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Falling Apart and Coming Together: How Public Perceptions of Leadership Change in Response to Natural Disasters vs. Health Crises

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Abstract: Responding to disruptions and crises are challenges public leaders face as they strive to lead responsibly for the good of the community. The last two years have been especially challenging for public leaders and institutions. In Australia, the federal government battled natural disasters (bushfires) and COVID-19 within the span of only a few months, beginning in late 2019. These events provided the opportunity for a natural experiment to explore public perceptions of leadership in times of crises, with both a natural disaster and health crisis in quick succession. In this study, we develop, validate, and test a scale of perceptions of leadership for the greater good, the Australian Leadership Index, throughout different crisis contexts. We hypothesize and find support for the drivers of perceptions of public leadership and shifts in these perceptions as a function of the bushfire disaster response, a negative shift, and the initial COVID-19 response, a positive shift. Comparisons of the crisis periods against a period of relative stability are made. We discuss the implications of differential media coverage, how the crises were managed, and the resulting public perceptions of leadership for the greater good.

Keywords: leadership; public leadership; responsible leadership; public value; crisis leadership; public opinion

1. Introduction

Throughout history, public leaders, such as public office holders and elected representatives who serve the community, have been confronted with crises of varying severity and scale, the most significant of which are natural disasters and health crises. Recent examples of natural disasters include the 2010 Haiti earthquake, the 2011 Japanese tsunami, and the 2020 California wildfires, among many others. Examples of health crises include the Spanish flu, the HIV/AIDS pandemic, and the COVID-19 pandemic. In response to these "exogenous shocks", public leaders and institutions, including the institutions of government, are often forced to change the types of outcomes they prioritize and the processes through which these outcomes are realized in order to serve and to protect public interest. This raises the question: to be seen by citizens as demonstrating leadership for the public good, what outcomes should public leaders and institutions seek to create and how should these outcomes be realized? Moreover, does leadership for the public good look appreciably different in "normal" contexts compared to natural disasters and health crises?

Contemporary public management and leadership are replete with opportunities and challenges brought forth by globalization and fast-paced technological advances. Growing public pressure to lead in a socially responsible manner further increases and complicates those challenges, especially in pluralistic societies, as it means being accountable to an expanding set of stakeholders who hold different values, interests, and expectations [1–3]. A socially responsible leader aims to facilitate the creation of value, not only for internal



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stakeholders, such as employees and shareholders, but more broadly to individuals, groups, and communities that may be directly or indirectly impacted by the decisions of leaders and their institutions, including future generations. Recent research has highlighted that many organizations and leaders want to go beyond compliance, with efforts taken to consider the needs of internal and external stakeholders in delivering socially responsible and ethical outcomes [4,5]. However, even the best-intentioned leaders and institutions may not be judged to serve the public interest or to deliver public value in a meaningful and impactful way. The public, which comprises diverse individuals and groups, may perceive leaders and institutions as failing to serve the public good or deliver what they have promised. Perceptions of the public value created by leaders and institutions may be eroded further in periods of extreme disruption and crisis which carry risks of harm to the welfare of the general population.

The critical events that unfolded in Australia in 2019 and 2020 provide a fascinating natural experiment to investigate how public perceptions of leadership vary under different types of exogenous shocks. From late 2019 until February 2020, Australia experienced devastating bushfires which burned approximately 180,000 square kilometers of land, killing dozens of people and countless animals. Immediately following this event, in March 2020, the COVID-19 virus was detected in Australia, leading to widespread infections, hospitalizations, and deaths through successive "waves" of the virus. Notably, media discourse depicting how the Australian public responded to these two events differed greatly. The bushfires were widely seen as a leadership failure by the federal government, due to their apparent unwillingness to assume responsibility to address the disaster, and a correspondingly poor response once the event unfolded. In contrast, the initial response of the federal government to the COVID-19 pandemic was seen as a leadership success, with the decisive closure of national borders, the imposition of restrictions and lockdowns, and rapid implementation of economic and social support schemes. These two critical events occurred consecutively, and in a relatively short temporal period, thereby presenting a unique opportunity to understand how each shock influenced perceptions of public leadership.

Despite existing research on how leaders behave in times of disaster and crisis [6–10], there is a gap in existing knowledge regarding the way various indicators of leadership influence public perceptions of leadership for the public good under different types of exogenous shocks. It is unknown whether the drivers of overall perceptions of leadership for the public good, such as perceptions of accountability, fluctuate in different contexts, or whether drivers remain relatively stable across different contexts. To address this gap, we pose two overarching research questions. First, what drivers, including the outcomes leaders prioritize, integrity, and responsiveness to societal needs, impact community perceptions of leadership for the public good? Second, do the effects of priorities, integrity, and responsiveness on perceptions of leadership for the public good differ in the context of different types of exogenous shocks? Relating this specifically to the goals of this study, did people consider different indicators when making judgments about institutional leadership following the bushfire of 2019–2020 and throughout the first wave of COVID-19, compared to the period of relative stability that preceded these two crises?

To answer these questions, we draw on data from the Australian Leadership Index, a longitudinal study of leadership perceptions conducted in Australia between 2019 and 2020, a two-year period in which, as noted above, a large-scale natural disaster and a systemic health crisis occurred consecutively [11,12]. Using the Australian Leadership Index, we examine how performance on different indicators of leadership, such as the outcomes leaders prioritize (environmental, economic, social, and efficiency), the normative principles observed in the production of these outcomes (accountability, ethics, transparency, and fairness), and responsiveness (to the people they serve, society at large, the needs of different groups, and short- vs. long-term goals) impacts public perceptions of leadership for the greater good. We also examine how the effect of these indicators differ in different contexts (i.e., normal times, a natural disaster, and a health crisis). The next section will provide an

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overview of relevant theories, bringing together concepts and ideas from disparate areas of research, and ending with a set of hypotheses for the current research.

2. Theoretical Background

To explore what drives perceptions of leadership in different contexts, we need to operationalize and describe what is meant by public or community perceptions of leadership for the public good. In this section, we apply a responsible leadership lens to the concept and introduce the construct of leadership for the greater good. We also examine how theories of public leadership, responsible leadership, and public value can be combined to develop a novel conceptualization of leadership for the greater good—a complementary concept to public and responsible leadership. We conclude this section by reviewing the literature on leadership in times of crises and on perceptions of leaders and institutions during crises. The literature suggests that not all crises or exogenous shocks are the same and that contextual complexities may affect the influence of different drivers of leadership perceptions.

