UNIVERSITY of CALIFORNIA PRESS | Collabra: Psychology

Du, T. V., Rose, L., Miller, J. D., & Lynam, D. (2024). Mapping the Dark Factor (D) and Agreeableness-Antagonism (A-A) on the Interpersonal Circumplex. *Collabra: Psychology*, *10*(1). https://doi.org/10.1525/collabra.117091

Personality Psychology

Mapping the Dark Factor (D) and Agreeableness-Antagonism (A-A) on the Interpersonal Circumplex

Tianwei V. Du[1], Leigha Rose[2], Joshua D. Miller[2], Donald Lynam[3a]

[1] Department of Psychiatry and Behavioral Sciences, Stanford University, Stanford, CA, USA, [2] Department of Psychology, University of Georgia, Athens, GA, USA, [3] Department of Psychological Sciences, Purdue University West Lafayette, IN, USA

Keywords: agreeableness, antagonism, dark factor, interpersonal circumplex, jangle

https://doi.org/10.1525/collabra.117091

Collabra: Psychology

Vol. 10, Issue 1, 2024

Scientific "jangle" occurs when two nominally different measures assess the same construct. Such "jangle" can waste resources and slow scientific progress. There is currently substantial debate surrounding the distinctiveness of the "dark factor" (D) and Agreeableness-Antagonism (A-A) as important personality constructs. The current preregistered study explores the similarity of D and A-A using an interpersonal perspective. By reanalyzing previously published data collected from a large student sample (N = 516) using the structural summary method, the study compared these two constructs with regard to their interpersonal content. Results indicated that D and A-A had identical interpersonal profiles at the total score level. Although there was variation among A-A facets, the D total score fell solidly in the middle of the facets. Similarly, there was no evidence of differences in interpersonal content at the item level. The current study suggests that D and A-A are fungible in terms of interpersonal space, at least as measured via self-report questionnaires.

There is ongoing debate concerning the distinctiveness of the dark factor (D)—the putative shared core of the dark triad (and other "dark" traits including sadism and paranoid personality disorder) —and Agreeableness-Antagonism (A-A)—a basic personality trait found in five and six-factor models of personality (e.g., Goldberg, 1990). D is described as "the general tendency to maximize one's individual utility—disregarding, accepting, or malevolently provoking disutility for others— accompanied by beliefs that serve as justifications" (Moshagen et al., 2018, p. 657). Although seemingly quite similar to A-A, which includes content related to distrust of others, exploitation, entitlement, immodesty, and callousness, Moshagen and colleagues (2018) argue that D is a broader construct and accounts for variance beyond basic personality traits. For example, Hilbig and colleagues (2020) examined the D factor, general traits, and several "dark" traits (i.e., narcissistic, antisocial, paranoid, and borderline personality disorder) in a large, longitudinal study and reported that the D factor was able to account for unique variance in the dark traits beyond HEXACO traits. After comparing latent D and A-A factors, Moshagen et al. (2020) concluded that, although the two yielded correlational profiles that were virtually opposite one another (rICC = -.97), D was a functionally distinct construct due to its ability to account for more variance in certain outcomes, such as cheating and internet trolling. Hilbig and colleagues (2023) further compared the roles of D and 58 candidate traits in proactive social preferences and concluded that D alone sufficiently accounted for the social preference inherent in a variety of socially and ethically aversive personality traits.

On the other hand, Lynam, Miller, Vize and colleagues have published several papers arguing that there is little theoretical or empirical evidence to support the distinction between D and A-A. Using a broader measure of A-A than that used by the developers of D, Vize and colleagues (2021) examined the similarity between D and Agreeableness in a set of both preregistered and exploratory analyses. First, they jointly factor-analyzed D and A-A using over 100 Agreeableness related items drawn from 22 scales and the 70 items from the D-70. As predicted, there was no evidence for a D factor separate from A-A. Additionally, the latent factors of D and A-A correlated at -.90, indicating near fungibility. Nor was there any evidence that D provided incremental validity over A-A in predicting aggression or antisocial behavior. Finally, the nomological networks of D and A-A were near-perfect opposites (rCC = -.99). Based on these findings, Vize and Lynam (2021) argued that A-A and D were an instance of the "jangle" fallacy, where the same construct is given different names (Kelley, 1927).

a Correspondence concerning this article should be addressed to Donald R. Lynam, Department of Psychological Sciences. Purdue University. 703 Third Street, West Lafayette, IN 47907. Email: dlynam@purdue.edu

