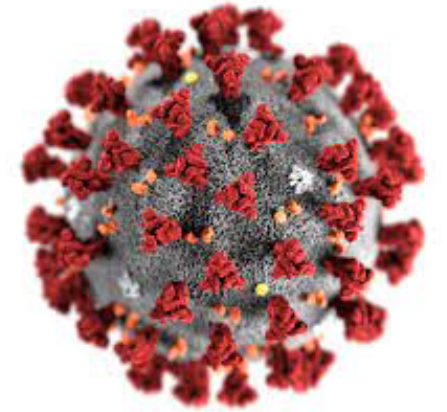


Psychological Reactance and COVID-19: Is Perceived Limited Freedom Influencing Response to the Pandemic?

Maryjo Riscinti

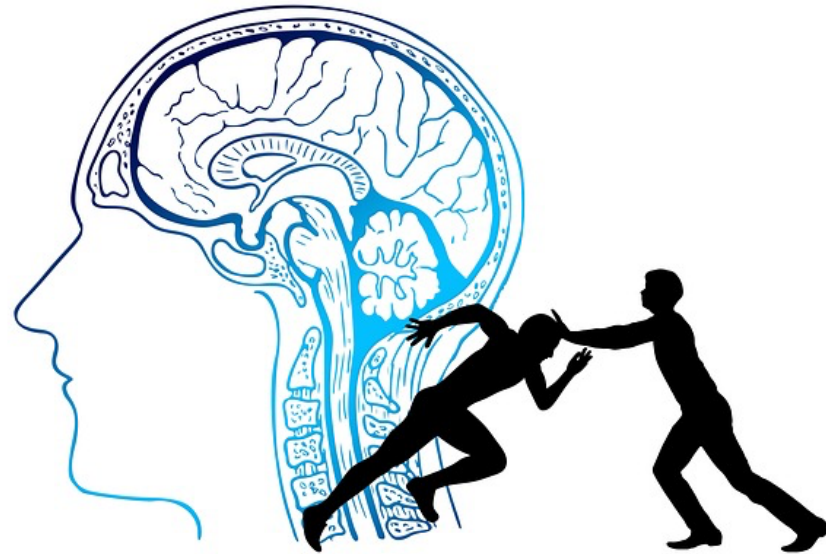
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What is psychological reactance?

- The theory that when individuals perceive that their freedom is being threatened or reduced, they will become **motivationally aroused** to restore the freedom (Brehm, 1966, Brehm & Brehm, 1981).
- Restoring the freedom often involves **engaging in the restricted behavior**, which can be done either directly or indirectly.



Reactance in the context of the COVID-19 pandemic



- Using this theory, reactions towards COVID-19 policies can be understood. These policies include...
- **Protesting social distancing orders:**
 - Reactance theory states that a freedom that is lost or threatened creates the implication that other freedoms will be threatened or taken away either in the present or future, which further influences an individual's magnitude of reactance (Brehm, 1966; Miron & Brehm, 2006).
 - In relation to the protest of social distancing orders, individuals often participate in these because of their perception that these COVID-19 policies imply threats to other freedoms under the Constitution.
 - For example, in Michigan, individuals protested social distancing orders established by the governor and confused the governor's orders with unrelated limits on purchases set by stores (Kiertzner, 2020). However, social distancing orders and quantity limits on products in the store are not associated with one another and the stores themselves set these limits, not the local government. Subjectively, the individuals are perceiving that the threat to freedom they are experiencing from social distancing orders also has implications for threats to their ability to buy certain items at the store.
- **Protesting stay-at-home orders:**
 - According to reactance theory, one of the determinants of the magnitude of reactance is how important the freedom is to the individual (Brehm, 1966; Brehm & Brehm, 1981).
 - Those who participate in protests against stay-at-home orders have shown the importance of their sense of freedom by using justifications for protesting against these orders, such as it being a violation of Constitutional Rights.

Reactance in the context of the COVID-19 pandemic continued...