2.1. Leadership for the Greater Good

According to Brookes and Grint [13] (p. 1), public leadership is "a form of collective leadership ... which seeks to promote, influence and deliver improved public value." Although this construal of leadership helpfully foregrounds its object—namely, the welfare and well-being of the community or society at large—it is somewhat silent on the leadership practices through which these laudable ends are achieved. The difficulty of defining public leadership in a precise or comprehensive way is not ameliorated by using the synonyms of public value, which include, according to Moore [14] and Morse [15], "public interest", "public good", and "common good". Indeed, this arguably amplifies the challenges of defining leadership for the public good, because the public interest and common good are as much about outcomes as processes [16,17] and not reducible to a single, determinate good [18]. To illustrate, Bryson and Crosby [19] posit that leadership for the common good, as they call it, requires leadership to be enacted across several levels (e.g., within and across organizations, sectors, communities, and jurisdictions) in contexts characterized by weak agreement about principles, norms, and decision-making procedures (e.g., wicked problems). Accordingly, leadership for the common good transcends institutional boundaries, and calls for a diverse range of practices pertinent to individual, team, organizational, community, political, and policy leadership [19,20]. Construed in this way, leadership for the common good is more of an umbrella term for several interlocking "conditions, processes, structures, governance, ... outcomes and accountabilities" [21] (p. 52).

As currently conceptualized, public leadership, and the allied construct, leadership for the common good, tend to highlight the intended outcomes of such leadership (i.e., fostering the long-term welfare of the general population) and downplay the values, social responsibility orientations, action logics, and practices employed by public leaders, individually and collectively, to realize these outcomes. Notwithstanding the complexity of public leadership/leadership for the common good and the challenge of measuring it [22], to assess community perceptions of leadership for the public good, as is our intention in this study, it is essential to have a measure that captures its key aspects; namely, those that underpin the creation of public value. Despite disagreement about how to conceptualize and measure public value [23–25], we contend that the construct nevertheless provides a useful starting point for thinking about how to conceptualize and measure leadership for the public good. To differentiate the focal construct of this study from the terms "public leadership" [13] and "leadership for the common good" [19], both of which are focused on the leadership practiced in the public sector by public sector professionals, we use the term "leadership for the greater good", which we propose as a more general form of leadership for the public good that is germane to the public, private, and not-for-profit sectors.

There are several reasons to recommend the use of public value as a starting point to develop a general measure of leadership for the greater good, particularly one that Sustainability **2022**, 14, 837 4 of 19

is intended for use with the public. First, the multidimensional nature of public value (a recent systematic review by Faulkner and Kaufman [23] delineated four interlocking aspects) is consonant with the notion that the diverse conceptions of the good, and the variety of communities for which it is sought, militates against the identification of a single, determinate good [18]. Second, to the extent that public value reflects the combined view of what the public regards as valuable [26], the construct offers a framework to combine otherwise disparate conceptual judgments into a holistic assessment of leadership for the greater good that can be administered to the public. Presently, public opinion polls measure several indicators of public value—think of the myriad public opinion polls and surveys that measure perceptions of trust [27], accountability, or transparency—but in a piecemeal way that fails to integrate these indicators into a holistic measure of leadership for the greater good. Third, the notion that public value is a social construct whereby value is created through efforts to solve public problems or sustain public goods [14], suggests that public value, and by extension, the public interest and good, are not static but contextually determined in scope and purpose. Moreover, what may be deemed in the public interest today may not be in a decade; it changes with social mores and values [16].

This raises the possibility that public perceptions of leadership for the greater good may vary as functions of time and context, such as disasters and crises. In sum, the construct of public value provides a framework to develop a holistic, theoretically coherent, and potentially context-sensitive measure of leadership for the greater good that is meaningful to, and interpretable by, the public. Drawing on Faulkner and Kaufman's review [23], which delineates several interlocking aspects of public value, consideration turns next to the rationale for a new public-oriented measure of leadership for the greater good.

2.1.1. Outcomes

The first aspect of public value to consider is what Faulkner and Kaufman [23] call "outcome achievement", which refers to the extent to which a public body improves publicly valued outcomes across a wide variety of areas (e.g., social, economic, and environmental outcomes). That is, the public expects that public institutions, such as government and the institutions of the public service, will efficiently and effectively generate public value by producing positive outcomes to ensure their current way of life is sustained and enhanced. However, it is important not to conflate the outcomes of leadership for the greater good, such as stocks of social or natural capital, with the practices employed by public leaders and institutions to create these outcomes. In other words, the ends do not always justify the means. Thus, contributing to the greater good requires more than a consideration of the outcomes generated. To this end, it is helpful to draw upon the responsible leadership literature, a theory of leadership that entails the responsible and ethical creation of social and environmental value [1,28–30]. According to this literature, it is important to consider the responsibility orientations, strategic priorities, and action logics that guide leaders' value creation-related intentions and decisions (the means) that are antecedent to the creation (or destruction) of value (the ends). Therefore, we expect:

Hypothesis 1 (H1). Respondents' perceptions of government leaders' focus on creating positive (a) social, (b) economic, and (c) environmental outcomes, and (d) using resources efficiently, will have a positive impact on perceptions of government leadership for the greater good.

2.1.2. Trust and Legitimacy

The second aspect of public value to consider is what Faulkner and Kaufman [23] call "trust and legitimacy", which refers to the extent to which leaders and the institutions they collectively manage and lead are perceived as ethical and legitimate by the public and key stakeholders. This reflects the notion that the greater good, as well as leadership in its service, is as much about process as outcome [17,31]. Given that transparency, accountability, fairness, and ethicality are core principles within both the public value [23] and responsible leadership literatures [1,28,31], we hypothesize that:

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Hypothesis 2 (H2). Respondents' perceptions of government leaders' (a) ethicality, (b) accountability, (c) transparency, and (d) fairness will have a positive effect on perceptions of government leadership for the greater good.

