

The effects of self-construal on territoriality, using the Dark Triad as a moderator.

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Master's thesis

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11 October 2024

Abstract

This study explores the potential effects of self-construal on territorial behaviors, while moderating for the Dark Triad traits. Territoriality is a protective possessiveness over tangible and intangible items through various marking and defending mechanisms in order to claim, control, or defend things that individuals feel belong to them. I hypothesized that individuals with independent self-construal would score higher on territoriality compared to individuals with interdependent self-construal. Furthermore, I hypothesized that this relationship would be stronger among people who score high on Dark Triad traits. 204 participants were randomly assigned to the independent or interdependent self-construal groups. Information was collected about their territorial and non-territorial tendencies as well as their Dark Triad traits. The statistical analysis did not produce significant outcomes that supported the hypotheses. However in the post hoc analysis, significant results were found for the predictive abilities of narcissism and Machiavellianism on territorial and non-territorial behaviors. Limitations include a large dropout rate, convenience sampling, and that the manipulation may not have been as effective as intended. Despite the limitations, the present study highlights the importance of territoriality research and that exploring the topic further can bring more insight into the field, which could lead to practical uses in organizational settings.

Keywords: territoriality, self-construal, dark triad

The effects of self-construal on territoriality, using the Dark Triad as a moderator

Name plates on doors, family pictures on desks, or claiming a group idea as one of your own. These are all very natural behaviors people engage in every day at their workplace. In organizational settings, people naturally become territorial. Territoriality could be apparent or almost invisible, but a certain level of marking, defending, and maintaining territories can be observed in everyone. This is because of a universal desire for ownership over tangible and/or intangible items (Brown & Baer, 2015). In order to fulfill these desires, people engage in marking and defending behaviors to keep others away from items they feel belong to them and/or to make it clear to others who the items belong to (Brown & Baer, 2015; Brown, 2009). In organizational settings clear indicators can be found as to what item or object belongs to which employee. These markers can be names on binders, doors, or personal belongings on desks, as well as more intangible things such as claiming a group project as your 'own', to name a few.

Psychological ownership

Territoriality is rooted in psychological ownership (PO), which is a state in which individuals feel ownership of a target item and regard it as their own (Brown et al., 2005, Pierce et al., 2001). PO manifests through a collection of possessive feelings of an object or individual's psychological attachment to it. Items that people feel psychological ownership over can be viewed as something closely connected to one's self or as an extension of the person (Brown & Baer, 2015). The need to possess is universal in many cultures and Pierce and colleagues (2001) referred to it as "innately human". This need arises because it fulfills basic human motivations that are driven by genetics and social factors including efficacy, self-identity, and belongingness.

PO is made up of two parts: an affective and a cognitive element, meaning that there is an emotional attachment and a cognitive evaluation of the target item (Dawkins et al., 2017; Pierce

et al., 2001). In other words, ownership refers to the way people *think* about items, and the way they *feel* about them. It is different from legal ownership and is mainly recognized by the individual (Pierce et al., 2003). Because of this, PO is not formally recognized by other individuals, as only the “owner” of these items have *feelings* of possession and determine the boundaries around these items (Dawkins et al., 2017). While PO relates to territoriality, due to the internalized nature, it is different. It has been debated whether territoriality is a behavioral outcome of PO or if it is a part of the PO construct (Brown et al., 2005; Avey et al., 2009).

Territoriality

While PO refers to being psychologically connected to tangible and intangible items, territoriality centers around the social and behavioral dynamics that arise from possessive feelings associated with these items (Brown & Baer, 2015). Feelings of ownership over an item is not the same as having that item in one’s territory. Only when claims and protections are placed over something, does the item become a territory because then the claim over it has been brought into a social context. Territories are socially constructed and can only exist when communicated, and reinforced to establish and restore ownership of items.

Territoriality is the sense of protective possessiveness over objects, projects, places, etc. (Brown et al., 2005). It refers to the marking and defending behaviors that individuals engage in in order to claim, control, or defend tangible and intangible spaces and items from others. Engagement in territorial behaviors can be seen both in humans and animals across various contexts. In humans, these contexts include their relationships, belongings, and their work environments or organizational settings. Engaging in territorial marking and defending behaviors can be both conscious and unconscious and individuals do so for identity expression, resource protection and to maintain social order.

