated in this study. This sample was used because the procedures involved making a major business decision. The individuals in this sample were likely to have made business decisions in the past and were likely to be making them in their future careers. Participants were entered in a lottery to win $200 for their participation in the study.

Procedures. Participants were put in the role of an owner of a large commercial fishing business. They were told that this was the last year that they would be in the business because they were retiring for personal reasons. They had been informed by the National Marine Fisheries Service (NMFS) about a problem of overexploitation of the fish resource. The NMFS had asked them to reduce their harvest by 50 percent in order to enable the species they fished to sustain its existence into the future for the benefit of future generations of fishers. They were told that since they were the largest commercial fishing company in the industry, their harvest would have the greatest impact on the resource. (The harvesting of the other, smaller companies would be negligible, and so the behavior of other fishing companies was not a relevant factor in their decisions. This instruction eliminated any potential effect of an intragenerational social dilemma on the decisions of participants.) At maximum capacity, they could harvest 1,000 metric tons. Thus, the NMFS was asking them to harvest only 500 metric tons this year. The request was not legally enforceable; participants were asked to limit their harvest voluntarily. Participants were also told that their personal savings for retirement were modest.

The situation was such that they would not benefit from the sacrifice, but the cost of the collapsed resource to future fishers was much greater than the cost to the present fishers (the participants) of reducing their harvest. Participants were shown with a graph that there was a positive correlation between their profits and their harvest level. Participants were also told that marine scientists estimated that the recovery of the resource would enable future fishing companies comparable to their own to harvest 600 metric tons per year indefinitely beginning in a few years, after the fishery had had a chance to recover. This estimate was based on the assumption that future generations, in turn, would harvest at a sustainable level. Participants were also told that, in contrast, if the fishery was harvested unsustainably again this year, the recovery would not take place and future fishers would experience tremendous losses.

The cost/benefit trade-off between present and future generations described in the experimental materials mirrored the real-world situation. In addition, the National Marine Fisheries Service is an actual organization whose responsibilities may include attempts to persuade fishers to reduce their harvests voluntarily.

Manipulation of intergenerational reciprocity. Participants were randomly assigned to one of two information conditions. This manipulation represented the behavior of the previous generation that would affect the present generation. Participants were told that the NMFS had made a similar request to the largest commercial fishing company a few decades ago, when the state of the fishery first began to be an issue. In one variation of the information, constituting the first condition, the company in the previous generation was said to have chosen not to respond to the NMFS's request; it had continued to harvest at full capacity. Participants were told that it is likely that this decision had had an impact on the current condition of the fishery, which would be healthier today if the company had chosen instead to reduce its harvest. However, the specific levels of harvesting of the previous generation were not specified. It was the general response of nonbeneficence toward the future generation that was important in this manipulation. There were 27 participants in condition 1.

In the second information condition, the company in the previous generation was said to have chosen to respond to the NMFS's request and had cut its harvest in half. Participants were told that it was likely that this decision had had an impact on the current condition of the fishery and that it would be in worse condition today if the company had chosen instead not to reduce its harvest. Once again, the specific levels of harvesting (before and after the reduction) of the previous generation were not specified. It was the general response of beneficence toward the future generation that was im-
important in this manipulation. There were 30 participants in condition 2.

**Measure of intergenerational behavior.** Inter
generational behavior was measured implicitly from participants' decisions. Participants decided how they would allocate resources between themselves and future generations, knowing that future
generations would be affected by the allocation more than they themselves would be affected. Participants were asked to indicate the amount of fish they would harvest. This could be any amount between 1,000 and 500 metric tons, which represented operating their business at 100 percent and 50 percent capacity, respectively. This harvesting range reflected real-world considerations by (1) not allowing harvests to exceed current levels, since 1,000 metric tons was the company’s maximum capacity and (2) not allowing harvesting levels to drop to unrealistically low levels, since it is unlikely that companies would intentionally put themselves out of business. In addition, the NMFS did not say that it would help the fishery to go below the 500-metric-ton recommended level. The closer to 100 percent capacity (1,000 metric tons) they chose to operate, the less they were acting on the behalf of future generations and the more they were discounting the benefits to future generations.

**Postdecision questionnaire.** After making their harvesting decisions, participants were asked to explain in writing how they made their decisions. This question was intended for exploratory purposes and was intentionally very broad.

**Manipulation check.** In the same postdecision questionnaire, after they had answered the open-ended question above, participants were asked to indicate, using a seven-point scale (1, “not at all”; 7, “very much so”), the extent to which they agreed with the following statement: “Previous generations of fishermen did their part to help preserve the resource.”

**Results**

The manipulation check measure had a mean of 1.70 (s.d. = 0.82) in condition 1 and 4.97 (s.d. = 1.69) in condition 2 (p < .001), confirming the effectiveness of the manipulation. The results supported the hypothesis that the greater the amount of desirable resources the present generation perceives as having been left by the previous generation, the greater the amount that the present generation will leave for future generations. The overall mean harvest was 604 metric tons (s.d. = 160). In condition 1 (previous generation did not reduce their harvest), the mean harvest was 670 (s.d. = 168) metric tons. In condition 2 (previous generation did reduce their harvest), the mean harvest was 546 (s.d. = 131) metric tons. The difference in harvesting level by condition was significant (F = 9.91, p < .01) in the predicted direction.

