

Appraising (social) psychological scholarship on conspiracy theories: a guide for non-  
psychologists

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Running Head: Social Psychology of Conspiracy Theories

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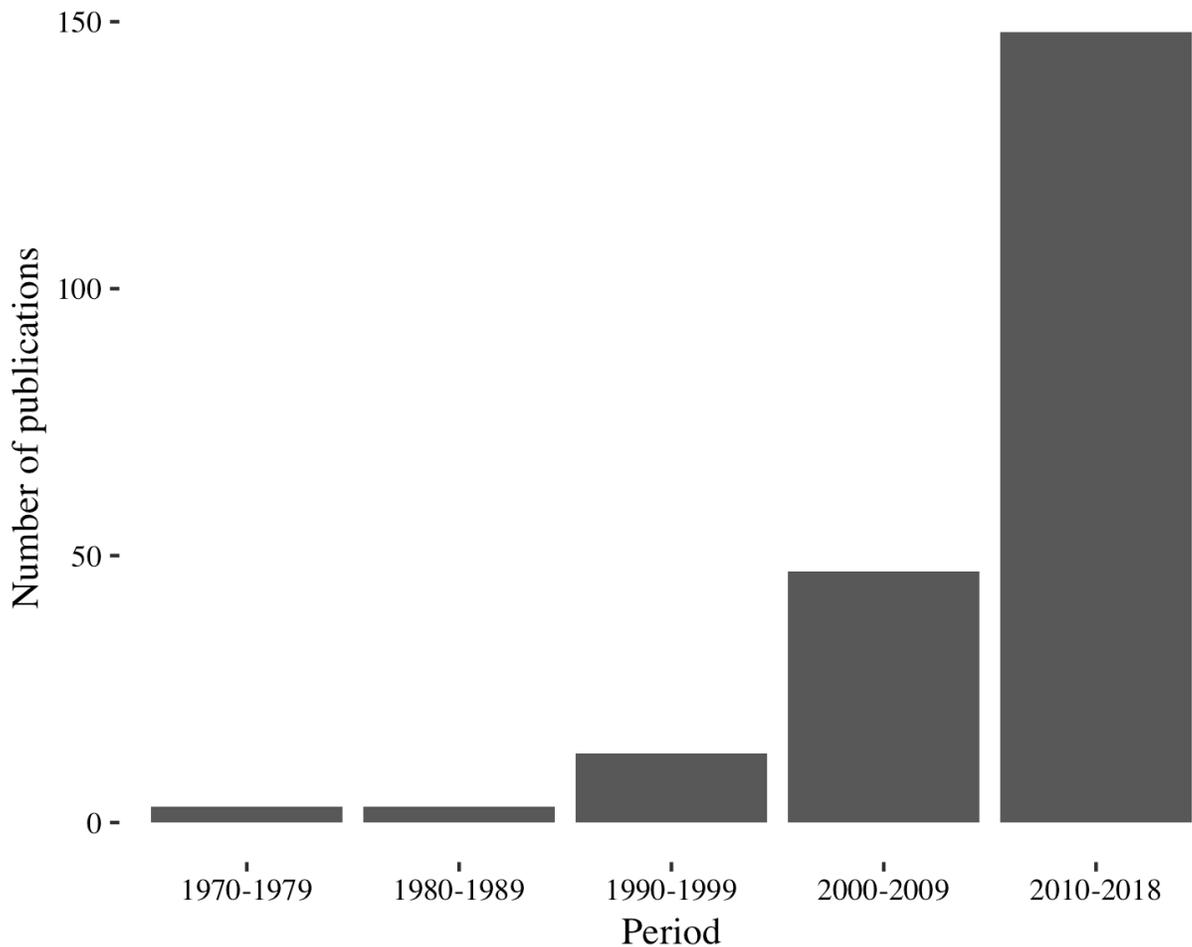
We had to cut some figures and text to fit the publisher's requirement. This version contains this text. The other version of this file ("Klein\_Nera\_Edited\_2020.pdf") is the same as the published version.

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“Conspiracy theories serve as a means to respond to people’s need for uniqueness” (Imhoff & Lamberty, 2017; Lantian, Muller, Nurra, & Douglas, 2017). “Political extremism predicts belief in conspiracy theories” (Van Prooijen, Krouwel, & Pollet, 2015). “When attending to visual scenes, conspiracy theorists are prone to ‘tunnel vision’, focusing their attention on details as opposed to the ‘global picture’” (van Elk, 2015). These are examples, among many others, of broad claims paraphrased from recent social psychological publications bearing on conspiracy theories. How confident can one be in such claims? What justifies them? Answering these questions is the purpose of this chapter.

We define conspiracy theories as beliefs about a group of actors who join together *in secret* agreement and try to achieve a hidden goal that is perceived as unlawful or malevolent (Zonis & Joseph, 1994, pp. 448–449). Note that, in this psychological definition, conspiracy theories are viewed as beliefs held by individuals (they need not be shared) and need not be false. Another consequence of this broad definition is that rather than focusing on specific conspiracy theories, social psychology mostly aims at capturing their common features.

Figure 1 represents the results of a search of the main bibliographic database for psychology, Psycinfo (which covers publications from 1887): the number of empirical articles written in english and containing the word “conspiracy” in the subject field. This search yielded altogether 175 entries.



As a non social psychologist interested in conspiracy theories, this wealth of studies can seem intimidating. Reading the relevant chapters in this volume, or accessible summaries of the literature (e.g., Douglas, Sutton, & Cichocka, 2017; Van Prooijen, 2018) can respond to such a feeling. Yet, while these references provide a suitable overview of the literature, they do not unpack the epistemological principles guiding research on the topic. For scholars versed in the humanities or other social sciences, the kind of questions that preoccupy social psychologists and the standards on which they evaluate evidence may not be evident. For a historian interested in conspiracy theories in ancient Rome or for an anthropologist studying conspiracies in a fringe political community, the broad statements social psychologist are accustomed to, especially when they are transformed into news headlines, may either raise eyebrows or be taken at face value,

without the critical eye they would accord to research emanating from their own domain. Both attitudes impede interdisciplinary dialogue. The purpose of the present chapter is to help them navigate in this literature with a better insight in the way social (and political) psychologists approach this subject matter. Ultimately, this may help foster more fruitful interdisciplinary exchanges on this topic, allowing a richer understanding of conspiracy beliefs. A secondary purpose of this chapter is to help the reader appraise the relevance of social psychological research on the actual world, beyond the laboratory.

But, before discussing conspiracy theories per se, it is important to get a grasp of what social psychology is.

### **Characterizing social psychology**

Social psychology is a field of psychology that one can trace to the beginning of the 20<sup>th</sup> century. It is interested in how people's cognitions, judgments and behaviors are influenced by others. It does so generally (although not exclusively) through quantitative methods. Social psychologists seek to understand general phenomena (e.g., obedience to authority, conformism, prejudice,...). This usually means constructing a causal model of such phenomena grounded in a larger theory. Typically, this will imply identifying contextual factors that "cause" the psychological phenomenon under investigation. The impact of these factors will usually be channelled by intermediary variables (named mediators) that are thought to "explain" the effect of the contextual factor on the phenomenon of interest. For example, the effect of a political crisis (contextual factor) on belief in conspiracy theories may be channelled through uncertainty (mediator). In order to test "models" of such phenomena, social psychologists gather empirical data (e.g., through randomized experiments or surveys), often in carefully controlled settings, and

draw inference on the validity of these models using statistical analyses. Social psychology is a diverse field that includes subareas or approaches that span a spectrum ranging from neuroscience to sociology.

The cognitive approach (social cognition) aims at examining the information processing mechanisms people use to appraise the world that surrounds them. An example of social cognitive approach of conspiracy theories can be found in research examining the relation between conspiracy belief and pattern perception [Dieguez, Wagner-Egger, and Gauvrit (2015); Van Prooijen, Douglas, and De Inocencio (2018); see also Van Prooijen, Klein, & Milosevic, this volume]. In contrast to the cognitive approach, the motivational perspective seeks to understand the needs and motivations associated with the social phenomenon that is being studied. In the case of conspiracy beliefs, it has been for example shown that they respond to a feeling of uncertainty (Van Prooijen & Jostmann, 2013).