Territorial marking is done by individuals to construct and communicate their territories (Brown et al., 2005). It consists of using meaningful symbols and or gestures that signal what does and does not belong to a person's territory as well as where the boundaries around the territory lie. Within marking, there are two different types: identity oriented marking (ex. pictures and decorations on office desks) and control-oriented marking (ex. claim over one's idea to ensure that everyone knows who the idea belongs to or writing one's name on objects that were intended for shared use) (Brown et al., 2005).

Another territorial behavior is defending, which happens when individuals perceive their territory has been infringed by someone and also to prevent infringement from happening. There are two types of territorial defending that one can engage in: anticipatory defenses (locking doors or having a receptionist who can prevent access from certain places or employees) and reactionary defenses (emotional expressions to the infringement like slamming doors or filing complaints).

The reason for territoriality research is to gain new insights into the field and to help in understanding important behaviors that people engage in their day-to-day lives in office settings. Understanding what causes territorial behaviors will aid in the comprehension of its effects in organizations and might shed light on why conflicts might arise and how they could be addressed and prevented in the future. Conflicts may be over matters, such as why someone places personal decorations on their desk or a colleague claiming someone else's work as their own. Finding the causes for these conflicts and solutions to them could lead to increased efficiency, but also an improved work environment.

Predictors of territoriality

Previous research suggests that people tend to feel territorial and engage in territorial behaviors at the workplace for a number of reasons. One of these reasons is the need for control and autonomy. Individuals who score high in these categories are more likely to engage in territorial behaviors at the workplace such as marking and defending (Brown et al., 2005). This is because engaging in such behaviors helps them maintain a sense of control over their work environment. Additionally, individuals with higher levels of the Dark Triad traits (Machiavellianism, narcissism, psychopathy) tend to be more likely to have the need to control and be autonomous (Giannini & Raimondi, 2020). The tendency to be more autonomous is also true to individuals who have independent self-construal (Yamini et al., 2023).

Status and power orientation is another predictor of territoriality, because those who seek higher levels of it, tend to engage more in territorial behaviors (Brown & Baer, 2015). This is to signal their position within the workplace. Individuals with higher levels of status and power orientation may look at their workplace as a representation of their status and feel the need to defend and mark it. Furthermore, status and power orientation can also predict higher levels of the Dark Triad traits in individuals (Grijalva & Harms, 2014).

Workplace relationships and competition was also found to be a predictor of territoriality. Individuals are more likely to engage in territorial behaviors when their environments are competitive (De Dreu & Nauta, 2009). This is because they need to secure their resources and also protect their position. This relationship between workplace relationships, competition and territoriality might be stronger in individuals who score high on Dark Triad traits. Competition satisfies the different needs and drives of these individuals and helps them achieve their goals of personal gain, perceived superiority, and need for immediate gratification (Giannini & Raimondi, 2020). Also, individuals high on the Dark Triad scale are more likely to adapt certain tactics to

manipulate and control their colleagues to achieve their goals (Jonason et al., 2012). On a different note, self-construal might influence individuals and their workplace relationships (Mackie et al., 2000). This is because people with independent self-construal have different motivators and needs compared to individuals with interdependent self-construal.

Interpersonal trust is another predictor of territoriality. There can be an increase in the level of territorial behaviors that individuals exhibit in their workplace if interpersonal trust between them and their colleagues is lower as well (Brown et al., 2005). This is because when interpersonal trust is low, individuals are more likely to perceive their colleagues as a threat to both their space and resources, which results in an increase of marking and defending territorial behaviors in order to protect their interests. On a connecting note, self-construal might have an effect on interpersonal trust. People with independent self-construal might be more likely to engage in marking and defending because they view themselves as separate and unique from others (Twigger-Ross & Uzzel, 1996).

All in all, the existing research has found that territoriality can be predicted by various variables, but these predictors can also be tied to self-construal as well as the Dark Triad. Therefore, exploring these variables further in relation to territoriality has potential to bring new insights into the field of territoriality research. The magnitude of these predictors could also be an interesting thing, therefore I think it appropriate to explore moderation effects of the Dark Triad on the potential relationship between self-construal and territoriality.