Most recently, Rose et al. (2022) compared the empirical profiles of D and A-A across a range of relevant external criteria (e.g., antisocial behavior, aggression, domains and facets of personality, personality disorders, impulsivity, and political skill) in two different samples. Importantly, these authors compared the similarities between D and A-A to the similarities generated by different measures of the same constructs, i.e., multiple measure of psychopathy, narcissism, and depression, respectively. The absolute similarity between D and A-A (rICCs = .96 and .93) was consistent with what was observed between different measures of the same construct (e.g., multiple measures of depression). Similarly, they showed that most measures of the same construct (e.g., depression; psychopathy; narcissism; see also Big Five measures – Sleep et al., 2019) demonstrate some degree of incremental validity in line with what is found when jointly examining measures of D and A-A. That is, alternative measures of the same latent psychological construct are likely to demonstrate some degree of incremental validity in the statistical prediction of various criterion given that these are all imperfect measures of the various latent constructs. Given that D and A-A yielded nearly equivalent empirical correlates, the authors again suggested that D and A-A represent an instance of the jangle fallacy.

The present study examines the similarity and differences between these two constructs using the interpersonal circumplex (IPC). Because D and A-A are inherently interpersonal constructs, the IPC is particularly well-situated to serve as a critically relevant set of criterion variables. The IPC provides an established theoretical and empirical model for mapping the interpersonal characteristics of other constructs along two major dimensions—Agency and Communion (Leary, 1957), which captures a wide range of interpersonal behaviors and are useful in conceptualizing, organizing, and assessing interpersonal behavior. Agency is primarily concerned with becoming individuated from others and involves behaviors/traits such as dominance, status, control and power (Gurtman, 2009). Communion is concerned with connecting with others and involves behaviors/traits such as love, friendliness, and affiliation (Gurtman, 2009). When crossed, these two dimensions yield an interpersonal circumplex on which any interpersonal behavior can be placed. High Communion (i.e., friendly) sits at 0º, low Communion (i.e., hostile) sits at 180º, high Agency (i.e., dominance) sits at 90º, and low Agency (i.e., submission) sits at 270º. Because any interpersonal trait or behavior can be placed on this circle, it can be used to evaluate the distinctiveness, in interpersonal terms, between a set of traits. To answer the exploratory questions of to what extent do the interpersonal profiles of D and A-A differ from one another (or not), the present study compares the D factor to A-A, at both the domain and facet levels, on the interpersonal circumplex using the structural summary method (SSM).

Although a previous study has reported scores of the two main IPC axes/dimensions for D and A-A (Rose et al., 2022), no study has combined information from these two dimensions to place D and A-A comprehensively in the IPC two-dimensional space. The SSM was specifically designed for analyzing interpersonal profiles using the IPC framework and can provide unique information regarding how different personality traits vary in terms of both the type and degree of interpersonal qualities by placing the traits on the IPC. Using the interstitial space between traits placed on the IPC, the SSM shows differences between traits in a direct and precise manner. More details about the SSM can be found in the method section. Preregistration for this study can be found at https://osf.io/vsxdw.

Methods

Participants and Procedure

A total of 600 participants were recruited for the study from the participant pool at a large midwestern university, and IRB approval was obtained prior to the data collection. Informed consent was obtained from all participants before they provided any data. All participants completed the study on Qualtrics. Responses were excluded if they: 1) failed to provide valid answers to EPA Infrequency and/or Virtue scales, 2) incorrectly answered more than two out of eight attention-check items, 3) answered the questions in a single-response style (e.g., all 1s), 4) completed the survey in less than 500 seconds. The final sample included 516 individuals: 62.4% Women, 35.9% Men, 0.6% Non-Binary or Other; 88.4% Straight or Heterosexual, 1.2% Gay or Lesbian, 9.4% Bisexual, 1% Other; 5.9% Hispanic or Latino, 72% White, 19.8% Asian, 4.7% more than one racial identity, and 3.3% Black or African American.

This data set has been used previously in Rose, Miller, & Lynam (2023) which examined the validity of the newly developed Five Factor Model Antagonistic Trait Measure (FFM ATM). The study reported data from the current A-A and IPC measures but only in the form of criterion variables in relation to the FFM ATM domains. The data set was also used in Rose et al. (2022) which compared profiles of D and A-A but only included the two separate scores of interpersonal warmth and dominance. Thus, these data have never been used to compare D and A-A to one another on the interstitial space of IPC. All the analyses were preregistered before being conducted (https://osf.io/vsxdw).

