

Normal Personality Variables and Their Relationship to Psychological Reactance

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ABSTRACT - This study examines the relationship between psychological reactance as measured by the Therapeutic Reactance Scale (TRS) and the five factor model of personality as measured by the NEO PI-R. The sample consisted of 310 undergraduate students at a mid-sized southern university. The TRS total score was regressed on the five domains of the NEO with three domains, Agreeableness, Extraversion, and Openness to Experience, retained in the solution. Two facets of Agreeableness (Straightforwardness and Compliance), one facet of Openness (Ideas), and four facets of Extraversion (Warmth, Assertiveness, Excitement-Seeking, and Positive Emotions) were significant. The significant domains and facets indicate that a reactant individual is likely to be controlling, territorial, possessive, suspicious, traditional, assertive, and moody. These results support previous findings with respect to psychological reactance and normal personality. Discussion includes speculation of types of reactant behavior as aspects of the reactance construct inferred by prior work. Study limitations and suggestions for future research are discussed.

Psychological reactance (reactance) is the tendency of a person to protect personal freedoms from real or perceived threats (Brehm, 1966). Much research has focused on reactance in terms of observed behaviors and behavioral tendencies of highly reactant individuals (Brehm, 1966; Dowd, Milne, & Wise, 1991; Dowd & Sanders, 1994; Fogarty, 1997; Hockenberry, & Billingham, 1993; Hong, & Page, 1989; Hong, Giannakopoulos, Liang, and Williams, 1994; Joubert, 1990; Seibel, & Dowd, 1999). Other studies have focused on defining reactance in terms of motivational variables, cognitive style, correlates with other known measures of behavior, or normal personality variables (Brehm & Brehm, 1981; Buboltz, Woller, & Pepper, 1999; Dowd & Wallbrown, 1993; Dowd,

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Wallbrown, Sanders, & Yesenosky, 1994). An overarching theme is that reactance is characterological in nature, but previous work has not concretely defined reactant behavior in terms of normal personality.

At the core of reactance theory is self-perceived “free behaviors,” a group of actions to which person’s believe they are entitled. A free behavior represents the opportunity to engage in some activity or take some desired action without restriction or interference from the environment or other individuals. Reactance theory suggests that people produce greater reactions to threats of perceived free behaviors than to those not considered to be part of the core free behavior set. Brehm (1966) and Fogarty (1997) stated that the core set of free behaviors is special to people; this sense of entitlement and importance differentiates between freedoms the reactant person will vigorously defend from those that are not of concern. However, not only potential freedoms are included as free behaviors, but also the behaviors highly reactant persons will protect should they be threatened.

There is probably no clear dichotomy between free and “not free” behaviors. Free behaviors likely fall on a continuum of importance. Bensley and Wu (1991) noted that reactant responses can manifest as resistance to coercion from outside agents not to engage in free behavior, as well as responses to overt threats to perceived free behaviors. This indicates that reactance can be activated not only to protect the freedom to engage in given behaviors but also to protect individuals’ freedoms with respect to when and how to engage in free behaviors. For example, a soldier who goes AWOL from the military can be seen as attempting to regain access to lost freedoms. It is likely that highly reactant individuals are unsuited for this or other extremely structured environments.

Brehm’s (1966) conceptualization of reactance yielded a construct situationally specific in nature and based more on the characteristics of the situation than individual differences of those perceiving the situation. As previously mentioned, however, subsequent research has suggested that the reactance construct has characterological elements and may even be considered a personality trait. (Brehm & Brehm, 1981). Recent research has suggested that reactance is indeed characterological in nature and reactant behavior may be more a function of the individual than of the situation (Brehm & Brehm, 1981; Buboltz, et al., 1999; Dowd, et al., 1991; Dowd & Wallbrown, 1993; Dowd, et al., 1994). Reactant behavior can also manifest when the freedom to *not* do something is infringed; attempts to coax or coerce a person into doing something, even something they may normally feel free to do, may result in reactance (Fogarty, 1997). The concepts of control and freedom appear to be inexorably linked in terms of psychological reactance. Brehm and Brehm (1981) essentially described free behaviors in terms of control. Highly reactant individuals have a “need for control” over these free behaviors which dramatically exceed that of lower reactant individuals (Seemann, Buboltz, & Thomas, 2000). Fogarty (1997) stated that reactant behavior can occur in response to direct threats to perceived free behaviors or in response to vicarious threats, namely ones occurring after

behavior has been threatened or restricted or after a less important behavior has been impacted.

