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ON THIN ICE: PARENTAL PSYCHOLOGICAL CONTROL

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ON THIN ICE: UNDERSTANDING
PARENTAL PSYCHOLOGICAL CONTROL
IN TURKISH AND PAKISTANI
INDIVIDUALS

MEDIATING ROLE OF NEEDS SATISFACTION
ACROSS CULTURES

A Master's Thesis

by

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Psychology

İhsan Doğramacı Bilkent University

Ankara

December 2023

To my husband, Eren Pedersen and my canine baby, Miley

For all the love, adventure and joy

ON THIN ICE: UNDERSTANDING PARENTAL PSYCHOLOGICAL CONTROL IN
TURKISH AND PAKISTANI INDIVIDUALS
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By Özge Can Pedersen

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Psychology.

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ABSTRACT

ON THIN ICE: UNDERSTANDING PARENTAL PSYCHOLOGICAL CONTROL IN TURKISH AND PAKISTANI INDIVIDUALS MEDIATING ROLE OF NEEDS SATISFACTION ACROSS CULTURES

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Autonomy-thwarting practices may entail a wide range of practices from declaring an ultimatum to guilt elicitation—a nuanced distinction that merits attention. Employing a between-subject design via three vignettes, the present study examined to what extent these two aspects of control attempts differ in facilitating psychological and behavioral outcomes in Turkish ($N = 454$) and Pakistani ($N = 149$) young adults. Reactance and cultural orientations were tested as potential moderators. Parental autonomy support correlated with positive psychological outcomes, while parental control was linked to sub-optimal outcomes due to reduced needs satisfaction and perceived legitimacy. Turkish participants expressed significantly higher defiance intentions under both types of psychological control. Pakistani participants exhibited greater defiance intentions under external control compared to autonomy condition, and their independence scores moderated defiance intentions under external control.

Among Turkish adults, higher independence was associated with decreased levels of compliance under both types of parental control. In line with the Self Determination Theory, these findings highlight the universally growth-promoting role of autonomy support and the mediating role of needs satisfaction. Simultaneously, they uncover subtle differences in young adults' behavioral responses to psychological control despite the adverse effects of control, transcending cultural and individual differences.

Keywords: Autonomy Support, Needs Satisfaction, Parental Psychological Control

ÖZET

TAŞAN SON DAMLA: TÜRK VE PAKİSTANLI GENÇ YETİŞKİNLERİN EBEVEYN PSİKOLOJİK KONTROLÜNE YAKLAŞIMLARI PSİKOLOJİK İHTİYAÇ TATMİNİNİN KÜLTÜRLERARASI ARACILIK ROLÜ

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Bireylerin özerklikleri, sözlü tehdit veya suçluluk uyandırma gibi farklı şekillerde sindirilebilir. Bu tür yöntemlerin kişiler üzerindeki etkisi detaylıca araştırılmamıştır. Bu çalışma kapsamında, özne arası bir tasarım kullanılarak, katılımcılar üç çalışma koşulundan birine yerleştirilmiştir. Türk ($N = 454$) ve Pakistanlı ($N = 149$) genç yetişkinlerde ebeveyn kontrolünün psikolojik ve davranışsal boyutlarda etkisi araştırılmıştır. Tepkisellik ve kültürel eğilimler potansiyel moderatörler olarak ele alınmıştır. Her iki grupta da, ebeveyn özerklik desteği olumlu psikolojik sonuçlar göstermiştir. Ebeveyn kontrolü ise genç yetişkinlerde psikolojik ihtiyaç tatminini ve ebeveyn meşruiyetini anlamlı bir boyutta düşürmüş, optimal olmayan sonuçlar doğurmuştur. Türk katılımcılar, içsel ve dışsal ebeveyn kontrolü altında yüksek bir karşı gelme dürtüsü ortaya koymuşlardır. Pakistanlı katılımcılar ise dışsal kontrol

altında karşı gelme dürtülerini, özerklik desteğine kıyasla daha yüksek bir şekilde sergilemişlerdir. Buna ek olarak, Pakistanlı katılımcıların kişisel bağımsızlık skorları moderatör görevi üstlenmiş, dışsal kontrol grubunda karşı koyma dürtülerinin arttığı gözlenmiştir. Kültürlere bağlı olarak farklı davranışsal tepkiler ortaya çıksa da, çalışmanın bulguları Kendini Belirleme Kuramının evrensellik iddiasıyla paralellik göstermiş ve ihtiyaç tatminin kişilerin gelişimindeki olumlu aracı rolünü işaret etmiştir.

Anahtar Kelimeler: Ebeveyn Psikolojik Kontrolü, İhtiyaç Tatmini, Özerklik Desteği

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CHAPTER I

INTRODUCTION

In the movie *Whiplash*, an intense moment unfolds within a jazz ensemble rehearsal. “*Not Quite My Tempo!*” shouts Terence, the demanding maestro, as Andrew’s tempo, a young drummer and Terence’s student, slightly falters, “*Were you rushing or dragging?*” Daring Andrew to keep up with the most abrupt shifts in the tempo, Terence repeats his unnerving question, “rushing or dragging,” with enormous pressure etched in every syllable. Andrew’s drumming gets even more frenetic and desperate in the pursuit of Terence’s perfection. His teaching style is not a surprise to anyone. Everyone was highly keen to impress him and seemed to think this is how mastery is crafted. To correct Andrew’s tempo, the maestro navigates through his harsh disciplinary methods, from verbal abuse, public humiliation, emotional manipulation, unrealistic expectations, and so on. But no one in the room can avoid the agony of the next moment, which would come from not knowing if Andrew would break, how his reaction would manifest, and which specific trigger would prompt his response.

According to the Self-determination theory (Ryan and Deci, 2017), most individuals perceive instances of control attempts as an intrusion into their preferred way of thinking, feeling, and behaving. While controlling practices can take diverse forms, which can range from more overt behaviors, such as explicit threats, to more internal tactics like guilt induction, it remains unclear whether certain forms of psychological control may be more detrimental than others.

A follow-up question awaiting further investigation relates to whether different forms of psychological control – specifically, internal and external control – can have differential impact on human functioning. Also, whether internal and external psychological control are influenced by specific personal and contextual factors. In this thesis, internal psychological control refers to more subtle, indirect, and implicit tactics (such as, guilt induction, shame, and love withdrawal) that authority figures (like parents) can use to set in motion internal pressures to regulate child's behavior. Accordingly, external psychological control reflects more overt behaviors (such as, punishment threats, deadlines setting, and rewards promising) aiming to activate external pressures to attain child's compliance (see Soenens & Vansteenkiste, 2010).

While numerous studies acknowledged the negative effect of psychological control on an individual's well-being and motivation (Ryan et al., 2022), we are unaware of to what extent external and internal control resemble and differ from each other depending on people's exhibited reactance, which is the degree to which a person reacts to others' attempts to exercise control (Brehm et al., 1966) or in the degree to which they perceive themselves as an independent versus interdependent member of their family and society in general (Ryan & Deci, 2000). Could a guilt-inducing form of psychological control

become more tolerable for less reactant people or those who hold interdependent self-construals? If yes, is it a matter of perception, or may such people prefer to stay silent and internalize the negative consequences of the induced guilt? To address these questions, I relied on self-determination theory (Ryan and Deci, 2017) and conducted a multi-cultural study with college-age students from Türkiye and Pakistan. I compared internal and external control from parents and pitted them against autonomy-supportive parenting with three vignettes depicting parental response in line with the study's conditions. Specifically, I examined whether psychological need satisfaction would mediate the link between autonomy support and the two types of parental control, as reflected through different vignettes, to children's behavioral intentions – namely, compliance, defiance, resentment, and negotiation. Uncovering the nuanced differences between internal and external control can inform theory and clinical practice.

Parents with the best intentions may inadvertently use sub-optimal communication practices such as internal psychological control. Therefore, clarifying specific outcomes associated with internal control might become valuable in understanding the unintended consequences that could result from it. Additionally, I explored to what extent personality traits (herein temperament, as reflected through reactance) and personal values (herein favoring independence over interdependence or vice versa) might moderate the above relations. The findings from this research could provide valuable insights into parenting dynamics and their impact on the functioning of young adults who differ in temperament and favor independence over interdependence in their personal lives.

Basic Psychological Needs

Self Determination Theory (SDT; Ryan & Deci, 2017) considers psychological needs as universal aspects of human nature. Every individual has inherent requirements for experiencing a sense of relatedness, competence, and autonomy as crucial ingredients for their growth and optimal functioning (Ryan & Deci, 2000). Relatedness implies an essential requirement for intimacy and authentic connection with others, whereas failure to fulfill this need may result in experiences of relational tension and loneliness (Chen et al., 2016). Competence is a quest for mastery that centers around feeling capable and effective in executing daily activities and handling challenges (van der Kaap-Deeder et al., 2015). Impediments to competence, however, may lead to feelings of failure and helplessness if this need is thwarted (Vansteenkiste et al., 2023). A desire to experience behavior as volitional and authentic is underscored by the need for autonomy. Thwarting this need make individuals feel dragged in an unwanted direction (Vansteenkiste et al., 2023).

Satisfaction of the three basic psychological needs contributes not only to current optimal functioning but also to well-being and growth in the long term. A recent study revealed that university students exhibiting a trajectory of increasing levels of need satisfaction reported higher levels of positivity, greater effort, and grades throughout that period compared to those with a trajectory of decreasing need satisfaction (Gillet et al., 2019). Conversely, needs frustration obstructs growth, leading to unfavorable outcomes, like passivity, self-centeredness, and maladjustment (Vansteenkiste et al., 2023). But what contributes to basic needs satisfaction? According to SDT (Ryan & Deci, 2017), the three

needs are fulfilled in contexts characterized by maximal autonomy support and minimal psychological control.

Needs Support versus Thwarting

Autonomy support and psychological control stand out as the paramount influencers of basic needs satisfaction. Extensive research has underscored the advantages of autonomy-supportive practices across different contexts (e.g., sports, parenting, teaching) while also highlighting the drawbacks of autonomy-thwarting psychological control (Joussemet et al., 2008; Soenens et al., 2015; Soenens & Vansteenkiste, 2010). Autonomy support enhances volitional functioning and entails five elements: providing a rationale for requests, acknowledging varying perspectives, offering meaningful choices, fostering initiative, and minimizing the controlling tactics (Koestner et al., 1984; Soenens et al., 2007).