Agreeableness-Antagonism. Trait antagonism was assessed by reversing the agreeableness items from the International Personality Item Pool Representation of the NEO PI-R short form – Agreeableness subscale (IPIP 120; Maples et al., 2014), which is a 120-item measure of the 30 facets of the five domains of the FFM. Participants rated how accurately statements such as "[I] am not interested in other people's problems" describe them on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Agreeableness/Antagonism subscale includes six facets measured by 24 items (four items per facet). Cronbach α's for the facets ranged from 0.65 to 0.86 with a median of 0.68.

Dark factor of personality. The dark factor of personality was measured by The Dark Factor of Personality Scale (D; Hilbig et al., 2020), which is a 22-item self-report measure of the core features of social aversive psychopathology

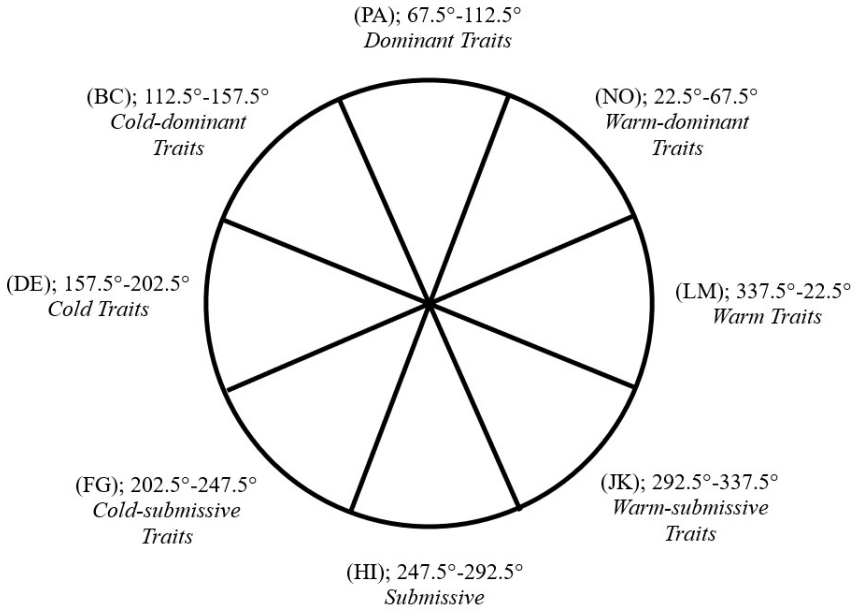

Figure 1. Octants of Interpersonal Circumplex

(e.g., psychopathy, narcissism, Machiavellianism). The Cronbach α for the scale is 0.88.

Interpersonal traits. Interpersonal traits were measured by the Revised Interpersonal Adjective Scales (IAS-R; Wiggins et al., 1988), which includes 64 adjectives that describe people's interpersonal characteristics (e.g., "Tender", "Ruthless"), and each octant of the IPC is measured by eight adjectives from the measure. Participants rated how accurately these adjectives describe them on an 8-point scale ranging from 1 (extremely inaccurate) to 8 (extremely accurate). Cronbach's α's of the octants ranged from 0.73 (warm-submissive) to 0.91 (warm-dominant), with a median of 0.86.

Validity checks. Validity items from the Elemental Psychopathy Assessment (EPA; Lynam et al., 2011) was used in this study. The EPA is 178-item self-report measure of psychopathy, and here only the 16 items that comprise two validity scales – Infrequency and Unlikely Virtue – were used.

Data Analysis

The structural summary method (SSM; Gurtman, 1994; Zimmermann & Wright, 2017) was used to examine the interpersonal profiles of Antagonism, as well as its six facets, and D. The SSM uses four parameters to summarize correlations between external constructs (i.e., D and A-A) and the eight octants of the IPC, each representing a unique combination of warmth and dominance (see Figure 1). *Elevation* describes the overall endorsement of items (e.g., do individuals with higher antagonism give higher ratings of their interpersonal traits across the board?). *Amplitude* describes the extent to which the constructs present a specific interpersonal theme (e.g., how much does antagonism relate to specific types of interpersonal traits?). R^2, also known as the goodness-of-fit statistic, describes the extent to which the profile fits into a circular structure, and thus illustrates interpersonal prototypicality (e.g., a prototypically cold-dominant profile would be associated most strongly with the cold-dominant octant, then with cold and dominant octants, and increasingly less with octants further away from cold-dominance, and thus least strongly associated with the warm-submissive octant). *Angular Displacement* describes the specific theme of the interpersonal profile in terms of where it can be placed on the IPC (e.g., what types of interpersonal traits does antagonism relate to the most strongly?). 95% confidence intervals of *Elevation*, *Amplitude*, and *Angular Displacement* will also be reported in the results.