Self-construal

Territoriality has been researched using self-construal as a moderating variable, but its direct effects on territorial behaviors are still to be explored (Brown & Baer, 2015). Self-construal refers to how individuals perceive, interpret, and understand their identity in

relation to others (Cross et al., 2011). It differentiates between individuals depending on whether they define themselves independent from others focusing on their uniqueness or interdependent with others, focusing on similarities among group members (Yamini et al., 2023). Depending on how individuals define themselves in terms of their self-construal, their extent of territorial behaviors may be significantly influenced.

Certain things such as job titles or decorations on office desks may be important markers of one's identity. Since individuals with independent self-construal see themselves as separate and unique from others, they may believe that their coworkers are likely to infringe on their resources or roles at their workplace. This potential belief may make them more likely to engage in marking defensive behaviors to protect and establish their territories (Twigger-Ross & Uzzell, 1996).

In contrast, individuals with an interdependent self-construal tend to rely more on interpersonal trust to manage territorial concerns compared to their peers with independent self-construal. This is due to their self-perception of being part of a collective (Mackie et al., 2000). Because of this, they may have stronger trust in their colleagues to respect boundaries, limiting their need to engage in explicit marking and defending behaviors. A study by Markus and Kitayama (1991) showed that people with interdependent self-construal strive to create and maintain harmonious relationships to promote group cohesion and minimize potential conflict situations. In turn, interdependent self-construal may motivate people to minimize territorial behavior to keep up the coherence of their groups.

The moderating effect of the Dark Triad

Some of the previously mentioned predictors of territoriality also have connections to the Dark Triad traits. These include: the need for control and autonomy, status and power

orientation, competition and workplace relationships (Giannini & Raimondi, 2020; Grijalva & Harms, 2014; Jonason et al., 2012). Because of this, if a relationship between self-construal and territoriality exists, the Dark Triad might have an effect on the magnitude of this relationship and make it stronger or weaker, therefore it is important to explore.

The Dark Triad consists of three personality traits: narcissism, psychopathy, and Machiavellianism (Giannini & Raimondi, 2020). These traits increase the likelihood of engaging in self-serving behaviors. All three of the Dark Triad traits are independent from each other but are positively associated with one another. Fennimore (2020) found that narcissistic individuals are more likely to engage in aggression when they perceive infringement toward their territories. Therefore, individuals with high levels of the Dark Triad traits may be more likely to mark and defend the boundaries of their territories clearly to protect them from potential infringements.

Machiavellianism

Individuals with Machiavellianism exhibit egotistical, deceitful, scheming, and manipulative traits (Giannini & Raimondi, 2020; Zettler et al., 2011). They tend to be driven by their own interests with desires to control others while being self-serving (Zheng et al., 2017). People with this personality disorder lack affinity, responsibility, and are highly persuasive (Liu, 2008). This is because they have an innate desire for status, and they most often achieve that by controlling and manipulating others for their self-interests (Brookes, 2015). Since Machiavellians believe that the means are justified by the end result, they are often deceptive and use unsavory methods to achieve their goals (Do & Dadvari, 2017; Al Ain et al., 2013).

Machiavellian individuals may engage in territorial behaviors in order to strategically manipulate and control their environments as well as the people around them (Jonason & Webster, 2010). They do this because they tend to manipulate their physical and social

environments to maximize their benefits and a way for this is to be highly territorial to gain and maintain power to control others.

Narcissism

Narcissistic traits include domination, exhibitionism, entitlement, and superiority (Giannini & Raimondi, 2020; Lee & Ashton, 2014). Individuals with this personality disorder usually engage in egocentric behaviors in hopes of attention and admiration from others (Twenge et al., 2008). Furthermore, they feel a strong motive to control others, use their charisma to get their way, and expect others to share their view of the world (Boddy, 2015). They also have an increased sense of self-importance and self-love, making them highly motivated to follow up on their personal objectives as they believe that they are more capable than others (Foster & Campbell, 2007; O'Boyle et al., 2012; Mathieu & St-Jean, 2013).

A reason for narcissists to potentially be highly territorial is to defend their spaces which allows them to maintain their self-image and perceived dominance. Because of this, they may engage in territoriality to enhance their self-esteem as well as reinforce their authority (Wallace & Baumeister, 2002). Furthermore, narcissists are far more likely to engage in heightened territorial defense tactics when they feel threatened by perceived infringement attempts.