Nonetheless, autonomy support should not be mistaken for either permissiveness (a lack of structure in the absence of well-defined justified rules) or neglect (a lack of involvement). Conversely, psychological control undermines autonomy, competence, and relatedness needs in various settings, with its prevalence observed in domains like romantic relationships (Beyarslan & Uzer, 2022), sports (Bartholomew et al., 2009), the workplace (Olafsen et al., 2017), and parenting (van der Kaap-Deeder et al., 2017). Notable manifestations of psychologically controlling practices include guilt induction, love withdrawal, shaming, instilling anxiety, and invalidating one's perspective (Barber, 1996). Across these contexts, psychological control imposes psychological pressure, leading to maladaptive outcomes by frustrating the three fundamental needs. A prominent

arena where the impact of psychological pressure on human functioning has been consistently demonstrated concerns parenting (Beliveau et al., 2023; Choe & Read, 2019; Costa et al., 2016; Wei et al., 2022). For example, a study revealed that adolescents subjected to parental requests delivered in a controlling manner reported higher levels of autonomy need frustration compared to those who received the same request in either a neutral or autonomy-supportive style (Van Petegem et al., 2015).

Psychologically Controlling Parenting

Parental psychological control imposes a conditional dynamic in the parent-child relationship, where parents set, in a demanding tone, strict behavioral standards for the child, and the child cannot but adhere to them to receive affection, care, and approval (Assor et al., 2004). Such pressure creates an insurmountable barrier for the child to truly accept anything from the parent, a block that could eventually take a severe toll on the parent-child connection. The established dynamic, conveying the message that the child cannot demonstrate the necessary skills to make a good decision or fix their problems without their parents' interference, may pose a massive threat to the child's feelings of autonomy and competence. Hence, autonomy frustration arises when external demands lead to internal conflict and alienation from personal values (Ryan & Deci, 2000). Not surprisingly, helicopter parenting, a form of external psychological control that involves parental monitoring and interference in almost any aspect of child's life, was shown to deplete feelings of autonomy and competence and increase depression among university students (Schiffrin et al., 2014).

While controlling parental techniques may effectively elicit a child's obedience, they fall short in ensuring a genuine endorsement of parental and cultural rules and values. Instead, autonomy support is more likely to promote such endorsement (Ryan and Deci, 2017). In fact, even activities lacking inherent enjoyment can feel autonomous and voluntary if they have been appropriately integrated. The ultimate goal of this process is not mere compliance with parental and cultural rules but a genuine endorsement of parental requests. The more a behavior is appropriately integrated, the more it is perceived as one's own (Soenens & Vansteenkiste, 2010). Indeed, a study indicated that parental autonomy support correlated with children's genuine engagement in school work and social activities (Soenens & Vansteenkiste, 2005). These children exhibited higher self-determination as their engagement was aligned with autonomous reasons such as more intrinsic enjoyment and higher personal values for carrying out these activities. On the other hand, reduced levels of self-determination were associated with introjection (that is, engagements stemming from guilt or social validation), or external pressures as reflected through rewards and deadlines.

Parental autonomy support can align harmoniously with parental structure and involvement, constituting the second and third vital components of effective parenting after autonomy support (Grolnick, 2002). Moreover, it is important to note that autonomy support is expected to promote volitional functioning instead of independence, two distinct concepts, with only autonomy (but not independence) being related to better psychosocial adjustment among adolescents (Soenens et al., 2007)

Nevertheless, no clear-cut boundaries can strictly classify parenting practices as need-supportive or controlling. A child's interpretation of parenting behavior could be

interpreted differently in different conditions. This mechanism, known as *functional significance*, implies that a child may give different meanings to a parental behavior depending on whether communication makes salient an *informational*, *controlling*, or *amotivating* element. The informational aspect of parental behavior provides the child insights about their self-determined competence, while the controlling element of parenting prescribes particular thoughts, feelings, or behaviors. Lastly, the amotivating aspect of parental practice decreases intrinsic and extrinsic motivation by signaling a lack of competence and perceived value associated with the event's outcome (Ryan & Deci, 2017).

It is important to note that functional significance attributed to experiences by an individual is closely related to that person's way of perceiving. While certain practices are known to be associated with outcomes, the functional significance of an event cannot be grasped without clarifying the dynamic interplay between an individual's background and the general context in which an event takes place. A pertinent question is whether individuals who vary in temperament or view themselves more as an independent than interdependent (or vice versa) entity perceive the same situation differently— for example, an event where parents try to exert psychological control on the child by inducing guilt.

Reactance and Cultural Values as Moderating Factors

While an abundance of research grounded in Self-Determination Theory has generated empirical findings providing evidence for the "universally growth-promoting role of parenting," some researchers with a more relativistic perspective have raised concerns about whether the influence of parental autonomy support serves a beneficial function for

children raised in different (e.g., non-Western) contexts (Rothbaum & Trommsdorff, 2007). According to this viewpoint, culture may moderate the relations of autonomy-supportive and controlling parenting to outcomes of interest.

In this context, the primary concern revolves around whether children with diverse traits—such as reactance—and varying cultural orientations—like exhibiting independent or interdependent sense of self—share similar perceptions of situations characterized by autonomy support or psychological control. The potential role of moderators could occur either at the level of perception or at the level of implications after such perceptions have been formed. The former seems more likely than the latter as one of the basic tenets of social psychology, maintains that individuals may perceive the same situation differently (e.g., Festinger, 1962), a process which, in SDT terminology, is reflected through functional significance. To this view, individuals' interpretation of contextual events is significantly influenced by the functional significance they attribute to these events (i.e., informational, controlling, and amotivating) (Ryan & Deci, 2017).

Young adults' attitudes toward parental authority may also differ as a function of how much legitimacy they attribute to their parents' authority (Kuhn & Laird, 2011). While dismissing parental authority as illegitimate were linked to problem behaviors (Mellado et al., 2018), some studies indicated that parental interference is perceived as more legitimate when parents convey their demands in an autonomy-supportive way (Mageau et al., 2018; Van Petegem et al., 2017). Instead, parental interference done in a psychologically controlling way is less likely to become legitimate unless the child exhibits self-determination (Van Petegem et al., 2019). This implies that situational and personal factors may influence children's legitimacy beliefs (Mageau et al., 2018; Van

Petegem et al., 2017; Van Petegem et al., 2019). Instead, parental interference done in a psychologically controlling way is less likely to become legitimate unless the child exhibits self-determination (Van Petegem et al., 2019). This implies that situational and personal factors may influence children's legitimacy beliefs.

Given the central role of perceived legitimacy, an interesting question arises: Do individuals with varying personal attributes such as reactance and endorsement of independence versus interdependence cultural values, not only perceive the same situation differently but also evaluate its legitimacy to varying degrees? Also, to what extent young legitimacy is associated with behavioral intentions in response to parental internal and external psychological control?

Overall, it is likely that people with different temperament characteristics (e.g., reactance) or those who favor independence over interdependence may perceive as more controlling an attempt by an agent who tries to control their behavior through guilt induction.

An underexplored, albeit noteworthy possibility suggests that the moderating role of diverse dispositions (such as temperament and cultural values) may influence individuals' behavioral intentions, thoughts, and emotions once perceptions have been formed.

Therefore, the following sections will discuss the potential influence of personality and cultural values as moderators.

Reactance

Reactance, as a personality trait, deserves closer examination when exploring children's responses to parental control. This trait has the potential to heighten adverse feelings in children, influencing their overall functioning in reaction to parental control. Indeed,

reactance can reshape children's perceptions, leading to rebellious responses as a default behavioral pattern. Additionally, reactance can be seen as a motivational state where a child perceives a threat to their freedom, triggering behavioral responses, often manifested by doing the opposite of what is requested to reclaim their perceived endangered freedom (Brehm, 1981; Brehm et al., 1966). Therefore, reactance can manifest as either a temporary state phenomenon, occurring in response to an agent's effort to control one's behavior, or as a trait feature, characterizing children with heightened sensitivity and a propensity to react strongly to attempts that infringe upon their freedom (Brehm et al., 1966; Dillard & Shen, 2005).

A pivotal question of concern to this study centers on how children with high levels of reactance perceive parental psychological control and form their reactions to parental requests. From SDT's perspective, autonomy thwarting practices are anticipated to result in increased perceptions of control, needs frustration, and controlled motivation.

Likewise, such practices are shown to be associated with decreased negotiation intentions in children (Van Petegem et al., 2017). They are associated with less desirable responses, such as compulsive compliance, oppositional defiance, and negative emotions, like resentment towards parents. Children displaying elevated reactance tendencies appear to be more inclined to respond to an authority figure's attempt to control their behavior. Nevertheless, it is unclear whether their heightened reactance is due to a more negative perception of such attempts or a belief in their diminished legitimacy. In addition to reactance, interdependent or independent self-construal could also play a role in shaping perceptions and reactions to psychological control.

Personal Values: Independence versus Interdependence

Societies differ, among others, in cultural values and social norms, which set the standards of behaviors by prescribing what is acceptable and what it is not. One prominent distinction refers to individualism versus collectivism (Hofstede, 2011; Triandis, 1995). Individualism emphasizes loose social ties among people, whereas collectivism favors forming enduring and close bonds that persist throughout a lifetime (Hofstede, 2011). Individualism and collectivism are inversely related, indicating that the more a society or its members lean towards individualism by favoring respective values (e.g., personal achievement), there is a corresponding decrease in the emphasis on values collectivism espouses (e.g., group harmony), and vice versa (Triandis, 1995).

A similar inverse relation exists between independence versus interdependence self-construal (Markus & Kitayama, 1991). While independent and interdependent self-construals do not prescribe a singular way of life, independence self-construal reflects the idea that one views oneself as a self-reliant, freestanding individual with a unique configuration of personal traits, values, and aims. In contrast, interdependence corresponds to the notion that one is harmoniously embedded within a social network and one's life significantly influenced by the expectations of significant others.

Two conceptualizations of cultural differences—individualism versus collectivism and independence versus interdependence self-construals—initially assumed to overlap, were challenged by recent empirical data (Vignoles et al., 2016). Researchers correlated individualism and collectivism with seven dimensions of cultural models of selfhood, finding that individualist samples scored higher on difference, self-direction, self-

expression, and self-containment, while collectivistic samples scored higher on similarity, receptiveness to influence, harmony, and connection to others. However, three dimensions—self-reliance, consistency, and commitment to others—did not align with predictions, challenging the standard view of a rigid dichotomy between independence versus interdependence. Notably, samples from countries with higher individualism scored significantly higher on commitment to others rather than self-interest. For example, Western and Latin American samples shared a focus on difference and self-expression. However, they diverged as Western samples scored above average for commitment to others over self-interest. In contrast, Latin American samples emphasized self-interest over commitment to others, contradicting prevalent collectivist ideals and individualistic tendencies. While individualism versus collectivism characterize societies, independence versus interdependence self-construal represent distinct cultural perceptions of the self (Liang et al., 2021). Therefore, the latter is more sensitive to capture variations in cultural values within a culture.

