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# Public Attitudes toward Sustainable Development Goals: Evidence from Five Chinese Cities

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Received: 17 September 2019; Accepted: 15 October 2019; Published: 18 October 2019


**Abstract:** Raising public awareness of the Sustainable Development Goals (SDGs) is a critical prerequisite for their implementation. However, little is known about attitude formation among the public toward SDGs at the national level. We explored this topic in China, a country that has emerged as a leading world economy with strong transformational imperatives to work toward sustainable development. Following Chaiken's heuristic–systematic model and using data from an online survey with 4128 valid respondents, this study investigated the factors that affect public support for SDGs and explains how individuals form supportive attitudes. Our empirical evidence showed that in China, first, public support is mainly shaped by demographic attributes (gender, age, and educational attainment), value predispositions (e.g., altruistic values and anthropocentric worldviews), and the level of SDG-relevant knowledge. Second, an interaction effect exists between value predispositions and knowledge among the public concerning support for SDGs. Third, the Chinese public views the implementation of SDGs as a part of development policy rather than environmental policy. This study provides empirical findings on the factors that account for public attitudes toward SDGs, outlining some useful implications for designing policy tools that would bolster SDG action.

**Keywords:** Sustainable Development Goals; public support; policy implementation; China

## 1. Introduction

### 1.1. Background

How does the public in middle-income countries perceive and understand the Sustainable Development Goals (SDGs) outlined in the 2030 Sustainable Development Agenda? Which factors account for supportive attitudes among the public toward SDGs? Recognized as "the greatest public policy experiment of human society of our time" [1], the 2030 Sustainable Development Agenda is expected to play a critical role in guiding the world to move toward a sustainable trajectory [2]. However, these goals cannot be achieved without mobilizing and involving the public effectively. As specified in the agenda, all countries, stakeholders, and individuals should take part in this endeavor, and the goal is to leave no one behind [3]. Although SDG priorities may differ from country to country and implementation challenges widely exist [1,4], it is commonly acknowledged that citizens in all countries should be mobilized to engage with sustainable development [3]. To facilitate public involvement in SDG actions, it is crucial to examine public attitudes toward SDGs and understand their formation.

To date, surveys have been conducted mostly at the regional or transnational scale to investigate public attitudes toward SDGs. GlobeScan, for example, found that in 13 countries, 28% of the public had heard about SDGs by 2015 [5]. According to another SDG awareness survey across the 28 EU Member States, which was conducted in December 2015 (Eurobarometer (2016)), 36% of Europeans already knew what SDGs were [6], and this number rose to 41% in the following year [7]. Compared to the general public, young people have been found to have higher SDG awareness than the average: 45% [8]. Concerning specific goals, a MyWorld survey documented responses from nearly 10 million citizens, in which SDGs 3, 4, and 8 (good education, healthcare, and job opportunities) were ranked as top priorities [9]. Although these reports have been very informative in describing the attentiveness of the general public toward SDGs, two problems remain. First, these empirical findings have predominantly come from OECD (Organization for Economic Cooperation and Development) countries: surveys in non-OECD countries or in-depth explorations at the national level [10] are seldom conducted. Second, these reports have barely delved into the factors influencing public support and the underlying causal mechanisms between these factors and public support for SDGs.

Our study explored the public support for SDGs in China, which served as an example of an upper-middle-income economy that is perceived as a rising power that participates in global affairs [11]. We chose China as a case study for two reasons. First, China is expected to make considerable progress in achieving the SDGs due to its substantial contributions toward attaining the Millennium Development Goals (the predecessor to the SDGs). In particular, the country has implemented radical socioeconomic reforms, through which economic development and social advancement have been boosted in an unprecedented manner. The headcount ratio of poverty has been reduced by 94% from 1980 to 2015 [12], accounting for two-thirds of the world's reduction in extreme poverty. Second, China's transformative path from economic development to sustainable development signifies a structural tendency that resonates with the SDGs. China has been a significant contributor to world economic growth since 2008 [13], the largest emitter of carbon dioxide and the largest energy consumer since 2009 [14], and the largest source of pollution threatening the ecosystem of the planet [15]. Therefore, its performance should be monitored scrupulously to meet the SDGs.

The purpose of this article was to ascertain whether the public in China supports the SDGs and, further, to understand why it would support such global policies. Following Chaiken's heuristic–systematic model, this study examined the degree to which value prepositions and knowledge levels influence public support for SDGs in China. In particular, two questions guided this research: what are the factors affecting public support for SDGs? How precisely do they affect public support? In order to answer these questions, we conducted 10 semistructured pilot interviews and an online survey with 4128 valid respondents in five Chinese cities between September and November of 2017. Using multiple regression analysis, we sequentially entered demographic variables, value prepositions, and SDG knowledge among individuals to identify the determinants of public support for SDGs and to explore the interaction effect between an individual's value prepositions and SDG-relevant knowledge. The remainder of the article is divided into five sections. The remainder of Section 1 reviews the literature on public attitudes and introduces the heuristic–systematic model. A section on research methodology follows. The third and fourth sections report on and discuss the empirical results. Finally, in Section 5, we elaborate on our conclusions, along with their policy implications for SDG implementation.

### *1.2. Literature Review and Analytical Framework*

Support is a reflection of attitudes. Contemporary studies have reached a consensus that "attitude represents a summary evaluation of a psychological object captured in such attribute dimensions as good–bad, harmful–beneficial, pleasant–unpleasant, and likable–dislikable" [16]. Breckler defines an attitude as a response to an antecedent stimulus or attitude object [17]. Eagly and Chaiken offer a widely applicable description, "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" [18] (p. 1). Three items are respectively posited as key

features of attitude, i.e., evaluation, attitude object, and tendency, which together may manifest in an individual's propensity to assess a particular entity [19]. Following this line of inquiry, we define the term "public attitude" as the evaluation judgments that pertain to support among the public for particular issues. In this study, we focus on public support for SDGs, defining it as a public attitude that reflects the preferences and favorability among the public on this issue. In this section, we first discuss SDGs and public attitudes toward "sustainable development", before briefly reviewing previous research on the formation of public attitudes. We then propose an analytical framework based on Chaiken's heuristic–systematic model to explain public support for SDGs.

#### 1.2.1. SDGs and Public Attitudes toward Sustainable Development

SDGs pose a number of new research questions for academic communities [20]. Literature on SDGs can be grouped into two types: science and policy. Science-related studies focus on the interface between science and SDGs, i.e., science-driven targets, science-based indicators, and science-informed analysis. Some studies have aimed to explore the nature of interlinkages between SDGs, such as synergies and trade-offs between different goals or relevant efforts to achieve certain goals (e.g., References [21–24]), while others have explored how to set SDG indicators (e.g., References [25,26]) or mathematical models [27] to better support or assess SDG progress. Policy-oriented studies concentrate on new governance mechanisms for achieving SDGs, for example, institutional arrangements to facilitate the internalization of SDG norms. Previous research has examined governance innovations for SDGs from two perspectives. The first is an outcome-based approach, or "governance by goal-setting" [20,28]. This approach is marked by a number of characteristics, including "the inclusive goal-setting process, the non-binding nature of the goals, the reliance on weak institutional arrangements, and the extensive leeway that states enjoy", which are distinguished from past global efforts such as top–down regulation or market-based mechanisms [20]. The other approach concerns process-based mechanisms. According to this view, follow-up and review arrangements play a key role in promoting SDG implementation. Persson et al. defined these arrangements as behavior-based contracts, arguing that they can better promote SDGs compared to outcome-based reporting by drawing lessons from principal–agent theory [29].

Needless to say, studies on both science and policy are important. Yet it is commonly acknowledged that the implementation of SDGs should be promoted through multistakeholder engagement in an inclusive manner [30,31]. In particular, citizens should play a key role in engaging in SDG efforts. Therefore, promoting public awareness and supportive attitudes toward SDGs is a necessary precondition for engaging citizens [32]. However, this issue has not been sufficiently studied. Despite the increasing number of international surveys on public attitudes toward SDGs (Table 1), two problems remain. First, the relevant surveys have predominantly come from OECD countries: according to DevCom, the number of global surveys on this topic for high-income countries is 20 times higher than for low-income countries [33]. Second, in-depth analyses on the determinants of public attitudes toward SDGs are much needed.