Psychopathy

Psychopathy is a personality disorder (Giannini & Raimondi, 2020). It is characterized by lack of empathy, remorse and social norms. Individuals with psychopathy act on their impulses with no anxiety, guilt, and manipulations. Symptoms manifest rooting from these individuals' lack of empathy leaving them unable to perceive, comprehend and confront emotions. Furthermore, there is an increased insensitivity to risk, loss, and fear of failure, allowing them to

participate in more risky behaviors. Other characteristics include deceit, ruthlessness, as well as seeking stimuli (Crysel et al., 2013).

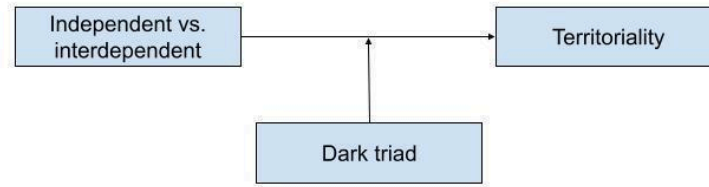
Psychopaths are far more likely to react in an aggressive manner in order to increase their personal gains and dominance, which might manifest in strong levels of territorial aggression and defense (Verona et al., 2023). These reactions can lead to hostile working environments in organizations. Furthermore, due to their impulsivity and antisocial behavior, they might resort to defending their territories upon perceived infringements with a disregard to social norms and well-being of other employees.

The present study

The primary aim of this current project is to add to the current understanding of territoriality and self-construal. Although the moderating effect of self-construal on people's responses to territorial behavior has been looked at (Brown & Baer, 2015), the direct relationship between these two variables is still to be researched. In order to yield precise information, it is necessary to consider possible moderating factors that potentially weaken or make the relationship stronger, thus the Dark Triad traits will be used as such. Therefore, I hypothesize that:

H1: Individuals with independent self-construal will score higher on territoriality compared to individuals with interdependent self-construal.

H2: The Dark Triad moderates the relationship between self-construal and territoriality: the relationship will be stronger among people who score high on dark triad traits.



Methods

Participants

508 participants volunteered to fill out the questionnaire, of which 204 responses were included in the data analysis. Even though participants were randomly assigned to one of two versions of the questionnaire, a large number of the responses were incomplete or missed control questions, therefore could not be used for data analysis. Because of this, in the final dataset 127 participants filled out the independent self-construal questionnaire, while only 77 participants filled out the interdependent self-construal questionnaire. 43.1 percent of the participants were between 18 and 24 years old. The next biggest group were participants between the ages of 45 and 54 years old at 22.5 percent. The distribution of the participants' gender was 38.2 percent male, 58.8 percent female. Detailed demographics are presented in Table 1.

The sample was gathered through convenience sampling resulting in participants predominantly being university students as well as employees of one company. In order to be included in the sampling pool, participants had to be at least 18 years old and have proficient understanding of written English to ensure the proper comprehension of questions and written tasks. Participants' consent to using their answers was another requirement before they were able to start the questionnaire. The collected data was treated confidentially and anonymously according to the GDPR Guidelines for the entirety of the research project.

Procedure

This study used a randomized experimental design with a continuous moderating predictor. The data was collected through a questionnaire, which was approved by the Ethical Committee of the Faculty of Psychology of the University of Groningen. As part of the data collection process, participants were randomly allocated into two groups, based on the manipulation they received to accommodate the self-construal condition. Participation happened on a voluntary basis and no compensation was offered in exchange for taking part in the present study. The questionnaire was available in English and took approximately 10-15 minutes to complete.

After giving informed consent, participants were randomly allocated into one of two manipulation groups. This was done to prime participants with one of two self construals: independent or interdependent for the territoriality part of the questionnaire. The manipulation used was developed by Goncalo and Staw (2006). After the manipulation took place, participants were presented with a hypothetical scenario about a group project. The hypothetical scenario was used in order to allow participants without jobs to also take part in the study. Using the scenario helped guide these participants to imagine what it would be like to work in an office setting, and collaborate with other colleagues on a project. In this research study, I focused on territoriality that is centered around intangible items such as ideas and people's perception of whom an idea belongs to, which is why implementing a group brainstorming scenario was needed. The scenario created and used for the present research project is attached in Appendix 1. After participants finished reading the scenario, they could continue onto the questionnaire. Furthermore, control questions were included throughout the questionnaire to test and control for response fatigue and ensure that participants answer the questions truthfully. Control questions

were removed before analyzing the data. Before the conclusion of the questionnaire, participants were asked if they were asked questions about how they differ from others or how they are similar to others. This question was included as a manipulation check to see if participants paid attention throughout the survey and remembered which group they belonged in. Finally, the questionnaire concluded with a question that asked participants if their answers should be used in the data analysis. I asked this, in case a participant did not pay good attention throughout the survey and did not fill out the questionnaire to the best of their ability. Those answering ‘no’ to this question had their responses removed from the dataset.