Research studying the characterological nature of psychological reactance have related it to variables measured by the Personality Research Form (PRF; Dowd & Wallbrown, 1993); the California Personality Inventory (CPI; Dowd, et al., 1994); Holland Code Types (Buboltz, et al., 1999); and the U.C.L.A. Loneliness Scale, along with the Coopersmith Self-esteem Scale (Joubert, 1990). Among the fairly consistent results found were that highly reactant people are aggressive, dominant, defensive, less concerned with making a good impression, less conscientious, more problem and future oriented, domineering, and controlling.

The limited reactance research currently available lends support for the characterological nature of reactance. Despite this support reactance remains a somewhat obscure and ill-defined construct. Dowd and Wallbrown (1993) argued that it is necessary to establish construct validity through the development of a nomological network to demonstrate how the construct in question relates to other established constructs. A concise, parsimonious, and operational definition of the characterological aspects of reactance would be useful given the potential importance of the reactance construct within interpersonal relationships.

Expanding the definition of psychological reactance in terms of normal personality would appear to have considerable utility. This study describes the reactance construct in terms of the five factor model (FFM) of personality, an almost universal standard for normal personality assessment and research (Ferguson & Patterson, 1998; Costa & McCrae, 1992).

Method

Participants

Participants in this study consisted of 310 undergraduates enrolled in psychology courses at a mid-sized Southern university. The age range was 17 through 47 with a mean age of 20.7 ($SD=4.8$) and a median age of 19. A total of 195 (62.9%) were female, 111 (35.8%) were male, and 4 (1.3%) of the participants did not indicate gender. Of this sample, 234 were Caucasian-American (75.5%), 54 were African American (17.4%), 4 were Asian American (1.3%), 7 were Hispanic-American (2.3%), and 2 were Native American (0.7%); 2 identified themselves as "other" (0.7%), and 5 (1.7%) did not indicate an ethnicity.

Instruments

The Therapeutic Reactance Scale. The Therapeutic Reactance Scale (TRS; Dowd, et al, 1991) was used to measure reactance. The TRS is composed of 28 items scored on a four point likert-type scale, yielding three scores: Behavioral Reactance (TRS:B), Verbal Reactance (TRS:V), and a Total Reactance Score (TRS:T). TRS:B and TRS:V are effectively subscales derived by Dowd, et al.,

(1991) via factor analysis from the TRS:T. Subsequent studies have indicated that the TRS has construct validity as theoretical predictions were supported. Internal consistency, convergent and divergent validity, and construct validity have been established for the TRS:T but not for either of the subscales. Internal consistency scores for the TRS ranged from .75 to .84 (TRS:T); test-retest reliability ranged from .57 to .60. The subscales were not employed in this study due to the fact that there is no validity for them and that all research to date has only employed a total score for psychological reactance.

The NEO Personality Inventory-Revised. The NEO Personality Inventory-Revised (NEO, Costa & McCrae, 1992) was used as the measure of personality for this study and is an operational measure of the five factor model of personality. The five factors, or domains, measured by the NEO are Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). Each domain consists of six source traits, called facets, that define the actual meaning of an individual's particular domain score. Each facet consists of eight items scored on a likert-type scale from 0-4; the NEO has a total of 240 such items. The NEO is widely used and has demonstrated validity and reliability (Costa & McCrae, 1992; Ferguson & Patterson, 1998). The NEO's 240 items produced a 5 factor structure which highly corresponded with the intended factor structure. The eight facets of each domain also loaded on their intended factors. The NEO's five factors are seen as valid measures of the Five Factor Model of personality (Costa & McCrae, 1992). The NEO's facets produced expected relationships to similar constructs in other measures, including the Eysenck Personality Questionnaire's Extraversion and Neuroticism types and with individual domains on the Myers-Briggs Type Indicator. Reliability figures for the NEO are based largely on the facets and not on the domains themselves. Costa and McCrae (1992) report internal consistencies for the individual facets ranging from .56 to .81 for self report and .60 to .90 in observer ratings.