The results from the open-ended question offered further insights into the decision process. First, all responses were coded as to whether participants expressed a concern for future generations or not. Examples of statements indicating concern for future generations included “It is important to make a sacrifice on the behalf of the industry and future fishing companies” and “I want the next generation of fishermen to have the same opportunity I had.” Their written responses were consistent with their harvesting decisions; the majority of respondents in condition 2 indicated a concern for future generations (24 out of 31, or 77 percent), while only 9 out of 27, or 33 percent, did so in condition 1. This difference was significant (χ² = 11.80, p < .01).

Another interesting trend was that, although a number of respondents (28%) explicitly cited the behavior of the previous generation as a factor that influenced their decision in condition 2 (previous generation reduced harvest), none of the respondents referred to or mentioned the behavior of the previous generation in condition 1 (previous generation did not reduce harvest). The responses were coded as to whether or not they referred to the behavior of the previous generation as a factor in the decision, and the difference between conditions was significant (χ² = 8.08, p < .01). An example of a reference to the previous generation was, “My own profits have resulted because past fishermen considered and implemented reduced harvest. I should do the same for others.”

A potential concern in this study is that the significant difference by experimental condition in harvesting decisions was driven by demand effects. However, if that were the case, then one would expect respondents in condition 1 to have tended to maximize their harvests. However, only 3 did so (in the second condition, 2 did so, for a total of 5), and the majority of people, even in condition 1, reduced their harvests by 50 percent or less (52 out of 58 overall, or 90 percent; 23 out of 37, or 62 percent in condition 1; and 29 out of 31, or 94 percent, in condition 2). The results suggest that the majority of participants in both conditions acted to some extent on the behalf of future generations, but those in condition 2 did so to a greater extent (that is, they were more generous). In condition 2, 26 out of 31 participants (84%) harvested the minimum (500 metric tons), while in condition 1, only 10 out of 27 (37%) did so. In addition, the qualitative data suggest that participants were engaging in the exercise in a way consistent with my
thesis. Nothing in any of the responses to the open-ended question suggested that participants were guessing hypotheses or responding in a way that reflected their perceptions of my expectations.

**STUDY 2**

In Study 1, I looked at an intergenerational allocation decision involving benefits. Since past research suggests that allocations of benefits and burdens represent different decision processes (Griffith & Sell, 1988; Lamm & Kayser, 1978; Mannix, Neale, & Northcraft, 1995; Northcraft, Neale, Tenbrunsel, & Thomas, 1996; Sondak, Neale, & Pinkley, 1995; Törnblom, 1988), one cannot assume that the findings from Study 1 will generalize to burden allocation. To examine this, in Study 2 I looked at whether intergenerational reciprocity extended to situations in which people were allocating burdens between themselves and future generations. My prediction was that the greater the burden perceived to have been left by previous generations, the greater will be the burden the present generation will leave for future generations.

A potential weakness of Study 1 was that, although the experimental materials were based on a real-world situation, participants were playing roles rather than making decisions relevant to their real lives. Study 2, designed to address this concern, was based on the topic of federal gasoline taxation in the United States, an issue directly related to greenhouse gas emissions and global warming (the greater the tax increase, the greater the decrease in annual greenhouse gas emissions, a delayed atmospheric effect resulting in significant measure from the consumption of fossil fuels). This context was chosen because global climate change is one of the most important intergenerational issues worldwide, and it transcends national, generational, and organizational boundaries and has both direct and indirect effects on organizations. Greenhouse gas emissions abatement policies will translate fundamentally into encouraging technological innovation and controlling energy generation and consumption, which has direct economic implications for the majority of industrial sectors.

One challenge in studying group-level intergenerational issues is the presence of a social dilemma within a generation (an intragenerational social dilemma) affecting actors’ ability to act on the behalf of future generations. A decision maker in a present generation might want to act on the behalf of future generations, but the potential impact of his or her actions might depend on others within the same generation also making decisions on the behalf of future generations. The dilemma is that if the individual sacrifices and no one else does, then the individual gets hurt and the future generation still does not benefit. In this kind of situation, the cooperation of many actors in the present generation is needed in order to benefit future generations. When studying group-level intergenerational problems, researchers must find ways to separate the influence of social dilemmas on behavior from the intergenerational phenomena of interest. This obstacle was, admittedly, dealt with somewhat artificially in Study 1. A strength of Study 2 is that this potential confound was avoided naturally.

**Methods**

**Participants.** Sixty-one graduate students in an MBA program at a university participated in this study. Participants were entered in a lottery to win $200 for their participation in the study. They were told that comprehensive research was conducted to gather information on the issue of gasoline taxation. The advantage to this method is that participants were not imagining themselves in a situation. Instead, gasoline taxation was an issue with which the participants were familiar and by which they were likely to be affected in their real lives.