Another important distinction in social psychology involves the opposition between individual-level and group-level approaches of social phenomena. In the study of conspiracy theories, individual-level approaches seek to understand how individual psychological processes influence adherence to those beliefs (as in the example we just cited). Collective approaches are more interested in how people's membership in specific groups impinge on such processes and/or the roles conspiracy theories may play at a group level. Although conspiracy theories are shared beliefs that are strongly associated with membership in specific groups, comparatively little research has adopted this angle yet. An example of this approach (Crocker, Luhtanen, Broadnax, & Blaine, 1999) showed that the greater endorsement of conspiracy theories by African Americans, compared to European-Americans, was driven by a motivation to blaming the "system" (for being discriminatory and prejudiced) as opposed to a sense of powerlessness.

Finally, note that social psychology is preoccupied with the general processes governing social behavior. The study of conspiracy theories does not escape this rule. Hence, they are not perceived as a “pathological” forms of belief, that only a minority of individuals may adhere to. By contrast, they are viewed as the outcome of normal societal and psychological processes that may impact any individual regardless of his or her psychological makeup.

Having broadly sketched the discipline of social psychology, let us now succinctly consider the history of social psychological research on conspiracy theories.

### **History of research on conspiracy theories in social psychology**

While conspiracy theories are a very ancient phenomenon (Van Prooijen & Douglas, 2017), figure 1 shows that psychological scholarship on this topic is a relatively recent affair, dating back to the 1970s (with a few isolated exceptions). An early investigation of conspiracy theorizing was provided by McCauley and Jacques (1979), when the memory of the assassination of JFK and the associated conspiracy theories were still fresh. These authors sought to examine the “proportionality bias” *i.e.*, the idea that people seek large causes for large effects (and vice versa). Using an experimental approach, they showed that people were more likely to explain a gunshot at the US president as driven by a conspiracy if the shot succeeded in killing him than if it failed. Whereas a missed shot tolerates a lone shooter as an explanation, only large scale conspiracies can result in a “hit”.

After this initial study, no notable empirical paper was published in the 1980s. The main contribution to the literature was an edited book by Graumann and Moscovici (1987). Among other notable contributions, this volume contains a seminal chapter by Serge Moscovici (1987),

who, building on a historical analysis of conspiracy theories, posited the existence of a “conspiracy mentality”, which he viewed as the core of a social representation of society opposing two classes: the evil conspiring “others” and the virtuous, normal, lawful, “us”. This chapter, richly grounded in historical, philosophical and sociological scholarship, anticipates many of the issues later studied and embraces a “collective” perspective of conspiracy theories. Moscovici views them as a way of preserving the identity of the group in the face of minorities, whose very existence, threatened it. Importantly, he emphasized the “normal” aspects of conspiracy theorizing, which he viewed as a “matrix of collective thought in our epoch” (p. 168).

It is in the 1990s that a program of (empirical) research on conspiracy theories really started. Notably, Goertzel (1994) reports a survey of New Jersey respondents on belief in 10 different conspiracy theories. Such belief was probed by presenting a conspiracy (e.g., “the AIDS virus was created deliberately in a government laboratory”) and asking participants to evaluate the statement on a scale ranging from 1 (“certainly false”) to 5 (“certainly true”). Goertzel found that judgments on these 10 items were strongly intercorrelated (using a common psychometric index: Cronbach’s alpha). In other words, it appeared that people who espouse one conspiracy theory tend to espouse others, to the point that belief in conspiracy theories seemed to reflect one single underlying dimension. To account for this finding, that will prove to be the “most consistent finding on the psychology of conspiracy theories” according to Sutton and Douglas (2014, p. 255), Goertzel introduces the notion of “monological belief system” - belief systems closed on themselves, in which each conspiracy belief reinforces others, buttressing a general assumption that the world is orchestrated by sinister forces [for a critical account of this view, see Sutton and Douglas (2014)]. Another landmark study in the 1990s is the paper by Abalakina-Paap, Stephan, Craig, and Gregory (1999), that opens a long tradition of research on the

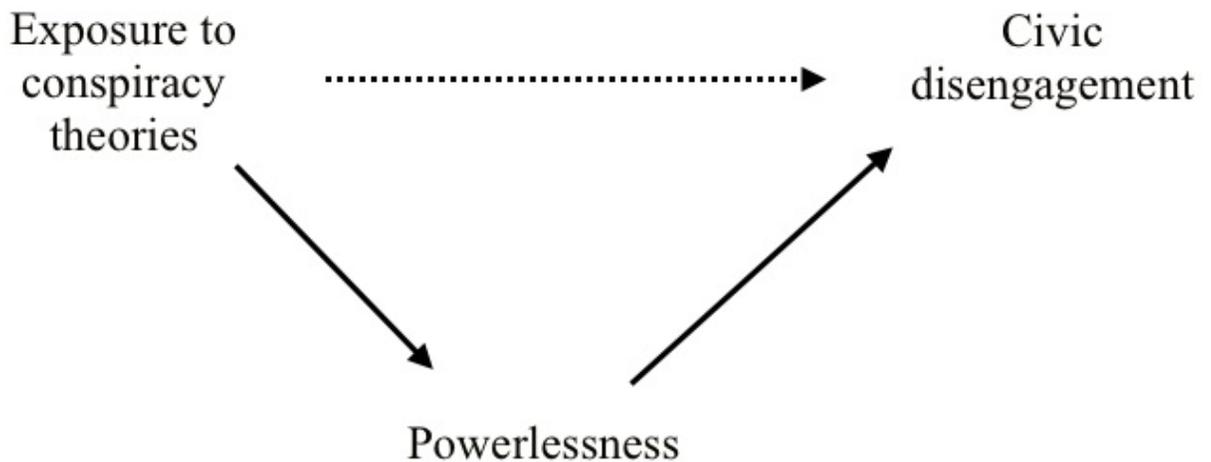
relationship between belief in conspiracy theories and various personality traits (or other individual differences) such as authoritarianism, self-esteem, etc.

In the years 2000, the number of publications on the topic increased further. One of the most influential papers of this period was produced by Karen Douglas and Robbie Sutton (2008), who showed that people were poor at estimating the influence of exposure to conspiracy beliefs on their own judgments. Specifically, they underestimated their own “permeability” to conspiracy theories, while expecting that others would be much more vulnerable (*i.e.*, the “third-person effect”). Although written in French, another important paper (Wagner-Egger & Bangerter, 2007) of this period was titled “La vérité est ailleurs” (*i.e.*, “The truth is out there”). Besides those targeting minorities (on which Moscovici focused his interest), there is another category targeting dominant, majority, groups (“system” conspiracy theories). They show that fear predicts the former whereas irrationality specifically predicts endorsement of system-related CTs. As is clear from figure 1, the interest for conspiracy theories really surged in the 2010s. Douglas and Sutton and their (former) students (Daniel Jolley, Robert Brotherton, Mike Wood) spearheaded this tendency. Other scholars such as Jan-Willem van Prooijen, Roland Imhoff, Viren Swami and Michal Bilewicz emerged as well, putting conspiracy theories at the center stage of social psychology. The wealth of publications dating from this period is too voluminous to be covered in this chapter. Rather, we shall consider the assumptions on which social psychological knowledge on conspiracy theories (as much of the rest of the field) has been conducted. In order to do so, we shall delve on a specific study in detail.

### Theoretical modeling in social psychology: an example

The study was conducted by Jolley and Douglas (2014b: study 1). It is typical of the way experimental psychologists formulate and test a theory. These authors suggest that exposure to conspiracy theories reduces civic engagement. Why? Because, when people are exposed to conspiracy theories, they feel more powerless and doubt the effectiveness of their actions on behalf of the collective. So, in this *model*, three theoretical constructs are postulated (see Figure 2):

Figure 2: Model used in the study by Jolley & Douglas (2014)



Let us consider some of the assumptions underlying such an approach. Note that these apply to most empirical papers in social psychology. Jolley and Douglas are interested in general processes that should operate regardless of the content of the conspiracy theory being considered. The model is expected to hold for a wide variety of conspiracy theories. The same holds with respect to the outcome: civic engagement. Exposition to conspiracy theories should influence a

variety of instances (or *operationalizations* in technical parlance) of political engagement such as *e.g.*, voting, participating in a political campaign, etc.