2.1.3. Responsiveness and Balance

The final aspect of public value to consider is what Faulkner and Kaufman [23] call "service delivery quality", which refers to the extent to which services are judged as delivered in a manner that is responsive to users' needs and interests. An essential feature of this aspect of public value is the responsiveness of public leaders and institutions to the short- and long-term needs and interests of society at large, whose interests are often overlooked in favor of more proximate stakeholders [32]. Again, the theory of responsible leadership can be usefully recruited here. Specifically, this theory posits that leaders have an ethical obligation to be responsive and accountable to an array of stakeholders, including shareholders, employees, customers, clients, local communities, and the public, or society, more broadly. To achieve this, governments must be responsive to the people they serve—the electorate—and society at large, whilst also balancing the needs of different subgroups within society and short- and longer-term goals. As such, we hypothesize that:

Hypothesis 3 (H3). Respondents' perceptions of government leaders' (a) responsiveness to the people they serve, (b) responsiveness to interests of society at large, (c) balancing the needs of different groups, and (d) balancing short- and long-term goals, will have a positive effect on perceptions of government leadership for the greater good.

2.2. Perceptions of Leadership in Times of Crisis

Crisis management presents significant challenges for leaders, as it often involves boundary spanning and effective interorganizational collaboration to address complex, unfolding problems that cannot easily be solved by a single organization [10,19]. Crisis leadership has broadly been examined in terms of leadership traits [6,33], crisis communication or the spokesperson in times of crisis [34], post-crisis sense making and recovery efforts [35], the leader as the cause of a crisis [36], and perceptions of leaders during times of crisis [37], which is the focus of the current study.

Boin et al. [8] distinguish between "disasters" and "crises", referring to the former as an episodic event that is perceived as greatly harmful (e.g., a plane crash, an extreme weather event, or an act of terrorism), and the latter as an imminent threat to the basic structure, values, or norms of a system (e.g., the 2007–2008 global financial crisis, the COVID-19 pandemic). Importantly, as crises occur over extended periods of high threat, their impact can be averted, or at least minimized, if people, institutions, and leaders rise to the occasion.

Assessing the performance of crisis leaders has been controversial. Noting the absence of a systematic approach, Boin et al. [7] developed a framework for assessing leadership in times of crisis, which included performance related to organizing and implementing actions to address a threat, forging cooperation between previously unrelated agents, and fulfilling a need for direction and guidance. Boin and colleagues [7] argued that the public's assessments of crisis leadership were often shallow, with some leaders receiving undeserved praise or blame for how a crisis was managed. They suggested public opinion is largely based on what is perceived through the media, as most members of the public are typically not privy to the decision-making processes undertaken by their leaders.

On the other hand, Boin et al. [7] have also argued that crises expose the status quo as being problematic in a way that may not previously have been apparent [6], potentially eroding trust in the capability of institutions to manage critical events. Kapucu and Van Wart [9] further argue that crises are as much political as administrative, as political leaders must have the political will to build and continue funding emergency systems that may remain unused for years. Thus, an unchecked crisis can represent a failure in the leadership

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of an administration to adequately prepare for a catastrophic event, or in other words, a failure of responsible leadership.

Exogenous Shocks

In the current study, we examine the perceived leadership of the Australian federal government using the Australian Leadership Index during two crises, the 2019–2020 bushfires, and the COVID-19 pandemic. We do not set out to measure the technical effectiveness of crisis leadership under these circumstances; rather, we explore and interpret changes in the Index as an indicator of public faith or trust in the government's intention, willingness, and capability to govern for the entire community and protect the public interest. Crises and external disruptions bring considerations of the greater good to the forefront.

Leadership for the greater good is a multifaceted concept, and what constitutes leadership for the greater good likely varies across different temporal, geographical, and social contexts and is, to some extent, in the eye of the beholder [30]. Natural disasters are highly localized events, are concentrated within an acute timeframe, and occur more frequently than systemic health crises. Due to their frequency, and the ability to learn and adapt with each subsequent disaster, their impact on the environment, individuals, and society at large can be mitigated through preventative and intervening measures taken by governments (e.g., the creation of public goods, such as emergency services). As such, when a natural disaster has a severe impact, which could have been lessened through both proactively and responsively managing the disaster, individuals may assign blame to governments, viewing the disaster as a leadership failure.

In contrast, health crises are usually systemic in nature, are sustained over a longer period, and occur less frequently than natural disasters, providing fewer opportunities for institutional learning. Due to their ability to spread through populations, crises are seen as more difficult to manage by governments, proactively and responsively. During a systemic health crisis, individuals tend to place responsibility on themselves and governments, and typically come together to form camaraderie in responding to the crisis. As such, government intervention to protect citizens against a health crisis is seen in a positive manner. Due to these noted differences, this study aims to explore perceptions of leadership in times of disaster and crises, and identify if the drivers of these perceptions are context dependent or stable across contexts. We hypothesize:

Hypothesis 4 (H4). Different drivers will significantly predict public perceptions of government leadership for the greater good during a health crisis, a natural disaster, and under "normal" circumstances.

Hypotheses 1–4 are modelled in Figure 1, below.

2.3. Overview of Study

There is currently no holistic, theoretically grounded scale that measures the indicators of leadership for the greater good, nor changes in what drives these public perceptions of leadership for the greater good in different contexts. In this study, we address existing gaps in the body of work on leadership by examining how perceived leadership performance influences public perceptions of leadership for the greater good under different types of exogenous shocks. Specifically, there is a need to better understand how and if responsible leadership is sustained, not only when things are generally running smoothly, but also in times of hardship. To test the hypotheses presented above, we created, validated, and tested a new measure of perceptions of leadership for the greater good, including the drivers of these leadership perceptions in times of relative stability and across two exogenous shocks. We drew on the longitudinal data from the Australian Leadership Index to track public perceptions of leadership for the greater good through a period of relative stability, a period of acute natural disaster, followed by a period of systemic health crisis. We explored the context-specific perceptions of crisis leadership, and the conditions under which federal

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leadership is perceived as falling apart or coming together in service of its people. The next section outlines our method.