To better understand public support for SDGs, we reviewed the literature on public attitudes toward "sustainable development". The concept of SDGs is derived from the perspective of sustainable development, which covers economic, social, and environmental dimensions. Previous surveys have mostly concentrated on public attitudes toward one or more subcomponents of sustainable development, such as economic development, environmental protection, and cutting-edge technology [34]. These studies have identified two main attitudinal gaps. The first can be labeled as an attitude–action gap between what people think and what people do, both as individuals and as nation states. As individuals, people's supportive attitudes are conditionally translated into actions [35]. For example, individual support for renewable energy does not automatically translate into willingness to pay for fuel-efficient cars. For a nation state, gaps can be easily discerned between public attitudes and governmental action. For example, the public in many developed countries is reported to hold positive attitudes toward development assistance, but these opinions do not always lead to governmental

action. Second, the knowledge–attitude gap implies that a better-informed public is not necessarily a public that holds supportive attitudes. For example, technologically sophisticated citizens often hold more conservative and pessimistic views on the ability of technology to solve global problems. Our study contributes to addressing the knowledge–attitude gap, both theoretically and empirically.

**Table 1.** General global surveys that have included questions on sustainable development (source: Reference [33]).

| Name of Report | Coverage | Date |
|---|---|---|
| "Perils of Perception: Global Impact of Development Aid" | 28 countries | 2017 |
| "Toward 2030 without Poverty (Glocalities Survey)" | 24 countries | 2016 |
| "Global Civic Engagement Report" | >140 countries | 2016 |
| "World Giving Index" (using Gallup data) | >140 countries | Since 2010 |
| "Edelman Trust Barometer" | 28 countries | 2017 |
| "Gallup World Poll" | Over 140 countries | 2016 |
| "GlobeScan Radar" | 23 countries | 2017 |
| "International Social Survey Programme" | 37 countries | 2015 |
| "Pew Spring Global Attitudes" | 38 countries | 2017 |
| "World Value Survey" | 57 countries | 2010–2014 |

To sum up, most studies on public attitudes toward sustainability are not theory-driven. They mainly aim to describe the status quo or trends over time. If we take "sustainable development" as a holistic concept, existing data are insufficient. Most of the international surveys shown in Table 1 only concentrated on one or two pillars or raised one or two relevant questions about sustainable development, for example, asking about public attitudes on development assistance [33]. They lacked a systematic assessment of public awareness and attitudes toward SDGs. Moreover, previous research has revealed two theoretical gaps in the study of attitudes toward sustainable development but has lacked empirical exploration of the subject. Accordingly, our study focused on the formation of attitudes toward SDGs among the Chinese public in five cities by analyzing their functional mechanisms and influencing factors. In the following section, we review the determinants of public support and formulate our analytical framework and hypotheses.

#### 1.2.2. The Formation of Public Attitudes

A vast body of literature has sought to unravel the determinants of issue-oriented or domestic/foreign policy-oriented public attitudes (e.g., References [36–38]). One frequently highlighted issue is how people form attitudinal preferences on a specific topic. Two approaches, the "heuristic processing view" and the "systematic processing view", have emerged as primary perspectives on the formation of public attitudes [38,39]. The former emphasizes the attitudinal influences of value predispositions, whereas the latter accentuates the role of an individual's knowledge concerning a particular issue. Further, a dual-process theory that combines both approaches has been developed to elucidate the intricacy of the interplay between the two, as well as their interaction with other elements, such as mass media use (see References [38,40,41]). In the following sections, we elaborate on both views as well as their co-occurrence mode. We then propose an analytical framework based on Chaiken's heuristic–systematic model to explain public support for SDGs.

##### Heuristic Processing Mode

Heuristic processing is understood as "a limited mode of information processing that requires less cognitive effort and fewer cognitive resources" [18] (p. 327), and it involves the use of "schema" or general rules developed by individuals through their past experiences [39]. The term "schema" is defined by Graber as "a cognitive structure consisting of organized knowledge about situations and individuals that has been abstracted from prior experiences . . . and education" [42] (pp. 28–29). Graber further contends that information processing depends on both "basic brain structures and functions, shaped by each individual's idiosyncrasies and experiences" and "external environment

and culture" [43] (p. 13). According to the "schema" model, individuals assimilate and process information based on ready-made evaluations and feelings when triggered by new events [43] (p. 16). Similarly, research on "experiential processing" has also revealed that an individual's information processing often predominates, as strong feelings are evoked by past experiences [16,44]. In this view, people are "cognitive misers" who rely on pre-existing values, information shortcuts, or other heuristic cues to form an attitude [45]. This stream of theorizing further underlines the persuasive impact of pre-existing individual beliefs and values. Individuals form attitudes by relying upon heuristic cues such as personal values, ideology, and belief systems, as well as information shortcuts [46].

Although sustainable development was originally conceived as a holistic concept involving three pillars (environmental, societal, and economic), most theoretical and empirical investigations of sustainability have focused on just one or two pillars (e.g., References [32,34,47]). Among these investigations, research on environmental attitudes is considered to be the most substantive for at least three reasons. First, the idea of sustainable development conceptually originates from considerations of environmental sustainability and intergenerational justice [48]. Second, the instrumental value of environmental protection is widely appreciated by policymakers in attaining developmental sustainability. Finally, and more importantly, sustainable development engenders extensive support among environmentalists [49]. Accordingly, we review primarily the literature on environmental support to identify prepositional values that may affect public support for SDGs.

Existing studies have suggested that people's personal values have a significant impact on their attitudes toward sustainable development and its underlying aspects [32,50]. First, an individual's belief about the relationship between humans and nature plays a central role in understanding environmental attitudes [51]. Schultz et al. argue that different attitudes toward nature, i.e., to what extent do people believe they are a part of the natural environment, cause different environmental attitudes [52]. Two dominant perspectives, anthropocentrism and ecocentrism, have been recognized as the main views that individuals hold toward nature: anthropocentric people believe humans are the most important life form in the universe, while ecocentrism highlights the value of a nature-centered system [53,54]. Varying views on the relationship between humans and nature ("worldview") determine how environmental protection is perceived and how environmental resources are used [52]. In general, ecocentric people are more likely to hold positive attitudes toward environmental protection compared to anthropocentric people. Moreover, a preponderance of studies has associated variation in worldviews with the discourse of sustainable development [55,56]. As Witt posits, the elaboration of different types of worldviews may be worthwhile insofar as each of them has intrinsic value that makes dissimilar contributions to SDGs [57]. Diverging worldviews may also portend varied societal responses [58]. Accordingly, we proposed a "worldview" hypothesis:

**Hypothesis 1 (H1).** *People that hold ecocentric worldviews will be more supportive of SDGs than those that hold anthropocentric worldviews*.

Further, "postmaterialist" values are considered to be positively associated with environmental attitudes. This approach dovetails with Inglehart's study, which analyzed the environmental attitudes of the public in 43 countries, concluding that people with "postmaterialist" values (emphasizing self-expression and the quality of life) are more apt to support environmental actions [59]. Inglehart showed that with increased affluence, people have more aesthetic needs and thus care more about the environment. Inglehart's theories have been validated by empirical evidence (e.g., Reference [60]). Studies have also shown that the geographical proximity of environmental problems also has an impact on the level of people's environmental concern: people with "materialist" values exhibit more concern for local environmental problems, while people with postmaterialist values care for both local and global environmental problems [61]. Considering that SDGs are global goals that suggest an improved "quality of life", we hypothesized that the relationship between people's values and their attitudes toward SDGs is as follows:

**Hypothesis 2 (H2).** *Postmaterialists will be more supportive of SDGs than materialists.*

Previous studies have also shown that altruistic values contribute to the formation of environmental support. Heberlein noted that environmental quality is essentially a public good, so altruistic motives are what fundamentally underlie an individual's pro-environmental behavior [62]. Schwartz, in turn, developed the norm-activation theory of altruism, which portrays the occurrence of pro-environmental behavior as a response to personal moral norms [63]. On the basis of Schwartz's theoretical accounts, Stern established the value–belief–norm theory, about which he argues that altruistic values are key variables in promoting pro-environmental behavior [35]. In accordance with the aforementioned research, we hypothesized that the relationship between values and public support for SDGs is as follows:

**Hypothesis 3 (H3).** *An individual's altruistic values will be positively associated with support for SDGs.*

Systematic Processing Mode

In contrast to the heuristic view, the systematic processing model involves considerable cognitive effort exerted by individuals in evaluating message content and respective validity [39]. Accordingly, an attitude is constructed through content-based cognitive resources and knowledge. As commonly assumed by policymakers, scientists, and educators, public understanding of a subject is positively associated with levels of support (see References [64,65]). The empirical findings, nonetheless, have been mixed concerning the relationship between knowledge and attitudes. Stated another way, these results have been inconclusive: some have argued that knowledge and attitudes are positively linked, while others have denied the existence of any causality at all.