For interpretations of SSM results, based on recommendations from existing publications (Gurtman & Pincus, 2003; Hopwood et al., 2013; Wright et al., 2012), *Elevation* and

Amplitude values greater than .15 are considered notably elevated and differentiated, and R^2 values greater than .80 are considered to fit an expected circular structure moderately well. *Amplitude* is only interpreted with adequate R^2, and *Angular displacement* is interpreted when *Amplitude* and R^2 meet their corresponding thresholds. The SSM parameters and their associated confidence intervals were analyzed using the 'circumplex' package in R (v0.3.8; Girard et al., 2021). For the D and A-A profiles to be considered different, the profiles need to have interpretable angular displacements with non-overlapping 95% confidence intervals, which suggests a meaningful difference. Data and codes used in this study are publicly available at https://osf.io/up3z9/.

Table 1. Correlations between D, A-A, and A-A facets.

	M	*SD*	*α*	D	A-A	Distrust	Immoral	Selfish	Uncoop	Boastful
D	2.23	.57	.88	-						
A-A	3.77	.43	.84	0.70	-					
Distrust	3.43	.80	.86	0.29	0.55	-				
Immoral	3.75	.67	.66	0.61	0.70	0.21	-			
Selfish	4.19	.53	.67	0.44	0.70	0.33	0.37	-		
Uncooperative	3.98	.71	.65	0.58	0.71	0.33	0.45	0.39	-	
Boastful	3.51	.74	.70	0.44	0.56	-0.05	0.39	0.25	0.24	-
Apathy	3.75	.67	.69	0.38	0.70	0.20	0.33	0.55	0.37	0.38

Note. *M* = mean; *SD* = standard deviation; *α* = Cronbach's alpha; Immoral = Immorality; Selfish = Selfishness; Uncoop = Uncooperativeness; Boastful = Boastfulness.

Table 2. Structural Summary Parameters and 95% Bootstrap Confidence Intervals for D, A-A, and A-A facets.

Profile	Elevation	Amplitude	Angle	R^2
Factor-level				
D	0.10 (0.07, 0.13)	0.58 (0.52, 0.64)	160.6° (153.5°, 167.7°)	1.0.
A-A	0.08 (0.05, 0.11)	0.66 (0.60, 0.71)	162.1° (155.6°, 168.1°)	0.99
Facet-level				
Distrust	0.03 (-0.00, 0.06)	0.35 (0.28, 0.43)	192.2° (178.1°, 206.6°)	0.97
Immorality	0.08 (0.05, 0.11)	0.50 (0.44, 0.57)	155.6° (147.1°, 164.1°)	0.99
Selfishness	0.02 (-0.01, 0.05)	0.59 (0.52, 0.65)	188.4° (181.5°, 195.4°)	0.97
Uncooperativeness	0.06 (0.03, 0.10)	0.50 (0.44, 0.56)	154.6° (145.6°, 163.4°)	0.99
Grandiosity	0.08 (0.04, 0.12)	0.42 (0.35, 0.50)	126.7° (115.3°, 138.1°)	0.95
Callousness	0.04 (0.01, 0.06)	0.43 (0.36, 0.51)	157.8° (146.4°, 168.0°)	0.95

Note. D = the dark factor; Angle = Angular Displacement, Distrust = reverse of A1(Trust); Immorality = reverse of A2(Morality); Selfishness = reverse of A3(Altruism); Uncooperativeness = reverse of A4(Cooperation); Grandiosity = reverse of A5(Modesty); Callousness = reverse of A6(Sympathy).

Results

Table 1 presents the correlations between D, A-A total score, and A-A facets, and Table 2 presents the structural summary parameters of D, A-A total score, and A-A facets, as well as the 95% confidence intervals of *Elevation, Amplitude*, and *Angular Displacement*. The *Amplitude*, and *Angular Displacement* confidence intervals are also plotted on the interpersonal circumplex for visualization of the results (see Figures 2 and 3). Because the Antagonism facets were calculated by reversing Agreeableness facets, antonyms of the original Agreeable facets were used in the tables and figure to describe these facets more accurately (e.g., reverse of the "Trust" facet was renamed as "Distrust").

The results showed that the interpersonal profiles of D and A-A factors were both highly specific (*Amplitude* = .58 and .66, with a threshold of .15) and interpersonally prototypical (R^2 = 1.00 and .99, with a threshold of .80), and the *Angular Displacements* of the two profiles are nearly identical (160.6° and 162.1°), both demonstrating a robust, well-differentiated cold-dominant theme. In other words, from an interpersonal perspective, there is no distinction between D and A-A.