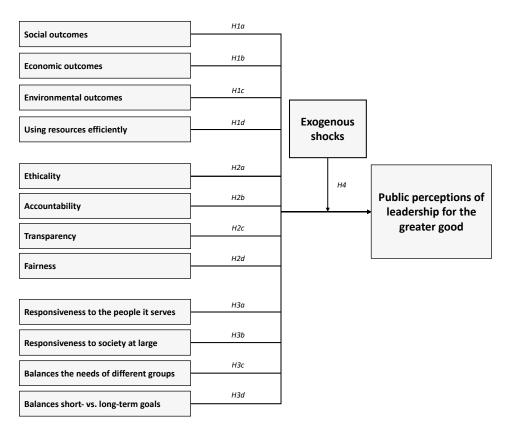


Figure 1. Theoretical model showing the direct effect of social outcomes, economic outcomes, environmental outcomes, using resources efficiently, ethicality, accountability, transparency, fairness, responsiveness to people, responsiveness to society, balancing the needs of different groups, balancing short- vs. long-term goals, and the effect of exogenous shocks on public perceptions of leadership for the greater good.

3. Method

Given the lack of established scales to measure leadership for the greater good and its drivers, we first developed and validated a scale to use for this purpose. In this section, we begin by describing the scale development and scale validation and end by detailing the sample and procedures used in the longitudinal survey, employing the new validated scale, the Australian Leadership Index, which is a holistic measure of leadership for the greater good.

3.1. Scale Development

The Australian Leadership Index was designed to measure both overall perceptions of leadership for the greater good and the hypothesized drivers of these perceptions. Notably, unlike scales that measure employee perceptions of individual leaders' ethical or responsible leadership in work contexts [38,39], the Australian Leadership Index was designed to measure public perceptions of institutional leadership. Moreover, because leadership for the greater good is, in principle, germane to all institutions and sectors, rather than specific institutions (e.g., the federal government, multinational corporations) or sectors (e.g., the private sector), the Australian Leadership Index was designed to be relevant to institutions in the government, public, private, and not-for-profit sectors.

To capture overall perceptions of leadership for the greater good, three general items were included in the Index, labelled Leadership for the Greater Good (L4GG). Consistent with the definition of the public interest as "the long-term welfare and well-being of

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the general population" [40] (p. 2), the three items are: "making the world a better place", "supporting the long-term welfare of society", and "showing leadership for the public good".

An initial set of drivers was identified based on a review of the responsible leadership and public value literatures, as outlined in the introduction. Subsequently, following good practice [41], we used purposeful and snowball sampling methods to recruit seven academic experts in leadership and business ethics from a variety of Australian universities, as well as 15 subject matter experts from the government and public (5), private (3), and not-for-profit (7) sectors in Australia for in-depth interviews. Subject matter experts were invited to participate if they met the criteria of currently or recently holding a senior positional leadership role in the relevant sector (e.g., executive directors, CEOs, former Members of Parliament). The initial list of drivers was used to develop a semistructured guide for the interviews, which kept the discussion focused on the research questions (i.e., what is and what drives leadership for the greater good?), but also allowed participants to discuss other areas they deemed to be relevant. Interviews ranged between 60 and 90 min in length and were transcribed to produce approximately 800 pages of double-spaced text. Thematic analysis was conducted on the interview transcripts, helping us to further refine the initial list of leadership drivers developed during the literature review.

With respect to the types of value associated with leadership for the greater good, participants noted that they involve going beyond the creation of positive economic or financial outcomes to include the creation of positive social and cultural outcomes. Moreover, participants noted that they involve concern not only for people but also the planet, highlighting the importance of creating positive environmental outcomes. With respect to how value is created, participants emphasized the idea that leadership for the greater good is value laden. Examples of these values include transparency, accountability, and a host of values associated with ethical conduct, such as honesty, fairness, respect for others, trustworthiness, and compassion. In addition to the general notion that leadership for the greater good involves an ethic of beneficence, participants' responses also highlighted the importance of nonmaleficence; that is, a commitment to the principle of "do no harm". Notably, participants emphasized that leadership for the greater good requires more than compliance with minimal legal and ethical standards (e.g., codes of ethics). With respect to the stakeholders for whom value is created (or not destroyed), participants emphasized the idea that leadership for the greater good excludes the singular pursuit of self-interest. Instead, it is other-oriented, although participants varied in terms of where they placed the boundary of the community for whom the good is sought. Whereas many participants highlighted communities and especially society at large, others highlighted the biosphere, which accords with notions of the greater planetary good. Finally, participants noted that public expectations vary as a function of sector. Whereas the government, public, and not-for-profit sectors were expected to serve the public interest, the business sector, whose first commitment is to make a profit, was not judged as carrying the same obligations with respect to the public interest.

Following the interviews, we captured the view of the general public by conducting five 10-person focus groups with Australian participants located in Melbourne. Participants were aged between 18 and 65 years of age, and each focus group comprised a mix of individuals from three distinct income groups (AUD0–31,999, AUD32,000–64,999, AUD65,000+). Insights from the literature review and the interviews were used to develop a semistructured discussion guide for the focus groups. The focus groups were two hours in length and were transcribed to produce approximately 400 pages of double-spaced text. Transcripts were analyzed thematically, helping us to further refine and finalize the list of drivers of leadership for the greater good. The themes that emerged from the focus groups largely paralleled those that emerged from our interviews with subject matter experts, although the concepts were somewhat less nuanced and differentiated. With respect to the types of value associated with leadership for the greater good, participants emphasized prosperity and sustainability, corresponding to the creation of economic and environmental

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value, respectively. With respect to how value is created, participants identified a variety of normative principles, including justice, fairness, transparency, and accountability. Another theme was a commitment to minimizing negative externalities. With respect to the stakeholders for whom value is created, participants noted that leadership for the greater good is selfless; it is oriented to the public interest and serves the majority. Finally, regarding public expectations of organizations, institutions, and sectors to show leadership for the greater good, participants noted that the public has the highest expectations of the not-for-profit sector to show leadership for the good. Private businesses were regarded as least expected to show leadership for the greater good, although big business was expected to contribute more to the public interest than small businesses.