Such ambiguity is also seen in research on environmental support: much of the empirical evidence has suggested that an individual's environmental knowledge is positively correlated with environmental attitudes and behavioral intention (see References [64,66–68]), while other studies have strongly disagreed [46,69–74]. Controversial as they may seem, these findings nevertheless lead to one corollary: a better-informed public is not necessarily or automatically a public that holds supportive attitudes. A similar pattern can be detected in studies on the public understanding of science. For instance, Evens and Durant scrutinized the existence of such a relationship in the public understanding of science in Britain, finding that better-informed individuals are, at best, moderately supportive of science [75]. Compared to less-informed individuals, better-informed people hold more coherent attitudes in general and are more discriminating toward such morally contentious areas as human embryology [75].

On the basis of the above-mentioned studies, the relationship between knowledge and attitudes cannot be concluded unequivocally. Despite an abundance of empirical studies, a definitive and consistent understanding of this relationship is lacking [46]. Those that claim the existence of such a relationship are, nevertheless, characterized by their failure to identify the causal links [68]. Therefore, it would be unwise to automatically associate better public understanding of SDGs with higher levels of support. Given the paradoxical findings of previous studies, we proposed the following research question to interpret the connection, if any, between knowledge and public support for SDGs:

**RQ1.** How will knowledge among the public about SDGs relate to the level of support for SDGs?

Co-Occurrence of Processing Mode

The co-occurrence of processing approach argues for the simultaneous employment of systematic processing and heuristic processing modes [76]. An individual's choice of information-processing strategies is dependent on the extent of issue involvement. In particular, Chaiken noted that high issue involvement engenders a systematic processing strategy, whereas low issue involvement is accompanied by a heuristic processing strategy, in which simple decision rules or other cues mediate the process [39]. The predominance of one processing mode does not necessarily preclude the cooperation of

the other; instead, a complex interplay, or "dual process", arises in various social scenarios. To examine the dual-processing mode, we called upon Chaiken's heuristic–systematic model, in which he reaffirms the potential contingency of the co-occurrence in these two processing modes [39,76]. Depending on the circumstantial context, co-occurrence may occur in an interactive or additive fashion. Previous studies have implied that the effect of heuristic processing is often attenuated by an individual's systematic processing [76] because opinions formed through cognitive efforts and deliberative strategy usually demonstrate greater persistence and reliability than those stemming from heuristic cues [39]. Hence, the influence of heuristic processing could be reduced by systematic processing, especially when a contradiction emerges between content-based judgments and cue-mediated opinions [77]. Along the same lines, our study postulated that the public in China may employ a dual-process approach to form attitudes about SDGs. It further hypothesized that an individual's systematic processing will weaken the effectiveness of heuristic processing, which is conditioned by the disagreement between heuristic-based and message-based judgments. In other words, people's knowledge-based judgments may invalidate their value predisposition-based inferences in forming supportive attitudes toward SDGs. Accordingly, we proposed the following hypotheses:

**Hypothesis 4 (H4).** *Knowledge among the public about SDGs will moderate the effect of an individual's worldview on support for SDGs.*

**Hypothesis 5 (H5).** *Knowledge among the public about SDGs will moderate the effect of an individual's altruistic values on support for SDGs.*

**Hypothesis 6 (H6).** *Knowledge among the public about SDGs will moderate the effect of an individual's postmaterialist values on support for SDGs.*

In our study, gender, age, city, educational attainment, income, and having children were considered to be the demographic predictors of public attitudes for the following reasons. First, empirical studies have indicated that women exhibit more concern and higher responsibility for environmental issues [67]. Income, at the individual level, is believed to have direct and indirect (positive) effects on pro-environmental attitudes [78]. Moreover, age and educational attainment were utilized as individual-level control variables: previous research has found that younger cohorts exhibit higher levels of environmental support (than older birth cohorts), and educational attainment, in general, relates positively to environmental attitudes [78,79]. Finally, as defined in "our common future", sustainable development refers to "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [48]. In the field of environmental studies, it has also been confirmed that having children is a key factor affecting environmental concerns [80].

To sum up, Figure 1 illustrates our conceptual model of how value predispositions and knowledge about SDGs affect public support for SDGs. In line with the heuristic–systematic model, our model conceives of attitude formation through a dual-processing view. The above-mentioned demographic variables are also controlled for in this model. The model posits that an individual's level of support for SDGs falls under the influence of both heuristic processing and systematic processing modes. Moreover, these two processing strategies are employed interactively, echoing the attenuation hypothesis, which suggests that systematic processing likely weakens the impact of heuristic processing.

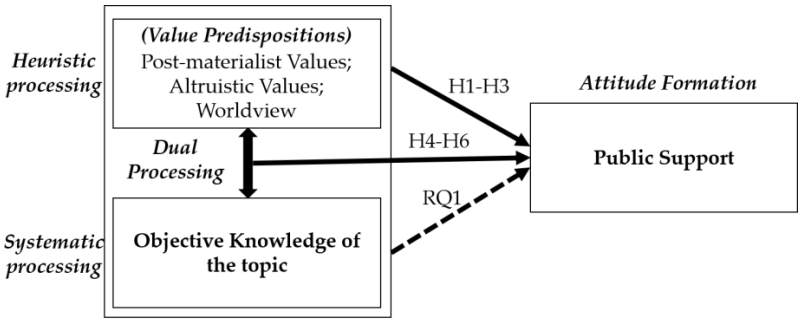


**Figure 1.** Heuristic–systematic conceptual model.

## 2. Materials and Methods

### 2.1. The Survey

An online web questionnaire was conducted between September and November 2017. The questionnaire contained 41 questions primarily concerning respondents' perceptions, knowledge, attitudes, and expectations concerning SDGs, along with basic demographic data. On the basis of city size (mega, big, and small cities) and geographic location (northern, central, and western areas; see Figure 2), we carefully selected five cities in China for our investigation. Of these five cities, Beijing, Shijiazhuang, and Langfang are located in the Jing-Jin-Ji region but differ in size; and Shijiazhuang, Changsha, and Lanzhou are all provincial capitals but in different locations (see Table 2).

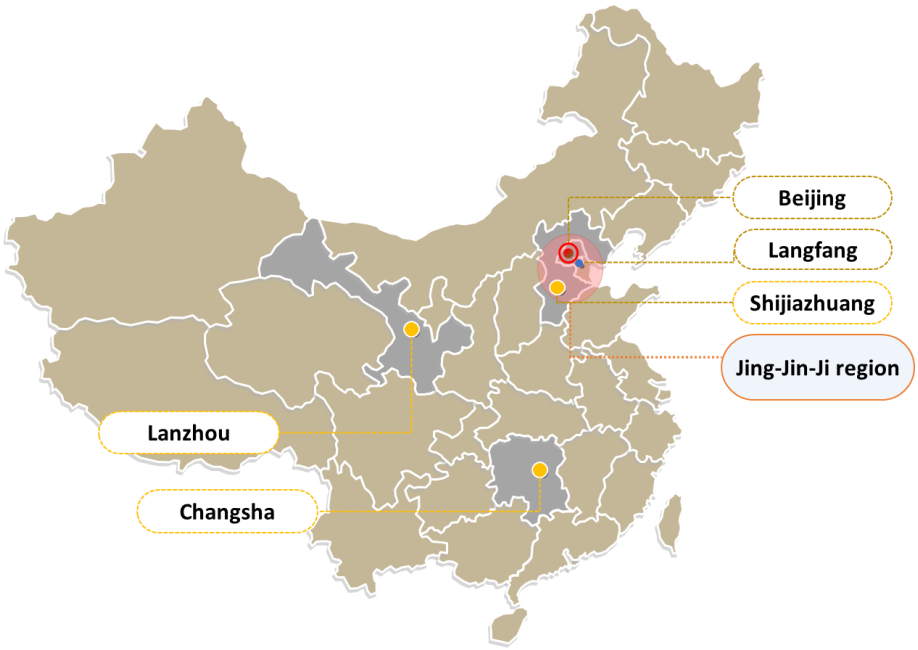


**Figure 2.** Geographical locations of the selected cities.

In collaboration with an online research company, we sent 130,000 personal online invitations to website users in these five cities through local forums, communities, posted billboards, and QQ groups (an instant messaging software). A total of 4429 individuals returned completed questionnaires, among which 4128 were considered valid for our analysis. To be specific, we tested the validity of the returned questionnaires through the following conditions: (1) Trap question: "Which of the following animals cannot fly?" The questionnaire was considered invalid if the respondent chose "pig". (2) Contrasting questions: We asked the following question twice, "Do you support China increasing the budget for

foreign aid?" The questionnaire was considered invalid if the responses were inconsistent. (3) Time control: The questionnaire needed to be completed in no less than five minutes. The date and time were individually recorded for each of the respondents.