Procedure

Participants were informed as to confidentiality and guaranteed anonymity. Participants were informed before and after participating in the study that a complete research debriefing was available upon request. Participation was voluntary and conformed to the standards and guidelines of the University Human Subjects Committee. Those students not wishing to participate were offered an alternate optional assignment of equivalent difficulty for course credit. In addition to consent forms, the two research instruments and a demographic data sheet were distributed and completed in class.

Statistical Analysis

The initial analysis consisted of descriptive statistics and a correlation matrix to assess the univariate relationships between variables in this study. Correlations were computed between the 5 NEO factors and the TRS:T. Consistent with past precedence, scores obtained on the TRS were regressed onto the primary five

factors of the NEO. A stepwise regression procedure was used to identify the unique contribution of each variable in the regression solution.

A regression was conducted for the entire sample with TRS:T as the dependent variable and the five NEO factors as independent variables. Only the TRS:T was used as Dowd (1991) has noted that the reliability and validity of the separate subscales has not yet been established and the fact that only total reactance scores have been employed in previous research. Standardized regression coefficients (beta weights) were used to examine the findings for significance. Dowd, et al. (1994) cautions that beta weights can be unreliable if substantial multicollinearity exists within the predictor variables, but since the five factors of the NEO are reported to be orthogonal (Costa & McCrae, 1992) and only one dependent measure exists it was determined that multicollinearity was not an issue in the current study.

Costa and McCrae (1992) suggest that examining the facets of individual NEO domains can provide information on meaningful individual differences within those domains. To better understand the relationship between NEO factors and reactance, the facets of individual domains retained from the initial regression solution were themselves regressed onto TRS:T. A simultaneous regression procedure was used to examine the domain facets and to determine the specific contribution of each facet to its global factor. To maintain a familywise alpha of .05, a Bonferroni correction was computed and adjusted alpha was set at .003.

Table 1
Means, Standard Deviations, and Intercorrelations for the NEO domains and the TRS

Variable	M	SD	NEO Domains					Reactance	
			1	2	3	4	5	6	
1. Neuroticism	97.71	20.54	.....					
2. Extraversion	117.61	19.68	-.19**	.....				
3. Openness	112.98	17.24	.06	.17**	.....			
4. Agreeableness	113.97	18.15	-.13**	.20**	.08	.....		
5. Conscientiousness	108.24	18.82	-.35**	.23**	.06	.08	.....	
6. TRS Total	76.44	11.29	.14*	.04	.19**	-.47**	-.06	.....

Note: TRS= Therapeutic Reactance Scale, NEO= NEO Personality Inventory, Revised. *Correlation is significant at the .05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

Results

The means, standard deviations, intercorrelations, and alpha levels of the NEO's five primary domains and the TRS:T are presented in Table 1. The mean scores found on the five NEO domains fell into the average range for the domains of Extraversion (117.61), Openness (113.0), and Agreeableness (114.0); scores within one standard deviation for these domains would fall within the low to high ranges. The mean for Neuroticism (97.2) was in the high range; scores within one standard deviation would fall within the average to very high range. The mean for Conscientiousness (108.24) was in the low range; scores within one standard deviation would fall within the average to very low range.

Table 2
Summary of Stepwise Regression Analysis for NEO Variables Predicting Psychological Reactance As Measured by the TRS (N= 310)

Variable	B	SE	β	Sig.
Agreeableness	-.303	-.032	-.528**	.001
Openness	.111	.032	.170**	.001
Extraversion	.074	.030	.128*	.037
R^2	.270			
R^2 (Adjusted)	.263			
F	37.82			
df	3, 306			
$p <$	.001			

* $p < .05$ ** $p < .001$

The results of the stepwise regression analysis is summarized in Table 2. For the TRS:T $R^2 = .270$ was found with an adjusted $R^2 = .263$; $F(5, 304) = 37.82$, $p < .001$. The Standard Error of the Estimate was 9.68. These results indicate that 27% of the variance of the TRS:T was accounted for by the NEO factors retained in the final regression model with the adjusted R^2 indicating that 26.3% of the TRS:T's variance is explained by personality in the current data. Three of the NEO's domains demonstrated statistical significance in the final model for the whole sample, Agreeableness ($\beta = -.496$, $p < .001$), Openness To Experience ($\beta = .177$, $p < .001$), and Extraversion ($\beta = .106$, $p < .037$).