This process resulted in twelve specific items being identified as likely drivers or indicators of perceptions of leadership for the greater good that are relevant across the government, public, business, and non-profit sectors. Although the meaning of some items was obvious and their relevance across sectors readily apparent (e.g., transparency, accountability), other items belonged to a more general category and were collapsed into a single, more abstract item (e.g., honesty and respect for others are aspects of ethicality). Another example of the latter is the derivation of the item "responsiveness to the people they serve". Given that stakeholders vary as a function of sector (e.g., governments are expected to serve citizens; businesses are expected to serve shareholders, as well as customers), the term "people they serve" was developed to ensure the relevance of this item to the government, public, private, and not-for-profit sectors. The final list of twelve included items related to the types of outcomes leaders are expected to deliver (e.g., social, environmental, economic value), the processes and principles that are expected to be observed in the creation of value (e.g., ethicality, accountability, and transparency), and their responsiveness to and balance of the interests of diverse stakeholders, including society at large. The three L4GG items and the twelve specific items were designed to be evaluated on a 1 ("not at all") to 5 ("to an extremely large extent") rating scale, responding to the question, for example "to what extent do you think the federal government are <insert L4GG or specific items>?". Twelve institutions across four sectors (government, public, private, and not-for-profit) were selected for inclusion in the Australian Leadership Index; however, the focus of this study is the federal government specifically.

3.2. Participants and Procedure

Participants were recruited through an online panel provider (Dynata). The recruitment was designed to ensure that participants were nationally representative of the Australian population in terms of locality (i.e., the state or territory they lived in), age, and gender. The data were drawn from the first two years of administrations of the Australian Leadership Index. The questionnaire was administered four times per year (September 2018, December 2018, March 2019, June 2019, September 2019, December 2019, March 2020, June 2020, and September 2020). The three periods used for analysis include (1) the control period, referred to as "normal times", which covers April 2019 to September 2019 (n = 676), (2) the Australian Bushfires period spanning October 2019 to March 2020 (n = 698), and (3) the COVID-19 Pandemic period from April 2020 to September 2020 (n = 675).

Human research ethics approval was obtained from Swinburne University of Technology. All participants were shown an information statement, provided consent, and participated voluntarily, understanding that they could withdraw at any time prior to submitting. Participants completed a survey about perceptions of the twelve institutions detailed above. To minimize survey fatigue, participants were randomly assigned one institution from each of the four sectors. At the conclusion of the study, participants were debriefed and thanked for their time.

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4. Results

4.1. Exploratory Factor Analysis

Analyses were performed using Mplus 8.7 [42], using the maximum likelihood robust (MLR) estimator. We analyzed the data using a formative measurement model [43], in which the twelve specific items were treated as predictors of a latent variable comprising the three general L4GG items. Thus, the model depicts leadership for the greater good as a linear composite of the twelve specific items.

To determine the optimal factor structure, we conducted a series of exploratory factor analyses (using geomin rotation) on the entire set of items, which ranged from one to four latent variables. The associated fit statistics are presented in Table 1, and the factor loadings for each model are presented in Supplementary Tables S1–S4. Descriptive statistics, including means, standard deviations, and correlations among the items, are presented in Supplementary Table S5.

Table	. 1	Model	Fit Statistics.
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Model	χ^2	DF	p	CFI	RMSEA	SRMR	BIC
1 Factor	801.779	90	0.000	0.913	0.119	0.041	18,530.806
2 Factor EFA	228.525	76	0.000	0.981	0.060	0.017	18,046.219
3 Factor EFA	111.195	63	0.000	0.994	0.037	0.011	18,011.221
4 Factor EFA	83.730	51	0.000	0.996	0.034	0.008	18,059.755

The fit statistics include the model chi-square (χ^2), the associated degrees of freedom (DF), the comparative fit index (CFI), the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the Bayesian Information Criterion (BIC).

For the one-factor model, we found that this model generally produced poor model fit. The two-factor solution suggested that the general and specific items each loaded onto a different factor. In the three- and four-factor solutions, the second factor accounted for most of the variance in the set of 12 specific items. Although model fit improved in the three- and four-factor solutions, the third and fourth factors produced low factor loadings that did not correspond to any theoretically meaningful groupings. Hence, we proceeded with the two-factor solution. A high level of reliability was observed for both the general factor (Cronbach's alpha = 0.93) and the specific factor (Cronbach's alpha = 0.97). The two factors were highly correlated (r = 0.86).

4.2. Longitudinal Analysis

Next, we tested the model of leadership for the greater good over time using the entire dataset. In Step 1, we use each of the 12 specific items as predictors of the greater good latent variable. In Step 2, we investigated the impact of exogenous shocks on perceived levels of leadership for the greater good. In Step 3, we conducted a moderation analysis to investigate whether the impact of each of the 12 items changed at different times.

Exogenous shocks refer to unexpected events that can have an impact on a performance measure. Because they occur randomly, they can be used to test the validity of a measure if there is a theoretical justification for an observed increase or decrease in the measure. The first "shock" we examined occurred in late 2019, when Australia was experiencing a severe bushfire season. The bushfires began threatening rural communities in September and October [44]. By December, the crisis had escalated, with out-of-control bushfires spreading across multiple states and closing in on major cities [45], destroying thousands of private residences, and requiring the emergency evacuation of many small towns. The federal government was widely perceived to have mismanaged this crisis, in terms of its lack of preparedness for the bushfires, previous cutting of expenditure directed to fire services, and its failure to respond quickly to the warnings of fire chiefs [46]. Moreover, the government had been criticized for its inaction on climate change [47], which had created hotter and drier conditions that had increased the risk of bushfires.

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The second "shock" we examined occurred in the middle half of 2020, when the novel coronavirus (COVID-19) was introduced into Australia. The federal government responded swiftly, closing national borders to all nonresidents on 20 March 2020. In the same month, many state governments introduced lockdowns throughout Australia. With many workers at risk of losing their jobs, the federal government introduced a significant stimulus package ("JobKeeper"), intended to support businesses that had experienced a downturn due to COVID-19 restrictions. At the same time, a National Cabinet between the federal and state governments was formed, which was designed to enable all levels of government to respond rapidly to the unfolding crisis. This change signaled greater cooperation between usually adversarial state and federal governments. There was also far more frequent communication from the government regarding the pandemic, associated risks of the virus, and the government's strategy for managing its spread.

Thus, in the case of the bushfires, we expected a decrease in measures of leadership for the greater good; while in the case of the COVID response, we expected an increase. In examining the three general items across time, we found that during the bushfires, mean scores on all three items were consistent with the baseline levels from "normal times". However, during the COVID-19 pandemic, mean scores for all three items were significantly higher compared to the 2019 bushfires. Changes in leadership over time are illustrated in Figure 2.