**Table 2.** Basic information on the selected cities.

| City | Administrative Level | Location | Population Size | Respondents [1] |
|---|---|---|---|---|
| Beijing | Capital of China | Northern China | 21,700,000 | 860 |
| Shijiazhuang | Provincial capital of Hebei | Northern China | 10,784,600 | 810 |
| Langfang | Prefectural city | Northern China | 4,699,000 | 845 |
| Changsha | Provincial capital of Hunan | Central China | 7,645,200 | 805 |
| Lanzhou | Provincial capital of Gansu | Western China | 3,242,300 | 808 |

[1] Source: authors' data compiled from the survey.

As a web-based survey, the methodological foundation of this study had multiple advantages as well as a few limitations. First, it avoided direct face-to-face contact between interviewers and survey-takers and thus the moral burden of question-answering, thereby reducing potential systematic errors in the measurement of attitudes and behaviors [81]. Second, the survey was based on the opt-in consent of respondents, so forced participation was not an issue. Third, the backstage system of an online survey can record basic information about respondents, such as device, IP address, and the length of time to complete the survey, helping to monitor the answering process and facilitating the collection of survey data. Each respondent could only complete one questionnaire. Any questionnaire finished within five minutes was regarded as an unserious response and was removed from our database. Despite these advantages, certain limitations remained. The first issue was self-selection bias. As the participants were "self-selected" in the survey, the views represented in the study were more likely to reflect the attitude of those who care about public affairs. Second, such bias may have been further strengthened by the fact that our subjects were online users in five cities in China, who are more representative of better educated and younger cohorts. Given these limitations, we might expect that the views represented in our study represented the upper bound of views in favor of SDGs.

### 2.2. Measures

The questionnaire consisted of several sets of measurements to approximate the study's main variables: objective knowledge among the public about SDGs, public support for SDGs, as well as demographic and other explanatory variables. Appendix A sets forth some of the variables, measurements, and measuring scales. Table 3 lists the descriptive statistics for these variables.

**Table 3.** Descriptive statistics for the variables [1].

| Demographic Variables | | | | | Other Explanatory Variables | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Mean** | **Std. Dev.** | **Min** | **Max** | **Variable** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| Age | 32.30 | 8.94 | 16 | 70 | Worldview | 1.73 | 0.78 | 1 | 5 |
| Gender | 1.49 | 0.50 | 1 | 2 | (Post-)materialist Values | 1.62 | 0.61 | 1 | 3 |
| Education | 4.71 | 0.83 | 1 | 7 | Altruistic values | 2.07 | 1.23 | 1 | 5 |
| Income | 2.63 | 1.03 | 1 | 6 | Knowledge of topic | 1.55 | 1.51 | 0 | 4 |
| City | 2.98 | 1.42 | 1 | 5 | Public support self-evaluation | 4.38 | 0.74 | 1 | 5 |
| Having children | 1.29 | 0.45 | 1 | 2 | | | | | |

[1] Source: authors' data compiled from the survey.

### 2.3. Analytical Approach

Using multiple regression analysis, we sequentially entered the independent variables into blocks to identify the factors influencing public support for the SDGs. In accordance with the postulated causal order, demographic factors were installed first (Model 1); followed by the heuristic factors,

including postmaterialist values, altruistic values, and worldview (Model 2); and then systematic factor knowledge about SDGs (Model 3). Lastly, both the heuristic and systematic factors were introduced in Model 4. To reveal the causal mechanisms, we further scrutinized the interaction effects between heuristics and knowledge in the second regression model. Each of the interaction effect terms was accordingly constructed to measure the interaction effect between objective knowledge and worldview (Interaction 1), altruistic values (Interaction 2), and postmaterialist values (Interaction 3).

## 3. Results

### *3.1. Factors Influencing Public Support for SDGs*

We examined how public support measures are associated with respondents' demographic attributes, value predispositions, and SDG-relevant knowledge. The results of the multiple regression analysis are documented in Table 4. The first model shows how public support was interlinked with respondents' demographic attributes: among the respondents, male respondents, a younger cohort, and better-educated individuals displayed a higher likelihood of supporting SDGs. Demographic factors accounted for 3.4% of the variation of the dependent variable.

**Table 4.** Multiple regression on public support for SDGs in China [1].

| | **Model 1** | **Model 2** | **Model 3** | **Model 4** |
|---|---|---|---|---|
| Block 1: demographic factors | | | | |
| Age | −0.009 ***<br>(−6.18) | −0.004 ***<br>(−2.92) | −0.004 ***<br>(−2.98) | −0.002<br>(−1.33) |
| Gender | −0.075 ***<br>(−3.28) | −0.037*<br>(−1.82) | −0.045 ***<br>(−2.14) | −0.023<br>(−1.19) |
| Education | 0.105 ***<br>(7.02) | 0.069 ***<br>(5.18) | 0.062 ***<br>(4.47) | 0.048 ***<br>(3.72) |
| Income | 0.005<br>(0.45) | 0.008<br>(0.69) | −0.009<br>(−0.79) | −0.003<br>(−0.29) |
| City | | | | |
| City 2 | 0.008<br>(0.21) | 0.013<br>(0.40) | −0.001<br>(−0.02) | 0.008<br>(0.25) |
| City 3 | 0.003<br>(0.07) | 0.019<br>(0.61) | 0.011<br>(0.34) | 0.023<br>(0.76) |
| City 4 | −0.029<br>(−0.81) | −0.009<br>(−0.28) | −0.058 *<br>(−1.76) | −0.029<br>(−0.96) |
| City 5 | −0.041<br>(−1.14) | 0.007<br>(0.22) | −0.031<br>(−0.94) | 0.004<br>(0.15) |
| Having children | −0.190 ***<br>(−7.01) | −0.094 ***<br>(−3.91) | −0.104 ***<br>(−4.13) | −0.056 **<br>(−2.38) |
| Block 2: heuristic factors (value predispositions) | | | | |
| Materialist values | | | | |
| Postmaterialist | | 0.058 ***<br>(2.76) | | 0.028<br>(1.37) |
| None of both | | −0.157 ***<br>(−3.83) | | −0.127 ***<br>(−3.23) |
| Altruistic values | | −0.179 ***<br>(−20.91) | | −0.136 ***<br>(−15.83) |
| Worldview | | −0.292 ***<br>(−21.42) | | −0.253 ***<br>(−18.97) |
| Block 3: systematic factors (SDG-relevant knowledge) | | | | |
| Knowledge | | | 0.193 ***<br>(27.27) | 0.126 ***<br>(17.86) |
| Obs | 4128 | 4128 | 4128 | 4128 |
| Total $R^2$ | 0.034 | 0.254 | 0.182 | 0.307 |

[1] Source: authors' analysis based on the survey. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

We then probed the impact of value predispositions on public support for the SDGs: (1) People with materialist or postmaterialist values showed no difference in terms of support for the SDGs. In the correlation matrix, the correlation between materialist and postmaterialist values was 0.058 at a significance level of <0.01, and the correlation between materialist values and "none of both" was –0.157 at a significance level of <0.01. The results revealed no significant difference between people with postmaterialist values and those with "neither materialist nor postmaterialist" values in terms of support for SDGs. (2) An individual's altruistic value was positively linked with support for the SDGs, i.e., those who possessed a higher degree of altruistic value were more likely to support the SDGs. (3) An individual's worldview perceptibly expounded their support for SDGs. Compared to those with an ecocentric worldview, people characterized by a "human-centered" development worldview were more likely to be supportive of the SDGs. This finding, however, contradicted our hypothesis. The coefficients for altruistic values and worldview showed significance in the final model, leading to support for H3 yet rejection of H1 and H2. Moreover, this block of variables substantially increased the explanatory power of the model by explaining 25.4% of the total variance in public support for the SDGs.

Further, we examined the relationship between knowledge and public support, as modeled by the third block, which revealed a significant effect of individual SDG-relevant knowledge on public support for SDGs. More specifically, a higher level of SDG-relevant knowledge led to stronger support for SDGs (see Model 3 and Model 4). Such knowledge also explained an additional 5.3% of the variance in the final model.

### *3.2. Interaction between Value Predispositions and Knowledge on Public Support for SDGs*

Table 5 spells out how public support for SDGs might fall under the interaction effect between SDG-relevant knowledge and different value predispositions. We begin with the interaction between worldview and knowledge about SDGs. Ecocentric worldviews were negatively associated with support for SDGs: an increase in SDG-relevant knowledge significantly reduced such adverse effects. Concerning the interaction between altruistic values and knowledge, SDG-relevant knowledge significantly moderated the influence of egoistic motives on support for SDGs. However, no significance could be found for the interaction between an individual's materialist values and SDG-relevant knowledge. Therefore, both H4 and H5 were supported by the empirical analysis, following prior studies using the heuristic–systematic model. As we noted above, attitudes formed through systematic processing exhibit greater persistence and reliability than those induced by heuristic processing. As a result, when knowledge-based evaluations contradict heuristically mediated judgments, the effect of individual predispositions is likely to be attenuated by knowledge level and cognitive efforts in the information process.