This assumption of generalizability is not self evident: One could imagine for example that two narratives fitting the definition of conspiracy theories may have different effects on political engagement and/or that exposure to some CTs may exacerbate some forms of political engagement (*e.g.*, voting) while making others less likely (*e.g.*, marching on behalf of a specific party). The issue is usually addressed by examining how the respondents' answers to items supposed to measure a single, more generic construct, are intercorrelated. In the study, they used a scale measuring seven instances of civic engagement (*e.g.* donate money to a party, vote during the next elections, ...). The seven items yielded a good internal consistency, in other words they were strongly intercorrelated, suggesting that the items could be considered as measuring a single construct, *i.e.*, civic engagement.

A further assumption of this approach is that the psychological entities under consideration are *measurable i.e.*, that they can be transformed into numbers on a meaningful scale. While social psychology has used many measurement techniques, the most common one in the field of conspiracy theories is the use of rating scales. For example, in the present study, belief in conspiracy theories was measured by asking people to express how likely they found 12 statements of the type "The British government was involved in the death of Princess Diana" from 1 (= "extremely unlikely") to 7 ("extremely likely"). Their average rating was treated as an index of their belief in conspiracy theories. It may seem peculiar to view such scale as continuous but psychometricians have argued that this is warranted when the distribution of the underlying construct follows a normal ("bell-shaped") distribution in the population of interest (*e.g.*, all British citizens). When the distribution observed in the sample of people actually participating in

the study is compatible with this theoretical distribution, psychologists tend to treat response scales of this type as continuous (for a critical discussion of this assumption, see: Liddell & Kruschke, 2018). A direct implication of this approach is that an individual's score on a given scale is not *per se* informative of anything, but is rather to be put in perspective with a sample that enables comparison between participants.

In experimental social psychology, an additional assumption is that manipulating the causal variable should produce effects on the outcome if the model is correct. Practically, this involves finding a sample of people for whom the model is expected to hold (which is, generally, all "normal" adults unless otherwise specified) and then assigning each participant in the study to an experimental condition on a purely random basis. Since experiments are conducted in a controlled environment, researchers can make sure that the causal variable is the only parameter that varies between conditions. Therefore, if the expected outcome is observed, it can be attributed to the causal factor.

The researcher then uses statistical tests to calculate the probability of the observed data under the assumption that the "null hypothesis" is true. In the case of a group comparison, the "null hypothesis" is the assumption that there is actually no differences between the groups, and that the observed differences are merely the consequence of random sampling variations. If the observed differences between the experimental and control conditions are more extreme than could be reasonably explained by chance under the assumption that the null hypothesis is true, the model is considered to be supported by the data.

Conventionally, the hypothesized model is considered to be supported to the extent that the difference between groups is less than 5% likely to be produced by chance at all. This

probability is named the “p-value” (typically written  $p$ ), and it is considered “significant” if it is lower than .05. In practice, this means that one accepts to misattribute a difference produced by chance to variations in the hypothesized causal factor 5 % of the times (for an introduction to inference testing, see Perezgonzalez, 2015).

Jolley and Douglas tested their model with 168 British research students. Their experimental manipulation involved inviting them to read an article that supposedly promoted the existence of government sponsored conspiracy theories. An excerpt of this article is the following:

“...To take the example of Princess Diana’s death, it is no secret that the British government were discontented with >Princess Diana’s involvement with Dodi Fayed and also with her increasing involvement in politics... one must therefore >question the claim that her death was simply a tragic accident...”

Other participants read a similar text arguing against conspiracy theories. Here is an excerpt:

“...To take the example of Princess Diana’s death, it is no secret that Princess Diana’s popularity made some members of the government uneasy. However, there is no evidence at all to suggest that the British government were involved in her death... her death was simply a tragic accident...”

Participants’ belief in government-led conspiracy theories, their feelings of powerlessness and their political engagement were then measured using appropriate rating scales. For all

variables, participants' answers to the items were averaged into "scores" used in the statistical analyses.

As expected, participants exposed to the "pro-conspiracy" article obtained lower scores on the political engagement scale than those exposed to the "anti-conspiracy text". The difference between these two means (2.67 and 3.20 respectively) was statistically significant ( $p = .005$ ) using the appropriate test.

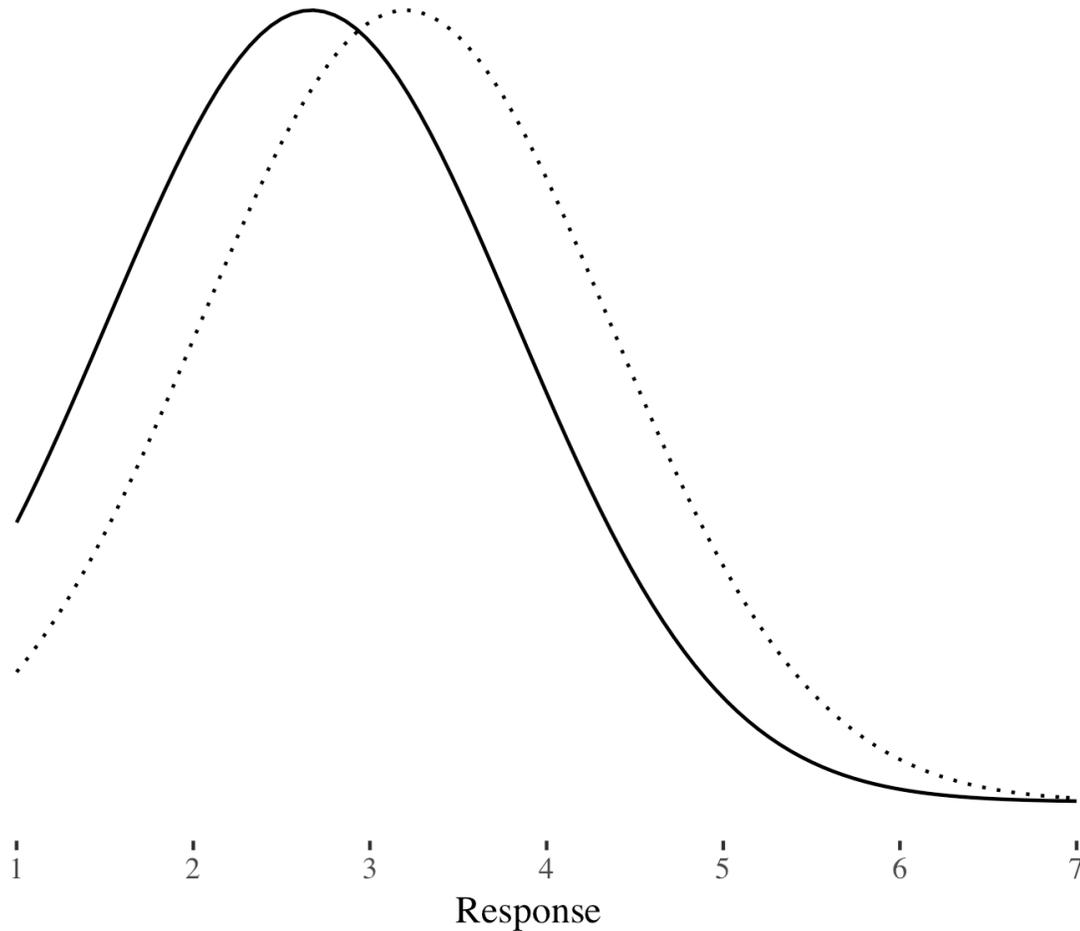
The authors also relied on a more complex statistical method (mediation) to establish that indeed, this difference was explained by the effect of exposure to the text on feelings of powerlessness.

### **Interpreting findings**

How confident should we be in the support such data offer for the theoretical model that is being postulated? The p-value is of interest as it informs us as to whether the results could have been produced by chance. What it does not tell us, however, is how strong the effect is, *i.e.*, in the case of group comparison, how large is the difference between the groups. Hence, effect size is distinct from statistical significance, and should always be reported in a social psychology paper. The p-value is indeed very sensitive to sample size such that a very small effect can be significant when the sample size is very large.