Public perceptions of leadership for the greater good

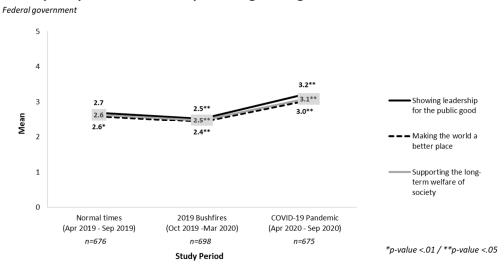


Figure 2. Graph showing the mean scores for federal government leadership for the greater good over the three distinct time periods, including normal times (April 2019 to September 2019), 2019 Australian Bushfires (October 2019 to March 2020), and the COVID-19 pandemic (April 2020 to September 2020).

4.3. Test of Formative Measurement Model

The three steps of the formative measurement model are presented in Table 2. In the first step and to address Hypotheses 1 through 3, we regressed the "leadership for the greater good" general factor on the twelve specific items. We found that items related to standards of conduct and responsiveness were most strongly related to leadership for the greater good, including demonstrating ethical standards and accountability, as well as responsiveness to society's needs and the needs of people served. We found that creating positive social outcomes, balancing short-term and long-term needs, and treating people fairly were the next strongest predictors. Creating positive environmental outcomes and balancing the needs of different groups were weaker, but still significant predictors. We found nonsignificant effects for creating economic outcomes, transparency, and using resources efficiently.

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Table 2. Predictors of Leadership for the Greater Good.

	Step 1	Step 2	Step 3
Constant	0.46 *** (0.04)	0.47 *** (0.04)	0.48 *** (0.05)
focused on creating positive social outcomes	0.09 *** (0.02)	0.09 *** (0.02)	0.11 ** (0.03)
focused on creating positive economic outcomes	-0.03(0.02)	$-0.03\ (0.02)$	-0.04(0.02)
focused on creating positive environmental outcomes	0.05 ** (0.02)	0.07 ** (0.02)	0.06 * (0.03)
transparent	0.02 (0.02)	0.02 (0.02)	0.04 (0.03)
demonstrating high ethical standards	0.12 *** (0.02)	0.12 *** (0.02)	0.12 *** (0.03)
be accountable for their actions	0.12 *** (0.02)	0.12 *** (0.02)	0.11 *** (0.03)
be responsive to society's needs	0.12 *** (0.02)	0.11 *** (0.02)	0.14 *** (0.03)
responsive to the people it serves	0.12 *** (0.02)	0.12 *** (0.02)	0.10 ** (0.03)
balancing the needs of different groups	0.05 * (0.02)	0.05 * (0.02)	0.01 (0.03)
balancing long-term and short-term goals	0.09 *** (0.02)	0.09 *** (0.02)	0.10 ** (0.03)
using resources efficiently	0.03 (0.02)	0.04 (0.02)	0.04 (0.03)
treating people fairly	0.08 *** (0.02)	0.08 *** (0.02)	0.09 ** (0.03)
Bushfires (main effect)	, ,	-0.07*(0.03)	-0.07(0.10)
COVID (main effect)		0.19 *** (0.03)	0.15 (0.11)
Bushfires × focused on creating positive social outcomes			-0.04(0.06)
Bushfires \times focused on creating positive economic outcomes			0.03 (0.04)
Bushfires × focused on creating positive environmental outcomes			0.02 (0.05)
Bushfires × transparent			-0.06(0.05)
Bushfires × demonstrating high ethical standards			-0.04(0.06)
Bushfires × be accountable for their actions			0.02 (0.05)
Bushfires \times be responsive to society's needs			-0.04(0.06)
Bushfires × responsive to the people it serves			0.03 (0.06)
Bushfires × balancing the needs of different groups			0.10(0.05)
Bushfires × balancing long-term and short-term goals			0.04 (0.05)
Bushfires × using resources efficiently			-0.01(0.05)
Bushfires × treating people fairly			-0.06(0.06)
COVID × focused on creating positive social outcomes			-0.01(0.05)
$COVID \times focused$ on creating positive economic outcomes			0.00(0.04)
COVID × focused on creating positive environmental outcomes			0.00 (0.05)
COVID × transparent			-0.02(0.05)
COVID × demonstrating high ethical standards			0.02 (0.05)
$COVID \times be$ accountable for their actions			0.01 (0.05)
COVID \times be responsive to society's needs			-0.05(0.06)
$COVID \times responsive to the people it serves$			0.06 (0.06)
COVID × balancing the needs of different groups			0.07 (0.05)
COVID × balancing long-term and short-term goals			-0.07(0.05)
COVID × using resources efficiently			0.00 (0.05)
COVID × treating people fairly			0.02 (0.05)
\mathbb{R}^2	0.72	0.73	0.73

^{*} p < 0.05, ** p < 0.01, *** p < 0.001.

In the second step, we included dummy variables representing the bushfires and COVID-19 periods, using the pre-bushfire period as the baseline. Relative to the baseline period, we found that leadership for the greater good was perceived more negatively during the bushfires. Conversely, we found that respondents reported more positive perceptions during the COVID-19 response period. Both differences were significantly different to the baseline. Inclusion of the two dummy variables did not alter the pattern of significant relationships between the 12 specific items and the general factor.

In the third step, to investigate whether the effect of each of the 12 items changed during the bushfire and COVID-19 periods (Hypothesis 4), we included interactions between the dummy variables and each of the items. All interaction effect sizes were nonsignificant, suggesting that respondents appraise leadership for the greater good in the same way in both crisis and noncrisis periods. As none of the interactive effects were significant and do not appear to explain additional variance, we focused our interpretation on Step 2 of the analysis.

5. Discussion

This study makes an important contribution to our understanding of perceptions of leadership for the greater good and drivers of these perceptions by detailing the development and validation of the Australian Leadership Index. Following a rigorous scale-

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development phase, the Index was shown to be valid in terms of both construct and concurrent validity. A longitudinal design enabled us to test the stability of drivers for the greater good over time. Although perceptions of leadership for the greater good changed over both the bushfire and COVID periods, the set of drivers remained consistent. Findings from the current study offer new insights on how the public conceptualize and evaluate the value that is created and delivered to them, and the extent to which different crisis contexts influence their public value judgments.