**Table 5.** Interactions between heuristic and systematic processing on public support for SDGs in China [1].

| | **Model 5** | **Model 6** | **Model 7** |
|---|---|---|---|
| Demographic factors | | | |
| Gender | −0.018 **<br>(0.037) | −0.050 **<br>(−2.47) | −0.043 *<br>(−2.05) |
| Age | −0.003 **<br>(−2.47) | −0.003 **<br>(−2.14) | −0.003 **<br>(−2.19) |
| Education | 0.053 ***<br>(4.04) | 0.053 ***<br>(3.94) | 0.060 ***<br>(4.33) |
| Income | −0.025 **<br>(−2.25) | 0.018 **<br>(1.60) | −0.015<br>(−1.29) |

**Table 5.** *Cont.*

| | Model 5 | Model 6 | Model 7 |
|---|---|---|---|
| City | | | |
| City 2 | 0.019<br>(0.60) | −0.011<br>(−0.36) | −0.002<br>(−0.07) |
| City 3 | 0.033<br>(1.05) | 0.006<br>(0.17) | 0.008<br>(0.24) |
| City 4 | −0.028<br>(−0.91) | −0.045<br>(−1.43) | −0.056 *<br>(−1.73) |
| City 5 | −0.006<br>(−0.18) | −0.001<br>(−0.03) | −0.033<br>(−0.99) |
| Children | −0.058 **<br>(−2.45) | −0.101 ***<br>(−4.20) | −0.099 ***<br>(−3.94) |
| Interaction 1 | | | |
| Knowledge | 0.080 ***<br>(4.99) | | |
| Worldview | −0.342 ***<br>(−19.31) | | |
| Knowledge* worldview | 0.050 ***<br>(5.66) | | |
| Interaction 2 | | | |
| Knowledge | | 0.095 ***<br>(7.09) | |
| Altruistic values | | −0.198 ***<br>(−16.59) | |
| Knowledge* altruistic values | | 0.033 ***<br>(5.20) | |
| Interaction 3 | | | |
| Knowledge | | | 0.222 ***<br>(7.13) |
| (Post)materialist values | | | |
| Materialist values | | | 0.233 ***<br>(4.43) |
| Postmaterialist values | | | 0.303 ***<br>(5.69) |
| Knowledge* (post)materialist values | | | |
| Knowledge* materialism | | | −0.033<br>(−1.01) |
| Knowledge* postmaterialism | | | −0.039<br>(−1.20) |
| Total $R^2$ | 0.264 | 0.245 | 0.189 |

[1] Source: authors' analysis based on the survey. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## 4. Discussion

The findings revealed both consistency and inconsistency with existing research, as well as some unique observations. Table 6 provides a summary of the outcomes. In accordance with previous studies, support for SDGs was influenced by three factors: (1) demographic variables (e.g., age, gender, and educational attainment); (2) individual value predispositions (anthropocentric worldview and altruistic values); and (3) SDG-relevant knowledge. Further, scrutiny of the heuristic–systematic

model, which was outlined previously, explicates the interactive manner in which both processing systems operated.

**Table 6.** Summary of outcomes for the hypotheses.

| Hypothesis/Research Question | Outcomes |
| --- | --- |
| **H1**. People that hold ecocentric worldviews will be more supportive of SDGs than those that hold anthropocentric worldviews. | Rejected |
| **H2**. Postmaterialists will be more supportive of SDGs than materialists. | Rejected |
| **H3**. An individual's altruistic values will be positively associated with support for SDGs. | Supported |
| **H4**. Knowledge among the public about SDGs will moderate the effect of an individual's worldview on support for SDGs. | Supported |
| **H5**. Knowledge among the public about SDGs will moderate the effect of an individual's altruistic values on support for SDGs. | Supported |
| **H6**. Knowledge among the public about SDGs will moderate the effect of an individual's postmaterialist values on support for SDGs. | Rejected |
| **RQ1**. How will knowledge among the public about SDGs relate to the level of support for SDGs? | Positively interlinked |

First, our empirical study underscores the critical role of value predispositions, though not all of them, in interpreting public support for SDGs. Compared to those with an ecocentric worldview, individuals that embraced anthropocentric worldviews were more supportive of SDGs. This finding contradicts the worldview hypothesis. A credible account is that Chinese people, in fact, perceive SDGs as development policy rather than environmental policy, and the public might understand SDGs quite differently from experts. Previous studies have illustrated that the concept of sustainable development is frequently raised as a means to attain environmental sustainability and intergenerational justice [48], and it captures high support among environmentalists [49]. It is thus hypothesized that environmentalists are more supportive of SDGs than nonenvironmentalists are. However, this understanding of sustainable development comes more from academic researchers or politicians, rather than from the public. In fact, this contradictory phenomenon has also been reflected in some recent reports: 500 experienced sustainability professionals across the world were asked to evaluate the significance of 17 goals, and the results showed that "Climate Action" was ranked as the most important SDG for achieving sustainability [82]. Meanwhile, a report from the Bill and Melinda Gates Foundation suggested that the public in the United States ranks "End Hunger" and "End Poverty" as the most important goals among the SDGs [83]. These results suggest that experts care more about goals related to global sustainability, while the public is more concerned with basic life-related goals. Because its SDG concerns are formed through different lenses, the public understands SDGs quite differently from experts. Presumably, the Chinese public perceives SDGs as a form of public policy in the development domain rather than in the environmental field. Therefore, SDG supporters are not necessarily environmentalists.

The above-mentioned point can also explain the rejection of the materialist hypothesis. Concerning the materialist hypothesis, no difference was detectable in the cohorts of materialists and postmaterialists. We originally raised this hypothesis mainly based on Inglehart's theory, which suggests a congruence between "postmaterialist" values and pro-environmental attitudes. However, our study suggests that, considering the three-pillar attributions of the SDGs, environmental attribution alone is insufficient for explaining public attitudes. As mentioned in Section 2, most previous empirical investigations of sustainable development have mainly focused on one or two pillars for which the environmental aspect is paramount (e.g., References [34,47]). One possible reason is that various tensions between different underlying aspects of "sustainable development" exist. For example, it may be presupposed

that the economic dimension is negatively linked with the environmental and social aspects [32,84]. Accordingly, the public faces a trade-off between emphasizing economic, social, and environmental aspects when they form attitudes toward SDGs. We believe this trade-off represents an important reason the overall picture on the impact of materialist values on attitudes toward SDGs remains blurry. This may also partially explain why few studies have empirically measured public attitudes toward sustainable development as a holistic concept [34]. In addition, the verification of the altruism hypothesis could be construed through the public attribution of SDGs instead of an environmental attribution. In other words, altruistic individuals are more supportive of policies that promote public goods.

Second, our study demonstrates that the role played by knowledge about SDGs is of crucial importance in fostering public support. Knowledge and public support were significantly correlated, which is partially consistent with previous studies. According to our survey, at least regarding the SDGs, greater knowledge leads to an increase in public support. In contrast to the assumptions of "knowledge theory", which suggests that individuals' policy judgments are mainly conditioned on the relevant knowledge they possess, our finding implies that knowledge is not the only precondition for forming a policy judgment. Instead, a dual-process mode may elucidate the causal mechanism from the input (e.g., stimuli and their context) to the output (policy support) [40]. In short, the co-occurrence of systematic processing and heuristic processing operates in an interactive pattern.

Our third finding concerns the moderating effect of knowledge on the value–attitude link. Individuals with anthropocentric/ecocentric worldviews were more/less supportive of SDGs, yet the correlation as such could be restrained by increasing the level of SDG-relevant knowledge. Likewise, greater SDG-relevant knowledge attenuated the link between individual altruistic/nonaltruistic values and corresponded with more/less support for SDGs. In sum, this study suggests that only a cluster of individuals—those with an ecocentric worldview and egoist values—are less supportive of SDGs compared to development-promoters and altruists. More importantly, negative effects on public support (as given) may be weakened by an increase in SDG-relevant knowledge. Therefore, a policy implication for promoting public support can be extrapolated, i.e., "targeted awareness-raising", which accentuates the effectiveness of increasing SDG-relevant knowledge among pro-ecologists and egoists rather than the public in general.