- The influence of **ingroups versus outgroups** and **interpersonal similarity**
 - Previous research on reactance theory has found evidence that the magnitude of reactance can be influenced by **threats to freedom coming from one's ingroup versus their outgroup** (Graupmann et al., 2012) as well as **one's interpersonal similarity** to another person, with increased similarity reduce reactance (Silvia, 2005).
 - The power that these two factors have on reactance can be seen with former President Donald Trump's responses to the pandemic.
 - In April 2020, Trump encouraged individuals to go against stay-at-home orders and tweeted things, such as '**Liberate states**', and called the stay-at-home orders of Michigan, Minnesota, and Virginia unreasonable and a threat to first amendment rights (Deliso, 2020; Dyer, 2020).
 - Looking at photos and articles of these protests, many of the individuals are **carrying pro-Trump symbols**, such as the 'Keep America Great', hats and flags and signs related to Trump's Make America Great Again slogan (Johnson, 2020; Dyer, 2020).
 - Encouragement from Trump to go against COVID-19 restrictions has the power to influence protesters' perceptions of Trump's movement within the Republican party as being a part of their ingroup and subsequently influencing reactance during the pandemic.
 - This encouragement from Trump has also created a sense of interpersonal similarity between himself and his supporters.

Purpose of the current study



- Determine whether **trait reactance** predicts **defensive response** and **efficacy** towards COVID-19 policies.
 - **Trait reactance** = Although the original proposal of reactance theory focused on situational causes of reactance, specifically that reactance is a motivational state aroused by a freedom-threatening situation, it has been argued that reactance can also be a trait, not just a state (Leander et al., 2016). Trait reactance is defined as an individual's general tendency toward reactance, and for the purpose of the current study, reactance was defined as a trait.
 - **Defensive response** = defensiveness towards COVID-19 health recommendations and people's perceptions of the risk of COVID-19, with a high score indicating more defensive response towards COVID-19 policies (Jahangiry et al., 2020).
 - **Efficacy** = beliefs about an individual's ability to perform the recommended COVID-19 precautions as well as their beliefs about the effectiveness of these precautions (Jahangiry et al., 2020).

Purpose of the current study continued...

- **Hypothesis 1:** The higher participants score on trait reactance, the higher their defensive response towards COVID-19 policies will be.
- **Hypothesis 2:** The higher participants score on trait reactance, the lower their efficacy scores will be in performing COVID-19 precautions.
- Additionally, political orientation was measured for and was used to create **Hypothesis 3:** An individual's political orientation will predict their defensive response towards COVID-19 policies.
- **Why is this important?:** By looking at the relationship between these factors, there is a potential to provide valuable information regarding compliance with COVID-19 policies, specifically in regards to individual traits and beliefs.

Method of the current study

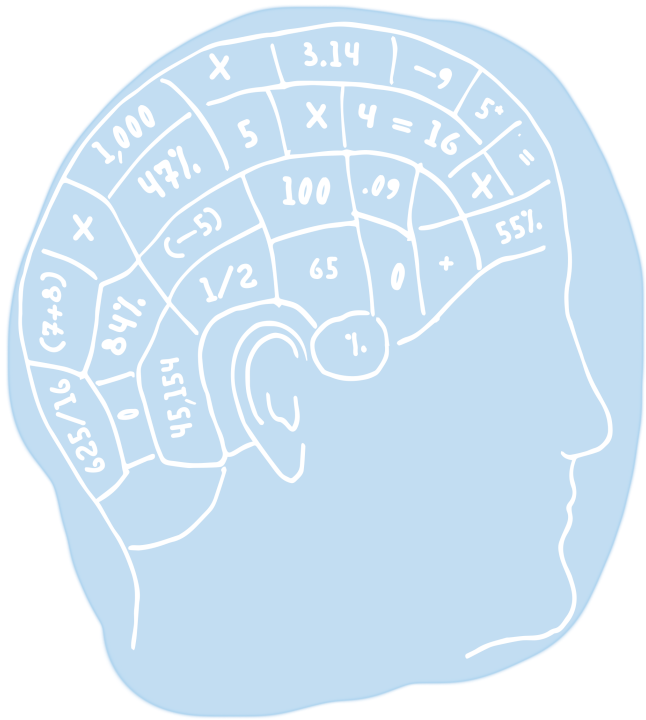
- 93 participants
 - Recruited through a social media post on Instagram and Facebook as well as through Wagner College's Psychology Department participant pool
 - **Gender** = 77.42% cisgender female, 13.98% cisgender male, 1.08% transgender male, 2.15% non-binary/non-conforming, 4.30% preferred not to say.
 - **Age** = 49.46% 18-21 years-old, 22.66% 22-25 years-old, 3.23% 26-29 years-old and 30-33 years-old, 19.35% 34 years-old or more, 2.15% preferred not to say.
 - **Race/ethnicity** = 2.15% Black or African American, 83.87% White, 17.20% Hispanic/Latinx, 3.23% Asian, 2.15% Native Hawaiian or other Pacific Islander, 2.15% preferred not to say.
 - **Political orientation** = 12.90% Republican, 56.99% Democrats, 8.60% Independent, 11.83% not belonging to a political party, 9.68% preferred not to say.