At the facet level, all the facets showed highly differentiated, prototypical, and thus interpretable profiles, though the specific interpersonal themes varied across the facets: Immorality, Uncooperativeness, and Callousness facets showed similar cold-dominant profiles as D and Antagonism, with a higher emphasis on coldness. Grandiosity showed a slightly more dominant profile, while Distrust and Selfishness displayed almost purely cold profiles. It is particularly worth highlighting that the profiles of D and A-A are closer to each other on the figure than many of the A-A facets are to A-A total score or to other A-A facets.

In an analysis that was not preregistered, we applied the structural summary method to the individual items from D (20 items) and A-A (24 items); all items were coded to run in the same direction. Figure 4 depicts the frequency of the angular displacements of the D and A-A items on the interpersonal circumplex. With the exception of a single D item at 81.7°, "having a lot of money is not one of my goals in life" (reversed), all D items fell within the range of A-

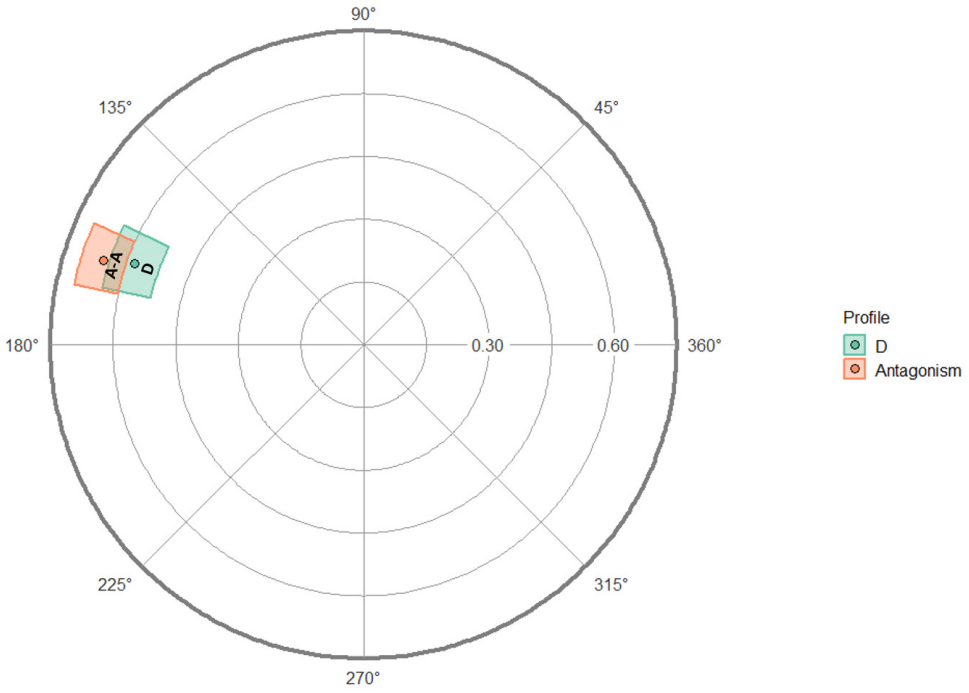

Figure 2. Amplitude and angular displacement confidence intervals for D and A-A plotted on the Interpersonal Circumplex.