Given that 80% of the variation in values resides within countries (Taras et al., 2016), it might be crucial to be wary of the costs associated with reducing cultural models of selfhood to cultural stereotypes by disregarding the fundamental differences between self-construal models and societal individualism and collectivism (Gregg, 2007).

Likewise, using self-construals might give us a clearer picture of a child's perception and reaction towards parental practices across cultures.

Nonetheless, cross-cultural differences challenged SDT's argument regarding the universality of humans' basic psychological needs by questioning the generalizability of findings obtained from Western samples to non-Western cultures (e.g., Rothbaum &

Trommsdorff, 2007). For some scholars, psychological needs are culturally constructed and reflect variations in socio-cultural values. Hence, individuals might not benefit, they argue, from satisfaction of a need that they do not desire or value (Iyengar & DeVoe, 2003). For example, mothers from non-Western communities, such as Costa Rica, were shown to engage in higher levels of physical contact with infants compared to their European counterparts (Keller et al., 2004). To some scholars, such parenting can lead to greater emphasis on relatedness whereas it could de-emphasize autonomy in collectivistic societies (e.g., Kağıtçıbaşı, 2013)

However, a meta-analysis that included 36 independent samples (22 from the US and 14 from the East Asian samples) reported no differences in autonomy to well-being between Western and Eastern samples (Yu et al., 2018). In line with these findings, SDT claims that autonomy support does not necessarily promote self-reliance but internalization of values, goals, and behaviors. This clarification holds a significant implication for children raised in collective cultures, as they can satisfy their need for relatedness and autonomy at the same time by engaging in various activities volitionally (Chirkov et al., 2005; Soenens et al., 2018; Vansteenkiste et al., 2006). Therefore, autonomy support appears to benefit all individuals, regardless of the cultural groups they belong to or the cultural values they espouse (Chen et al., 2015; Soenens et al., 2018).

Given the abundant evidence regarding the beneficial role of autonomy support on adjustment, why further explore the role of cultural values? The answer lies in the potential impact children's self-construal could have on their evaluations of parenting practices (Soenens et al., 2018). Furthermore, it is crucial to acknowledge that a psychologically controlling practice is expected to hinder an individual's needs,

particularly when perceived to be controlling (Ryan & Deci, 2017). In support of this claim, a comparison study found adolescents from collectivistic countries to report lower levels of perceived psychological control when presented with psychologically controlling items than those from individualistic countries (Mason et al., 2004). If collectivism is associated with higher threshold tolerance or less rejection of a psychologically controlling authority, could we expect similar results from people with interdependent self-construals?

Much like reactance, an individual's self-construals, whether leaning towards independence or interdependence, may influence not only perceptions but also a range of outcomes including, legitimacy, needs satisfaction, and other behavioral intentions. These effects may manifest in response to situations characterized as need-supportive, internally psychologically controlling, or externally psychologically controlling. For example, compared to a child with independent self-construal, a child with interdependent self-construal may perceive parental attempts to exercise internal psychological control on it as less controlling; or as more legitimate. Alternatively, the child may exhibit more compulsive compliance despite disagreeing. Perhaps, they may be more eager to find a middle ground between parental requests and their priorities by negotiating with their parents (Van Petegem et al., 2019).

CHAPTER II

THE PRESENT STUDY

In this study, I aimed to examine to what extent autonomy support, internal psychological control, and external psychological control predict the perceived legitimacy of parental authority and needs satisfaction of young adults. Given the dearth of relevant studies, I primarily focused on internal and external parental control to examine whether they differ in predicting legitimacy, need satisfaction, behavioral intentions, and autonomous and controlled motivation. Young adults' behavioral and motivational intentions were measured as indicators of adaptive and maladaptive functioning. Behavioral intentions were conceptualized as part of young adults' coping responses under three types of parenting practices and they entailed : compulsive compliance, oppositional defiance, resentment, and negotiation. Motivational intentions were measured to what degree participants exhibited controlled and autonomous motivation.

Needs Satisfaction and Legitimacy as Mediators

Furthermore, the study focused on needs satisfaction and legitimacy as pivotal intervening variables in the context of parental autonomy support and psychological

control regarding children's behavioral and motivational responses. According to SDT (Ryan and Deci, 2000), the fulfillment of basic psychological needs (autonomy, relatedness, and competence) is closely tied to positive outcomes, ultimately facilitating optimal functioning. Controlling parenting practices may run the risk of diminishing parental authority in the eyes of children and lead to a sense of frustration in children due to their needs are not being appropriately supported. Consequently, children may formulate their responses and adjust their motivations to parental requests based on lack of perceived legitimacy and a sense of frustration.

Beyond the realm of parenting, the detrimental effects of needs frustration on individuals, including children, have well-established across various contexts (Haerens et al., 2019; Mouratidis et al., 2011; Verstuyf et al., 2013). While autonomy supportive parenting practices were shown to be associated increased perceived parental legitimacy among children, psychologically controlling parenting practices have shown a negative association with legitimacy (Mageau et al., 2018; Van Petegem et al., 2017; Van Petegem et al., 2019). Therefore, the variables of needs satisfaction and legitimacy assume a critical role in the current study, facilitating a better understanding as to how children thrive or struggle under various circumstances in which their autonomy supported or thwarted and formulate different behavioral and motivational responses.

Children's Coping Strategies as Reflected in Their Behavioral Intentions

I included compulsive compliance and oppositional defiance as indices of rigid maladaptive responses, given that both can hardly reflect children's volition even though children are more likely to employ these strategies as a coping response (Brenning et al., 2019). While defiant behavior may seem straightforward at a glance (in the sense that

children defy parental requests after experiencing autonomy frustration to restore their autonomy), its effectiveness is a subject of inquiry. Paradoxically, oppositional defiance can lead to subsequent need frustration despite reestablishing threatened freedom, as defiant behavior does not necessarily guarantee volitional functioning aligned with personal authentic values and actions (Vansteenkiste & Ryan, 2013; Deci & Ryan, 1985; Skinner & Edge, 2002). In addition, I measured resentment as part of the maladaptive coping responses to better understand inner functioning, as feelings of resentment might occur regardless of one's intentions to defy or comply in reaction to parental influences. Lastly, I considered negotiation intentions as an aspect of adaptive response, assuming that negotiation reflects a constructive attempt to compromise their wishes and parental requests (Van Petegem et al., 2019).

Autonomous and Controlled Motivation

One significant distinction between SDT (Ryan & Deci, 2017) and other approaches is its perspective on motivation. Unlike the different approaches, SDT does not simplify motivation into a binary classification of either low or high quantity of motivation. Instead, it acknowledges a spectrum of motivations that differ in terms of quality. According to SDT, a person may carry out an activity because they find it interesting, challenging, or enjoyable (intrinsic motivation), part of their system of values and beliefs (integrated regulation), or personally important (identified regulation). In these cases, people are said to be autonomously motivated as their engagement emanates from themselves and not because of some obligations. Individuals, however, may undertake activity out of psychological pressure from external agents (e.g., to avoid punishment or to get a promised reward) or from within themselves (e.g., to prevent feelings of guilt or

to boost contingent self-worth). In such instances, internal and external pressures direct people's behavior, so they exhibit controlled motivation.

Reactance and Independence as Moderators

Further, I examined whether individuals who differ in reactance and independent versus interdependent self-construal (Vignoles et al., 2016) would perceive and justify similarly autonomy-supportive, internally controlling, and externally controlling parental practices. Lastly, I tested whether the intrapersonal differences in reactance and in favoring independence over interdependence would moderate the hypothesized relations of parenting practices, as induced through vignettes, on individuals' perceived psychological control, perceived autonomy support, needs satisfaction, resentment, coping strategies, perceived parental legitimacy, intentions to study, and motivation.

To address these questions, I recruited participants from two cultural contexts, Türkiye and Pakistan, where SDT-based research examining parenting practices has not been extensively investigated (cf., Stewart et al., 2000; Saleem et al., 2021; Koçak et al., 2020; Aktaş & Kındap-Tepe, 2020). The insights gathered from individuals in these cultural settings could provide valuable perspectives on the generalizability of SDT claims beyond Western cultures. Both Türkiye and Pakistan are characterized by societal collectivism, in contrast to individualism often found in Western countries.

Therefore, by recruiting individuals from both cultures, we can directly examine whether the growth-promoting effects of autonomy support and the undermining impact of psychological control, as proposed by SDT researchers, apply to individuals who are more likely to espouse interdependence.

In this way, the present study could contribute to the ongoing discourse regarding the universal significance of values, addressing the argument that individuals who prefer interdependence over independence may suffer less when their need for autonomy is frustrated due to intrusive practices such as psychological control.

Hypotheses

I formulated groups of hypotheses into two primary categories: parenting and personal factors. The first category, parenting, was designed to assess the main effect of parenting practices. Within this category, two subsets of hypotheses were formulated. While the initial subset compared the autonomy support condition with both forms of parental psychological control, the second subset of parenting hypotheses compared and contrasted two psychological control practices, external and internal parental control. The second category consisted of subsets of hypotheses examining the interaction between interpersonal differences and parenting. In the first subset, we formulated hypotheses to investigate the potential moderating role of reactance. The final subset of hypotheses examined how cultural views of self, such as independence and interdependence, could be another potential moderator influencing parenting outcomes.

Hypotheses on the Parenting Styles

Autonomy Support versus Psychological Control

Here, I pitted autonomy-supportive parenting against both types of psychological control to see the main differences between these two parenting types across Turkish and Pakistani samples. I formulated the following hypotheses.

I hypothesized exposure to autonomy support would result in increased perceived legitimacy (Hypothesis 1a) because previous studies indicated that parental autonomy

support positively correlates with higher perceived parental legitimacy among children (Mageau et al., 2018; Selçuk et al., 2022; Van Petegem et al., 2017). Secondly, I hypothesized that participants in the autonomy support condition would report higher needs satisfaction (Hypothesis 1b) and autonomous motivation (Hypothesis 1c) and lower controlled motivation (Hypothesis 1d) than in the two psychological control conditions. For, psychologically controlling parenting is more likely to yield controlled regulation, causing the child to engage in activities for external reasons such as deadlines (external regulation) or internal pressures (introjection) such as securing a sense of self-worth (Ryan and Deci, 2017; Soenens & Vansteenkiste, 2005, 2010). Furthermore, in line with prior studies (e.g., Van Petegem et al., 2017), I hypothesized that participants in the autonomy support condition would report a greater inclination towards negotiation (Hypothesis 1e) and compliance (Hypothesis 1f), and decreased tendencies of oppositional defiance (Hypothesis 1g) and lower levels of resentment (Hypothesis 1h) compared to those in the two psychologically controlling scenarios.