In the present case, the effect size is  $d = 0.46$ , which is considered (almost) "medium" according to the conventions set out by Cohen (1988). This is roughly the mean effect size found in all research published in social psychology (Richard, Bond Jr, & Stokes-Zoota, 2003). To provide a rough idea of what this means, look at Figure 3, which represents the theoretical

distribution of the score in the “conspiracy group” (solid line) and the “control” group (dotted line) assuming a  $d$  of 0.46 and the observed means. As can be seen from this graph, the two graphs overlap to a large extent.



In this regard, an information of even greater interest than the p-value and the effect size is the “confidence interval” (CI) of the difference between the two conditions. It provides an estimate of the value of the difference in the population of interest with a given level of certainty (*e.g.*, 95%). The smaller the CI, the more precise the estimation, which provides an estimate of the “true” effect size (*i.e.*, in the populations of which the samples are extracted). Further, when 0 is

not located in the CI for the difference, it means the effect is “significant”. Thus, the CI provides information about both effect size *and* significance.

From an applied perspective, one is often more interested in the strength of the effects than in whether they are significant or not. Yet, the social psychological literature has placed much more emphasis on significance than on effect size. In the case of Jolley and Douglas’ study, the CI of the difference between the two conditions is located between -3.95 and -1.85. This corresponds to between 1/3 point of a scale from 1 to 7 and 2/3 points on such a scale.

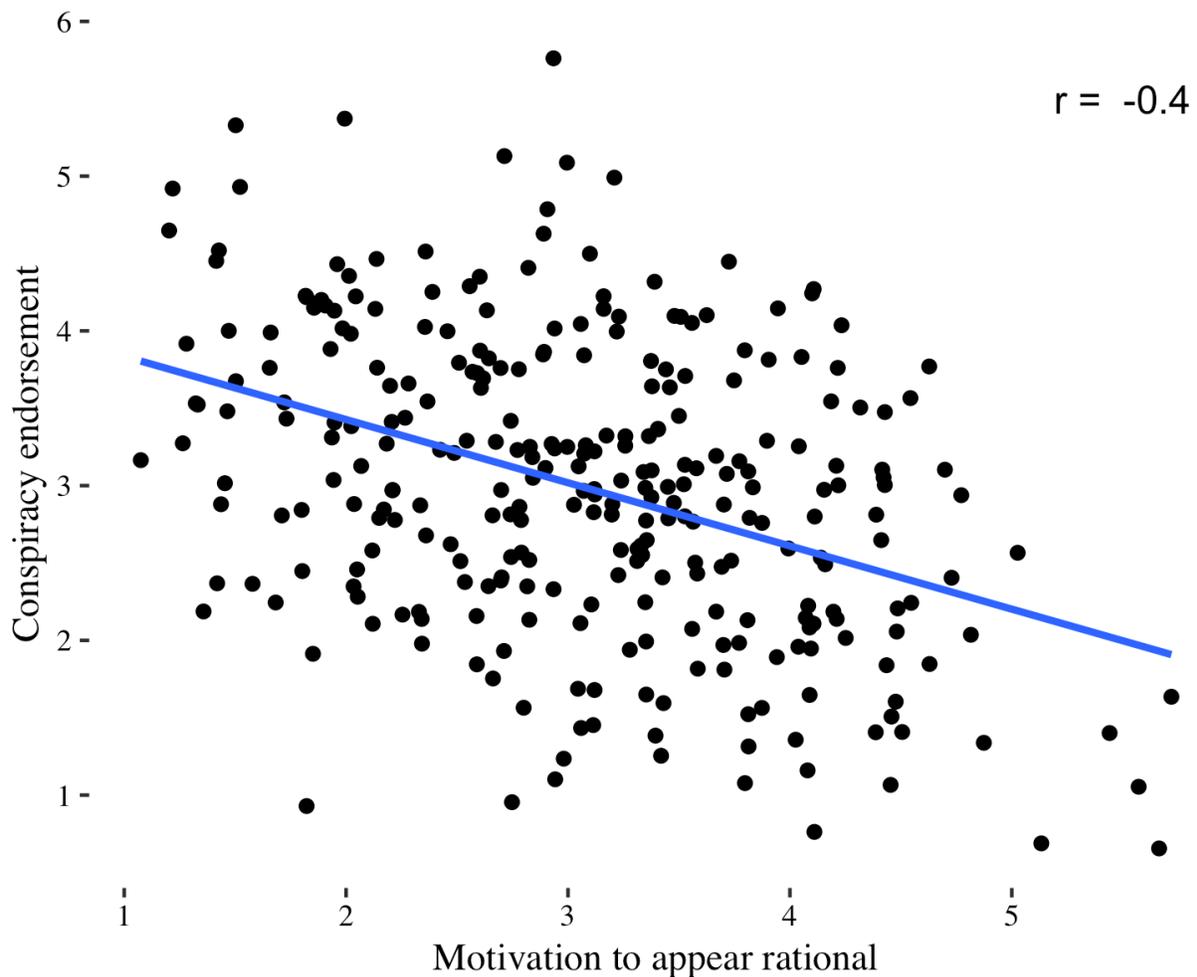
Considering that the manipulation was relatively mild (reading an article), this can be considered as a relatively meaningful effect even if it is not considered “large” by Cohen’s standards. Going back to McCauley and Jacques’ bayesian reasoning: A strong effect is more meaningful when the cause is small than when the cause is large and conversely for a small cause. Note that another advantage of confidence intervals is that they inform us on the likelihood of replication of the finding (Cumming, 2014), which is an important part of the process of making scientific findings reliable.

### **Correlations**

We have examined an example of experimental study on conspiracy theories. However, the most frequent statistical method used by social and political psychologists to study conspiracy theories are correlation and regression, methods developed in the 19<sup>th</sup> century by Francis Galton and Karl Pearson. A correlation coefficient (noted  $r$ ) is an indicator of the association between two variables. It can vary between -1 (when the two variables are completely negatively associated) and 1 (when the two variables are completely positively associated). A correlation coefficient of 0 means that there is no association. However, in practice, such “perfect”

correlations are never found, and we can only observe that some variables tend to be more or less associated, positively or negatively, with others.

Let us imagine that among a sample of 300 people, you measure the endorsement of a conspiracy theory and the motive to appear rational, both on a multi-items scale. You can plot the scores on the latter on a X axis and the scores on the former on a Y axis such that each dot on your graph represents a participant in the sample. Figure 4 represents imaginary data exemplifying this situation.



In the present case, a positive correlation coefficient will be indicated by the observation that the “cloud” of data seems to be directed upwards such that higher values on one dimension are

associated with higher values on the other dimensions (a negative correlation will be indicated by a “downwards”-oriented cloud). If the correlation is perfect (which never happens in psychology), all points will be aligned on a line (here the blue line in Figure 4). In this figure, the correlation coefficient equals  $-0.40$ . Typically, social psychologists will interpret such findings as suggesting that variable 1 is (negatively) associated with variable 2 e.g., that a motive to appear rational is associated with a weaker endorsement of conspiracy theories.

It is however important to be cautious when interpreting between-subject correlation coefficients: While a positive correlation coefficient certainly shows that people who score high on X tend to score high on Y, it does not demonstrate unequivocally that a general psychological process associating X and Y is present. That X and Y are correlated may be the outcome of a third-variable e.g., showing motivation to appear rational and disregard toward conspiracy theories could be both explained by respondents’ motives to respond in socially desirable ways, since conspiracy theories are stigmatized (Lantian et al., 2018).

Linear regression is another common method, which is roughly equivalent to correlation. However, it differs in two ways: First, one variable is identified as the “predictor” and the other as the “outcome”: The method is meant to predict the value of the latter based on the former. Second, this method allows to include several potential predictors in the model, and hence allows measuring the effect of one predictor while controlling for the others. In the present example, let us assume that people who are older tend to want to appear more rational and are also more likely to endorse conspiracy theories. This may actually render the relation between the motive to appear rational and conspiracy endorsement “spurious” (*i.e.*, purely explained by age). To avoid this, the researcher may want to predict conspiracy endorsement on the basis of both age and the motive to appear rational. This will allow to identify the effect of the motive “uncontaminated”

by age. A technique called “multiple regression”, and much used by scholars interested in conspiracy theories, precisely allows to do this. But, naturally, disentangling such confounds presumes that one has measured the confounding variable in the first place.