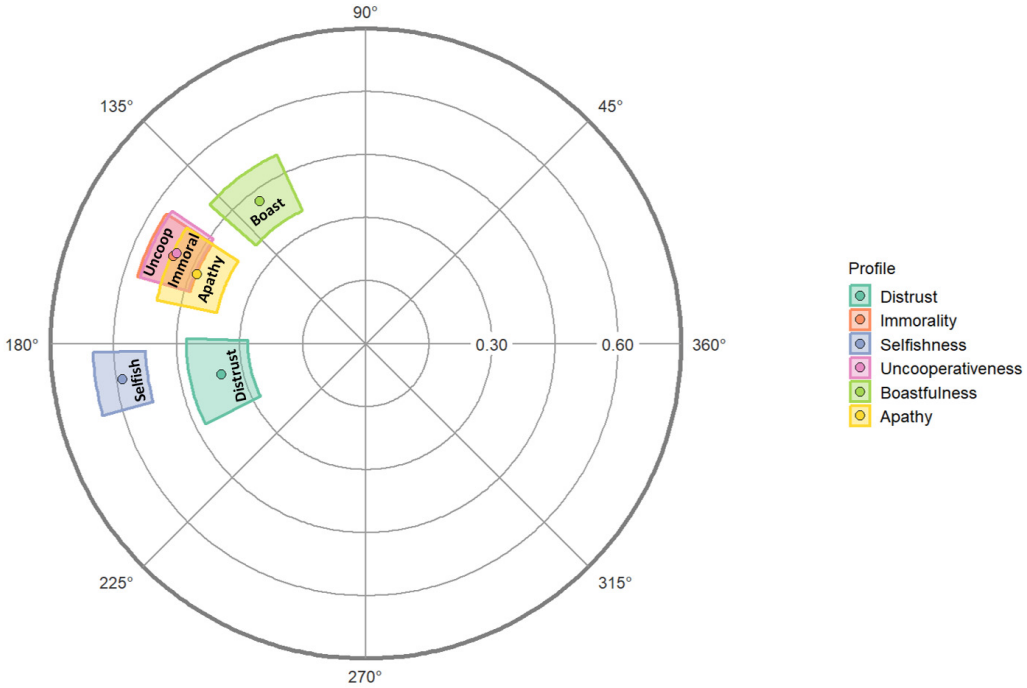

Figure 3. Amplitude and angular displacement confidence intervals for A-A facets plotted on the Interpersonal Circumplex.

A items. The angular displacements of the D items ranged from 81.7°.to 181.2° with a median of 159.4°; A-A items ranged from 102.7° to 201.3° with a median of 161.25°. Even at this most granular level, D and A-A are distributed virtually identically across interpersonal space.

Discussion

The present study tested whether the dark factor and Agreeableness-Antagonism, at both the domain, facet, and item levels, could be distinguished from one another using the interpersonal circumplex. The IPC provides a well-established theoretical and empirical model for mapping the

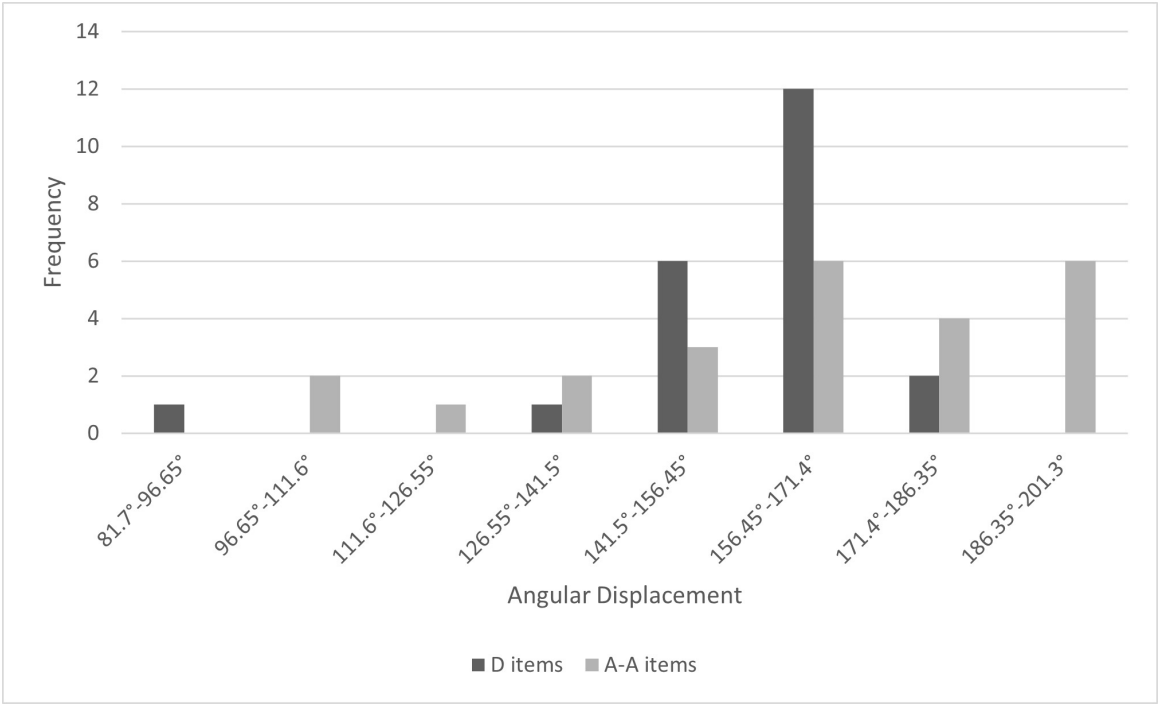

Figure 4. Distributions of Angular Displacements of D and A-A items.