**Procedures.** Participants were given some information on the federal gasoline tax, including the current tax at the time of the study. Several benefits associated with the taxation of gasoline were outlined for them, including reducing pollution (greenhouse gases), conserving natural resources, and improving national security.

Then participants were told that although a portion of the benefits described would be realized immediately, most of the benefits resulting from an increase in the gasoline tax would be enjoyed by future generations. Participants received further information about fossil fuel and pollution levels that illustrated the distribution of burdens and benefits between present and future generations. Participants were told that the relationship between the increase in the gasoline tax and the benefits to future generations was roughly linear, such that the greater the gasoline tax increase, the greater the benefits. Finally, participants were reminded of the primary disadvantage to an increase in the tax: the price of fossil fuel would rise.

**Manipulation of intergenerational reciprocity.** Participants were randomly assigned to one of two conditions. In both conditions, they received some historical information about the tax. In the first condition, participants were told that the federal gas tax had only been raised three times in the past few decades and that between 1932 and 1983, the
gas tax only increased from 1 to 4 cents per gallon. Thus, the emphasis was on what the previous generation had not done for the present generation. There were 35 participants in condition 1.

In the second condition, participants were told that the federal gas tax had been in effect since the early part of the century, had been steadily increasing since its inception, and had risen more dramatically (more than 400 percent) in recent decades. Thus, the emphasis was on what the previous generation had done for the present generation. There were 26 participants in condition 2. Note that in both conditions all information provided to the participants was real data on the actual tax.

Measure of intergenerational behavior. Participants were asked to indicate how much of a federal gasoline tax increase they thought would be appropriate, given the relationship between the benefits to future generations and an increase in the tax. They were told that the increase would be in addition to the current federal and state tax and, for the purposes of this survey, they should assume that the burden of the tax would be distributed equitably over all sectors of society.

Intergenerational discounting was measured implicitly from participants' decisions. The greater the amount (in cents) they thought was appropriate, the more they were willing to take on a burden for the benefit of future generations, and the less intergenerational discounting was occurring.

Results

The results supported the hypothesis that the greater the perceived burden left by previous generations, the greater is the burden that will be left to future generations. The overall mean gas tax that participants suggested was 25.32 cents (s.d. = 29.07). In condition 1 (previous generation has not done its part), the mean gas tax was 18.84 cents (s.d. = 23.95). In condition 2 (previous generation has done its part), the mean gas tax was 34.04 cents (s.d. = 33.32). The difference in gas tax by condition was significant \( F = 4.30, p < .05 \) and in the predicted direction.\(^4\)

STUDY 3

The data from Studies 1 and 2 demonstrated that intergenerational reciprocity was possible in the allocation of benefits and burdens. Study 3 was the next step toward understanding this phenomenon better by considering what drives this effect. How and why does the behavior of the previous generation affect the intergenerational decisions of the present generation? The qualitative data from Study 1 suggested a combination of reciprocal obligation (an illustrative comment is, "Someone had done the same for me in the past") and following a norm or model provided by past generations ("Follows tradition of another company in the past").

The results from Studies 1 and 2 are consistent with research conducted within the framework of social learning theory (Bandura, 1969; Bandura & Walters, 1963), which demonstrates that learning can occur vicariously, through observation of other people's behavior rather than through direct experiences. A study by Cowan, Langer, Heavenrich, and Nathanson (1969) demonstrated that modeling influences produced generalized and enduring changes in moral judgments. Specifically, the authors found that modeling emerges as a significant determinant of moral judgments, regardless of the direction in which judgmental behavior is being modified. Rutte, Wilke, and Messick (1987) suggested that in situations involving the sequential use of a resource pool, individuals can infer a norm of either selfishness or generosity from the behavior of the prior users of the resources. Conformance to inferred norms that can be implied by the behaviors of others is a simple decision heuristic. Rutte and colleagues noted that although understanding the use of heuristics in simple situations must precede their analysis in more complex ones, more complicated situations (such as intergenerational allocations) will naturally entail different heuristics dealing, for instance, with reciprocity.

I posit that when people face an intergenerational decision, they look for information on what might be appropriate intergenerational behavior to help them make their decision. The behavior of past generations is one source of information people are especially likely to use if it is easily accessible. I propose, however, that alternative models (defined below) of intergenerational behavior can influence behavior toward future generations in much the same way the behavior of the previous generation was shown to do in Studies 1 and 2.

For precision and clarity, here I take "previous generation" to mean the generation whose actions directly affect the decision maker. I take "alternative model" to mean an intergenerational decision that a decision maker can observe, but by which he or she is not affected. In this study, I predicted that, in the absence of information about the behavior of the previous generation, alternative models of in-

\(^4\) The high standard deviations were due primarily to a few participants in both conditions who could be called "zero-tax extremists." These individuals would not consider any increase in the federal gasoline tax appropriate regardless of any information they were given.
tergenerational behavior would influence the intergeneration allocation decisions of the present generation.