Method of the current study continued...

- Responded to a survey designed using Qualtrics and after giving informed consent, participants were given 45 questions in randomized order that measured for defensive response and efficacy towards COVID-19 policies as well as their general tendency towards reactance (trait reactance)
 - **Trait reactance included four factors:** 1) emotional response towards restricted choice, 2) reactance to compliance, 3) resisting influence from others, and 4) reactance to advice and recommendations (Hong Psychological Reactance Scale, Hong & Faedda, 1996). Measured on a 1 (Strongly disagree) to 5 (Strongly agree) scale.
 - **Defensive response** and **efficacy** were measured on a scale from 1 (Strongly disagree) to 5 (Strongly agree) scale (Risk-Percept COVID-19, Jahangiry et al., 2020).
 - **Political orientation** was measured both using an identification with a political party as well as being asked “How would you describe yourself?”, which was given on a 7-point scale from 1 (Very conservative) to 7 (Very progressive).

Results of the current study



- **Descriptive statistics:**
 - Gender difference between those identifying as cisgender men and cisgender female, specifically on the trait reactance factor of emotional response toward restricted choice, with women scoring higher than men. However, no other gender differences were found on the other three factors of trait reactance.
 - On average, participants disagreed or expressed neutrality on the other factors of trait reactance.
 - No gender differences for efficacy or for defensive response.
 - On average, individuals identified as progressive in regards to the question “How would you describe yourself?”

Results of the current study continued...

- **Correlations:**
 - All four factors measuring the general tendency towards reactance were significantly and positively related to scores on defensive response towards COVID-19 policies.
 - Political orientation was significantly correlated with defensive response, efficacy, and all four factors related to trait reactance.
 - Only two of the four factors measuring the general tendency towards reactance shared a statistically significant relationship with efficacy: reactance to compliance and reactance to advice/recommendations.

Results of the current study continued...

- **Multiple linear regression:**
 - Efficacy towards COVID-19 policies as predicted by the four factors of trait reactance accounted for 9.0% of the variability ($SEE = 0.48$)
 - None of the four factors of the general tendency towards reactance emerged as a unique statistically significant predictor of efficacy, with reactance to compliance having the strongest relationship of the four factors.
 - Defensive response towards COVID-19 policies predicted by efficacy to perform COVID-19 precautions, political orientation, and all four factors of trait reactance accounted for 60.50% of the variability ($SEE = 0.43$).
 - Three predictors emerged as statistically significant when controlling for other potential predictors: efficacy, political orientation, and the trait reactance factor of reactance to compliance.
 - Emotional response toward restricted choice, resisting influence from others, and reactance to advice and recommendations were not significant predictors of defensive response.

What is the importance of these results?