The results of the simultaneous regression analyses for each of the facets of the A, E, and O domains are summarized in Table 3. For the Agreeableness (A) Domain, $R^2 = .306$ was found with an adjusted $R^2 = .292$; $F(6, 303) = 22.23$, $p < .001$. The Compliance ($\beta = -.322$, $p < .001$) and Straightforwardness ($\beta = -.244$, $p < .001$) facets of A demonstrated a significant relationship with TRS:T. For the Extraversion (E) Domain, $R^2 = .169$ was found with an adjusted $R^2 = .152$; $F(6, 303) = 10.24$, $p < .001$. The Assertiveness ($\beta = .236$, $p < .001$) and Excitement-Seeking ($\beta = .247$, $p < .001$) facets of E demonstrated a strong positive relationship with TRS:T; the Positive Emotions ($\beta = -.240$, $p < .001$) and Warmth

($\beta = -.189, p < .003$) facets demonstrated a strong negative relationship with TRS:T. For the Openness (O) Domain, $R^2 = .064$ was found with an adjusted $R^2 = .045$; $F(6, 303) = 3.44, p < .003$. The O Domain facet of Ideas ($\beta = .190, p < .003$) demonstrated a significant positive relationship with TRS:T.

Table 3
Summary of Simultaneous Regression Analyses for the Facets of the
NEO=s Agreeableness, Openness, and Extraversion Domains (N= 310)

Variable	B	SE	β	Sig
Agreeableness Facets				
Trust	-.327	.131	-.135	.013
Straightforwardness*	-.586	.138	-.244	.001*
Altruism	.205	.123	.095	.096
Compliance*	-.749	.124	-.322	.001*
Modesty	-.174	.090	-.100	.053
Tender-Mindedness	-.175	.167	-.056	.296
R^2	.306			
R^2 (Adjusted)	.292			
F	22.23			
Significance	.001			
df	6, 303			
$p <$	.003 (Adjusted; Familywise Alpha = .05)			
Openness to Experiences Facets				
Fantasy	.195	.140	.086	.167
Aesthetics	-.124	.130	-.064	.344
Feelings	.298	.165	.115	.071
Actions	-.196	.187	-.062	.295
Ideas*	.432	.146	.190	.003*
Values	.076	.168	.027	.652
R^2	.064			
R^2 (Adjusted)	.045			
F	3.44			
Significance	.003			
df	6, 303			
$p <$	.003 (Adjusted; Familywise Alpha = .05)			
Extraversion Facets				
Warmth*	-.479	.178	-.189	.003*
Gregariousness	.036	.146	.017	.818
Assertiveness*	.563	.140	.236	.001*
Activity	.245	.168	.089	.145
Excitement-Seeking*	.586	.142	.247	.001*
Positive Emotions*	-.510	.137	-.240	.001*
R^2	.169			
R^2 (Adjusted)	.152			
F	10.24			
Significance	.001			
df	6, 303			
$p <$	.003 (Adjusted; Familywise Alpha = .05)			

Notes: * significant at the .003 level Dependent Variable: Total TRS Reactance Score

Discussion

This study provides support for a characterological description of psychological reactance and contributes to the definition of reactant behavior in terms of normal personality. The regression analysis of the five NEO domains onto the TRS Total Score produced results that support the two previous studies of reactance and normal personality (Dowd and Wallbrown, 1993; Dowd, et al, 1994).

The regression analysis indicates that highly reactant individuals present themselves in a very independent and somewhat suspicious manner. In conjunction with this, the reactant individual is likely to be skeptical of others' intentions, competitive, intolerant and distrustful, secretive, and detached. The reactant person is also likely to put on a good social face, but is actually uncomfortable in social situations; they may present themselves as assertive, active, impulsive, excitement-seeking, sensitive to insult, antagonistic, and passive-aggressive. The reactant individual is also likely to display strong emotions when frustrated or when threat is perceived, displaying moody, somewhat anxious, behavior; such a person may also be prone to irritability. The reactant individual may also appear to be conservative and conventional but likely has creative tendencies and may be psychologically minded.