Measurements

The questionnaire can be found in Appendix 2.

Independent variables

Self-construal

A self-construal manipulation has been implemented in this study using the methods outlined in the Goncalo and Staw’s 2006 study. This consisted of asking participants to write statements about themselves. Participants in the independent self-construal condition were asked to write about how they are different from other people. While participants in the interdependent self-construal condition wrote about the similarities they have in common with other people (Goncalo & Staw, 2006).

To see whether the manipulation was effective on the participants, a manipulation check question is included at the end of the questionnaire. The question was: “What did you have to write statements about?” Here, participants could choose between two options: “statements about how you differ from other people” and “statements about how you are similar to other people”. This question was intended to check whether participants paid enough attention to the

self-construal manipulation in the beginning of the survey and if they are able to remember their group at the end of the questionnaire.

Dark Triad

The Dark Triad was measured through the Dirty Dozen questionnaire developed by Jonason and Webster (2010). This questionnaire consisted of twelve items that spread across the three distinct but related personality traits of the Dark Triad: narcissism, psychopathy, and Machiavellianism. Cronbach's Alpha for the Dirty Dozen questions were $\alpha = .719$. Additionally, the 10-item short version of the Big Five Inventory questions developed by Rammstedt and John (2007) were mixed in with the Dirty Dozen questionnaire. The Big 5 questionnaire had an alpha level of $\alpha = .210$ for Cronbach's Alpha. The decision to also use the Big Five Inventory questionnaire was made in order to implement conventionally positively perceived questions in the survey so that the rather directly worded Dirty Dozen questions do not influence participants to provide socially desirable answers.

Dependent variable

The dependent variable in this study is territoriality, which was measured through an 18-item questionnaire developed specifically for this research study. The reason behind creating a new questionnaire was due to the specific type of territoriality that I wanted to measure, namely intellectual territoriality centered around who an idea belongs to. The final questionnaire developed for the present study to measure territoriality consisted of a mix of territorial behavior and non-territorial behaviors questions. Cronbach's Alpha for these questions were $\alpha = .664$ and $\alpha = .619$ respectively. I found it important to also include non-territorial behavior questions to be able to measure whether there is a difference between the two self-construal groups.

Table 1

Demographics

Demographic		Total	Percentage
Age	18-24	88	43.1
	25-34	40	19.6
	35-44	18	8.8
	45-54	46	22.5
	55-65	10	4.9
	65+	2	1
Gender	Male	78	38.2
	Female	120	58.8
	Other	5	2.5
	Prefer not to say	1	0.5

Results**Preliminary analysis**

The descriptive statistics of the variables used in this study as well as their correlations to one another can be found in Table 2. Correlations between all variables were significant at $p < .001$, except for the correlation between narcissism and psychopathy. There were negative significant correlations between non-territorial behaviors and all three of the Dark Triad traits. This suggests that when an individual's Dark Triad traits scores on narcissism, psychopathy, and Machiavellianism were high, their scores on non-territorial behaviors were low. All other correlations were positive, meaning that when an individual scored high on one of the variables, they also scored high on the other variables excluding non-territorial behaviors. Out of the three Dark Triad traits, narcissism had the largest correlation with territoriality at $r = .41$. The lowest

correlation between a Dark Triad trait and territoriality was psychopathy at $r = .17$, however it was still a significant correlation.