Note: The dominant octant ranges from 67.5° to 112.5°; the cold-dominant octant ranges from 112.5° to 157.5°, and cold octant ranges from 157.5° to 202.5°.

interpersonal characteristics of other constructs along two major axes—Agency and Communion, which are the fundamental dimensions of interpersonal behaviors. The IPC has been used previously to distinguish the domains and facets of personality disorder traits (Wright et al., 2012), the three components of the Dark Triad (i.e., psychopathy, narcissism, and Machiavellianism; Dowgillo & Pincus, 2017), and grandiose and vulnerable narcissism (Miller et al., 2012). Importantly, the Dark Triad covers constructs that some consider "interpersonal disorders (Wright et al., 2022; cf., Widiger et al., 2023) and the proponents/creators of the D factor invoke definitions that are almost entirely interpersonal in nature (e.g., Moshagen et al., 2018). As such, the IPC seems like an ideal paradigm through which to interrogate possible differences in these constructs.

Results from the current study indicate that the dark factor and Agreeableness-Antagonism are functionally identical in interpersonal terms. Both fall solidly within the cold-dominant octant. This octant typically describes individuals who are competitive, arrogant, and calculating (Leary, 1957), which fits well descriptions of both the dark factor and Antagonism. The facets of Agreeableness-Antagonism showed some differentiation among themselves, ranging from across the cold and cold-dominant octants, with the dark factor falling solidly in the middle.

Clarifying the degree of overlap/distinction between similar seeming constructs like D and A-A is a valuable endeavor, as scarce resources such as money, time, and attention can be invested in studying these so-called novel constructs when relatively little new is discovered (e.g., see grit vs. conscientiousness literatures as an example). When highly similar constructs can be identified early in the process, scientists can push the field forward more effectively by focusing on more constructive research. The current study highlights concerns that a new, siloed literature on the dark factor is unnecessary given that these findings can be comfortably organized with the general and pathological personality literatures on antagonism. That is, the existing D-focused literature can be integrated relatively seamlessly into the much larger and more well-established literature on A-A (e.g., Lynam & Miller, 2019).

This study has several limitations worth noting. It used a convenience sample with limited demographic diversity (e.g., age; socioeconomic status, education), which may affect the generalizability of our findings. In addition, we relied exclusively on self-report measures of D, A-A, and the IPC, which may introduce some bias and overestimation of relations given shared method variance. Additionally, although the interpersonal circumplex is a compelling model, it is possible that differences between the dark factor and A-A lie outside of interpersonal space and thus was not fully captured in the study. Future researchers are encouraged to compare the dark factor and A-A further by examining how they associate with other aspects of human behaviors and functioning. Nonetheless, the current findings add to an existing literature that calls into question the viability of the D factor as a standalone, new construct deserving of intensive investigation.

Contributions

Contributed to conception and design: TVD, DRL
Contributed to acquisition of data: LR, DRL
Contributed to analysis and interpretation of data: TVD

Drafted and/or revised the article: TVD, JDM, DRL
Approved the submitted version for publication: TVD, LR, JDM, DRL

Funding Information

The authors received no financial support for the research, authorship, and/or publication of this article.

Conflicts of Interest Statement

The authors declared no potential conflicts of interest respect to the research, authorship, and/or publication of this article.

Data Accessibility Statement

All data files and analysis scripts used for this study can be found on the OSF project page: https://osf.io/up3z9/

Submitted: October 19, 2023 PDT, Accepted: March 17, 2024 PDT

References

Girard, J. M., Zimmermann, J., & Wright, A. G. (2021). *circumplex: Analysis and Visualization of Circular Data*. R package version 0.3.8. https://CRAN.R-project.org/package=circumplex

Gurtman, M. B. (1994). The circumplex as a tool for studying normal and abnormal personality: A methodological primer. In S. Strack & M. Lorr (Eds.), *Differentiating Normal and Abnormal Personality* (pp. 243–263). Springer.

Gurtman, M. B. (2009). Exploring personality with the interpersonal circumplex. *Social and Personality Psychology Compass*, *3*, 601–619. https://doi.org/10.1111/j.1751-9004.2009.00172.x

Gurtman, M. B., & Pincus, A. L. (2003). The circumplex model: Methods and research applications. In J. A. Schinka & W. F. Velicer (Eds.), *Handbook of psychology: Vol. 2. Research methods in psychology* (pp. 407–428). Wiley.

Hilbig, B. E., Thielmann, I., Zettler, I., & Moshagen, M. (2023). The dispositional essence of proactive social preferences: The dark core of personality vis-à-vis 58 traits. *Psychological Science*, *34*, 201–220. https://doi.org/10.1177/09567976221116893

Hopwood, C. J., Burt, S. A., Keel, P. K., Neale, M. C., Boker, S. M., & Klump, K. L. (2013). Interpersonal problems associated with Multidimensional Personality Questionnaire traits in women during the transition to adulthood. *Assessment*, *20*, 60–67. https://doi.org/10.1177/1073191111425854

Kelley, T. L. (1927). *Interpretation of educational measurements*. World Book Company.