### Study designs

Conspiracy theories are studied in several ways. A wealth of research seeks to examine the relation between endorsement of conspiracy theories and a variety of traits or attitudes that vary between individuals using the correlational approach just described. These include personality traits (e.g., paranoia: Imhoff & Lamberty, 2018), political attitudes (e.g., Van Prooijen et al., 2015), endorsement of other beliefs such as paranormal beliefs (e.g., Drinkwater, Dagnall, & Parker, 2012) or demographic characteristics such as socioeconomic status, education (Van Prooijen, 2017) or ethnicity (e.g., Davis, Wetherell, & Henry, 2018).

A second category of studies seeks to examine whether people who believe in conspiracy theories are, more than others, prone to a variety of cognitive biases such as the conjunction fallacy, *i.e.*, the tendency to view the conjunction of two events as more likely than each event separately (Brotherton & French, 2014), the proportionality bias, *i.e.*, the tendency to consider that large causes should have large effects (McCauley & Jacques, 1979), the tendency to overestimate one’s capacity to explain phenomena (Vitriol & Marsh, 2018), or the tendency to see intentionality in inanimate objects (Douglas, Sutton, Callan, Dawtry, & Harvey, 2016, see Van Prooijen et al., this volume for an overview).

Note that, while interesting, the design of these studies does not allow to establish the causal direction of these relations. This is because such studies are purely correlational. If there is a correlation between the two variables, this could be

- due to the bias causing the conspiracy belief: For example, people who tend to see intentionality where there is apparently none may come to endorse conspiracy theories.
- due to conspiracy belief causing the bias: People who endorse conspiracy belief may develop a propensity to see intentionality where it seems there is not.
- due to a third, unmeasured, factor (*e.g.*, intelligence) causing both conspiracy belief and the bias.

Longitudinal designs, in which the variable of interests are measured on several occasions, would be better equipped to tackle such causal relations. Indeed, as a cause is necessary anterior to its effect, such an approach allows to establish causality more convincingly. Nonetheless, such designs are rarely used in research on conspiracy theories (for an exception, see Golec de Zavala, Link to external site, Federico, & Link to external site, 2018).

The most compelling demonstration of causality is provided by experimental designs in which observations are randomly assigned to a treatment. If the outcome varies above what would expect by chance alone, this suggests that the treatment was indeed effective. A considerable amount of research on conspiracy theories relies on such designs. Aside from studies in which conspiracy theories are used as exposure material, as in the study by Jolley and Douglas (2014b) discussed previously, a common approach involves scenario studies in which people are presented with a fictitious event and asked to estimate the likelihood that a conspiracy produced it. In the present case, belief in conspiracy theories is measured as the outcome variable. In an example of this approach (Van Prooijen & Jostmann, 2013: study 2), the authors sought to test the hypothesis that people resort to conspiracy explanations when feeling uncertain. In order to do so, they randomly assigned participants to one of two conditions: one in which they had to reminisce instances where they felt uncertain, and one where they watched TV (control

condition). In an ostensibly separate experiment, they read a fictitious newspaper article about the death of an opinion leader in a car accident in Benin (a country the participants had no knowledge about). They were then asked to express their view about the causes of the accident. Besides, the Beninese government was presented as either corrupt or not. Congruent with the researchers' hypotheses, people who had made feel uncertain were more likely to endorse conspiracy explanations of the accident, but only when the country was perceived as corrupt. This comforts the authors' hypothesis that, when people feel uncertain, they are more likely to pay attention to morality related information, and draw inferences in other, morally-related domains (such as the existence of conspiracies). In this study, relying on a fictitious setting has several advantages: People's belief in pre-existing conspiracy theories may be unlikely to be affected by a relatively subtle experimental manipulations. Second, the story can be easily manipulated to incorporate the "corruption" aspect, which would be much more difficult using existing theories. Naturally, the drawback of this choice is that the endorsement of this fictitious theory carries little meaning and personal implications for participants.

### **Main scales used to measure belief in Conspiracy Theories**

There are many ways to measure endorsement of conspiracy theories. A common approach, involves evaluating beliefs in specific conspiracy theories that are relevant given the social context of the study. For example, in a study conducted in Hungary, Orosz and colleagues (2016) measured agreement with statements expressing a view of the European union as purely parasitic (a common trope in political discourse in Hungary) whereas Polish participants, in studies by Marchlewska, Cichocka, and Kossowska (2018) probe people's beliefs regarding the

cause of the 2010 plane crash that killed the former Polish president Lech Kaczynski (among many other victims).

Another option involves measuring belief in some of the most globally notorious conspiracy theories. This is the approach taken by Swami et al. (2017) in the “Belief in conspiracy theories inventory”, a 15-items scale that measures belief in 15 different theories such as “US agencies intentionally created the AIDS epidemic and administered it to Black participants” or “The Apollo moon landings never happened and were stage in a Hollywood film studio”. The approach, here, seems to be to evaluate belief in the “top 15” conspiracy theories. Other authors have sought to measure endorsement of conspiracy theories through statements that do not involve contextually-specific theories. A prominent example of this approach is Brotherton, Pickering and French (2013)’s generic conspiracy belief scale. The statements are so general that they could refer to many possible conspiracies and contexts. Examples are “The government uses people as patsies to hide its involvement in criminal activity” or “A lot of important information is deliberately concealed from the public out of self interest”. This scale could potentially be applied in many countries. Bruder et al.’s work (2013) offers another avenue for circumventing the context-specificity of measures of endorsement of conspiracy theories. They evaluate an individual trait that they term “conspiracy mentality” (based on Moscovici, 1987). This trait is thought to reflect a general propensity to subscribe to “theories blaming a conspiracy of ill-intending individuals” (Bruder et al., 2013, p. 2). They rely on items such as “I think that many important things happen in the world which the public is never informed about” or “There are secret organizations that greatly influence political decisions”. There are two forms of this scale: the 5-item Conspiracy Mentality Questionnaire (Bruder et al., 2013) and the 12-item Conspiracy Mentality Scale (Imhoff & Bruder, 2014).

In the same vein, Lantian, Muller, Nurra, and Douglas (2016) developed a one-item measure of conspiracy beliefs, which provides a highly economical way of evaluating this dimension. After an introductory text mentioning the “debates” over various social and political events (the 9/11 attacks, the Death of Lady Diana, and the JFK assassination), participants have to indicate their agreement with the following statement: ‘I think that the official version of the events given by the authorities very often hides the truth’.

For a comparison of the psychometric properties of the main scales considered here, readers may consult Swami (2017).

### **The contributions of social psychology to the understanding of conspiracy theories**

After this brief review of how social psychology appraises social phenomena in general and conspiracy theories more specifically, we would like to briefly reflect on how the field contributes to the understanding of conspiracy theories.

The most direct, obvious contribution is that social psychological has explored many of the antecedents and consequences of beliefs in conspiracy theories, on a multiplicity of levels (for reviews, see Douglas et al., 2017; Prooijen & Douglas, 2018; Van Prooijen, 2018). Throughout the years, the accumulated research has painted an increasingly rich and nuanced picture of the phenomenon. Since all this knowledge relies on the assumption that conspiracy theories are underpinned by a generic belief system, we wish to discuss this assumption in the following paragraphs, and address a recurring criticism.

The most robust finding in the social psychology research on the topic is, as we already said, that people who find a specific conspiracy theory likely to be true strongly tend to find

others also likely to be true, even when they are seemingly unrelated. In statistical terms, beliefs in conspiracy theories as measured in social psychology surveys are strongly and positively intercorrelated, to the point that they can be considered to reflect a single construct.

Such internal consistency, however, should not be overinterpreted. . For example, philosophers such as Hagen (2017) or Basham (2017) have harshly criticized the tendency among social psychologists to identify as “solid belief” what is actually only an assessment of plausibility. While this criticism is to some extent legitimate, it would be analytically erroneous to discard the field’s contribution to the understanding of CTs on this basis.