Table 2

Descriptives and correlations

	M	SD	1	2	3	4	5	6
1	2.68	.54	-					
2	4.23	.51	-.44*	-				
3	2.22	.55	.43*	-.32*	-			
4	2.65	.87	.41*	-.24*	.77*	-		
5	2.04	.67	.17*	-.24*	.57*	.11	-	
6	1.98	.75	.32*	-.21*	.79*	.44*	.24*	-

*Note. (1- Territoriality, 2- Non-territorial behavior, 3- Dark Triad average, 4- Narcissism, 5- Psychopathy, 6- Machiavellianism) n=204. * $p < .001$. All tests two-tailed.*

Inferential statistics

Hypothesis 1 testing

In order to test the potential differences between the independent self-construal and the interdependent self-construal groups, comparisons were made between the two group means. This was done by comparing the territorial and non-territorial behaviors of both groups, which can be seen in detail in Table 3. Once means and variances were calculated, an independent samples t-test was conducted, the results of which are in Table 4. No significant difference was found between the two self-construal groups and their display of territorial behaviors ($t = -.21$, $p = .42$), which indicates that self-construal is not a meaningful predictor of territoriality. Significant differences were found between the two self-construal group means and their display of non-territorial behaviors. Non-territorial behaviors ($t = 1.91$) are significant at $p = .03$,

suggesting that self-construal is a significant predictor of non-territorial behavior in individuals. Interestingly, the mean for non-territorial behaviors is higher for the independent self-construal group compared to the interdependent self-construal group, which is the opposite of what was expected.

Table 3

Comparison of means

	n	Territoriality	Non-territorial behavior
Independent SC	127	$\mu= 2.67$ sd= .52	$\mu= 4.28$ sd= .53
Interdependent SC	77	$\mu= 2.69$ sd= .56	$\mu= 4.14$ sd= .51

Note. SC stands for self-construal.

Table 4

Independent samples T-test

	F	Sig.	t	df	p-value
Territoriality	.00	.98	-.21	202	.42
Non-territorial behaviors	1.71	.19	1.91	202	.03*

Note. p-values are based on one-sided significance.

Hypothesis 2 testing

To test for the moderation effects of the Dark Triad on the relationship between self-construal and territoriality, a regression analysis with a continuous moderating variable (the Dark Triad) was conducted. Table 5 shows that the interaction effect between self-construal and the Dark Triad is not statistically significant at $p= .49$. Therefore, there is no evidence for the Dark Triad being a moderator for the relationship between self-construal and territoriality.

Furthermore, the non-significant p-values of self-construal and the interaction effect suggest that self-construal is not a meaningful predictor of territoriality. However, the data shows that the Dark Triad is a significant predictor of territoriality at $p < .001$. Coefficient B for the Dark Triad (.43) suggests a strong positive relationship between it and territorial behaviors. These results suggest that individuals with higher levels of the Dark Triad traits are much more likely to engage in territorial behaviors. All in all, self-construal and its interaction with the Dark Triad do not significantly predict territoriality, but the Dark Triad also is a significant influencing factor. Overall, the statistical model displayed in Table 5 explains 19 percent of the variance in territoriality ($R^2 = .19$), which is most likely due to the Dark Triad as a predictor.

Table 5

Regression for territoriality with moderating variable Dark Triad.

	B	Std. Error	t	Sig.
(Constant)	1.71	.146	11.68	<.001*
Interaction	-.02	.04	-.69	.49
Self-construal	.00	.04	.06	.96
Dark Triad	.43	.06	6.81	<.001*

Note. Dependent variable: territoriality

Table 6

Regression for non-territorial behavior with moderating variable Dark Triad.

	B	Std. Error	t	Sig.
(Constant)	4.84	.15	33.44	<.001*
Interaction	-.02	.03	-.68	.49
Self-construal	.06	.04	1.83	.07
Dark Triad	-.28	.06	-4.46	<.001*

Note. Dependent variable: non-territorial behavior

Table 6 shows the results of the moderation analysis for non-territorial behaviors. Neither the interaction nor the self-construal are significant predictors of non-territorial behaviors. The Dark Triad on the other hand, is a significant negative predictor of non-territorial behaviors at $p < .001$. This means that when participants' Dark Triad levels were lower, their tendency to engage in non-territorial behaviors was higher. 11.7 percent of the variability ($R^2 = .12$) observed in non-territorial behaviors is explained by the regression model. In conclusion, while the Dark Triad traits are a significantly influencing factor of non-territorial behaviors, self-construal and its interaction with the Dark Triad are not.