A procedure involving the systematic replacement of individuals in a laboratory context to produce an analogue of generational succession has been viewed as an important methodological tool for the study of social evolution (Gerard, Kluckhohn, & Rapoport, 1956). Although I believe that it is important to be clear about the limitations of a laboratory study for explaining anything as complex as social evolution, the methodology described above has been considered legitimate in prior research on generational succession (Insco, Gilmore, Moehle, Lipsitz, Drenan, & Thibaut, 1980; Insko et al., 1982; Jacobs & Campbell, 1961; Rose & Felton, 1955; Weick & Gilfillan, 1971; Zucker, 1977). Following this tradition, I used a similar methodology in Studies 3 and 4. The studies cited above generally examined the persistence of norms, traditions, and/or beliefs across generations; this issue is relevant to my research, but to my knowledge none of these prior studies examined resource allocation or contexts involving conflict of interest between generations.

Studies 1 and 2 required participants to make intergenerational allocation decisions within two contexts based on real-world intergenerational issues, fisheries and gas taxes, both of which are among the most important intergenerational issues for society and of high relevance to organizations. These issues provided rich real-world contexts for the decisions; however, a limitation was that the decisions were necessarily hypothetical and thus participants did not have to live with the consequences of their decisions. Studies 3 and 4 involved an allocation decision in which participants experienced actual consequences as a result of their decisions, thus addressing this limitation. In addition, Studies 3 and 4 examined the phenomenon of intergenerational reciprocity in a different population of participants.

Thus, participants were in the role of the present generation and the "next person" represented the future generation.

Participants were each given an envelope containing $9 in single dollar bills and asked to take the amount that they wished to keep and leave the amount that they wished to give to the next person in the envelope. They were told that the amount they left for the next person would be increased by 50 percent. The money kept from the $9 was in addition to the $5 that each was paid to participate in the research. Participants made their decisions individually and in private.

**Manipulations.** There were four experimental conditions, with 13 participants in each one. The instructions in the first two conditions described how someone else who had participated in a similar research project had behaved; thus, they provided alternative models of intergenerational behavior. One example was generous and the other was not. The instructions for the other two conditions indicated that the amount ($9) that the current participant was to allocate was the result of the decision of the person who had preceded him or her in the experiment; the manipulation established the predecessor as generous in one case and nongenerous in the other (these conditions represented the behavior of the previous generation).

In the first condition, participants were given a nongenerous example. Specifically, they were told that in a similar situation, someone had $24 and took $18 (75%), leaving $6 (25%), which was increased by 50 percent ($3) and given to the next person. In the second condition, the example was generous; they were told that someone else in a similar situation had $8 and decided to keep $2 (25%) and leave $6 (75%), which was increased by 50 percent ($3) and given to the next person. Thus, it is the percentage kept or left of the original amount that indicates the spirit of generosity or selfishness. In the third condition, participants were told that the previous person had $24 and decided to keep $18 (75%) and leave $6 (25%) for the next person—who was the current participant. That $6 was increased by 50 percent ($3) to create their $9. Thus, the previous generation was relatively ungenerous. Finally, in the fourth condition, participants were told that the previous person had $8 and decided to keep $2 (25%) and leave $6 (75%) for the next person (who was the current participant). That $6 was increased by 50 percent and, once again, created their $9. Thus, the previous generation was relatively generous.

**Measure, questionnaire, and manipulation check.** Intergenerational behavior was measured implicitly by how much of the resources (money)
participants kept for themselves. Since the money a participant left for the next person increased by 50 percent, the more money the present generation kept for themselves, the more they were discounting the value of the resources to the next generation.

After making their allocation decisions, participants were asked to describe in writing how they had made their decisions.

After answering the open-ended question on how they had decided, participants indicated the extent to which they agreed with a statement (1, "not at all"); 6, "very much so"). For people in conditions 1 and 2, the statement was "The allocation decision of the person who participated in a similar research project was generous." For those in conditions 3 and 4, it was "The allocation decision of the person who left me money was generous."

**Results**

Table 1 summarizes the means by condition. The results support the hypothesis from Study 1 that the greater the amount of resources perceived as having been left by previous generations, the greater the amount that will be left to future generations. A planned contrast analysis between conditions 3 (previous generation was not generous) and 4 (previous generation was generous) indicated a significant difference between the two (t = 2.97, p < .01), thus lending support, once again, for the hypothesis from Study 1 that intergenerational behavior can be influenced not only by the behavior of the prior generation, but also by alternative models of intergenerational behavior. Another planned contrast indicated a significant difference between conditions 1 (nongenerous example) and 2 (generous example) (t = 5.29, p < .001). Follow-up post hoc "pairwise" comparisons indicated (consistent with what is fairly obvious from the means) that conditions 1 and 3 were not statistically different from each other, nor were 2 and 4.