Internal versus External Psychological Control

In addressing the less-explored aspect of nuanced differences between internal and external psychological control, I hypothesized that participants assigned to the internal psychological control condition would report higher compliance (Hypothesis 2a) and lower defiance (Hypothesis 2b) than those in the external psychological control condition because internal control is subtler than external control; hence, latter is more likely to elicit blunt reactions, like more defiance and less compliance. Given that both psychological control conditions lack parental autonomy support and exert control

through distinct mechanisms, I examined participants' negotiation tendencies in an exploratory manner.

Similarly, no specific hypothesis about participants' satisfaction of needs in both control conditions was formulated. According to SDT, individuals' perceptions of control and autonomy play a crucial role in determining the satisfaction of their needs. Lastly, I expected no differences in autonomous (Hypothesis 2c) and controlled motivation (Hypothesis 2d) and resentment (Hypothesis 2e) among participants in the internal and external psychological control conditions.

Before testing the hypotheses, an initial manipulation check ensured the successful implementation of the three vignettes. This involved comparing participants' perceptions of parenting practices in each condition to assess if the vignettes were understood as intended.

Hypotheses on the Personal Factors

Reactance as a Moderator

I anticipated that participants' reactance levels would predict their needs satisfaction and perceived legitimacy of parental interference, and subsequent responses. To this end, I hypothesized that individuals with higher reactance, as opposed to those with low reactance, would exhibit an increased perception of psychological control (Hypothesis 3a) and a decrease in perceived autonomy support (Hypothesis 3b), coupled with a diminished sense of parental legitimacy (Hypothesis 3c). Also, I hypothesized that higher reactance would be associated with lower needs satisfaction (Hypothesis 3d), reduced

autonomous motivation (Hypothesis 3e), and increased controlled motivation (Hypothesis 3f).

Furthermore, I expected higher reactance scores to be related to higher opposition defiance tendencies (Hypothesis 3g), increased resentment (Hypothesis 3h) and lower negotiation (Hypothesis 3i) and compliance (Hypothesis 3j). These expected effects were theorized to be particularly pronounced in situations involving psychological control, highlighting the likelihood of intensified reactions where psychological control is prominent (Hypothesis 4).

Independence versus Interdependence as a Moderator

I hypothesized that individuals with independent as opposed to those with interdependent self-construals, if placed in one of the two controlling conditions, would report a diminished sense of parental legitimacy (Hypothesis 5a), lower needs satisfaction (Hypothesis 5b) and autonomous motivation (Hypothesis 5c). Furthermore, I expected participants with more independent self-construals to report higher opposition defiance (Hypothesis 5d), resentment (Hypothesis 5e), lower negotiation intentions (Hypothesis 5f) and compliance (Hypothesis 5g) than participants with interdependent self-construals.

To test my hypotheses, I relied on a vignette methodology, creating three conditions through vignettes adapted from Chen et al. (2016). Diverging from correlational studies, I experimentally manipulated maternal behavior, taking into participants' cultural orientations (independence vs. interdependence) and reactance as potential moderators. Further, in line with a handful of studies (e.g., Chen et al., 2016; Van Petegem et al., 2017), I aimed to unveil the subtle differences that may exist between internal and external psychological control. Notably, previous studies, I investigated these differences

using two non-western samples of young adults. Participants were asked to reflect on a scenario in which they had faced academic failure and had to communicate this unfortunate event to their parents. This approach allowed me to explore whether autonomy support, internal psychological control, and external psychological control parenting dynamics could be applicable to young adults who have not yet attained their financial independence.

As for the sample, I recruited participants from two collectivistic nations, Türkiye, and Pakistan. Both nations prioritize family relations and maintain connections with extended family members. Pakistani parents have been reported to adopt a stricter parenting approach and exhibiting greater entitlement in children's life decisions such as insisting on a say in university and major decisions (e.g., Zaman, 2014). At the same time, Turkish families are more hands-on until university placement, emphasizing the importance of a university degree for good employment. Turkish parents, however, are less involved in monitoring undergraduate GPAs unless there are significant problems that delay major life milestones or cause setbacks with financial implications.

Despite being labeled collectivistic, Türkiye diverges from traditional East-Asian collectivistic models. For example, despite sharing an Islamic background, Pakistan emerges as a highly restrained society, reflecting minimal emphasis on leisure and controlled gratification, including abstaining from alcohol—a notable difference from prevalent practices in Türkiye. Therefore, I anticipated that exploring SDT's universally growth-promoting role of autonomy within two collectivistic countries, characterized by substantial cultural overlaps and significant differences, could provide valuable insights

into the implications of autonomy support and psychological control for a more refined understanding.



CHAPTER III

METHODS

Participants

The Turkish sample initially included 454 participants. However, 89 participants were excluded from all analyses based on the individual manipulation check that aimed to measure their comprehension of the scenarios. The final Turkish sample consisted of 365 participants (64 % females; $M_{\text{age}} = 21.05$, $SD = 2.13$ years, range = 18 to 32 years). Of them, 85% were from intact families, and 15% from single-parent families. A total of 149 Pakistani participants completed the survey; however, 49 participants were excluded from all analyses based on the individual manipulation check to measure their comprehension of the scenarios. Therefore, the final Pakistani sample involved 100 participants (36% females, $M_{\text{age}} = 21.74$, $SD = 2.55$ years, range = 18 to 33 years). Of the Pakistani participants, 91% reported that they come from two-parent families where both parents live together, and 9% reported they were from single parent families. Of all Pakistani participants, 82% identified themselves as Pakistani or South Asian, and 18% stated other ethnicities such as Punjabi, Pashtun, and Sindh.

Procedure

All the participants were young adults who enrolled at Bilkent University and Middle East Technical University in Ankara, Türkiye. Having received ethical approval from the Institutional Review Board of the host university, the principal investigator approached undergraduate and graduate students from these two universities and asked them to complete the questionnaires. The process took place in the university libraries, psychology labs, study rooms, and other public areas. Informed consent was obtained from each participant. The participants were also given more information about the study at the end of the study via debriefing. A similar procedure and a word-of-mouth recruitment strategy were followed for the Pakistani participants.

Each participant was randomly handed one of the three survey versions, which differed only in the vignette story (described below), as the remaining scales and the questionnaire items were the same across all three conditions. Specifically, there was an autonomy-supportive vignette, an internal psychological control (guilt-induction), and an external psychological control vignette (Please see Appendix A, Table 1 and Table 2 for gender distribution and the number of participants per condition). The completion of the survey took approximately 30 minutes during which the participants had the opportunity to ask for clarifications from the principal investigator regarding the questionnaire items.

Materials

The vignettes and questionnaires were provided in Turkish for Turkish participants, while Pakistani participants completed the English version of the study. To gather additional information from Pakistani participants, two questions about their level of English proficiency and the total number of years they received their education in English were

added to the demographics section. Of the Pakistani participants, 95% reported having fluent or above-average proficiency in the English language, with a mean of 16.6 years of formal education received in English.

Measures

The survey comprised two sections, a general-section (pre-vignette) and a situational measure section (post-vignette), presented, before and after the vignette. The general measures involved items to measure participants' personal and trait-like attributes. This section included a demographics form, a general parenting scale, and two cultural orientation scales. The study's situational measures included questions aiming to assess participants' perception of the situation and behavioral reactions (in terms of intentions) to the vignette.

Participants rated all items on a 5-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Only one of the personal cultural orientation scales employed a 9-point Likert-type scale ranging from 1 (Not at all) to 9 (Exactly). A two-step translation back-translation procedure was followed for scales for which no version in the Turkish language was available at the time (Van De Vijver & Hambleton, 1996). Specifically, five research assistants (three Turkish, one Pakistani, and one Moroccan) made back-to-back translations to ensure consistency between the Turkish and English scenarios. Lastly, after reaching a consensus on the translations, a native bilingual speaker of English and Turkish, who was not informed about the study's focus and hypothesis, checked the scenarios' and items' consistency, meaning, and overall language.

General Measures

Demographics

Participants completed a demographics form, which included items on age, family status, ethnicity, and education level. Pakistani participants also responded to two additional questions pertaining to their English proficiency level.

Participant's Evaluation of the Parental Autonomy Support from Their Parents

The current study included a group of items to collect information on participant's evaluation of their own parents in terms of the level of received parental autonomy support. The parental autonomy subscale, consisting of seven items, was created by Grolnick, Ryan, and Deci (1991) to measure children's perceptions of whether their parents encouraged them to make independent decisions. One of the sample items included in this subscale is "My mother allows me to decide things for myself." The internal consistency of perceived parental autonomy items were $\omega = .92$ and $\omega = .92$ for Turkish and Pakistani participants.

Independence versus Interdependence

I utilized the short version of the seven sub-scales created by Vignoles et al. (2016) to evaluate participants' self-construals. The seven sub-scales included an individual assessment of difference vs. similarity (4 items; "You like being different from other people", for Turkish participants $\omega = .75$ and for Pakistani participants $\omega = .66$), self-containment vs. connection to others (3 items; e.g., "When someone in your family achieves something, you feel proud as if you had achieved something yourself", for Turkish participants $\omega = .67$ and for Pakistani participants $\omega = .59$), self-direction vs.

receptiveness to influence (3 items; e.g., “You prefer to do what you want without letting your family influence you”, for Turkish participants $\omega = .60$ and for Pakistani participants $\omega = .67$), self-reliance vs. dependence on others (3 items; e.g., “You try to avoid being reliant on others”, for Turkish participants $\omega = .67$ and for Pakistani participants $\omega = .68$), consistency vs. variability (5 items; e.g., “You behave in the same way even when you are with different groups of people”, for Turkish participants $\omega = .90$ and for Pakistani participants $\omega = .85$), self-expression vs. harmony (3 items; e.g., “You prefer to say what you are thinking, even if it is inappropriate for the situation”, for Turkish participants $\omega = .59$ and for Pakistani participants $\omega = .64$), and self-interest vs. commitment to others (3 items; e.g., “Your own success is very important to you, even if it disrupts your friendships”, for Turkish participants $\omega = .77$ and for Pakistani participants $\omega = .65$).

Reactance

I utilized an adapted version of Reactance scale developed by (Hong, 1992) to measure young adults’ propensity to exhibit reactant behavior. The scale involved 14 items (e.g., “When my mother forces me to do something, I feel like doing the opposite”, for Turkish participants $\omega = .91$ and for Pakistani participants $\omega = .93$)

Situational Measures

Vignettes

Each of the three vignettes represented different styles of maternal communication. At the outset, all three vignettes provided an identical description of a situation where a college student had failed a course and thus was required to take an extra semester, which meant not graduating on time. The three scenarios were adapted from prior research (Chen et al., 2016; Van Petegem et al., 2015). Given that the original vignettes were created for

adolescents, a discussion was held with a group of undergraduate research assistants to modify the scenarios to reflect an appropriate communication between a parent and their child, an undergraduate at university.