## 5. Conclusions

How can we promote public support for SDGs? Policymakers, scientists, and educators are predisposed to associate higher levels of support with more public understanding, as postulated by "knowledge theory". In this paper, we explored how the public in middle-income countries (in our case, China) understands and forms supportive attitudes toward SDGs. Our evidence shows that "knowledge theory" is only one part of the story. Following the heuristic–systematic model, we conclude that levels of public support for SDGs are influenced not only by an individual's knowledge about SDGs but also by value predispositions. Specifically, people that hold altruistic values and anthropocentric worldviews are more supportive of SDGs, and citizens with a higher level of SDG-relevant knowledge tend to show higher support for SDGs. In addition, the statistical analyses revealed that our respondents' supportive attitudes toward SDGs were influenced by demographic attributes. Among the respondents, male respondents, a younger cohort, and better-educated individuals displayed a higher likelihood of supporting SDGs.

Moreover, an interaction effect was also demonstrated between individual knowledge (systematic processing) and value predispositions (heuristic processing) in the formation of attitudes toward SDGs. Particularly, an individual's ecocentric worldviews were negatively associated with support for SDGs, yet an increase in SDG-relevant knowledge significantly reduced such adverse effects. Similarly, people with egoistic motives tended to hold a less supportive attitude toward SDGs, but SDG-relevant knowledge significantly moderated this influence. Our findings thus imply that a "targeted awareness-raising" strategy, namely, an awareness-raising strategy tailored for a targeted

group, would be more effective than a general publicity approach in terms of promoting public support for SDGs. In practice, the facilitation of public support and engagement could be attained by employing SDG advocacy for the entire public and, more specifically, by boosting understanding among pro-ecologists and egoists.

Our third conclusion is that the Chinese public in the five cities we studied perceives SDGs as a form of public policy in the domain of development rather than in the environmental field. The SDGs involve economic, societal, and environmental subcomponents, which are interlinked yet distinguished. Our analysis suggests that the public forms attitudes that emphasize the economic attribution of SDGs rather than the environmental attribution. This finding is important for policymakers, international communities, and researchers to better understand how the Chinese public thinks about SDGs, which can help shape better and more legitimate policies for promoting SDG implementation in China.

Further, our survey points to an unusually high level of support for SDGs among the Chinese public. A total of 88% of our respondents expressed "relatively high" or "very high" levels of support for the SDGs. This high level of support reflects a notable and prevalent phenomenon in China: Various surveys have indicated that the Chinese public, compared to the public in the United States and other western countries, is generally more supportive of government policies, particularly with regard to international policies. For example, in the TrustBarometer survey, which was released in 2019 by Edelman Global Public Relations, the Chinese public displayed the highest level of trust in the government (88% of the informed public) among people from 26 countries and regions [85]. In a national survey in 1993, 94% of respondents expressed trust in the government [86]. In addition, given that our subjects were all online users from five Chinese cities, it is clear that they represented the views of more educated people in major cities, which should be the upper bound of support for the SDGs in China.

Despite universal consensus on the importance of public involvement in the context of SDGs, few studies have explored the topic of public understanding and public attitudes toward SDGs. Our study researched this topic in China, providing important empirical observations as well as an in-depth analysis of underlying casual mechanisms. Although nationally distinctive characteristics could exist, this study addressed the aforementioned knowledge gap and makes an important contribution to understanding the logic of attitude formation among the public concerning global public policies. Moreover, because China is an upper-middle-income country and the world's second largest economy, it will undoubtedly play a key role in the realization of the SDGs. Understanding public attitudes about SDGs is the first step toward engaging the Chinese public in promoting the SDGs.

Finally, this study addressed two issues that deserve further investigation. Heuristic cues, in practice, might be more important than value predispositions. Deference to international authorities may exemplify alternative cues for characterizing heuristics. Some studies have shown that an individual's deference to scientific or political authority is positively linked to support for an issue [87]. Trust in institutions and the credibility of information induces positive public attitudes [88]. Therefore, a sense of trust in and respect for the United Nations may play a prominent role in public support for the SDGs. Another interesting idea to entertain is the national spillover effect: Public support for global public policy could probably be conceived as a spillover of public attention to relevant efforts at the domestic level. Previous studies have found a link between highly salient international events and public concern [89]. Contingently, a reverse mechanism might disturb the connection between domestic and global policy support.

**Author Contributions:** T.G., L.X., K.M., and W.L. all contributed to the research design. T.G. wrote this manuscript. K.M. and L.X. commented on the overall study and provided valuable suggestions. K.M. and W.L. contributed to the improvement of the writing.

**Funding:** This research was funded by the National Foundation for Philosophy and Social Sciences of China, grant number 17ZDA077. This study is also supported by "the Fundamental Research Funds for the Central Universities".

**Acknowledgments:** The survey was administered during the time when the first author was a postdoctoral researcher at the School of Public Policy and Management, Tsinghua University, in 2017–2018. The authors want to acknowledge support from the Institute for Sustainable Development Goals, Tsinghua University. The authors also wish to thank the editors and anonymous reviewers for their insightful comments.

**Conflicts of Interest:** The authors declare no conflicts of interest.

## Appendix A

**Table A1.** Measurement of key variables. SDGs: Sustainable Development Goals.

| | Variable | Measurement | Measuring Scale |
|---|---|---|---|
| **Demographic factors** | Gender | What is your gender? | 1. (Male)<br>2. (Female) |
| | Age | What is your age? | Biological age |
| | Education | What is the highest degree or level of school you have completed? | 1. Primary school or no schooling completed<br>2. Junior school<br>3. High school<br>4. College credit<br>5. Bachelor's degree<br>6. Master's degree<br>7. Doctorate degree |
| | Income | What is your monthly salary (in RMB)? | 1. (Below 2500)<br>2. (2500–6500)<br>3. (6500–10,000)<br>4. (10,000–25,000)<br>5. (25,000–83,000)<br>6. (Above 83,000) |
| | City | In which city do you live? | 1. Beijing<br>2. Changsha<br>3. Shijiazhuang<br>4. Langfang<br>5. Lanzhou |
| | Having children | Do you have any children? | 1. (No)<br>2. (Yes, one or more) |
| **Heuristic processing factors** | Worldview | To what extent do you agree with the following statement? "The development of human beings has resulted from economic growth and technical development. Therefore, we should pay more attention to economic and technical progress to promote future development." | Likert scale from 1 (not at all (ecocentric worldview) to 5 (very-much-anthropocentric worldview) (This variable was recoded in reverse for the present analysis) |
| | Postmaterialist values | Do you agree with the following statement? "I would like to have a job with a high salary even if I have little interest in it." | 1. (No)<br>2. (Yes)<br>3. (Others) |
| | Altruistic values | To what extent do you agree with the following statement? "I actually don't care about global sustainable development." | Likert scale from 1 (not at all) to 5 (very much) |
| **Systematic processing factors** | Knowledge of the topic | (1) How many goals are included in the SDGs?<br>(2) Who proposed the SDGs?<br>(3) What was the theme of the High-Level Political Forum (HLPF) on Sustainable Development in 2017?<br>(4) What is the relationship between SDGs and the 2030 Agenda of the UN? | Likert scale from 1 (very low) to 5 (very high) (Each answer was compared to the correct ones. All correct answers received 4 points and no correct answers received 0 points.) |
| **Dependent variable** | Public support self-evaluation | To what extent do you support the SDGs? | Likert scale from 1 (very low) to 5 (very high) |

## References

1. Xue, L.; Weng, L.; Yu, H. Addressing policy challenges in implementing Sustainable Development Goals through an adaptive governance approach: A view from transitional China. *Sustain. Dev.* **2018**, *26*, 150–158. [CrossRef]
2. Sachs, J.D. From millennium development goals to sustainable development goals. *Lancet* **2012**, *379*, 2206–2211. [CrossRef]