Manipulation check

The manipulation check was done via a cross tabulation. Here, participants' self-construal groups that were randomly assigned to them were compared to their answers on the manipulation check question. Out of the independent self-construal group ($n=127$), 116 (91%) of them answered the manipulation check question correctly. For the interdependent self-construal group ($n=77$), the correct responses to this question were 73 (95%). These results indicate that participants paid attention to the self-construal manipulation, as only 15 participants answered this question incorrectly.

Post hoc analysis

As a result of the moderation analysis regression showing the Dark Triad as a significant predictor of territorial behaviors, a post hoc analysis of this relationship was explored. A regression analysis was performed with territoriality as a dependent variable and the individual Dark Triad traits as the independent variables. Significant results were found for Narcissism ($p < .001$) and Machiavellianism ($p = .05$), indicating that the higher individuals score on these traits,

the higher their engagement in territorial behaviors will be. Furthermore, the results indicate that psychopathy is not a significant predictor of territoriality.

Table 7

Regression analysis for territoriality using the Dark Triad as predictors

	B	Std. Error	t	Sig.
(Constant)	1.72	.146	12.02	<.001
Narcissism	.21	.04	4.82	<.001
Psychopathy	.08	.05	1.57	.12
Machiavellianism	.10	.05	2.00	.05

Note. Dependent variable: territoriality

Discussion

The present study examined the effects of independent and interdependent self-construal on territoriality as well as the potential moderating effect of the Dark Triad traits on this relationship. No significant results were found for the effects of self-construal on territoriality behavior, therefore there is no supporting evidence for H1. While self-construal was not a significant predictor of territorial behavior, it did significantly predict non-territorial behaviors. The results showed that participants in the interdependent self-construal manipulation group exhibited significantly lower levels of non-territorial behaviors compared to the independent self-construal group. Testing for non-territorial behaviors in relation to territoriality was a post hoc analysis.

The statistical analysis did not find supporting evidence for the interaction of the Dark Triad on the relationship between self-construal and territoriality, therefore not supporting H2. The model to test for the moderation however, showed that the Dark Triad seems to be a significant predictor of territoriality. Because of this, a post hoc analysis was performed to test

narcissism, psychopathy, and Machiavellianism as a potential predictor of territorial behavior. Significant results were found for the predicting ability of narcissism and Machiavellianism.

Theoretical and practical implications

Given that this study did not yield any significant results that I hypothesized on, inferences cannot be made, only theorized upon. Comparing the results to previous studies is also difficult as the effects of independent versus interdependent self-construal have not yet been tested on territoriality, therefore no direct comparison can be made between these variables. Though, the interactive effect of self-construal and control-oriented marking have been tested on creativity and yielded significant results (Brown & Baer, 2015). Theoretical implications also cannot be made about the moderating effects of the Dark Triad traits on the relationship between self-construal and territoriality as there was no significant supporting evidence found for this relationship either. However, the post hoc analysis revealed that narcissism and Machiavellianism predict territorial behavior in this sample. This implies that individuals with high levels of narcissism and Machiavellianism are far more likely to mark and defend their intellectual territories such as ideas.

Strengths

One strength of the study is the decent sample size. Because of this, the statistical analyses hold power and are reliable. Furthermore, this current study is the first one to directly examine the potential causal link between self-construal and territorial behaviors. As well as the moderation effect of the Dark Triad on this relationship. Also, the non-significant results of the study still provide valuable information for future research as it can shed light on which aspects of the study design needs to be improved upon.

Limitations

The study has several limitations that may explain the non-significant results. Firstly, there was a large number of participants who began the questionnaire (n=508), but only 240 of them completed the entire length of the questionnaire. After cleaning the dataset, only the responses of 204 participants were usable for the data analysis. Due to the large number of dropouts, the distribution of the self-construal manipulation became skewed. Because of this, the statistical analysis was disadvantaged.

Secondly, the self-construal manipulation may have not worked as I initially intended, or it did not have as strong and long lasting effects as previous studies suggested. Even though the manipulation check suggests that 189 participants out of 204 correctly indicated the group they belonged to, the non-significant outcomes of the independent samples t-tests for territoriality is a good indicator of ineffectiveness of the manipulation. Furthermore, the independent self-construal group had significantly higher levels of non-territorial behaviors compared to the interdependent self-construal group.