Specifically, the participants were asked to imagine the following scenario: "*When calculating your GPA for the semester, you realized that the grade you were expecting for a critical core course was low and not enough to pass. Since you had the expectation to graduate on time, you had not shared your midterm grades with your parents. Now, since you have failed your course, you must continue for an extra semester. Your mother, who has heard from you that your grade is not sufficient to pass this course and your graduation is postponed, says the following...*"

After reading the description, participants were presented with the mother's request for the adult child to study more in order to pass the course. While the primary request was consistent across all conditions, the communicative tone of the request varied. In the autonomy-supportive condition, the mother used an autonomy-supportive tone that validated the child's perspective and offered support if the child needed it when retaking the course. In the internal psychological control scenario, the mother expressed her disappointment and reminded the child of the sacrifices made by the family to support the child's education. In the external psychological control condition, the mother also expressed disappointment in a tone that rejected the adult child's perspective, accompanied by intrusive control and monitoring. The entire vignette for each condition is provided in the Appendix F.

Manipulation Check

The participants were asked to rate the degree to which they perceived the mother in the scenario as psychologically controlling and supportive, answering the manipulation checks to ensure that the scenarios were perceived as intended. Two items were taken from the Psychological Control Scale Youth Self Report (Barber, 1996), and the remaining two from the Perceptions of Parents Scale (Grolnick et al., 1997) and the perceived autonomy support items were taken from the Perception of Parents Scale (Grolnick et al., 1991; 1997). All items were utilized in prior research (e.g., Chen et al., 2016; Van Petegem et al., 2015). The participants were asked to rate to what extent they would perceive their mother as psychologically controlling (4 items, e.g., “If my mother reacts like this, I would feel like she is not very sensitive to my needs,”; for Turkish participants $\omega = .89$ and Pakistani participants $\omega = .86$) and supportive (4 items; e.g., “If my mother reacts like this, I would feel she allows me to make my own plans for the things I do,”; internal consistencies were respectively $\omega = .96$ and $\omega = .97$).

Needs Satisfaction

The study utilized 12 items from the Basic Psychological Needs Satisfaction and Frustration Scale (Chen et al., 2015) to examine participants’ satisfaction of their basic psychological needs in response to maternal reactions described in the vignettes. In particular, the participants rated the degree to which they would experience autonomy need satisfaction (4 items; e.g., “If my mother reacted like this, I would feel a sense of choice and freedom,”; for Turkish participants $\omega = .96$ and Pakistani participants $\omega = .97$), relatedness need satisfaction (4 items; e.g., “If my mother reacted like this, I would feel that she cares about me,”; for Turkish participants $\omega = .98$ and Pakistani participants

$\omega = .96$) and competence need satisfaction (4 items; e.g., “If my mother reacted like this, I would feel capable of studying for this course,”; for Turkish participants $\omega = .97$ and for Pakistani participants $\omega = .97$).

Perceived Legitimacy

Following the paradigm of Van Petegem et al. (2017), three items were used to gauge adolescents’ beliefs that their mother’s reaction to the described situation was acceptable and legitimate. An example item was, “I would think it’s OK for my mother to ask this.” The scale showed satisfactory internal consistency for both samples ($\omega = .76$ and $\omega = .85$)

Behavioral Outcomes

The study included 13 items to assess three coping styles. These items were used similarly as presented in the Chen et al. (2016) study. The coping styles evaluated were oppositional defiance, compulsive compliance, and negotiation. The four-item scale used to measure oppositional defiance was developed and validated by Vansteenkiste et al. (2014), and an example item was “I would not be concerned about the request: I would do as I please.” The internal consistency was for Turkish and Pakistani participants, respectively $\omega = .82$ and $\omega = .90$. An example item for compulsive compliance reads, “I would not dare to contest the request of my mother, even if I feel she is wrong,” and the internal consistency of this four-item scale was respectively $\omega = .87$ and $\omega = .85$. Finally, an example item for negotiation reads “I would voice my opinion about this issue,” These five-item scale’s internal consistency was, respectively, $\omega = .94$ and $\omega = .93$. Additionally, participant’s resentment was evaluated through three items incorporated into this scale (3 items, e.g., “If my mother reacted like this, I would feel annoyance and resentment towards my mother,”; for Turkish participants $\omega = .93$ and Pakistani participants $\omega = .87$).

Autonomous and Controlled Motivation

The study incorporated a 16-item academic motivation scale adapted by Vansteenkiste et al. (2009) to determine the type of motivation demonstrated by the participants. The four types of motivation assessed were external regulation, such as feeling obligated to do something; introjected regulation, such as wanting to impress one's mother; identified regulation, such as having a desire to learn new things; and intrinsic motivation, such as finding something interesting, challenging, or fun. Each type of motivation was assessed through four items.

An example of an external motivation item was “I would be motivated to study because I’m supposed to do so.” It showed satisfactory internal consistency (for Turkish and Pakistani participants, $\omega = .78$ and $\omega = .58$). An example of an introjected motivation item was “I would be motivated to study because I would feel ashamed if I wouldn’t do so,” which exhibited satisfactory internal consistency (respectively $\omega = .87$ and $\omega = .80$). An example of an identified motivation item was “I would be motivated to study because this is an important life goal to me,” which exhibited satisfactory internal consistency (respectively $\omega = .76$ and $\omega = .81$). An example of an intrinsic motivation item was “I would be motivated to study because it’s an exciting thing to do,” and showed satisfactory internal consistency (respectively, $\omega = .94$ and $\omega = .70$). In line with the prior studies (e.g., Vansteenkiste et al., 2009) a composite score was computed for autonomous motivation by aggregating intrinsic and identified regulation. Similarly, an average score was created for controlled motivation by combining introjected and external motivation.

Plan of Analyses

Given the research hypotheses, the analyses were divided into two sections, the one involving the group comparisons and the other the sequence of relations in an integrated model. Each analysis was done twice, one for the Turkish and another for the Pakistani samples. In the first section, the preliminary analyses involved comparing the means of the manipulation check items - perceived autonomy support and psychological control - through one-way ANOVAs.

The main analyses included group-mean comparisons through one-way ANOVAs of the dependent variables, needs satisfaction, perceived legitimacy, and behavioral intentions (i.e., compliance, defiance, negotiation, and reactance). In the next step, and to test the hypothesis of whether independence or interdependence cultural values and trait-like reactance would render the effects of overt or covert psychological control more (or less) aversive, a series of hierarchical regression analyses were conducted. Each dependent variable was regressed on the condition (through dummy variables) the endorsement of independence versus interdependence, and trait-like reactance levels, and their two-way interaction with each condition. Gender was included as a covariate. In the next section, a sequence of relations was examined through path analysis. Before that, the bivariate correlations were first examined as part of the preliminary analysis. In main analyses, a path model was set up with the three conditions acting as predictors of needs satisfaction, which were used as predictors of behavioral intentions. In that path model, participants' independence scores and reactance were used as additional predictors. Again, gender was included as a covariate.

CHAPTER IV

RESULTS

Preliminary Results

Bivariate Correlations. Table D1 to D4 (in the appendix D) exhibit the bivariate correlations of the measured variables of the study for the Turkish sample. Trait-like measures, age, and gender did not systematically relate to the rest of the variables. Higher perceived autonomy support reported after vignettes was positively related to needs satisfaction, legitimacy, and autonomous and controlled motivation and negatively to resentment and defiance. Conversely, perceived psychological control yielded an opposite pattern of relations.

Table E1 to E4 (in the appendix E) exhibit the bivariate correlations of the measured variables of the study for the Pakistani sample. A similar pattern was found for the Pakistani sample, where trait-like measures age and gender did not systematically relate to the rest of the variables. Perceived autonomy support and perceived psychological control significantly negatively correlated with each other. Perceived autonomy support positively significantly correlated with needs support, legitimacy, negotiation, and autonomous motivation and negatively correlated with resentment and defiance.

Manipulation Check. Table A1 (in the appendix A) shows Turkish participants' means and standard deviations per condition for the two manipulation check items, (i.e., perceived autonomy support, and psychological control).

The study's manipulation successfully differentiated autonomy support conditions from the two psychological control conditions. Those exposed to the autonomy support condition perceived the mother in the scenario as demonstrating higher autonomy support and lower psychological control than their counterparts in the internal or external control conditions. Nevertheless, no meaningful differentiations were observed among Turkish participants in the internal and external control conditions, as their ratings for perceived autonomy support and perceived psychological control items showed no significant differences.

The manipulation check items revealed an intriguing variation in the observed pattern for the Pakistani sample as given in the Table A2 (in the Appendix A). The evaluations of the vignettes regarding psychological control successfully differentiated the three conditions. Specifically, participants in the internal psychological control condition reported significantly higher perceived psychological control compared to those in the external psychological control condition. Similarly, participants in the external control condition reported higher perceived psychological control than their autonomy-supportive counterparts. Regarding the perceived autonomy support items, the results resembled the findings among Turkish participants. Only participants in the autonomy-supportive condition rated the mother in the scenarios higher in autonomy support than participants in the other conditions. Notably, no significant differences in autonomy

evaluations were observed between participants in the internal and external psychological control conditions.

Participants' Assessment of Received Autonomy Support from Their Parents.

Results indicated that there are no significant differences between the participants in all three conditions in terms of the level of received autonomy support from their own parents. The analysis yielded a non-significant result for Turkish ($F(2, 360) = 0.36, p = 0.70$) and Pakistani participants ($F(2, 397) = 0.52, p = 0.60$). Post-hoc comparisons did not reveal any significant pair-wise differences between the three conditions and the effect size indicated an extremely small effect among both samples, respectively ($\eta^2 = 0.001$ and $\eta^2 = 0.01$).

Main Analyses

Perceived Legitimacy and Needs Satisfaction. Regarding the two proxies of the manipulated conditions, (namely perceived legitimacy and basic psychological needs satisfaction), a similar pattern emerged for both Turkish and Pakistani participants. As given in Table A1 and Table A2 (in the Appendix A), the participants in both groups reported higher legitimacy of parental authority and need satisfaction in the autonomy support condition compared to the participants in the internal and external psychological control conditions. These findings provided support to hypotheses Hypothesis 1a & 1b, consistent with previous studies (Van Petegem et al., 2017; Mageau et al., 2018). No differences were observed between the latter two conditions, either in perceived legitimacy or in needs satisfaction among both groups.