Indeed, while social psychologists should acknowledge the substantial gap between firmly believing in a conspiracy theory and finding a conspiracy theory *a priori* plausible, it is both a trivial truth and a solid scientific fact that a belief is more easily espoused when it fits the pre-existing belief system of the individual (e.g. Bronner, 2003). To the contrary, individuals may be more willing to scrutinize information when it is incongruent with their pre-existing belief system (Gilead, Sela, & Maril, 2018; Lord, Ross, & Lepper, 1979). Hence, while people who score high on conspiracy mentality scales may not necessarily be hardcore conspiracy theorists and should not be considered as such, they will surely be more easily convinced by arguments in favor of a conspiracy theory.

Another contribution of social psychology to the understanding of conspiracy theories pertains to its methodological standards. Conspiracy theories are a complex social phenomenon with blurry boundaries. Philosophers have argued that there is no clear criterion that allows to distinguish warranted accusations of conspiracy from unwarranted conspiracy theories (e.g. Harambam & Aupers, 2015; Keeley, 1999). Studying conspiracy theories is even harder

considering that in practice, labeling a belief “conspiracy theory” amounts to disqualifying the possibility that this belief may be valid at all (e.g. Husting & Orr, 2007, Klein & Van der Linden, 2010). On the other hand, Conspiracy theories are intimately associated with political extremism and populist discourses (e.g., Silva, Vegetti, & Littvay, 2017) . Researchers on this topic therefore face an intractable conundrum: On the one hand, their research may be weaponized to delegitimize political alternatives; on the other hand, they examine a social phenomenon that in many instances represents an actual danger for contemporary democracies. Given such ideological stakes, keeping a rigorous scientific line of reasoning is a challenge.

While the social psychological literature is far from being exempt of ideological biases (e.g., Duarte et al., 2015), the methodological standards in social psychology, and especially their latest evolutions following the replication crisis (*i.e.*, the realization in the early 2010s that in social psychology, as in other sciences, seemingly established findings were not replicable) offer tools to reduce the extent to which conclusions may be contaminated by the researcher’s ideological background. The aforementioned methodology may appear rigid or even artificial for outsiders. However it provides a substantial advantage: If rigorously applied, it can minimize the individuals’ propensity to privilege data that validate their initial intuition (often rooted in ideological considerations), over information that may contradict it. In cognitive psychology, such propensity is referred as “confirmation bias” (Nickerson, 1998; Wason, 1960).

Since the replication crisis, many authors have emphasized the necessity to address methodological flaws in social psychological research (e.g., Świątkowski & Dompnier, 2017). Rigor and transparency are more and more valued over innovative results. The best illustration of this evolution may be the development of what is called “registered research reports”: In many journals, articles can be now submitted for publication before data collection. If the research

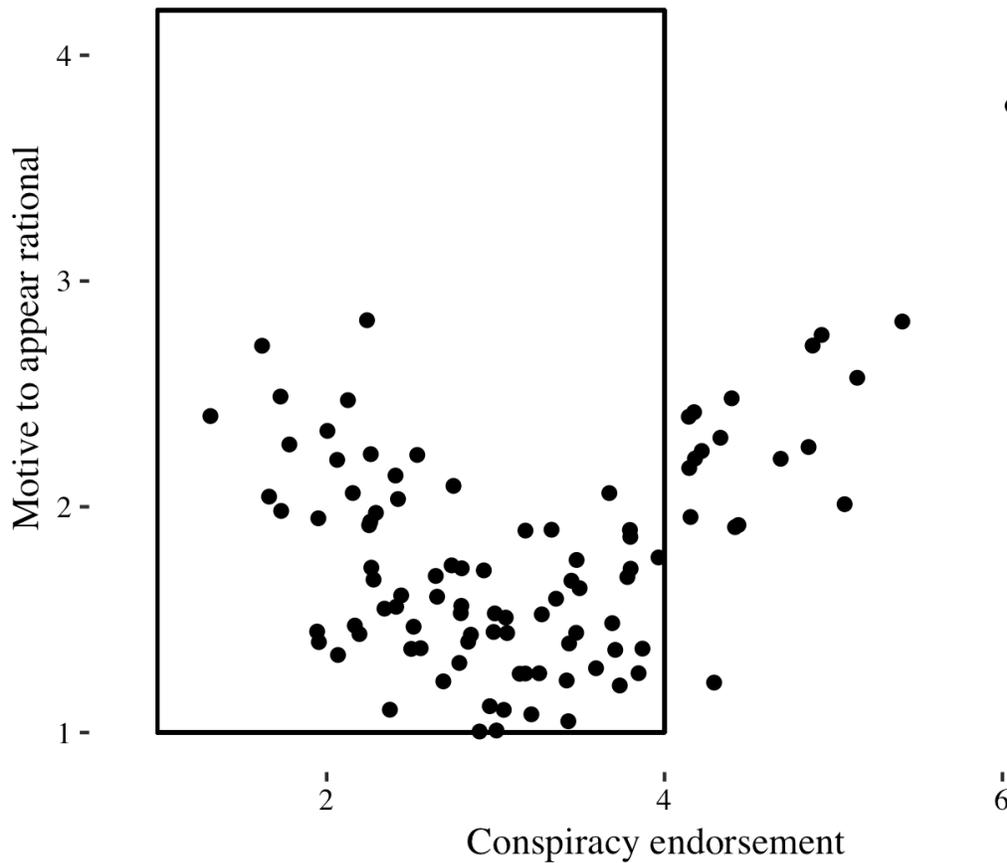
question is considered worthy of publication, and the methodology considered robust enough by the reviewers, those articles may be accepted for publication in principle pending respect of the methodology. It would be naive to believe that this raise of concern for methodological rigor will ultimately lead to the elimination of confirmation bias in social psychology. However these recent evolutions indubitably constitute a leap in the discipline's scientific maturity.

### **Limitations**

In its current state of development, social psychological research on conspiracy theories has several limitations. A first limitation relates to sampling. There has been a move in psychology towards relying on larger sample sizes as they are necessary for providing statistically conclusive findings. Accessing such samples often means relying on convenience samples (*e.g.*, college students) or community samples, who are not particularly versed in conspiracy theories. This also means that endorsement of such theories is often relatively low. For example, in the study by Swami et al. (2010), the mean score of a community sample of 817 British respondents on the BCTI was 3.31 (whereas the scale ranges is from 1 to 9). Generally, such absolute levels of disagreement with conspiracy accounts does not trouble researchers too much: Indeed, social psychologists are interested in the processes associated with believing in conspiracy theories rather than in people's absolute level of endorsement. Whether average belief in a sample is low or high does not really matter to the extent that the effects one is interested in (*i.e.*, correlations with other variables or differences between experimental conditions) can be ascertained.

Yet, such examples suggest that research on conspiracy theories often bears more on rejection of such theories than on actual endorsement or adhesion to them. Whether factors

driving extreme endorsement of such theories may not be the simple polar opposites of those that drive forceful rejection of them. For example, the desire to appear rational may both drive endorsement of conspiracy theories and rejection of conspiracy theories. If the range is restricted to people who reject conspiracy theories, this should translate into a negative relationship between the desire to appear rational and endorsement of conspiracy theories (as in the left part of figure 5, inside the rectangle). However, having access to the full sample (which is fictitious here) would reveal that the trend reverses when considering people who are moderate to strong believers: They, also, want to appear rational! Researchers are often in a position of seeing what lies inside the left rectangle of Figure 5, drawing conclusion on the endorsement of conspiracy theories that may only apply to their rejection. For this reason, reliance on highly diverse samples, but also on samples composed of actual conspiracy believers, is much desired in future research.



In addition, as in most of psychological research (Henrich, Heine, & Norenzayan, 2010), most of the samples studied are Western, with a predominance of British, US, German and Dutch samples given the nationality of the researchers. There are also instances of research conducted in Eastern Europe (e.g., Marchlewska et al., 2018; Orosz et al., 2016). Beyond this geographical horizon, there is a crying lack of published studies in English. For example, we could find only one study bearing on conspiracy theories in Africa (Nattrass, 2013). This means that cross-cultural comparisons are lacking (for an exception including Middle Eastern samples, see Bruder et al., 2013). Most importantly, given that conspiracy theories are intimately associated with a

specific political context, the fact that the literature mostly showcases work conducted in Western liberal democracies, is an important limitation.