The actual allocations indicated that participants were responding to the **spirit of generosity** or non-generosity rather than mimicking the exact behavior of the previous generation or the alternative model of intergenerational behavior they received. That is, participants did not allocate the exact same dollar amounts or proportions of original resources to future generations as the previous generation had allocated to them. Rather, the responses reflected a strong desire to share the resources equally, but responses tended to be either generous or not, depending on the behavior of the previous generation.

In their responses to the open-ended question, 21 of the 52 (40%) referred to concern for equality. There were, however, different ways of thinking about equality that fell into three general categories: (1) split what one has to begin with (that is, split $9 in half, although this meant deciding on one party getting an extra dollar, since they were only allowed to allocate in $1 increments), (2) split the ultimate amount, taking the increase into account (that is, keep $6, which means the future other also gets $6, after the increase), or (3) have equal starting amounts (that is, keep $3, which means the future other gets $9—the same amount the present generation started with—because the future other gets the $6 plus the 50 percent increase of $3).

The manipulation check indicated that the manipulations were effective. The mean response for condition 1 (x = 2.62) was significantly lower than that for condition 2 (x = 4.46, p < .01), and for condition 3 (x = 2.69), it was significantly lower than for condition 4 (x = 5.31, p < .001), thus confirming the effectiveness of the manipulations (overall F = 15.89, p < .001).

**Table 1**

<table>
<thead>
<tr>
<th>Experimental Condition</th>
<th>Mean Amount Kept</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alternative model, nongenerous</td>
<td>5.38</td>
<td>13</td>
</tr>
<tr>
<td>2. Alternative model, generous</td>
<td>2.92</td>
<td>13</td>
</tr>
<tr>
<td>3. Previous generation, nongenerous</td>
<td>5.31</td>
<td>13</td>
</tr>
<tr>
<td>4. Previous generation, generous</td>
<td>3.92</td>
<td>13</td>
</tr>
</tbody>
</table>

Overall F₁,₄₈ = 12.91, p < .001.

**STUDY 4**

The results from Study 3 indicate that an alternative model of intergenerational behavior can influence the behavior of a present generation in the absence of information about the behavior of the previous generation. This finding suggests that providing a norm or model of appropriate intergenerational behavior is one reason why the behavior of the previous generation affects intergenerational decisions of the present generation. This is one of the mechanisms that I have suggested is likely to underlie intergenerational reciprocity. The other, which is also evident in the qualitative data from Study 1, is reciprocal obligation. It is likely that these mechanisms operate in conjunction to promote intergenerational reciprocity. If these two psychological processes (reciprocal obligation and modeling) are intertwined in real-life intergenera-
tional decisions, it may not be possible, necessary, or even useful to isolate the role of each when the behavior of prior generations is known because, despite any reciprocal obligation (or retaliation) that is created, the behavior of the prior generation can always also serve as a model and thus, you cannot rule that out as a possible influence in the decision process.

Another question raised by Study 3, however, is what will happen when a present generation is simultaneously exposed to an alternative model of intergenerational behavior and information about the behavior of the previous generation? In this case, the present generation may have two competing models of how it should behave. If both models suggest a spirit of generosity, or both suggest a spirit of nongenerosity, they will not compete with each other. Study 4 investigated what happens if one model suggests generosity and the other model suggests nongenerosity. I predicted that the model offered by the previous generation would dominate in the presence of a competing alternative model because the extra motive of reciprocal obligation (or retaliation) would be present. Thus, here I predicted that in the presence of another, competing alternative model of intergenerational behavior, the behavior of the previous generation will prevail as the dominant influence on the behavior of the present generation with respect to future generations.

Study 3 indicated that considerations of equality and fairness came into play in participants’ decisions. Prior research on conflict and resource allocation offers ample evidence that individuals make egocentric or self-serving interpretations of situations and judge fair distributions of resources that favor themselves (Babcock, Loewenstein, Issacharoff, & Camerer, 1995; Bazerman & Neale, 1982; Diekmann, Samuels, Ross, & Bazerman, 1997; Messick & Sontis, 1983; Neale & Bazerman, 1983; Thompson & Loewenstein, 1992; Wade-Benzoni, Tenbrunsel, & Bazerman, 1996; Walster, Walster, & Berscheid, 1978). In Wade-Benzoni et al. (1996), actors were in an asymmetric social dilemma in which a number of solutions could arguably be justified as fair, depending on which information participants chose to focus on. Results showed a strong tendency to (1) focus on solutions that favor self-interest and (2) justify self-interested behavior on the basis of arguments about fairness.

The design of Study 4 was based on the premise that people need very little incentive to justify a self-interested decision or, in this case, one that is tilted in a self-interested direction (since Study 3 indicates that allocations also reflect the strong influence of an equality norm). Because of the pervasive tendency toward egocentric interpretations of fairness, especially in resource allocation decisions, if there are two competing models—one signifying generosity and one demonstrating self-interest—individuals might be expected to choose the self-interested model, unless another force is also at play. Thus, if they follow the behavior of the previous generation in the presence of an alternative model that allows them to justify a more self-interested choice, it would suggest that the influence of the behavior of the previous generation has trumped the alternative model of intergenerational behavior.