Behavioral Intentions. The results for mean comparisons across the three conditions for the Turkish and Pakistani sample are shown in Table A1 and Table A2 (in the Appendix A), respectively. No differences were found in compliance among the three conditions either among the Turkish or the Pakistani participants. In contrast, statistically significant differences emerged in defiance, with the Turkish participants reporting less defiance in the autonomy supportive condition, followed by those assigned to the internal psychological control condition, and finally by those in the external psychological control condition. For the Pakistani sample, lower defiance scores were observed among participants in the autonomy support condition compared to the external psychological control, with the internal psychological control being in between and not differ from the other two conditions. In terms of resentment, both the Turkish and Pakistani samples yielded a highly similar result. In both samples, participants in the autonomy support condition expressed significantly lower resentment scores than their counterparts in the other two conditions, which did not differ to each other. Unlike resentment, no differences in negotiation were found across the three conditions among the Turkish participants. However, Pakistani participants in the autonomy support condition reported more intentions to negotiate than their counterparts in the external psychological control condition, with the participants in the internal control condition lying in between and not differing from the two other groups.

Autonomous and Controlled Motivation. The Turkish participants in the autonomy support condition reported more autonomous motivation to study in the future than those who were assigned to the internal and external control condition (see Table A1 and Table A2 in the Appendix A). As for the Pakistani participants, those in the autonomy support

and the internal control condition reported significantly higher autonomous motivation compared to their counterparts in the external control condition. No differences in controlled motivation were observed across the three conditions in both samples.

Moderation Analyses

I examined whether participants' reactance and orientation toward independence versus interdependence moderated the effects of the manipulated conditions on the dependent variables. Focusing primarily on investigating whether participants in the two controlling conditions, compared to those in the autonomy support condition, perceived the situation or intended to behave differently, I set up a series of regression models where the autonomy support condition was used as the reference group. Afterward, I set up a second series of regression models, using the internal control condition as the baseline for comparison with the autonomy support and external control conditions. Please see Appendix B (reactance) and Appendix C (independence) for regression analyses.

Trait-like Reactance as Moderator

While participants' reactance appeared to moderate the effects of internal and external control condition on perceived psychological control for Turkish participants (see Table B1 and Table B2), it did not moderate any of effects in the study's conditions for Pakistani participants (see Table B3 and Table B4)

A test of simple slopes showed that the participants with low levels (i.e., 1 *SD* below the mean) of reactance tended to perceive even more psychologically controlling the situation in the internal ($B = 2.51, SE = 0.11, t = 23.87, p < .001$) and the external control condition ($B = 2.69, SE = 0.11, t = 24.06, p < .001$) than those with high levels (i.e., 1 *SD*

above the mean) of reactance ($B = 2.18$, $SE = 0.11$, $t = 20.23$, $p < .001$ for those in the internal control condition and $B = 2.31$, $SE = 0.11$, $t = 20.39$, $p < .001$ for those in the external control condition). This finding contradicts the initial hypothesis, suggesting that individuals with higher reactance might be more immune to stressful situations. Specifically, they appear to perceive less psychological control in such conditions, rather than more.

Independence as Moderator. The results from the moderation analysis of independence as a moderator, are shown in Table C1 and Table C2 (in the Appendix C) for Turkish participants. As can be noticed, independence did not systematically emerge as a predictor or a moderator of the situation perceptions or any of the other dependent variables. It did moderate however the effect of internal control on compliance and the effect of external control on compliance and autonomous and controlled motivation. A test of simple slopes revealed that intentions to comply were higher in the internal control condition among the participants who reported low (i.e., 1 *SD* below the mean) but not high (i.e., 1 *SD* above the mean) levels of independence (respectively, $B = 0.53$, $SE = 0.17$, $t = 3.18$, $p = .002$ and $B = -0.01$, $SE = 0.17$, $t = -0.07$, $p = .94$). The same was true for the participants assigned to the external control condition ($B = 0.41$, $SE = 0.16$, $t = 2.51$, $p = .012$ and $B = -0.26$, $SE = 0.17$, $t = -1.54$, $p = .12$ for those with low and high levels of individualistic values, respectively).

Regarding the moderating effect on autonomous motivation, the test of simple slopes revealed that among the participants assigned to the external control condition, those who scored low (i.e., 1 *SD* below the mean) in independence were less likely to report that they would be autonomously motivated, ($B = -0.68$, $SE = 0.17$, $t = -3.98$, $p < .001$),

compared to those with high independence ($B = -0.18$, $SE = 0.18$, $t = -1.02$, $p = .31$). As for the controlled motivation, the test of simple slopes indicated an opposite trend, though statistically nonsignificant among those who scored low and high in independence in the external control condition (respectively, $B = 0.15$, $SE = 0.15$, $t = 0.95$, $p = .34$ and $B = -0.30$, $SE = 0.16$, $t = -1.94$, $p = .054$).

The results of the moderation analysis, focusing on independence as a moderator, are presented in Table C3 and C4 (in the Appendix C) for Pakistani participants. Notably, independence did not consistently emerge as a predictor or moderator of situation perceptions or any other dependent variables. However, it did moderate the effect of external control on defiance. This suggests that Pakistani participants with independent self-construals exhibited higher defiance intentions in the external psychological control condition compared to those with lower independence orientations.

A test of simple slopes revealed that intentions to defy were higher in the external control condition among the participants who reported high levels (i.e., 1 SD above the mean) endorsing independence over interdependence ($B = 0.89$, $SE = 0.26$, $t = 3.39$, $p = .001$) but not low levels (i.e., 1 SD below the mean) independence orientations ($B = 0.34$, $SE = 0.24$, $t = 1.44$, $p = .15$).

Process Analysis

In a final step, a process model was tested where needs satisfaction acted as a mediator of the effects of the three conditions on the two motivational outcomes (autonomous and controlled motivation) and behavioral intentions of compliance, defiance, and resentment. Negotiation was not included because the main analyses showed no differences in negotiation across the three conditions and because preliminary correlational analyses

showed no relation between needs and that variable (see Table A3). In that model, gender differences, endorsement of individualistic values, and reactance were statistically controlled. I fixed all the statistically nonsignificant covariances between the dependent variables, addressing the problem of endogeneity in process models to ease model convergence (Antonakis et al., 2010).

The path model, depicted in Figure 1 (Appendix A), showed the following fit (for the Turkish sample: $S-B\chi^2[6, N = 355] = 19.57, p = .003, CFI = .990, SRMR = .030, RMSEA = .080$ [90%-CI: .045, .117]; for the Pakistani sample: $S-B\chi^2[6, N = 97] = 11.80, p = .067, CFI = .987, SRMR = .049, RMSEA = .100$ [90%-CI: .000, .179]). As can be seen, and in line with the ANOVA findings, internal and external psychological control conditions predicted less needs satisfaction which in turn predicted more autonomous motivation and less defiance and resentment in both samples. Also, needs satisfaction predicted less compliance among the Turkish participants and a similar trend was found for their Pakistani counterparts ($B = -0.14, SE = 0.08, p = .070$).

Reactance negatively predicted needs satisfaction in the Turkish sample; it also directly predicted more defiance in both the Turkish ($B = 0.19, SE = 0.05, p < .001, \beta = .18$) and the Pakistani samples ($B = 0.34, SE = 0.09, p < .001, \beta = .33$) and more resentment in the Pakistani sample only ($B = 0.21, SE = 0.10, p = .041, \beta = .12$) (not shown in Figure 1 for parsimony reasons). Regarding participants' independence orientations, though they did not predict needs satisfaction, they directly and negatively predicted compliance among the Turkish ($B = -0.27, SE = 0.06, p < .001, \beta = -.28$) and the Pakistani participants ($B = -0.20, SE = 0.09, p = .032, \beta = -.22$). Also, independence directly predicted more defiance among the Turkish participants ($B = 0.13, SE = 0.04, p = .004, \beta = .14$) and, quite

interestingly, more autonomous motivation among their Pakistani counterparts ($B = 0.16$, $SE = 0.08$, $p = .036$, $\beta = .20$) (again not shown in Figure 1 of Appendix A for sake of simplicity).

Further, some gender differences emerged (not presented in Figure 1, either), with both Turkish and Pakistani males reporting more defiance than females (respectively, $B = 0.17$, $SE = 0.08$, $p = .035$, $\beta = .09$ and $B = 0.59$, $SE = 0.13$, $p < .001$, $\beta = .36$). Also, compared to Turkish females, Turkish males reported less resentment ($B = -0.14$, $SE = 0.07$, $p = .035$, $\beta = -.09$).

Finally, a test of indirect effects with bootstrapping 10,000 replications showed an indirect relation of the two psychological control conditions to autonomous motivation, and a positive one to compliance, defiance, and resentment via needs satisfaction for the Turkish sample (see Table A3). As for the Pakistani sample, there was an indirect relation, via needs satisfaction, of the two psychological control conditions to defiance and resentment.

CHAPTER V

DISCUSSION

In this study, I focused on the adverse effects of psychologically controlling parenting practices on the psychology and behaviors of young adults. I placed particular emphasis on differentiating between internal and external control methods and explored the varying degrees to which they predict outcomes.

While the negative consequences of psychological control are well-established, a clear distinction between internal and external control methods was not drawn. Another contribution to the literature was to examine two distinct samples from collectivistic cultures. Understanding the impact of psychological control in these cultures is crucial, as the majority of existing studies have been conducted in Western cultural contexts. Given the emphasis on extensive social and family connections among people in collectivistic cultures, some scholars posit that autonomy-supportive practices may be less effective in these cultures than in Western ones.

Additionally, this study innovatively addresses the measurement of cultural tendencies. Recognizing that 80% of cultural variation can occur within a single society (Taras et al., 2016), in my thesis I refrained from assuming that all the Turkish and Pakistani participants

espouse interdependence; instead, I relied on each participant's independence and interdependence orientations, a method which enabled a nuanced exploration of within-person variations in evaluating parenting practices. A central goal of this inquiry into participants' cultural orientations entailed seeing whether there would be a trade-off between participants' autonomy and relatedness needs, depending on how much they emphasize independence or interdependence. While SDT (Ryan & Deci, 2000) treats these two needs as equally important in humans' lives across cultures, criticisms from relativistic accounts (e.g., Iyengar & DeVoe, 2003) toward this notion warrant a detailed investigation into the matter. Another noteworthy aspect of this research is its focus on young adults, specifically university students, in their young adulthood. This phase is crucial as individuals find a path through increased autonomy while maintaining dependence on their families. By concentrating on this age group, I aimed to capture the complexities of the transition to adulthood and its impact on the psychological and behavioral effects of parenting practices.