Other limitations derive from the fact that research on conspiracy theories relies almost exclusively on rating scales. Such scales have many advantages: precision in assessing the construct of interest through careful item wording, ease of administration to large samples, standardization across respondents, and straightforward quantification. They suffer however from several drawbacks. One would be that as we said in the previous section, rather than measuring individuals' actual endorsement of conspiracy theories, such scales may measure how *plausible* individuals find conspiracy theories. Furthermore, we know very little about the relation between conspiracy endorsement and actual behavior. For example, while endorsement of anti-vaccine conspiracy is negatively associated with self-reported vaccination intentions (Jolley & Douglas, 2014a), this may reflect a consistency bias (*i.e.*, people wanting to make their responses seem consistent regardless of their actual behavior). While more costly, objective indicators of actual behavior would be welcome and a more reliable indicator of the real-life consequences of belief in conspiracy theories.

Furthermore, due to the almost exclusive use of this survey format, we actually know very little about the formation of conspiracy theories. As we have noticed, most of the available research relies on people's endorsement of either existing conspiracy theories or of theories that were crafted by the researchers. We know comparatively little about how people elaborate and construct such theories, be it intra-individually or through interactions with other group members. In this regard, greater reliance on qualitative material could be welcome.

An additional limitation of such research is that it relies greatly on intra-individual measures. Obviously, conspiracy theories are a collective phenomenon, depending on intra and inter-group interactions. Yet, such interactions are the focus of very little research.

### **Conclusion**

In this chapter, we have taken up the challenge to summarize how social psychologists conceptualize and investigate conspiracy theories. To do so, we briefly reviewed the history of the research on the topic. We also exposed and discussed the field's methodological standards, their underlying epistemological assumptions, the advantages they provide and, of course, their limitations. Inevitably, this contribution only scratches the surface of all these aspects. However, hopefully, it will provide a basic understanding of the logics underlying social psychological research on conspiracy theories.

After a decade of research, social psychologists have highlighted the fact that conspiracy theories, despite the fact that they are often presented as purely rational by their advocates, are related to a multiplicity of factors that impinge their endorsement. Hence, they appear to be only partly, if any, rational. It is however important to note that in this regard, they are not different from many other types of beliefs. Conspiracy theories appear to be a particularly spectacular illustration of the fact that most of the time, our beliefs about the world reflect more of a multi-biased information-seeking process than the logic conclusion of an objective investigation of reality.

### **References**

Abalakina-Paap, M., Stephan, W. G., Craig, T., & Gregory, W. L. (1999). Beliefs in conspiracies. *Political Psychology*, 20(3), 637–647. <https://doi.org/10.1111/0162-895X.00160>

Basham, L. (2017). Pathologizing Open Societies: A Reply to the Le Monde Social Scientists, Lee Basham « Social Epistemology Review and Reply Collective. Retrieved January 23, 2019, from <https://social-epistemology.com/2017/02/22/pathologizing-open-societies-a-reply-to-the-le-monde-social-scientists-lee-basham/>

Bronner, G. (2003). *L’empire des croyances*. Paris: PUF. Retrieved from <http://journals.openedition.org/assr/2407>

Brotherton, R., & French, C. C. (2014). Belief in conspiracy theories and susceptibility to the conjunction fallacy. *Applied Cognitive Psychology*, 28(2), 238–248. <https://doi.org/10.1002/acp.2995>

Brotherton, R., French, C. C., & Pickering, A. D. (2013). Measuring belief in conspiracy theories: The generic conspiracist beliefs scale. *Frontiers in Psychology*, 4, 279. <https://doi.org/10.3389/fpsyg.2013.00279>

Bruder, M., Haffke, P., Neave, N., Nouripanah, N., & Imhoff, R. (2013). Measuring individual differences in generic beliefs in conspiracy theories across cultures: Conspiracy Mentality Questionnaire. *Frontiers in Psychology*, 4, 225. <https://doi.org/10.3389/fpsyg.2013.00279>

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillsdale, NJ: Erlbaum.

Crocker, J., Luhtanen, R., Broadnax, S., & Blaine, B. E. (1999). Belief in U.S. government conspiracies against Blacks among Black and White college students: Powerlessness or system blame? *Personality and Social Psychology Bulletin*, 25(8), 941–953.  
<https://doi.org/10.1177/01461672992511003>

Cumming, G. (2014). The New Statistics: Why and How. *Psychological Science*, 25(1), 7–29. <https://doi.org/10.1177/0956797613504966>

Davis, J., Wetherell, G., & Henry, P. J. (2018). Social devaluation of African Americans and race-related conspiracy theories. *European Journal of Social Psychology*, 48(7), 999–1010.  
<https://doi.org/10.1002/ejsp.2531>

Dieguez, S., Wagner-Egger, P., & Gauvrit, N. (2015). Nothing happens by accident, or does it? A low prior for randomness does not explain belief in conspiracy theories. *Psychological Science*, 26(11), 1762–1770. <https://doi.org/10.1177/0956797615598740>

Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, 26(6), 538–542.  
<https://doi.org/doi.org/10.1177/0963721417718261>

Douglas, K. M., Sutton, R. M., & Link to external site, this link will open in a new window. (2008). The hidden impact of conspiracy theories: Perceived and actual influence of theories surrounding the death of Princess Diana. *The Journal of Social Psychology*, 148(2), 210–221. <https://doi.org/10.3200/SOCP.148.2.210-222>

Douglas, K. M., Sutton, R. M., Callan, M. J., Dawtry, R. J., & Harvey, A. J. (2016).

Someone is pulling the strings: Hypersensitive agency detection and belief in conspiracy theories.

*Thinking & Reasoning*, 22(1), 57–77. <https://doi.org/doi.org/10.1177/0956797615598740>

Drinkwater, K., Dagnall, N., & Parker, A. (2012). Reality testing, conspiracy theories, and

paranormal beliefs. *Journal of Parapsychology*, 76, 57–77.

Duarte, J. L., Crawford, J. T., Stern, C., Haidt, J., Jussim, L., & Tetlock, P. E. (2015).

Political diversity will improve social psychological science. *Behav Brain Sci*, 38, e130.

<https://doi.org/10.1017/S0140525X14000430>

Gilead, M., Sela, M., & Maril, A. (2018). That's My Truth: Evidence for Involuntary

Opinion Confirmation. *Social Psychological and Personality Science*, 1948550618762300.

<https://doi.org/10.1177/1948550618762300>

Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology*, 15(4), 731–742.

<https://doi.org/10.2307/3791630>

Golec de Zavala, A., Link to external site, this link will open in a new window, Federico,

C. M., & Link to external site, this link will open in a new window. (2018). Collective narcissism

and the growth of conspiracy thinking over the course of the 2016 united states presidential

election: A longitudinal analysis. *European Journal of Social Psychology*.

<https://doi.org/10.1002/ejsp.2496>

Graumann, C. F., & Moscovici, S. (1987). *Changing Conceptions of Conspiracy*.

Springer.

Hagen, K. (2017). Conspiracy Theorists and Monological Belief Systems. *Argumenta*, (2), 1–24. <https://doi.org/10.23811/57.arg2017.hag>

Harambam, J., & Aupers, S. (2015). Contesting epistemic authority: Conspiracy theories on the boundaries of science. *Public Underst Sci*, 24(4), 466–480. <https://doi.org/10.1177/0963662514559891>

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466, 29. Retrieved from <https://doi.org/10.1038/466029a>

Husting, G., & Orr, M. (2007). Dangerous Machinery: “Conspiracy Theorist” as a Transpersonal Strategy of Exclusion. *Symbolic Interaction*, 30(2), 127–150. <https://doi.org/10.1525/si.2007.30.2.127>

Imhoff, R., & Bruder, M. (2014). Speaking (un-) truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality*, 28(1), 25–43. <https://doi.org/10.1002/per.1930>

Imhoff, R., & Lamberty, P. (2018). How paranoid are conspiracy believers? Toward a more fine-grained understanding of the connect and disconnect between paranoia and belief in conspiracy theories. *European Journal of Social Psychology*. <https://doi.org/10.1002/per.1930>

Imhoff, R., & Lamberty, P. K. (2017). Too special to be duped: Need for uniqueness motivates conspiracy beliefs: Need for uniqueness and conspiracies. *European Journal of Social Psychology*, 47(6), 724–734. <https://doi.org/10.1002/ejsp.2265>

Jolley, D., & Douglas, K. M. (2014a). The effects of anti-vaccine conspiracy theories on vaccination intentions. *PloS One*, 9(2), e89177. <https://doi.org/10.1002/per.1930>

Jolley, D., & Douglas, K. M. (2014b). The social consequences of conspiracism: Exposure to conspiracy theories decreases intentions to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology*, *105*(1), 35–56. <https://doi.org/10.1111/bjop.12018>

Keeley, B. L. (1999). Of Conspiracy Theories. *Journal of Philosophy*, *96*(3), 109–126.