5.1. Perceptions of Leadership in Times of Crisis

Results indicate that perceptions of the federal government's leadership for the greater good were highest in the COVID-19 pandemic period, significantly more so than in the normal times or Australian Bushfires period. These trends were observed across all three indicators of leadership: showing leadership for the public good, making the world a better place, and supporting the long-term welfare of society. Perceptions were lowest during the bushfire period, but the difference from the normal period was only small. The discrepancy between leadership perceptions during an arguably well-handled initial response to a global health crisis and a poorly handled natural disaster highlights the political nature of crises.

The current findings contextualize Boin et al.'s [7] proposition which suggests that leaders may receive undue plaudits or blame during a crisis, mostly attributing this to the high visibility of leaders in the media or public spotlight during times of disruption. In the case of these two exogenous shocks, a recent study which analyzed media coverage, specifically, how the federal government was portrayed in print, found that print media derided the government's poor performance in response to the bushfires, while applauding the same government for the initial COVID-19 response [48]. Each crisis was heavily politicized, and government leaders were blamed or elevated in the media, based on the given context and response.

5.2. Drivers of Leadership Perceptions

Overall, results provided generally strong support for the hypothesized drivers of public perceptions of leadership for the greater good. With respect to the first block of indicators, which pertain to the types of outcomes that leaders and their institutions appear to prioritize, we found support for two of the four hypothesized drivers: leaders' focus on creating positive social outcomes and leaders' focus on creating positive environmental outcomes. Colloquially, this corresponds to a focus on people and planet, respectively—two of the three components of what John Elkington [49] dubbed the Triple Bottom Line (profit being the third). Notably, no support was found for the items pertaining to government leaders' focus on creating positive environmental outcomes or their resource efficiency, which suggests, in the public mind, that sound economic management may be an aspect of good public management rather than good public leadership. With respect to the second block of drivers, which relate to the trust and legitimacy of leaders and their institutions, we found support for three of the four hypothesized drivers: ethicality, accountability, and fairness. Notably, as indicated by the size of the regression coefficients of these items compared to the outcome-related drivers, our results suggest that the principles that guide the actions of leaders loom larger in the public mind than the outcomes that leaders seem to prioritize. Contrary to what we expected, no support was found for "transparency" as a driver of public perceptions of leadership for the greater good. Finally, with respect to the third block of drivers, which pertain to the responsiveness of leaders and their institutions to the needs and interests of stakeholders, we found support for all hypothesized items. Specifically, government leaders' responsiveness to the needs of the people they serve (i.e., their constituencies) and society at large, as well as their attempts to balance the interests of different communities and short- versus long-term goals, all predict public perceptions of leadership for the greater good.

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In further support of the stability of the drivers of perceptions of leadership for the greater good, a hierarchical regression with the exogenous shocks moderating the impact of the drivers on perceptions of leadership for the greater good, showed that most hypothesized drivers significantly predicted perceptions and consistently so, despite the hypothesized mitigating effect of the exogenous shocks—with one exception. That is, the drivers concerning the creation of positive social and environmental outcomes, ethicality, accountability, responsiveness to the needs of society and to the people served by the federal government, balancing the needs of different groups, balancing short- and long-term goals, and treating people fairly all significantly predicted overall perceptions of leadership for the greater good. Only balancing the needs of different groups dropped off as a significant driver once the exogenous shocks were introduced into the model as a moderator. Contrary to our final and more exploratory hypothesis, we observed no significant change in the drivers in different contexts, suggesting the stability of the identified drivers in predicting public perceptions of leadership for the greater good.

5.3. Theoretical Contribution

This study is noteworthy for several reasons. First, it is the only study, to the authors' knowledge, to develop and validate a scale to measure and track public perceptions of leadership for the greater good. Second, using a longitudinal design and taking advantage of a serendipitous natural experiment created by the 2019 Australian bushfires and the onset of the COVID-19 pandemic, this study illuminated the conceptual judgments that drive these leadership perceptions and revealed their influence and consistency over time and contexts. Third, for the first time, it drew together the public value literature [23] and two distinct literatures on socially responsible leadership in the public sector [13,50] and private sector [28,31,51] into a single framework and model.

Our findings demonstrate the utility of drawing on the construct of public value to conceptualize and measure public perceptions of leadership for the greater good. Despite the challenge of conceptualizing and measuring public leadership, as actually practiced by public leaders in the context of public institutions and complex public problems [22], the current study demonstrated that public value provides a helpful framework to conceptualize and measure leadership for the greater good, as understood from the perspective of the general public. Specifically, drawing on the responsible leadership [1] and public value [23] literature, this study demonstrates that, in the public mind, leadership for the good is a function of the positive social and environmental outcomes leaders seek to create, the normative principles and processes that guide and govern the creation of these outcomes (e.g., ethicality, accountability), and the community stakeholders for whom these outcomes are created. Notably, these aspects of leadership for the greater good are interlocking, rather than discrete, and appear to be stable across contexts, at least in the short term.

Although the scale developed in this study, which was designed to be meaningful to lay people, necessarily simplified the construct of public value and leadership for the greater good, it nevertheless reflects the complexity and irreducibility of public value and leadership in its service to a single outcome, principle, or process. Consistent with the growing literature on public leadership [13] and leadership for the common good [19], the new scale presented in this study acknowledges the tensions that characterize the greater good, which must be managed in the practice of leadership for the greater good. Although the oppositions, tensions, and paradoxes of the greater good are many [52], this scale acknowledges two basic tensions that are readily discernible to the public and germane to all contexts; namely, the tension between present and future goals, and tensions between the needs and interests of different groups, which can be especially pronounced in pluralistic societies.

6. Limitations and Future Research

While our findings provide an important contribution to the study of perceptions of leadership under different contexts, particularly in times of crisis, there are undoubtably a

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few limitations to consider. The first is about the universality and generalizability of the research findings. Our work focused on an Australian sample, as a case study approach to exploring longitudinal public perceptions of leadership for the greater good throughout a natural disaster and a health crisis. While many of the observed trends and implications can be transferred to other nations and cultures, some complexities are likely unique to Australia and other Western cultures. This limitation echoes other leadership and public value scholars who have cautioned against the applicability of Western-developed measures in other cultures [26], as what the Australian public regards as valuable may not be transferable across the globe.