Methods

Participants. Thirty-seven individuals on the administrative staff (secretaries, area coordinators, area managers, and others) at a university were in this study. Each was paid $5 to participate in the experiment.

Procedures. As in Study 3, participants were told that research was being done on how people allocate resources between themselves and other people and that they would be deciding how to allocate some money between themselves and another person who would be participating in the research after them. They were each given a sum of money ($9) and asked to decide how much of it to keep for themselves and how much to leave for the next person. They were told that the amount that they left for the next person would be increased by 50 percent. Thus, again participants were in the role of the present generation and the next person represented the future generation.

Again, as in Study 3, participants received envelopes with the money (in dollar bills) and were asked to take what they wished to keep for themselves and leave what they wished to give to the next person in the envelope. The money that they kept from the $9 was in addition to the $5 that they were paid to participate in the research. Participants made their decisions individually and in private.

Manipulations. There were four experimental conditions. The first was a control condition and served as a baseline in which participants were not given any additional information. In the second condition, they were given an example of very self-interested behavior on the part of someone in a similar situation. Specifically, they were told the person had $40 and took $38 (95%), which was increased by 50 percent, thereby leaving $3 for the next person. This example provided an alternative model of intergenerational behavior and offered information justifying self-interested tendencies in allocation decisions.
In the third and fourth conditions, participants received all of the above information, including the self-interested example. In addition, they were told that the $9 they had to allocate was the result of the decision of the person who had participated in the experiment prior to themselves, and the $9 was what was left for them. In the third condition, participants were told that the previous person had $24, decided to keep $18 (75%), and left $6 (25%); that $6 was increased by the 50 percent to create the $9 the participant then had. Thus, the previous generation was relatively ungenerous.

In the fourth condition, participants were told that the previous person had $8, decided to keep $2 (25%), and left $6 (75%), which again was increased by 50 percent, thereby leaving $9 for the current participant. Thus, the previous generation was relatively generous. Note that conditions 3 and 4 in Study 4 were identical to conditions 3 and 4 in Study 3, except that in Study 4, the self-interested example was also provided.

**Measure, questionnaire, and manipulation check.** Intergenerational behavior was measured implicitly by how much of the resource (money) participants kept for themselves. Since the money left for the next person increased by 50 percent, the more money the present generation kept for themselves, the more they were discounting.

After making their allocation decisions, participants were asked to describe how they made their decisions. They wrote down their responses on a form provided (with blank space for them to write).

In the same postdecision questionnaire, after answering the open-ended question above, participants in conditions 3 and 4 were asked to indicate the extent to which they agreed with the following statements using a six-point scale (1 = "not at all"; 6 = "very much so"): "The allocation decision of the person who left me money was appropriate," "The allocation decision of the person who left me money was fair," "The allocation decision of the person who left me money was generous."

**Results**

Table 2 summarizes the means by condition. Planned contrasts and follow-up post hoc pairwise comparisons all indicated that the means in conditions 1, 2, and 3 were not significantly different from each other, and the mean in condition 4 was significantly different from all other conditions.

The behavior of the people in the control condition, who received no information as a guide for intergenerational behavior, was similar to that of the participants who received information on their predecessors' nongenerous intergenerational behavior. The data support the hypothesis from Study 1 that the greater the amount of resources perceived as left by previous generations, the greater the amount that will be left to future generations. A planned contrast analysis between conditions 3 (previous generation was not generous) and 4 (previous generation was generous) indicated a significant difference between the two ($t = 2.46, p = .01$). Note that the presence of the self-interested example was constant across these two conditions. The data were also compatible with the hypothesis that in the presence of another, competing model of intergenerational behavior, the behavior of the previous generation will prevail as the dominant influence on the behavior of the present generation with respect to future generations. Another planned contrast indicated a significant difference between conditions 2 (only a self-interested example was provided) and 4 (both a self-interested example and information indicating that the previous generation was generous were provided) ($t = 2.81, p < .01$). In addition, the qualitative data are compatible with this hypothesis. Specifically, although several people referred to the behavior of the previous generation in conditions 3 and 4 as a factor in their decisions, none of the participants in any condition mentioned the self-interested example.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean Amount Kept</th>
<th>n</th>
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<tbody>
<tr>
<td>1. Control</td>
<td>5.43</td>
<td>7</td>
</tr>
<tr>
<td>2. Alternative model only</td>
<td>5.14</td>
<td>7</td>
</tr>
<tr>
<td>3. Alternative model plus nongenerous previous generation</td>
<td>4.75</td>
<td>12</td>
</tr>
<tr>
<td>4. Alternative model plus generous previous generation</td>
<td>3.55</td>
<td>11</td>
</tr>
</tbody>
</table>

* Overall $F_{3,33} = 4.68, p < .01$.