The results of the primary stepwise regression analysis and the correlation matrix agree on the contributions of the Agreeableness (A) and Openness (O) domains with respect to psychological reactance, but the Neuroticism (N) domain demonstrated a moderate positive correlation with reactance while failing to emerge as a significant predictor in the final regression solution. The Extraversion (E) domain emerged in the final regression solution but did not produce a significant positive correlation with psychological reactance. Neuroticism, while related to psychological reactance, did not provide a unique contribution to the stepwise regression analysis and did not account for a significant proportion of the variance. The significant correlation between N and reactance may infer that a highly reactant individual is moody, hostile, impulsive, detached, somewhat anxious, and self-conscious; these features are also present in someone who demonstrates a higher level of E and a lower level of A. Conversely, E was found to control a unique portion of the variance in the regression but did not demonstrate a linear relationship with psychological reactance.

Agreeableness, due to the strength of its association with reactance as evidenced by both the correlation matrix and the stepwise regression, is likely the central construct in understanding the highly reactant individual. The E and O domains may indicate how the individual expresses their need to protect their core free behaviors from perceived or actual threat. The results of this study provide the necessary additional grounding of psychological reactance in normal personality to speculate on such an expansion of psychological reactance theory. If demonstrated, reactant types would inform service providers and managers as to how to appropriately intervene with a reactant individual to prevent premature

termination of therapy, to ensure compliance with medical orders, and to maximize the environment-specific benefits of a reactant personality style.

The regressions conducted with the facets of A, O, and E serve to better specify the specific traits associated with the reactant individual. These additional analyses provide a very conservative presentation of the domain facets related to psychological reactance. The specific information provided by this analysis further supports the previous research. As a whole, these facets indicate that the reactant individual is somewhat conservative and conventional, interpersonally passive, noncompliant and possibly antagonistic, somewhat creative and psychologically minded, moody, brooding, outgoing, easily bored or frustrated, emotionally detached, assertive, and confrontational. It is difficult to imagine that an individual is both confrontational and passive, conventional and creative, and emotionally detached and outgoing. It is likely that the highly reactant person, being somewhat psychologically minded, is assertive in some instances and passive in others, creative within their own sphere of control but restrictive with respect to sharing those ideas unless it suits them. The reactant individual may withdraw emotionally and become moody when they perceive a threat, but may be otherwise outgoing (but not necessarily pleasant or warm).

In understanding the relationship between psychological reactance and normal personality we are able to apply that information to a number of different settings. Informing a personnel manager that a sales director who is high in reactance would be a preferred candidate for a position may be met with confusion or skepticism; telling the same employer that a suitable person for the job is one who is highly conscientious, structure oriented, territorial, realistic, grounded, and who has a preference for thinking in concrete terms conveys the same information but with much greater clarity. Predicting a level of reactant behavior in a person has potential utility in medical, mental health, legal, and criminal justice settings. This does not mean that clients should be labeled by their scores on a personality instrument, but rather the professional should be aware that a reactant person may not follow directions, fail to comply with homework, and resist the general process specific to the setting because of the perception of loss of control over some of the individual's free behaviors. Such conceptualization also informs the process of therapy, indicating to the treatment provider that a degree of perceived power-sharing with the client may be necessary. Because a highly reactant person may not disclose personal information and perceived threats to personal freedom, therapeutic rapport would likely need to be reinforced or reestablished periodically to prevent noncompliance, ensure positive communication and understanding, and to avoid premature termination of therapy.

The current data presents many interesting findings concerning psychological reactance, but there are some limitations to this data and its interpretation. Our sample is geographically isolated; this work was conducted at a mid-sized Southern university. Caution should be used in applying these findings to populations in other areas of the country. Another limitation of this study and

most others in the literature is the reliance on college student populations as participants. Future research should focus on including other populations if possible to further the generality of findings.