Future research

For future research, the limitations of this current study could be addressed which might yield different results. One of the limitations that should be addressed is the uneven sample sizes of the two self-construal groups. Given that in the current study, there were 1.6 times more participants in the independent self-construal group, it may have led to the insignificant results. Addressing this might change the outcome of future research.

Also, the study could be repeated using the Dark Triad as a predictor and self-construal as a moderation for the relationship with territoriality. Since the present study yielded significant results for narcissism and Machiavellianism as a predictor of territorial and non-territorial behaviors, this relationship should be re-examined to see if the found effects are a coincidence or

if it exists in other populations as well. The participants of this study were mainly university students, therefore expanding the sample would allow for more generalizability.

Future research could also use other methods for measuring territoriality. In this study, a questionnaire was used to gather information, but other tools such as a simulation study could also be implemented. This could happen by using focus groups of five to ten participants at a time and giving them the opportunity to brainstorm ideas together. This way, participants could have the chance to experience a more immersive situation and may feel a stronger ownership or connection to their ideas and might display stronger territorial behaviors.

Conclusion

Despite a thorough examination of the effects of self-construal on territorial behaviors, my hypotheses about their relationship is not supported by this study. While yielding only non-significant results for the hypothesized relationships, the present study still produced valuable information by emphasizing the complexity of territoriality. Firstly, the post hoc analysis showed that narcissism and Machiavellianism are significant predictors of territoriality in this sample. Secondly, the study also calls for further research to see if the variables investigated may simply not have the theorized relationships between them or that self-construal do not have a strong or direct effect on territoriality. Finally, the results could also indicate that different methodologies are needed to be used or that other contextual settings are needed in order to find significant results.

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Appendix

Appendix 1

Scenario: For the next questions, imagine that you are employed at a tech company. A new work project becomes available and you apply for it. The project needs 6 people working on it and you, along with 5 of your colleagues, are selected by your boss to develop a new phone app. You are very excited about this project and have a lot of creative ideas to create a great app. The 6 of you brainstorm together and bounce ideas off of one another. Together with the group, you make a list of everyone's best ideas. On this list, there are some of your ideas and also ideas of your project group members. Finally, the 6 of you decide on the 'winning' idea that happens to be based on one of your initial ideas, which the team built on and developed it into its final form.

Appendix 2

Territoriality questions:

1. The 'winning' idea is mine.
2. I would let people know if an idea belongs to me.
3. I like to share credit in group projects.
4. I take credit for my group members' ideas because I also belong to the group.
5. I give credit to my group members for ideas that I came up with because we are all part of the group.
6. The 'winning' idea came from shared effort.
7. I would hide information about new work projects to increase my chances at getting the job.
8. I would tell my colleagues about new work projects so they also have a chance to apply.
9. I do not like to take sole ownership over group ideas.
10. I often share my resources (e.g. notes, knowledge, electronics) with my group members.
11. I feel that my group members' resources (e.g. notes, knowledge, electronics) belong to me.
12. I make sure that others cannot claim ownership over my ideas.
13. I clarify the boundaries around the territory (physical, intellectual) that I feel is mine to establish what is and is not mine.
14. I would take on new tasks/projects to expand my existing territory.
15. I do not let others near my tasks/projects so that I can have all the credit.
16. I let others help me with my tasks/projects but I will take all the credit for it.
17. I let others help me with my tasks/projects and I will credit the whole team for it.
18. In a group setting I tend to act territorial over what I think is mine.

Dark Triad and Big 5 personality questions:

1. I tend to lack remorse.
2. I tend to be callous or insensitive.
3. I tend to manipulate others to get my way.
4. I tend to want others to admire me.
5. I tend to want others to pay attention to me.
6. I tend to seek prestige or status.
7. I tend to expect special favors from others.
8. I have used deceit or lied to get my way.
9. I tend to exploit others towards my own end.
10. I have used flattery to get my way.
11. I tend to be unconcerned with the morality of my actions.
12. I tend to be cynical.
13. I tend to be reserved.
14. I tend to be generally trusting.

15. I tend to be lazy.
16. I tend to be relaxed, handling stress well.
17. I have few artistic interests.
18. I tend to be outgoing, sociable.
19. I tend to find fault with others
20. I tend to do a thorough job.
21. I tend to get nervous easily.
22. I tend to have an active imagination.