The results of Study 3, the nature of the allocation decisions in Study 4, although they were relatively self-interested among the participants in conditions 1, 2, and 3, also reflected concern for the welfare of the future generation and considerations of equality. The results from the follow-up open-ended question were also consistent with this observation: 12 out of 37 (32%) of the participants explicitly mentioned fairness as a factor that influenced their allocation decisions, and 16 out of 37 (43%) explicitly stated that concern for equality...
was a factor in their decision process. The same three equality-based decisions rules that were observed in Study 3 also dominated in this study. Thirty out of 37 participants (81%) used, and many explicitly stated, that their decisions were based on one of these three rules.

For the manipulation check, the three questions were combined to form a scale. A reliability test indicated an alpha of .94. The mean response for condition 3 ($\bar{x} = 2.14$) was significantly lower than the mean response for condition 4 ($\bar{x} = 4.45$; $F = 21.91$, $p < .001$), thus confirming the effectiveness of the manipulation of intergenerational reciprocity.

**DISCUSSION**

The pattern of results over these four studies offers consistent evidence that the behavior of a previous generation influences the behavior of a present generation toward future generations, in the allocation of both benefits (Studies 1, 3, and 4) and burdens (Study 2). The participants were from two very different populations (business graduate students in Studies 1 and 2, and university administrative staff members in Studies 3 and 4). Yet the four studies yielded similar and compatible results, indicating greater generalizability of and confidence in the results than might otherwise be the case. It is also notable that, contrary to what cynics or advocates of game-theoretic and economic models of cooperation might predict, in all the studies the majority of people acted on the behalf of future generations to some extent, even though they experienced no monetary benefit to themselves from such contributions. This observation is especially compelling in relation to Studies 3 and 4, where participants experienced real consequences of their decisions. In support of this trend, it was evident across studies that considerations of fairness, equality, and justice came into play.

Studies 3 and 4 investigated the role of alternative models of intergenerational behavior. Since they both involved participants from the same population, and the allocation situation and instructions were comparable, the two studies can be considered together as a way to observe trends. In all cases in which only nongenerous models (either the behavior of the previous generation or an alternative model) were available to the present generation, their behavior was strikingly similar to that of participants in the control condition (and, in fact, it was not statistically different from it in Study 4). This observation suggests an alternative explanation for the data involving a multistage decision process, which I describe below.

When deciding how to treat future generations, people first look for information about what might be appropriate behavior. One source of information is how the previous generation treated them, although this need not be the only source, as demonstrated in Study 3. When the behavior of the previous generation is accessible, people then judge whether to accept it as appropriate or not. An appropriate model would reflect both fairness and feasibility. If deemed acceptable, then people follow its example. If rejected as inappropriate, then their decisions are not influenced by it, and they may search for alternative models. If an alternative model is found, then individuals once again judge it as acceptable or not. If it is acceptable, then it may influence their decision. This thesis would also be compatible with the qualitative data from Study 1, in which participants cited the behavior of the previous generation as a factor influencing their decisions only when the prior generation was generous.

Applying this thesis to the data in Studies 3 and 4, in the cases (experimental conditions) in which the only available models were nongenerous (conditions 1 and 3 in Study 3, and conditions 2 and 3 in Study 4), participants may have deemed the models inappropriate and thus rejected them as influences on their decisions. This would explain why the decisions in these conditions looked much like those in the control condition, where no models were available, in Study 4. In contrast, when the available model was generous (conditions 2 and 4 in Study 3 and condition 4 in Study 4), individuals accepted it as legitimate intergenerational behavior and allowed it to influence their decisions. This thesis is compatible with the observed lower level of self-interested behavior when either the previous generation or an alternative model was generous. Note that in these cases, individuals appear to be responding to the spirit of generosity rather than directly mimicking the behavior of previous generations or alternative models of intergenerational behavior.

A helpful extension to Study 4 would be to offer both a generous alternative model and a nongenerous previous generation to participants in a single experimental condition. If people followed the behavior of the prior generation (acted ungenerously) instead of the alternative model, then (in view of the data for Study 4), support for the hypothesis in Study 4 would be stronger. If, instead, they acted generously, thus suggesting that they were following the behavior of the alternative model despite access to information on the behavior of the prior generation, the data would lend support to the notion of the multiphase decision process I have just proposed. Implementing this experimental design
would be a useful direction for future research since it would, in effect, fully cross the conditions for Study 4, thus addressing this limitation of the current research.

Future Research Directions

This series of studies on intergenerational reciprocity raises many questions. The results show that intergenerational reciprocity can operate in allocations of both benefits and burdens. An interesting direction for future research might be to directly compare benefit and burden allocation in the same study to explore whether intergenerational allocation decisions differ depending on the valence of the resource that is involved.