- **Support for the first hypothesis** (High scores on trait reactance will predict high scores on defensive response towards COVID-19 policies)
 - These results provide insight into how individual traits, specifically one's related to the general tendency towards reactance, may be impacting one's ability to comply with COVID-19 precautions.
- **Limited support for the second hypothesis** (High scores on trait reactance will predict low scores on efficacy in performing COVID-19 precautions)
 - Only supported with specific factors related to trait reactance (reactance to compliance and reactance to advice and recommendations)
 - Suggests the role of other variables sharing a relationship with an individual's belief in their ability to perform recommended COVID-19 policies as well as the belief in their effectiveness. These other variables may include access to proper sanitation and disinfectant supplies.
- **Support for the third hypothesis** (Political orientation will predict defensive response towards COVID-19 policies).
 - As discussed previously, it can be observed that the individuals who protest COVID-19 policies, such as stay-at-home orders, are often carrying pro-Trump symbols, such as merchandise with Trump's slogan, 'Make America Great Again'. The results of the present study lend support to the relationship between individuals' support for Trump's movement within the Republican party and their highly defensive responses towards COVID-19 precautions in addition to their ability to perform these precautions and their beliefs in the effectiveness of them (efficacy).

Limitations to the findings



- **Sample comprised of mostly North Americans**
 - Was not specifically asked about in the survey and this makes it difficult to apply the results cross-culturally since the survey was not distributed to a global population and did not collect data related to the participants' cultural backgrounds
 - However, previous research has indicated the presence of reactance towards COVID-19 policies in different cultures, such as Iran (Jahangiry et al., 2020) and Austria and Germany (Reiss et al., 2020).
- **Uneven distribution of gender**
 - Previous research indicating possible gender differences in reactance, with the importance of freedom differing between men and women (Brehm & Brehm, 1981).
 - Role of how men versus women are socialized, which has allowed women to feel more capable of expressing themselves.

Future research



- **The role of extraversion compared to introversion in reactance.**
 - Previous research has indicated a positive and significant relationship between extraversion and reactance (Buboltz et al., 2003; Seemann et al., 2005).
 - Are those who are introverted less bothered by stay-at-home orders and social distancing guidelines, therefore making them more compliant? Are COVID-19 policies making those who are extroverted more reactant because they perceive that their ability to be outgoing is being limited by social distancing measures?
 - Although the present study did not measure for extraversion or introversion in participants, it can be hypothesized that extraversion versus introversion can serve as a mediator for defensive response and efficacy towards COVID-19 policies, specifically with social distancing measures.
- **How individuals define freedom and how this definition may play a role in reactance towards COVID-19 policies.**
 - During the small pox outbreak in the late 19th century, the public saw liberty as not only freedom from the government, but also freedom to participate in public life, therefore small pox vaccination requirements were viewed as a way of achieving this freedom. Furthermore, there was not a mistrust in the government as well as there being an absence of the spread of false information (Taylor, 2021).
 - In the contrast to the COVID-19 pandemic, there is a growing anti-government sentiment and more tension between individual rights and the common welfare of the nation that is impacting responses to controversies, such as compulsory vaccination laws.

How can we use these results to find possible solutions?



- **Agency assignment**
 - The attribution of causes or changes to one or more entities (agents) in a situation (Ma & Miller, 2021)
 - In the context of COVID-19, this refers to it being caused by the virus (threat agency) or being caused by people (human agency)
 - Assigning agency to the virus indicates that the virus has an active role, while humans have a more passive role. However, when agency is assigned to humans, it suggests that they are the ones who are responsible for the outcome of the virus, while the virus has a more passive role
 - An example of threat agency in a COVID-19 message would be, “The virus has killed many”.
 - Assigning threat agency to COVID-19 messages has been found to produce greater levels of psychological reactance, while assigning human agency led to the perception that the source of the message was more credible and led to less counterarguing (Ma & Miller, 2021).
- **System justification**
 - The motivational and cognitive processes that result in support for existing sociopolitical structures, such as the government and other institutions (Knight et al., 2014). It is specifically used in response to a loss of personal control, which increases system justification because an individual perceives a social system as providing a sense of order, structure and predictability that makes up for the loss of control.
 - In the context of the COVID-19 pandemic, future research should seek to identify specific COVID-19 messages that will arouse reactance in individuals, such as messages about not being able to have large gatherings and requirements of social distancing. Using this intentional arousal of reactance, individuals can be presented with the requirement of vaccination by both the federal government and Center for Disease Control (CDC). This will influence individuals’ perceptions of the government and the CDC as systems that provide order, structure and predictability as well as seeing vaccinations as a way to restore their perceived loss of freedom.

THANK YOU FOR
YOUR ATTENTION!



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