Klein, O. and Van der Linden, N. (2010) “Lorsque la cognition sociale devient paranoïde ou les aléas du scepticisme face aux théories du complot” [When social cognition becomes paranoid or the hazards of scepticism towards conspiracy theories], in E. Danblon and L. Nicolas (eds) *Les rhétoriques de la conspiration: Représentations, doxa, indices*. Paris: CNRS Alpha.

Lantian, A., Muller, D., Nurra, C., & Douglas, K. M. (2016). Measuring belief in conspiracy theories: Validation of a French and English single-item scale. *International Review of Social Psychology*, *29*(1). <https://doi.org/10.5334/irsp.8>

Lantian, A., Muller, D., Nurra, C., & Douglas, K. M. (2017). “I Know Things They Don't Know!” *Social Psychology*, *48*(3), 160–173. <https://doi.org/10.1027/1864-9335/a000306>

Lantian, A., Muller, D., Nurra, C., Klein, O., Berjot, S., & Pantazi, M. (2018). Stigmatized Beliefs: Conspiracy Theories, Anticipated Negative Evaluation of the Self, and Fear of Social Exclusion, *European Journal of Social Psychology*, <https://doi.org/10.1002/ejsp.2498>, *48*, 939-954.

Liddell, T. M., & Kruschke, J. K. (2018). Analyzing ordinal data with metric models: What could possibly go wrong? *Journal of Experimental Social Psychology, 79*, 328–348. <https://doi.org/10.1016/j.jesp.2018.08.009>

Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology, 37*(11), 2098–2109. <https://doi.org/10.1037/0022-3514.37.11.2098>

Marchlewska, M., Cichocka, A., & Kossowska, M. (2018). Addicted to answers: Need for cognitive closure and the endorsement of conspiracy beliefs. *European Journal of Social Psychology, 48*(2), 109–117. <https://doi.org/10.1002/ejsp.2308>

McCauley, C., & Jacques, S. (1979). The popularity of conspiracy theories of presidential assassination: A Bayesian analysis. *Journal of Personality and Social Psychology, 37*(5), 637–644. <https://doi.org/10.1037/0022-3514.37.5.637>

Moscovici, S. (1987). The conspiracy mentality. In *Changing conceptions of conspiracy* (pp. 151–169). Springer.

Nattrass, N. (2013). Understanding the origins and prevalence of AIDS conspiracy beliefs in the United States and South Africa. *Sociology of Health & Illness, 35*(1), 113–129. <https://doi.org/10.1111/j.1467-9566.2012.01480.x>

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of general psychology, 2*(2), 175–200. <http://dx.doi.org/10.1037/1089-2680.2.2.175>

Orosz, G., Krekó, P., Paskuj, B., Tóth-Király, I., B\Hothe, B., & Roland-Lévy, C. (2016). Changing conspiracy beliefs through rationality and ridiculing. *Frontiers in Psychology, 7*, 1525. <https://doi.org/10.3389/fpsyg.2016.01525>

Perezgonzalez, J. D. (2015). Fisher, Neyman-Pearson or NHST? A tutorial for teaching data testing. *Frontiers in Psychology, 6*. <https://doi.org/10.3389/fpsyg.2015.00223>

Prooijen, J.-W. van, & Douglas, K. M. (2018). Belief in conspiracy theories: Basic principles of an emerging research domain. *European Journal of Social Psychology, 48*(7), 897–908. <https://doi.org/10.1002/ejsp.2530>

Richard, F. D., Bond Jr, C. F., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology, 7*(4), 331. <https://doi.org/10.3389/fpsyg.2016.01525>

Silva, B. C., Vegetti, F., & Littvay, L. (2017). The Elite Is Up to Something: Exploring the Relation Between Populism and Belief in Conspiracy Theories. *Swiss Political Science Review, 23*(4), 423–443. <https://doi.org/10.1111/spsr.12270>

Sutton, R. M., & Douglas, K. M. (2014). Examining the monological nature of conspiracy theories. *Power, Politics, and Paranoia: Why People Are Suspicious of Their Leaders*, 254.

Swami, V., Barron, D., Weis, L., Voracek, M., Stieger, S., & Furnham, A. (2017). An examination of the factorial and convergent validity of four measures of conspiracist ideation,

with recommendations for researchers. *PloS One*, 12(2), e0172617.

<https://doi.org/10.1371/journal.pone.0172617>

Swami, V., Chamorro-Premuzic, T., & Furnham, A. (2010). Unanswered questions: A preliminary investigation of personality and individual difference predictors of 9/11 conspiracist beliefs. *Applied Cognitive Psychology*, 24(6), 749–761. <https://doi.org/10.1002/acp.1583>

Świątkowski, W., & Dompnier, B. (2017). Replicability Crisis in Social Psychology: Looking at the Past to Find New Pathways for the Future. *International Review of Social Psychology*, 30(1), 111–124. <https://doi.org/10.5334/irsp.66>

van Elk, M. (2015). Perceptual biases in relation to paranormal and conspiracy beliefs. *PloS One*, 10(6), e0130422. <https://doi.org/10.1371/journal.pone.0130422>

Van Prooijen, J.-W. (2017). Why education predicts decreased belief in conspiracy theories. *Applied Cognitive Psychology*, 31(1), 50–58. <https://doi.org/10.1002/acp.3301>

Van Prooijen, J.-W. (2018). *The Psychology of Conspiracy Theories*. Routledge.

Van Prooijen, J.-W., & Douglas, K. M. (2017). Conspiracy theories as part of history: The role of societal crisis situations. *Memory Studies*, 10(3), 323–333.

<https://doi.org/10.1002/acp.3161>

Van Prooijen, J.-W., & Jostmann, N. B. (2013). Belief in conspiracy theories: The influence of uncertainty and perceived morality. *European Journal of Social Psychology*, 43(1), 109–115. <https://doi.org/10.1002/ejsp.1922>

Van Prooijen, J.-W., Douglas, K. M., & De Inocencio, C. (2018). Connecting the dots: Illusory pattern perception predicts belief in conspiracies and the supernatural. *European Journal of Social Psychology, 48*(3), 320–335. <https://doi.org/10.1002/ejsp.2331>

Van Prooijen, J.-W., Krouwel, A. P., & Pollet, T. V. (2015). Political extremism predicts belief in conspiracy theories. *Social Psychological and Personality Science, 6*(5), 570–578.

Vitriol, J. A., & Marsh, J. K. (2018). The illusion of explanatory depth and endorsement of conspiracy beliefs. *European Journal of Social Psychology, 48*(7), 955–969. <https://doi.org/10.1002/ejsp.2504>

Wagner-Egger, P., & Bangerter, A. (2007). La vérité est ailleurs: Corrélats de l'adhésion aux théories du complot. *Revue Internationale de Psychologie Sociale, 20*(4), 31–61.

Wason, P. C. (1960). On the failure to eliminate hypotheses in a conceptual task. *Quarterly Journal of Experimental Psychology, 12*(3), 129–140. <https://doi.org/10.1080/17470216008416717>

Zonis, M., & Joseph, C. M. (1994). Conspiracy Thinking in the Middle East. *Political Psychology, 15*(3), 443–459. <https://doi.org/10.2307/3791566>