3. United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. 2015. Available online: https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf/ (accessed on 10 September 2019).
4. Herrera, V. Reconciling global aspirations and local realities: Challenges facing the Sustainable Development Goals for water and sanitation. *World Dev.* **2019**, *118*, 106–117. [CrossRef]
5. GlobeScan. Awareness of Sustainable Development Goals (SDGs) vs Millennium Development Goals (MDGs). 2016. Available online: https://globescan.com/awareness-of-sustainable-development-goals-sdgs-vs-millennium-development-goals-mdgs/ (accessed on 10 September 2019).
6. Eurobarometer. The European Year for Development-Citizens' Views on Development, Cooperation and Aid. 2016. Available online: https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_421_en.pdf/ (accessed on 10 September 2019).
7. Eurobarometer. EU Citizens' Views on Development, Cooperation and Aid. 2017. Available online: https://ec.europa.eu/europeaid/sites/devco/files/ebs-476-report-20180925_en.pdf/ (accessed on 10 September 2019).
8. DevCom. What People Know and Think About the Sustainable Development Goals. 2017. Available online: https://www.oecd.org/development/pgd/International_Survey_Data_DevCom_June%202017.pdf/ (accessed on 10 September 2019).
9. United Nations. MyWorld UN Global Survey for a Better World. 2015. Available online: https://maryknollogc.org/resources/my-world-un-global-survey-better-world/ (accessed on 10 September 2019).
10. Horn, P.; Grugel, J. The SDGs in middle-income countries: Setting or serving domestic development agendas? Evidence from Ecuador. *World Dev.* **2018**, *109*, 73–84. [CrossRef]
11. Gray, K.; Murphy, C.N. Introduction: Rising powers and the future of global governance. *Third World Q.* **2013**, *34*, 183–193. [CrossRef]
12. Wu, G. Four Factors That Have Driven Poverty Reduction in China. 2016. Available online: https://www.weforum.org/agenda/2016/10/four-factors-that-have-driven-poverty-reduction-in-china?utm_content=bufferda1a5&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer/ (accessed on 10 September 2019).
13. Morrison, W.M. *China and the Global Financial Crisis: Implications for the United States*; Library of Congress Washington DC Congressional Research Service: Washington, DC, USA, 2009.
14. Liu, W.; Lund, H.; Mathiesen, B.V.; Zhang, X. Potential of renewable energy systems in China. *Appl. Energy* **2011**, *88*, 518–525. [CrossRef]
15. Cook, I.G.; Murray, G. *Green China: Seeking Ecological Alternatives*; Routledge: Abingdon-on-Thames, UK, 2003. [CrossRef]
16. Ajzen, I. Nature and operation of attitudes. *Annu. Rev. Psychol.* **2001**, *52*, 27–58. [CrossRef]
17. Breckler, S.J. Empirical validation of affect, behavior, and cognition as distinct components of attitude. *J. Pers. Soc. Psychol.* **1984**, *47*, 1191. [CrossRef]
18. Eagly, A.H.; Chaiken, S. *The Psychology of Attitudes*; Harcourt Brace Jovanovich College Publishers: San Diego, CA, USA, 1993.
19. Eagly, A.H.; Chaiken, S. The advantages of an inclusive definition of attitude. *Soc. Cogn.* **2007**, *25*, 582–602. [CrossRef]
20. Biermann, F.; Norichika, K.; Rakhyun, E.K. Global governance by goal-setting: The novel approach of the UN Sustainable Development Goals. *Curr. Opin. Environ. Sustain.* **2017**, *26*, 26–31. [CrossRef]
21. Gao, L.; Brett, A.B. Finding pathways to national-scale land-sector sustainability. *Nature* **2017**, *544*, 217–222. [CrossRef] [PubMed]
22. Tomei, J.; To, L.S.; Bisaga, I.; Parikh, P.; Black, M.; Borrion, A.; Spataru, C.; Broto, V.C.; Anandarajah, G.; Milligan, B.; et al. Mapping synergies and trade-offs between energy and the Sustainable Development Goals. *Nat. Energy* **2018**, *3*, 10–15. [CrossRef]
23. Griggs, D.J.; Nilsson, M.; Stevance, A.; McCollum, D. *A Guide to SDG Interactions: From Science to Implementation*; International Council for Science: Paris, France, 2017; Available online: http://pure.iiasa.ac.at/id/eprint/14591/1/SDGs-Guide-to-Interactions.pdf (accessed on 10 September 2019).
24. Glaser, G. Policy: Base sustainable development goals on science. *Nature* **2012**, *491*, 35. [CrossRef] [PubMed]
25. Nilson, M.; Griggs, D.; Visbeck, M. Map the interactions between sustainable development goals. *Nature* **2016**, *534*, 320–322. [CrossRef] [PubMed]

26. Megyesiova, S.; Lieskovska, V. Analysis of the Sustainable Development Indicators in the OECD Countries. *Sustainability* **2018**, *10*, 4554. [CrossRef]
27. Guijarro, F.; Juan, P. Designing a sustainable development goal index through a goal programming model: The Case of EU-28 Countries. *Sustainability* **2018**, *10*, 3167. [CrossRef]
28. Plag, H.P.; Jules-Plag, S.A. A goal-based approach to the identification of essential transformation variables in support of the implementation of the 2030 agendaf for sustainable development. *Int. J. Digit. Earth* **2019**. [CrossRef]
29. Persson, Å.; Weitz, N.; Nilsson, M. Follow-up and review of the Sustainable Development Goals: Alignment vs. internalization. *Rev. Eur. Comp. Int. Environ.* **2016**, *25*, 59–68. [CrossRef]
30. Gupta, J.; Vegelin, C. Sustainable development goals and inclusive development. *Int. Environ. Agreem. Politics Law Econ.* **2016**, *16*, 433–448. [CrossRef]
31. Le Blanc, D. Towards integration at last? The sustainable development goals as a network of targets. *Sustain. Dev.* **2015**, *23*, 176–187. [CrossRef]
32. Cirnu, C.E.; Kuralt, B. The impact of employees' personal values on their attitudes toward sustainable development: Cases of Slovenia and Romania. *Manag. J. Contemp. Manag.* **2013**, *18*, 1–20. Available online: https://hrcak.srce.hr/file/166307 (accessed on 10 September 2019).
33. DevCom. Understanding Public Attitudes to Sustainable Development: Overview of International Surveys. 2017. Available online: https://www.oecd.org/dev/pgd/Overview_of_International_Surveys_on_Sustainable_Development_DevCom_%20Nov2017.pdf (accessed on 10 September 2019).
34. Leiserowitz, A.A.; Kates, R.W.; Parris, T.M. Do global attitudes and behaviors support sustainable development? *Environ. Sci. Policy Sustain.* **2005**, *47*, 22–38. Available online: http://www.heldref.org/env.php (accessed on 10 September 2019). [CrossRef]
35. Stern, P.C. New environmental theories: Toward a coherent theory of environmentally significant behavior. *J. Soc. Issues* **2000**, *56*, 407–424. [CrossRef]
36. Zaller, J.R. *The Nature and Origins of Mass Opinion*; Cambridge University Press: Cambridge, UK, 1992.
37. Prayag, G.; Hosany, S.; Nunkoo, R.; Alders, T. London residents' support for the 2012 Olympic Games: The mediating effect of overall attitude. *Tour. Manag.* **2013**, *36*, 629–640. [CrossRef]
38. Ho, S.S.; Brossard, D.; Scheufele, D.A. Effects of value predispositions, mass media use, and knowledge on public attitudes toward embryonic stem cell research. *Int. J. Public Opin. Res.* **2008**, *20*, 171–192. [CrossRef]
39. Chaiken, S. Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *J. Pers. Soc. Psychol.* **1980**, *39*, 752. [CrossRef]
40. Sherman, J.W.; Gawronski, B.; Trope, Y. *Dual-Process Theories of the Social Mind*; Guilford Publications: New York, NY, USA, 2014.
41. Kim, J.; Yeo, S.K.; Brossard, D.; Scheufele, D.A.; Xenos, M.A. Disentangling the influence of value predispositions and risk/benefit perceptions on support for nanotechnology among the American public. *Risk Anal.* **2014**, *34*, 965–980. [CrossRef]
42. Graber, D.A. *Processing the News: How People Tame the Information Tide*; Longman: New York, NY, USA, 1988.
43. Graber, D.A. *Processing Politics: Learning from Television in the Internet Age*; University of Chicago Press: Chicago, IL, USA, 2012.
44. Marx, S.M.; Weber, E.U.; Orlove, B.S.; Leiserowitz, A.; Krantz, D.H.; Roncoli, C.; Phillips, J. Communication and mental processes: Experiential and analytic processing of uncertain climate information. *Glob. Environ. Chang.* **2007**, *17*, 47–58. [CrossRef]
45. Fiske, S.T.; Taylor, S.E. *Social Cognition: From Brains to Culture*; Sage: Newcastle upon Tyne, UK, 2013.
46. Kollmuss, A.; Agyeman, J. Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environ. Educ. Res.* **2002**, *8*, 239–260. [CrossRef]
47. Schultz, P.W.; Zelezny, L. Values as predictors of environmental attitudes: Evidence for consistency across 14 countries. *J. Environ. Psychol.* **1999**, *19*, 255–265. [CrossRef]
48. Brundtland, G.H.; Khalid, M.; Agnelli, S.; Al-Athel, S.; Chidzero, B. *Our Common Future*; Oxford University Press: New York, NY, USA, 1987.
49. Blake, J. Overcoming the 'value-action gap'in environmental policy: Tensions between national policy and local experience. *Local Environ.* **1999**, *4*, 257–278. [CrossRef]
50. Xu, F.; Fox, D. Modelling attitudes to nature, tourism and sustainable development in national parks: A survey of visitors in China and the UK. *Tour. Manag.* **2014**, *45*, 142–158. [CrossRef]