Other questions researchers could ask include, When will a present generation look at the behavior of the previous generation and view it as a model of what not to do? Or when will a generation do what it thinks it should do, instead of reciprocating in kind? There are likely to be situations in which individuals follow the urging of moral theorists and treat the next generation in the way they would like to have been treated themselves instead of the way they were actually treated. One hypothesis might be that trend-breaking behavior occurs at the extremes—either positive or negative. Very bad treatment by previous generations may be perceived as unfair and inappropriate, and exceptionally good treatment may be viewed as unnecessary, beyond the call of duty, or perhaps even impossible to replicate. In these cases, alternative models of intergenerational behavior may be sought out that are considered more appropriate or reasonable.

Another issue raised by this research is that of the intent and capabilities of the previous generations. For example, in some cases the previous generation might have had good intentions and tried its best to be generous toward the next generation but had been prevented from doing so by circumstances beyond its control. Is it, then, the actual outcome that influences the behavior of the next generation toward subsequent generations? Or does the next generation take into account the capabilities and intentions of the previous generation when it makes decisions that influence subsequent generations? This question is especially interesting when intent and outcome are not consistent (for example, there is a good intention with a bad outcome) or when the intent is inferred from the outcome when the actual intent is not known.

A factor that may moderate intergenerational reciprocity is whether the resource being allocated among generations is continuing or finite. That is, will the next generation be the last one in the sequence, or will the sequence continue after the next generation? This is an important issue for real-world applications since some resources have the potential to continue indefinitely if managed properly (for example, fisheries), and others (such as fossil fuels) are more finite, with allocation decisions realistically involve only a few generations. The effect of intergenerational reciprocity might be expected to be weaker if a resource is finite. The reason for this is that the behavior of the previous generation would be a more appropriate model within the context of a continuing sequence, since the decision that the previous generation made was similar to the one that the present generation would now be making. In contrast, if the resource is finite, the allocation decision is more like a two-party allocation than one within the context of a continuing sequence.

Finally, the intergenerational problems examined here are limited to situations in which actors in different generations do not simultaneously exist in the focal social exchange context. Thus, there was a complete decoupling of interests between generations, in that the present generation did not suffer any of the future costs or reap any of the future benefits associated with their decisions. In many real-world intergenerational contexts, especially those in organizations, where time horizons are shorter, things are not nearly as clean and neat. As some of the boundary conditions of the current research are relaxed, additional complexities in intergenerational relations inevitably emerge. Future research might explore situations in which different generations have opportunities to interact, some level of interdependence, and compatible interests as well as conflicting ones.

Implications for Organizations

Intergenerational behavior in organizations is important when it is in the organizations’ long-term best interest to take future interests into account, yet the interests of the present generation are at odds with those of future generations. A provocative aspect of Study 2 is that intergenerational behavior could be changed by simply reframing the way the present generation viewed the same historical situation, in one case emphasizing the good done by previous generations, and in the other, highlighting their negligence. One prescriptive implication for managers is to explicitly highlight the beneficial intergenerational behaviors of previous generations and to downplay the nonbeneficial ones in order to promote beneficent intergenerational behavior on the part of the present generation of employees.
This research also has implications in the areas of productivity, training, learning, culture, and norms in organizational contexts. For example, consider the case of incoming and outgoing employees rotating through positions. These successions constitute an individual-level intergenerational situation like that simulated in Studies 3 and 4. The results of these studies offer some insight into what might dictate the smoothness of such transitions. What will determine whether or not a departing employee will give an incoming person key pieces of information, such as files and notes, that will enable the incoming person to perform his or her new job better and become acclimated more easily? This research suggests that the answer to this question will partly depend on how the outgoing person was treated by his or her predecessor when he or she was first starting the job. In organizations, there is often no systematic monitoring or understanding of these transitions. This research suggests that it is important for organizations to provide incentives for people to “transfer benefically.” Nongenerosity may perpetuate itself across generations and interfere with employee performance as well as with organizational learning over time. Study 3 suggests that a possible intervention in this case would be to expose the present generation to more appropriate or desirable alternative models of intergenerational behavior.

Managing intergenerational transitions well can help organizations to perform better in fast-changing, unpredictable markets. Theorists and researchers on pace have argued that managing transitions in organizations is critical to successful time pacing (Eisenhardt & Brown, 1998). Good transitions can save time and help companies perform better, while bad transitions can cause businesses to lose position and fall behind. One type of transition that companies face is the transition among different generations of organizational actors. Intergenerational transitions, like other transitions in organizations, affect organizations’ ability to be good time pacers, and good time pacing affects their ability to compete. This research identifies intergenerational reciprocity as a factor that may impact the effectiveness of these transitions.

**Concluding Comments**

Intergenerational considerations are relevant and important to individuals, organizations, and societies alike. Intergenerational problems are typically complicated and, consequently, they can be difficult to study. In this article, I offer a framework for thinking about intergenerational situations systematically and recognizing them in a variety of contexts. I also suggest one approach to the methodological obstacles associated with intergenerational research—conducting multiple studies to investigate an intergenerational phenomenon from different angles. It was my aim to bring attention to the topic of intergenerational issues, offer suggestions for future research, and suggest initial insights that may help decision makers in various domains cope more effectively with these challenging insights.

**REFERENCES**


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