Discussion on Autonomy Support versus Psychological Control

Aligned with the theoretical principles of SDT (Ryan & Deci, 2000) and prior empirical evidence (Van Petegem et al., 2017; Vansteenkiste et al., 2023; Wang et al., 2007), the present findings underscore the significance of autonomy-supportive parenting practices over controlling ones. While the content of parental request, as framed through the three vignettes, was kept identical across conditions, those formulated in a controlling manner yielded less favorable outcomes.

Needs Satisfaction and Legitimacy

Participants from both samples perceived higher parental legitimacy when requests were framed in an autonomy-supportive fashion, highlighting the positive impact of such parenting. Conversely, psychologically controlling parenting adversely influenced young adults' perceptions of parental legitimacy. These findings align well with prior research

(Mellado et al., 2018) and suggest potential adverse outcomes that are linked to low perceived parental legitimacy.

Consistent with empirical evidence emphasizing the crucial role of autonomy-supportive practices in fulfilling the needs of children (Sznitman et al., 2019; Zong et al., 2019), the participants in the two controlling conditions reported a sense of needs frustration. This resonates with the broader understanding that needs-thwarting practices have adverse consequences across different age groups, as indicated in previous studies, including emerging adults (Luyckx et al., 2017). Such research establishes that even emerging adults may perceive limited space to express their authentic selves and feel compelled to align their identity with parent-prescribed goals.

While it is commonly perceived that most young adults are on the brink of independence, the reality of today's extended timelines for leaving home, completing education, entering the workforce, and getting married challenges this notion as more and more young people delay home-leaving to start their own lives (British Council Turkey, 2017). Recent sociological studies underscore the potential risks associated with this prolonged transition to independent adulthood, highlighting the strain it places on families and young adults (Settersen & Ray, 2010). The extended financial support that families provide may have adverse effects on families and young adults, especially when the parents lack the means to support their children or have limited resources to do so and, therefore, feel the need to prescribe goals and monitor children in a controlling fashion.

The current study was a representative example of such situations, where failure due to low grades delays a young adult's graduation and elicits parental reaction. Thus, even in cases where a family goal has been set (i.e., graduation on time) but not attained, the tone of the communication needs to be autonomy supportive. When parental concerns coincide with

psychologically controlling language, young adults appeared remarkably more vulnerable, as the group mean comparisons in psychological and behavioral intentions revealed. An implication for future studies is to investigate what happens when there is a mismatch between the goals parents prescribe and the goals children endorse.

Behavioral Intentions

Participants in the psychologically controlling conditions expressed higher defiance intentions and increased resentment toward the parental request. This emphasizes that, concerning children's intentions toward parents, the crucial factor lies in what parents ask, how the requests are framed and the sensitivity children perceive in their interactions with parents. Given that the present findings derived from Turkish and Pakistani participants are in line with similar studies with Western samples (Van Petegem et al., 2017; Vansteenkiste et al., 2014), one could argue that how parents express their concerns incite similar responses regardless of the cultural background.

An unexpected finding regarding both Turkish and Pakistani participants' compliance tendencies was that intentions did not vary between the autonomy support condition and the two controlling conditions across the three conditions. Turkish participants' compliance intentions were on the lower end of the spectrum whereas Pakistani participants' compliance intentions appeared to be at medium levels. Participants' compliance tendencies being constant across three conditions might be considered in the context of their culture since both cultures emphasize compliance rather than rebelliousness. For example, in Turkish culture, previous studies indicated that children were more frequently ignored than praised after compliance, and they were more criticized than ignored after noncompliance (Sen et al., 2014). This finding implies that compliance is perceived as an obligation rather than an option. Parents do not expend effort to praise children's compliance and instead criticize lack

of compliant behavior. Compliance has also been suggested as a key value among Turkish families in the interdependent family model (Kağıtçıbaşı, 2017). Likewise, Pakistani parenting has also been shown to prioritize obedience and compliance, where lack of such behavior is bound to receive criticism, but children's compliance is not perceived as something that needs to be praised (Paiva, 2008). Nonetheless, low to medium level of compliance exhibited by participants rather than high compliance intentions may be indicative of decreases in children's compliance as age in the academic contexts suggested by the current study's findings.

While Turkish young adults exhibited similarly high negotiation tendencies across the three conditions, Pakistani participants exhibited more significant negotiation tendencies in the autonomy support condition compared to the external control condition; however, their inclinations to negotiate did not differ between the autonomy support and internal control condition which may be caused by two potential reasons. Initially this lack of differentiation between the two conditions might be attributed to the study's low sample size in the Pakistani group. A higher sample size could have granted higher statistical power to detect negotiation differences between the autonomy support condition and the internal control condition. Another potential explanation might be more related to the nature of the parental internal control scenario utilized in this study. Since the current study's scenario entailed guilt induction, it might have led Pakistani young adults perceive negotiation as less appropriate due to the guilt they experienced.

Motivation

Consistent with initial expectations, Turkish and Pakistani participants reported significantly higher autonomous motivation in the autonomy support condition. According to SDT, individuals regulate their behavior based on autonomous and controlled reasons, with

autonomous motivation linked to positive outcomes such as improved learning performance (Vansteenkiste et al., 2005). However, contrary to prior research, Pakistani participants also exhibited increased autonomous motivation in the internal control condition, which may be related to the low sample size. Also, one possible explanation might be related to the prevalent use of guilt and shame induction in the Pakistani parenting (Shahnawaz & Malik, 2016; Zaman, 2014) as some studies indicate that Pakistani mothers demonstrate their disappointment through their facial expressions and warn their children using guilt-induction and withdrawn affection (Paiva, 2008). Nonetheless, this does not negate the observed negative impact of psychologically controlling parenting, as the current findings evidence adverse psychological and behavioral outcomes associated with such control.

Furthermore, Turkish and Pakistani participants unexpectedly reported similarly high levels of controlled motivation across the three conditions. The unexpected similarity in reported levels of controlled motivation among Turkish and Pakistani participants may be attributed to the intricate interplay of cultural expectations and psychological dynamics within these societies. The manifestation of controlled motivation in these individuals could be intricately linked to the cultural importance of guilt as a motivating factor, especially after one could not satisfy the expectations of close ones. Guilt is associated with adaptive behaviors and motivation under particular circumstances, such as prejudice reduction (e.g., Amodio et al., 2007). In the current study, guilt, as reflected in highly controlled motivation exhibited by all participants regardless of the conditions, may have been adopted to uphold familial harmony and fulfill roles and expectations from parents, which was to pass the course and graduate in the current study. Notably, the support of parents, a common theme in collectivist societies, may become a potent source of motivation through guilt, with individuals feeling a responsibility to reciprocate their parents' support.

Discussion on Internal versus External Control

Perceived Psychological Control

The manipulation check items employed in this study revealed an unexpected divergence in responses between Turkish and Pakistani participants. Surprisingly, Turkish participants perceived the internal control condition as being equally controlling as the external control condition, whereas Pakistani participants perceived the internal control condition as being more controlling than the external control condition. A parallel study by Chen et al. (2016) demonstrated a similar divergence in perceptions among Belgian and Chinese adolescents. In that study, Belgian adolescents exhibited uniform perceptions of control across two conditions, while Chinese adolescents considered external control more controlling than internal control. Both studies underscore the influence of participants' cultural backgrounds on the perceived level of guilt. However, the directional disparities observed in Chinese and Pakistani participants point opposite directions. Despite employing comparable measures and vignettes, the current study's conflicting evidence with Chen et al. (2016) prompts consideration for explanations.

One possible explanation pertains to the age group targeted in these studies. The previous study's sample consisted of middle adolescents whereas the current study's sample was young adults. This age difference may suggest that younger adolescents place less emphasis on guilt, focusing more on the repercussions of external control, such as parental intrusive monitoring. Conversely, young adults may perceive threats of stricter parental monitoring as less significant, as exerting control over an adult poses more challenges for parents. An additional consideration related to age involves the evolution of children's moral orientations as they mature. Younger children may find it more acceptable to disregard parental guilt induction, while adult children may be more susceptible to such emotional appeals (Eisenberg et al., 2005).

Cultural differences could be another explanation for the observed disparity between Chinese and Pakistani children. This view suggests that the outcomes of being unresponsive to subtle controlling strategies such as parental guilt induction might be more stigmatized or deemed less acceptable in one culture compared to the other.

According to this line of reasoning, the indifference of Pakistani children to parental guilt induction might result in more significant repercussions compared to their Chinese counterparts. However, it is crucial to note that this inference requires more empirical evidence since the current study and the Chen et al. (2016) could not directly address it. This notion raises intriguing possibilities for future studies to explore the extent of potential consequences tied to people's sensitivity to subtle cues in communication.

Coping intentions under controlling parenting practices

Turkish and Pakistani participants surprisingly did not demonstrate heightened compliance tendencies in the internal psychological control condition compared to the external condition, thereby contradicting the initial hypotheses. This finding may be linked to the collective nature of their respective cultures, where compliance is perceived as a positive trait from early ages throughout adulthood and across diverse domains such as family, school, work, and beyond. Moreover, as mentioned earlier, their compliance intentions remaining consistent at the same levels even under the autonomy support condition enhances this explanation.

In line with the initial expectations, Turkish children demonstrated greater defiance in the external control condition compared to the internal control condition. This anticipation was rooted in the overt nature of external control, as it was thought that such explicit practices might elicit more overt reactions. However, this pattern did not hold for Pakistani participants who exhibited greater defiance intentions under external control than in autonomy support condition while their defiance intentions in the internal control condition did not differ from

the remaining two conditions. A qualitative study involving Pakistani parents, particularly those with good relationships with their children as well as those experiencing relational challenges, compared the types of complaints voiced by these two groups. Although some differences emerged, a common concern shared by both parents was their children's disobedience (Batoool et al., 2021). Additionally, research extensively suggests that Pakistani parents, in contrast to their counterparts in Western cultures, tend to discourage children's assertiveness instead of preferring obedience (Shujja & Malik, 2011).

Motivation

In line with the initial expectations, both Turkish and Pakistani parents did not differ in their controlled motivation and resentment across the two controlling conditions. Contrary to the initial expectations, autonomous motivation among Turkish participants did not exhibit variation between the internal and external control conditions. Surprisingly, Pakistani participants displayed higher levels of autonomous motivation in the internal psychological control condition than in the external control condition, indicating comparable levels of autonomous motivation in both the autonomy support and internal control conditions. While a smaller sample size for Pakistani participants could account for this finding, their successful differentiation among the three conditions, as indicated by accurate responses to manipulation check items, diminishes the likelihood of this explanation.