51. Dunlap, R.E.; Van Liere, K.D.; Mertig, A.G.; Jones, R.E. Measuring endorsement of the new ecological paradigm: A revised NEP scale. *J. Soc. Issues* **2000**, *56*, 425–442. [CrossRef]
52. Schultz, P.W.; Shriver, C.; Tabanico, J.J.; Khazian, A.M. Implicit connections with nature. *J. Environ. Psychol.* **2004**, *24*, 31–42. [CrossRef]
53. Thompson, S.C.G.; Barton, M.A. Ecocentric and anthropocentric attitudes toward the environment. *J. Environ. Psychol.* **1994**, *14*, 149–157. [CrossRef]
54. Kopnina, H. Evaluating education for sustainable development (ESD): Using Ecocentric and Anthropocentric Attitudes toward the Sustainable Development (EAATSD) scale. *Environ. Dev. Sustain.* **2013**, *15*, 607–623. [CrossRef]
55. Hedlund-de Witt, A. Worldviews and their significance for the global sustainable development debate. *Environ. Ethics* **2013**, *35*, 133–162. [CrossRef]
56. Van Opstal, M.; Hugé, J. Knowledge for sustainable development: A worldviews perspective. *Environ. Dev. Sustain.* **2013**, *15*, 687–709. [CrossRef]
57. Hedlund-de Witt, A. Rethinking sustainable development: Considering how different worldviews envision "development" and "quality of life". *Sustainability* **2014**, *6*, 8310–8328. [CrossRef]
58. De Witt, A.; Osseweijer, P.; Pierce, R. Understanding public perceptions of biotechnology through the "Integrative Worldview Framework". *Public Underst. Sci.* **2017**, *26*, 70–88. [CrossRef]
59. Inglehart, R. Public support for environmental protection: Objective problems and subjective values in 43 societies. *PS Political Sci. Politics* **1995**, *28*, 57–72. [CrossRef]
60. Abramson, P.; Inglehart, R. *Value Change in Global Perspective*; University of Michigan Press: Ann Arbor, MI, USA, 1995.
61. Gökşen, F.; Adaman, F.; Zenginobuz, E.Ü. On environmental concern, willingness to pay, and postmaterialist values: Evidence from Istanbul. *Environ. Behav.* **2002**, *34*, 616–633. [CrossRef]
62. Heberlein, T.A. The Land Ethic Realized: Some Social Psychological Explanations for Changing Environmental Attitudes 1. *J. Soc. Issues* **1972**, *28*, 79–87. [CrossRef]
63. Schwartz, S.H. Normative influences on altruism. In *Advances in Experimental Social Psychology*; Elsevier: Amsterdam, The Netherlands, 1977; Volume 10, pp. 221–279.
64. Barraza, L.; Walford, R.A. Environmental education: A comparison between English and Mexican school children. *Environ. Educ. Res.* **2002**, *8*, 171–186. [CrossRef]
65. Stoutenborough, J.W.; Sturgess, S.G.; Vedlitz, A. Knowledge, risk, and policy support: Public perceptions of nuclear power. *Energy Policy* **2013**, *62*, 176–184. [CrossRef]
66. Vicente-Molina, M.A.; Fernández-Sáinz, A.; Izagirre-Olaizola, J. Environmental knowledge and other variables affecting pro-environmental behaviour: Comparison of university students from emerging and advanced countries. *J. Clean. Prod.* **2013**, *61*, 130–138. [CrossRef]
67. Tikka, P.M.; Kuitunen, M.T.; Tynys, S.M. Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. *J. Environ. Educ.* **2000**, *31*, 12–19. [CrossRef]
68. Zsóka, Á.; Szerényi, Z.M.; Széchy, A.; Kocsis, T. Greening due to environmental education? Environmental knowledge, attitudes, consumer behavior and everyday pro-environmental activities of Hungarian high school and university students. *J. Clean. Prod.* **2013**, *48*, 126–138. [CrossRef]
69. Kempton, W.; Boster, J.S.; Hartley, J.A. *Environmental Values in American Culture*; Mit Press: Cambridge, MA, USA, 1996.
70. Kuhlemeier, H.; Van Den Bergh, H.; Lagerweij, N. Environmental knowledge, attitudes, and behavior in Dutch secondary education. *J. Environ. Educ.* **1999**, *30*, 4–14. [CrossRef]
71. Oğuz, D.; Kavas, S. Environmental awareness of university students in Ankara, Turkey. *Afr. J. Agric. Res.* **2010**, *5*, 2629–2636.
72. Loomis, J.B.; Bair, L.S.; González-Cabán, A. Prescribed fire and public support: Knowledge gained, attitudes changed in Florida. *J. For.* **2001**, *99*, 18–22. [CrossRef]
73. Kagawa, F. Dissonance in students' perceptions of sustainable development and sustainability: Implications for curriculum change. *Int. J. Sustain. High. Educ.* **2007**, *8*, 317–338. [CrossRef]
74. Karpudewan, M.; Roth, W.-M.; Abdullah, M.N.S.B. Enhancing primary school students' knowledge about global warming and environmental attitude using climate change activities. *Int. J. Sci. Educ.* **2015**, *37*, 31–54. [CrossRef]

75. Evans, G.; Durant, J. The relationship between knowledge and attitudes in the public understanding of science in Britain. *Public Underst. Sci.* **1995**, *4*, 57–74. [CrossRef]
76. Chaiken, S. Heuristic and systematic information processing within and beyond the persuasion context. In *Unintended Thought*; Guilford: New York, NY, USA, 1989; pp. 212–252.
77. Bohner, G.; Moskowitz, G.B.; Chaiken, S. The interplay of heuristic and systematic processing of social information. *Eur. Rev. Soc. Psychol.* **1995**, *6*, 33–68. [CrossRef]
78. Gelissen, J. Explaining popular support for environmental protection: A multilevel analysis of 50 nations. *Environ. Behav.* **2007**, *39*, 392–415. [CrossRef]
79. Dietz, T.; Stern, P.C.; Guagnano, G.A. Social structural and social psychological bases of environmental concern. *Environ. Behav.* **1998**, *30*, 450–471. [CrossRef]
80. Qin, C.; Xu, J.; Wong-Parodi, G.; Xue, L. Change in public concern and responsive behaviors toward air pollution under the Dome. *Risk Anal.* **2018**. [CrossRef]
81. Sudman, S.; Bradburn, N.M. *Asking Questions: A Practical Guide to Questionnaire Design*; Jossey Bass Publishers: San Francisco, CA, USA, 1983.
82. Globescan; SustainAbility. Evaluating Progress Towards the SDGs. 2017. Available online: http://sustainability.com/our-work/reports/evaluating-progress-towards-sustainable-development-goals/ (accessed on 10 September 2019).
83. Van Heerde-Hudson, J.; Hudson, D. The Changing State of Public Debate on Development. 2016. Available online: https://www.oecd.org/dev/pgd/HudsonDevComNov2016_Final.pdf (accessed on 10 September 2019).
84. Giddings, B.; Hopwood, B.; O'brien, G. Environment, economy and society: Fitting them together into sustainable development. *Sustain. Dev.* **2002**, *10*, 187–196. [CrossRef]
85. TrustBarometer. 2019 Edelman Trust Barometer-Global Report. 2019. Available online: https://www.edelman.com/sites/g/files/aatuss191/files/2019-03/2019_Edelman_Trust_Barometer_Global_Report.pdf?utm_source=website&utm_medium=global_report&utm_campaign=downloads/ (accessed on 10 September 2019).
86. Nathan, A.J. China's changing of the guard: Authoritarian resilience. In *Critical Readings on Communist Party of China*; BRILL: Leiden, The Netherlands, 2017; pp. 86–99. [CrossRef]
87. Brossard, D.; Nisbet, M.C. Deference to scientific authority among a low information public: Understanding US opinion on agricultural biotechnology. *Int. J. Public Opin. Res.* **2007**, *19*, 24–52. [CrossRef]
88. Wildavsky, A.; Dake, K. Theories of risk perception: Who fears what and why? *Daedalus* **1990**, *119*, 41–60.
89. Djerf-Pierre, M. The crowding-out effect: Issue dynamics and attention to environmental issues in television news reporting over 30 years. *J. Stud.* **2012**, *13*, 499–516. [CrossRef]