Leary, T. F. (1957). *Interpersonal diagnosis of personality*. Ronald Press.

Lynam, D. R., Gaughan, E. T., Miller, J. D., Mullins-Sweatt, S., & Widiger, T. A. (2011). Assessing the basic traits associated with psychopathy: Development and validation of the Elemental Psychopathy Assessment. *Psychological Assessment*, *23*, 108–124. https://doi.org/10.1037/a0021146

Lynam, D. R., & Miller, J. D. (2019). The basic trait of antagonism: An unfortunately underappreciated construct. *Journal of Research in Personality*, *81*, 118–126. https://doi.org/10.1016/j.jrp.2019.05.012

Maples, J. L., Guan, L., Carter, N. T., & Miller, J. D. (2014). A test of the International Personality Item Pool representation of the Revised NEO Personality Inventory and development of a 120-item IPIP-based measure of the five-factor model. *Psychological Assessment*, *26*, 1070–1084. https://doi.org/10.1037/pas0000004

Miller, J. D., Price, J., Gentile, B., Lynam, D. R., & Campbell, W. K. (2012). Grandiose and vulnerable narcissism from the perspective of the interpersonal circumplex. *Personality and Individual Differences*, *53*, 507–512. https://doi.org/10.1016/j.paid.2012.04.026

Moshagen, M., Hilbig, B. E., & Zettler, I. (2018). The dark core of personality. *Psychological Review*, *125*, 656–688. https://doi.org/10.1037/rev0000111

Moshagen, M., Zettler, I., Horsten, L. K., & Hilbig, B. E. (2020). Agreeableness and the common core of dark traits are functionally different constructs. *Journal of Research in Personality*, *87*, 103986. https://doi.org/10.1016/j.jrp.2020.103986

Rose, L., Miller, J. D., & Lynam, D. R. (2023). Validation of the Five-Factor Model Antagonistic Triad Measure. *Assessment*, *30*, 782–797. https://doi.org/10.1177/10731911211068083

Rose, L., Sleep, C. E., Lynam, D. R., & Miller, J. D. (2022). Welcome to the jangle: Comparing the empirical profiles of the "dark" factor and antagonism. *Assessment*, 10731911221124847.

Vize, C. E., & Lynam, D. R. (2021). On the importance of the assessment and conceptualization of Agreeableness: A commentary on "Agreeableness and the common core of dark traits are functionally different constructs." *Journal of Research in Personality*, *90*, Article 104059. https://doi.org/10.1016/j.jrp.2020.104059

Vize, C. E., Miller, J. D., & Lynam, D. R. (2021). Examining the conceptual and empirical distinctiveness of agreeableness and "dark" personality items. *Journal of Personality*, *89*, 594–612. https://doi.org/10.1111/jopy.12601

Widiger, T. A., Miller, J. D., Lynam, D. R., & Samuel, D. B. (2023). *Interpersonal and personality disorders: Commentary on Wright et al. (2022)*.

Wiggins, J. S., Trapnell, P., & Phillips, N. (1988). Psychometric and geometric characteristics of the Revised Interpersonal Adjective Scales (IAS-R). *Multivariate Behavioral Research*, *23*, 517–530. https://doi.org/10.1207/s15327906mbr2304_8

Wright, A. G., Pincus, A. L., Hopwood, C. J., Thomas, K. M., Markon, K. E., & Krueger, R. F. (2012). An interpersonal analysis of pathological personality traits in DSM-5. *Assessment*, *19*, 263–275. https://doi.org/10.1177/1073191112446657

Wright, A. G., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). It's time to replace the personality disorders with the interpersonal disorders. *American Psychologist*, *77*, 1085–1099. https://doi.org/10.1037/amp0001087

Zimmermann, J., & Wright, A. G. (2017). Beyond description in interpersonal construct validation: Methodological advances in the circumplex structural summary approach. *Assessment*, *24*, 3–23. https://doi.org/10.1177/1073191115621795

Supplementary Materials

Peer Review Communication

Download: https://collabra.scholasticahq.com/article/117091-mapping-the-dark-factor-d-and-agreeableness-antagonism-a-a-on-the-interpersonal-circumplex/attachment/225549.docx?auth_token=pXzQAEGsrfRwcVntWfuv