As with any natural experiment, there are many extraneous factors aside from the independent variables that cannot be controlled for. Natural events, such as health crises and natural disasters, do not have a clear start and end date from which to form distinct periods of time that can be matched for length, severity, unintended outcomes, etc., as would be possible in lab experiments. We constructed time periods as close as possible to the events included in the study and applied the months preceding the Australian bushfires as a control period, labelled "normal times".

Of course, the "normal" or control period was replete with other noteworthy events and scandals that may have impacted perceptions of leadership for the greater good. For example, 2018–2019 saw a political scandal in which individuals were being incorrectly issued automatic debts, dubbed "Robodebt" [53], for which the current Australian Prime Minister was attributed the blame. Further, each of the crisis periods was filled with other events and occurrences (including political scandals), so that the bushfires or COVID-19 were not the only newsworthy topic in each period. Beyond the control of our study design, there is some overlap between events and approximated start and end dates for each period. While this level of noise is to be expected in a natural experiment, any claims regarding causation should be interpreted with caution.

The current study was limited to exploring perceptions of one institution: the federal government, due to the relevance of the response to crises and crisis leadership, more broadly. Increasingly, research and commentary are noting people's growing interest and expectations for leaders outside of government institutions to deliver public value, contribute to sustainability, the environment, and to society. Evidence of this demand can be seen in the rise of social enterprise [5] and certified BCorps, organizations that commit to giving the same degree of rigor to their ethical and social impact as they do for financial returns [54]. Future research could explore perceptions and expectations of corporations and their CEOs in periods of crises, as it is likely that those corporation who can authentically signal their leadership for the greater good will be perceived to be contributing to society and sustainable initiatives, and may, thus, be endowed with more social license to operate than those who cannot.

7. Applications for Leaders and Conclusions

7.1. Practical Implications

Findings from the current research offer insights to public leaders who want to lead, and be seen to lead, responsibly, serving the public interest and delivering public value to the communities they serve. Consistent with other measures of public opinion and trust, our results highlight the dynamic nature of perceptions of leadership for the greater good. Perceptions fluctuate in the wake of disasters and crises, and may be sensitive to how public leaders and institutions are depicted in the media as to how they handle the crisis.

Our findings provide insight into the levers that institutional leaders can change to influence public perceptions of leadership for the greater good. In determining if leaders and institutions are contributing to the greater good, at least for the federal government, the public values: the creation of positive social and environmental outcomes, ethicality, accountability, responsiveness to the needs of the electorate and society at large, balancing the needs of different groups, balancing long- and short-term goals, and treating people fairly. Contrary to what we expected, the drivers tested in the current study were constant

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across the study period and contextually invariant. That is, the drivers that were important for determining leadership perceptions in times of relative stability (normal times) were the same indicators of leadership perceptions following a natural disaster and a health crisis. Leaders who want to continually deliver value in times of crises should retain their focus on creating positive outcomes, on leading with trust and legitimacy, and on their responsiveness to societal needs.

Perceptions of leadership for the greater good across the study period suggest it is imperative for leaders to respond in a positive manner to exogenous shocks, including both natural disasters and health crises. A poor response, such as that observed after the 2019 Australian bushfires, can lead to declines in public perceptions of leadership for the greater good. In contrast, a positive response, such as those observed at the start of the COVID-19 pandemic, can lead to an increase in public perceptions of leadership for the greater good. To manage this more effectively, leaders will need to develop more effective crisis management strategies, including identifying potential risks, developing response plans, and allowing for potential contingencies. Crisis management strategies could outline tailored responses for varying levels of crisis severity so that the response is proportionate to the level of threat to the public.

While the drivers of leadership for the greater good remained consistent across the study period (normal times vs. natural disaster vs. health crisis), leaders could tailor their crisis response strategies by prioritizing outcomes. For instance, during a natural disaster, leaders may choose to prioritize the generation of environmental and social outcomes by responding in a way that mitigates environmental damage and provides support for those experiencing hardship. Conversely, during a health crisis, leaders could prioritize economic outcomes to mitigate the economic impact of public health measures and social outcomes by providing support to those affected. In normal times, of course, all three of these outcomes should be delivered consistently by leaders in the government sector. Importantly, while varying outcomes can be prioritized in response to unique exogenous shocks, results indicate leaders must always strive to behave ethically and be responsive to the needs of their constituents, regardless of the context that they are operating in.

Our findings also highlight the political nature of exogenous shocks such as natural disasters and health crises, particularly for leaders in the government sector. Polarized public opinions regarding how leaders behave in response to crises are further amplified through sensationalized and fear-reaching media coverage. Leaders who invest time and effort in engaging in leadership for the greater good, those who develop effective crisis response strategies, should also consider developing public relations strategies to ensure their efforts are portrayed fairly in the media, and thus, favorably broadcast in the public sphere. This could include actively engaging with the media to highlight what is being done to generate positive outcomes and in response to varying stakeholder needs. Such a strategy could also improve perceptions of transparency and accountability.

Finally, leaders should ensure that they are constantly tracking, measuring, and benchmarking how the public perceives their performance on leadership for the greater good, in order to drive continual improvement and to respond to potential challenges. As Northouse [55] recommended, leaders (including those who hold formal leadership positions, as well as those who engage in other kinds of informal leadership) can embrace evidence-based research to gauge their own behavior against public perceptions and expectations. Leaders can ask themselves if they are behaving in ways that create positive outcomes for those they lead, if they are trustworthy, if their actions are ethical, and if they are responding to the needs of their communities. Answers to these questions will better inform and challenge leaders to reflect on their actions and make changes as they strive to lead and contribute to the greater good.

7.2. Conclusions

Leadership for the greater good is a complex and multifaceted construct that cannot be siloed into one explanation or even one field of research, the perception of which can

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change over time and in different contexts. Indeed, the shift in perceptions we see in these very different crises (one natural disaster, one health crisis) shows that the public, perhaps influenced by the positive tone of early COVID-19 media coverage and the critical tone of the bushfire coverage, revels in a sense of coming together or commiserates in a sense of falling apart when evaluating federal government leadership and its contribution to the greater good.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/su14020837/s1, Table S1: Exploratory Factor Analysis (One-Factor Model), Table S2: Exploratory Factor Analysis (Two-Factor Model), Table S3: Exploratory Factor Analysis (Three-Factor Model), Table S4: Exploratory Factor Analysis (Four-Factor Model), Table S5: Means, Standard Deviations, Correlations among Variables.

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