Suggestions have been made in this report as to the potential application of reactance research in several different settings, such as mental health/counseling, corrections, law enforcement, business and industry, and others. Future research should draw on these populations, if possible, to expand the scope of psychological reactance research into these areas of potential interest. Other populations in their settings should be studied in order to define the effect of the demands of the environment as well. Psychological reactance is most likely characterological in nature and a stable, enduring trait, but it may be dependent on environmental activation. A threat must be present or perceived before the reactant response is initiated. Different environments with different cues may lend information to how this trait is applied in different situations by highly reactant individuals. Another consideration for future research is a shift in focus from the highly reactant individual to more of a bipolar model. The question of a "normal" level of reactance should be addressed; it is implied but not stated in the literature that moderate reactance is desirable. If this is true, research should focus on the characteristics, traits, and behaviors of low-reactance individuals to determine if reactance is a normal trait everyone possesses to some degree or if it is an odious quality made worse by its magnitude.

To date a number of instruments are available for the measurement of reactance and research interest in reactance is steadily growing. Despite the increasing popularity, a number of questions still exist to be addressed. The relationship between reactance and personality-based psychopathology is an area which remains virtually untouched. There is great utility in understanding how reactance is related to measures of psychopathology such as the MCMI, the PAI, or the MMPI. The relationship between psychological reactance and the DSM-IV-TR's Axis II personality syndromes is of particular interest.

Much research has focused on the relationship of reactance to normal personality variables but, if reactance is to gain widespread application, its utility would have to be investigated in terms of long and short term performance, such as performance on the job or longevity in therapy before successful completion or early termination. Lastly, the speculation of reactant types based on personality profile is tempting. Further studies should investigate this promising area and seek to extend and define the nomological net of psychological reactance.

References

- Bensley, L., & Wu, R. (1991). The Role of Psychological Reactance in Drinking following Alcohol Prevention Messages. *Journal of Applied Social Psychology*, 21(13), 111-1124.
- Brehm, J. (1966). *A Theory of Psychological Reactance*. New York: Academic Press.

- Brehm, S., & Brehm, J. (1981). *Psychological Reactance: a Theory of Freedom and Control*. New York: Academic Press.
- Buboltz, W., Woller, K., & Pepper, H. (1999). Holland Code Type and Psychological Reactance. *Journal of Career Assessment*, 7(2), 161-172.
- Costa, P., & McCrae, F. (1992). *Professional Manual for the NEO-PI-R*. Psychological Assessment Resources: Orlando, Florida.
- Dowd, E. T., Milne, C., & Wise, S. (1991). The Therapeutic Reactance Scale: A Measure of Psychological Reactance. *Journal of Counseling and Development*, 69, 541-545.
- Dowd, E. T., & Sanders, D. (1994) Resistance, Reactance, and the Difficult Client. *Canadian Journal of Counseling*, 28(1), 13-24.
- Dowd, E. T., & Wallbrown, F. (1993). Motivational Components of Client Reactance. *Journal of Counseling and Development*, 71, 533-538.
- Dowd, E. T., Wallbrown, F., Sanders, D., & Yesenosky, J. (1994). Psychological Reactance and its Relationship to Normal Personality Variables. *Cognitive Therapy and Research*, 18(6), 601-612.
- Ferguson, E., & Patterson, F., (1998). The Five Factor Model of Personality: Openness a Distinct but Related Construct. *Personality and Individual Differences*, 24(6), 789-796.
- Fogarty, J. (1997). Reactance Theory and Patient Noncompliance. *Social Science Medicine*, 45(8), 1277-1288.
- Hockenberry, S., & Billingham, R. (1993). Psychological Reactance and Violence Within Dating Relationships. *Psychological Reports*, 73, 1203-1208.
- Hong, S., & Page, S. (1989). A Psychological Reactance Scale: Development, Factor Structure, and Reliability. *Psychological Reports*, 64, 1323-1326.
- Hong, S., Giannakopoulos, E., Laing, D., & Williams, D. (1994). Psychological Reactance: Effects of Age and Gender. *Journal of Social Psychology*, 134(2), 223-228.
- Joubert, C. (1990). Relationship Among Self Esteem, Psychological Reactance, and Other Personality Variables. *Psychological Reports*, 166, 1147-1151.
- Seemann, E., Buboltz, W., & Thomas, A. (2000, June). *Desire for Control and Social Desirability: The Foundations of Psychological Reactance*. Poster session presented at the annual meeting of the American Psychological Society, Orlando, Florida.
- Seibel, C., & Dowd, E. (1999). Reactance and Therapeutic Noncompliance. *Cognitive Therapy and Research*, 4, 373-379.