The inclination observed in Pakistani participants may be rooted in cultural nuances. South Asian parents, including those from Pakistan, are known to exercise caution in using verbal praises. When asked about their use of praises, they expressed concerns about their children developing psychological attributes that are culturally perceived as dysfunctional. When providing feedback on their children's behavior, these parents tend to shift emphasis from their children's abilities to highlighting the impact of their actions on others within the social

hierarchy (Paiva, 2008). In the context of the study's internal psychological vignette, where the mother reminded the children of the family's sacrifices to induce guilt, the Pakistani participants may have felt the repercussions of their actions on the family, which in turn might have given them a fostered sense of autonomy to address the situation.

The Role of Personal Factors

Discussion on Trait Reactance as a Moderator

Trait reactance did not emerge as a significant moderator for Turkish and Pakistani participants. Among Pakistani participants, trait reactance did not moderate any dependent variables across conditions, revealing a consistent pattern. However, for Turkish participants, a single significant interaction was observed. Among Turkish participants, compared to those who scored low in reactance, the participants who scored high perceived the two controlling conditions as less psychologically controlling and the autonomy support conditions more controlling.

One potential explanation for the unique pattern observed among Turkish young adults lies in the prevalence of parent-child conflicts in the Turkish setting. Research indicates that conflicts between parents and their adolescent children are highly prevalent, with 91% of parents reporting such conflicts (Başoğlu & Zengin, 2023). A broader review of parenting practices in Mediterranean countries involving Italy, Spain, Egypt and Türkiye, highlights similarities regarding attitudes toward child-rearing practices and variations in attitudes (Palut, 2010). In a different study Italian children were previously shown to have stronger emotional bonds with parents while reporting significantly more conflicts than their Canadian counterparts (Claes et al., 2003). Likewise, Turkish families are also characterized by enmeshed relationships (Kağıtçıbaşı, 2013), a characteristic that, paradoxically, can contribute to heightened conflicts, often fueled by the intensity of emotional moments.

Moreover, a study conducted with Turkish late adolescents and university-age adults identified numerous areas where conflicts commonly occur between children and their parents. Examples included disputes about cleaning bedrooms, getting along well with siblings, responsibilities, school grades, bedtime, and household chores (Özmete & Bayolu, 2009). Therefore, given the reported frequency of parent-child conflicts and the extent of it across different domains, children with higher reactance scores might be more immune to such moments of psychological pressure given in the two controlling conditions of the current study as reflected in their perception.

Nevertheless, given that there were no systematic interactions between reactance and the three conditions in any of the other outcomes, this finding might capitalize on chance. Indeed, contrary to the initial expectations, Turkish and Pakistani participants' reactance scores did not moderate their perceived autonomy support, perceived parental legitimacy, needs satisfaction and autonomous and controlled motivation. Likewise, Turkish and Pakistani participants' reactance scores did not moderate their resentment, negotiation, and compliance intentions across the three conditions, implying a lack of evidence for the respective hypotheses.

Discussion on the Independence versus Interdependence as Moderators

Participants' independence self-construal did not emerge as a consistent moderator for most of the variables, though it did so for certain variables. For Turkish Participants, independence did not significantly moderate perceived parental legitimacy, needs satisfaction, defiance intentions, resentment levels, and negotiation tendencies. Higher independence or interdependence tendencies did not predict any of these variables.

However, Turkish participants with higher independence reported greater compliance intentions in the autonomy support condition, whereas they expressed significantly reduced

compliance under both psychologically controlling conditions, possibly reflecting the characteristics of Mediterranean cultures.

While the same interaction did not occur for Pakistani participants (perhaps due to relatively small sample size), the observed phenomenon aligns with the unique characteristics of recent Mediterranean culture (Uskul et al., 2023). To some scholars, individuals from Mediterranean cultures such as Italy, Greece, Lebanon, and Türkiye exhibit simultaneous independence and interdependence. They derive happiness from socially disengaging emotions, view themselves as self-directed and self-reliant, and score highly on certain forms of interdependence, feeling substantially more connected to others than individuals from East-Asian and Anglo-Saxon countries (Uskul et al., 2023). In this cultural context, the higher compliance intentions expressed among Turkish participants with greater independence inclinations placed in the autonomy support condition may be interpreted as individuals exerting their autonomy within a framework that values volition and interconnectedness simultaneously. The moderating effect of independence in this condition could be seen as a nuanced endorsement of autonomy through compliance intentions within the broader context of Mediterranean cultural norms.

Contrary to initial expectations, Turkish participants with greater independence self-construals reported more autonomous motivation and reduced controlled motivation under external control than the participants with lower independence self-construals assigned to the same condition. This finding suggests that young adults who favor independence tend to take personal responsibility for failures when they are put under overt psychological control, by acting in a more adapted way (as reflected through autonomous motivation and decreased controlled motivation).

However, the heightened autonomous motivation under external control, seen in participants with greater independence scores, should not be viewed as entirely positive for several reasons. Firstly, Turkish participants experienced significant needs frustration scores in internal and external conditions, as Self-Determination Theory (SDT) predicted. Secondly, participants perceived lower legitimacy in controlling conditions, particularly with the lowest parental legitimacy scores observed in the external control condition. Consequently, they reported the highest defiance intentions, regardless of independence scores, under external psychological control, followed by internal control and autonomy support conditions, with all three conditions significantly differentiated.

It might be argued that Turkish young adults harbor a particular distaste for external control practices and consider it appropriate to defy such control. Therefore, the lower controlled motivation and increased autonomous motivation observed among those with higher independence scores may be rooted in their belief in their ability to disengage from a situation without legitimizing parental authority. They may be more willing to impose structure on themselves and strive harder in future endeavors. Given that this interaction was only significant for the external control condition, not the internal control condition, it could be argued that, from a motivational perspective for children in countries like Türkiye, methods involving shame and guilt induction might be more detrimental to their sense of competence and ability to address problems. This might also be a valuable direction for future studies that might shed light on the long-term implications of guilt on motivation, academic achievement, and satisfaction.

For Pakistani participants, independence only played a moderating role concerning the defiance variable in the external as compared to the internal control condition. Specifically, Pakistani with higher independence expressed increased intentions of defiance than those

with lower independence in the external control condition (as compared to their counterparts being assigned in the internal condition). In contrast, such moderation did not occur among Turkish participants, who exhibited the highest defiance intentions under external control, followed by internal control, with all three conditions separated as a main effect. Consequently, external parental control seemed to trigger more overt defiance reactions, aligning with the initial expectations.

Although there were variations in the clarity of defiance intentions between Turkish and Pakistani participants, external control practices might not be age-appropriate for adult children as it elicited higher defiance intentions from both samples. Among Pakistani participants, a greater expression of defiance was predicted by higher independence when external (but not internal) psychological control was induced, possibly influenced by parenting practices emphasizing children's obedience. Conversely, in Turkish culture, conflicts within the family, including those with siblings and parents, might be perceived as less detrimental therefore they could express significantly higher defiance intentions in both external and internal control compared to autonomy support condition regardless of their independence orientations.

Limitations

Several constraints should be emphasized when interpreting the current findings and considering future studies. Initially, the present study relied on participants' self-reports as the exclusive data source, which may introduce potential bias in observed relationships.

However, given the study's emphasis on young adults' perception of parental behavior and coping intentions, self-reports were considered highly relevant. Nevertheless, future studies might consider collecting additional information on young adults' relations with their parents such as whether they live with parents, the frequency and type of disputes with parents to detect factors that may lead to biased attitudes towards parents. Secondly, disparities in

recruitment procedures for the two cultural samples may introduce culturally irrelevant variance. The current study's age average for Pakistani participants was slightly higher than the age average of Turkish participants due to struggles with finding and recruiting Pakistani participants living in Ankara, Türkiye. Thirdly, the study's scenarios concentrated solely on parental involvement in academic performance, which may have restricted the scope of the findings. For example, young adults might have perceived parental control in the academic domain as obsolete or irrelevant since we collected responses from students who are enrolled to a university. Such attitude might have downplayed the role of parental control attempts in young adults' perception as it is in their discretion to disregard parental control attempts.

Therefore, future studies may consider investigate the effect of parental control attempts using different domains such as financial issues, moral matters, family responsibilities, and friendships. Lastly, the sample size for Pakistani participants was smaller which may have necessitated a caution for the interpretation of the results. It is important to note that the study's manipulation check measures worked better for Pakistani participants such that Pakistani participants could successfully differentiated three conditions in the current study's between subject design whereas Turkish participants' psychological control evaluations for the internal and external control condition did not significantly differ from each other. While clear differentiation of condition map be plausibly perceived as an assurance, a lack of differences between internal control and autonomy support conditions in a few dependent variables (i.e., autonomous motivation, negotiation) should be treated with caution. Since the investigation of the effects of internal control condition remains to be pivotal to this study, relatively lower and uneven participation in the internal control condition should be acknowledged. Therefore, future studies may consider ensuring an equivalence between sample sizes to replicate the present study's findings with an increased sample size.

Conclusion

Overall, the consistent link between psychological control and reduced needs satisfaction across both cultures underscored the universal impact of controlling parenting practices on young adults' psychological well-being. The finding that needs satisfaction is associated with greater autonomous motivation and diminished defiance, and resentment aligns with psychological theories emphasizing the importance of fulfilling basic psychological needs for optimal development. Also, current findings indicated that cultural and personal differences may be valuable for understanding individuals' varying behavioral responses to controlling practices despite the psychological consequences of controlling practices were shared between the participants from both samples.

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APPENDICES



APPENDIX A. Mean Comparisons, Mediation, Path Model Analyses

Table A1. Mean Comparisons of the Studied Variables Across the Three Conditions (Turkish Sample)

Variables	Conditions						<i>F</i> test	η^2
	Autonomy support		Internal psych control		External psych control			
	<i>(n</i> = 133)		<i>(n</i> = 119)		<i>(n</i> = 113)			
	65.3% Female		66.7% Female		58.9% Female			
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)		
<i>Manipulation check</i>								
Perceived Autonomy Support	4.42 _a	(0.63)	1.71 _b	(0.73)	1.81 _b	(0.77)	593.77**	.77
Perceived Psychological Control	1.74 _a	(0.62)	4.11 _b	(0.65)	4.26 _b	(0.52)	689.49**	.79
<i>Psychological Outcomes</i>								
Legitimacy	4.04 _a	(0.86)	3.03 _b	(1.06)	2.94 _b	(1.05)	48.32**	.21
Needs satisfaction	4.21 _a	(0.64)	1.69 _b	(0.68)	1.68 _b	(0.71)	585.88**	.77
<i>Behavioral Intentions</i>								
Compliance	2.07 _a	(0.83)	2.32 _a	(0.93)	2.16 _a	(1.07)	2.36	.01
Defiance	1.50 _a	(0.57)	2.03 _b	(0.86)	2.40 _c	(0.94)	38.72**	.18
Resentment	1.22 _a	(0.44)	3.80 _b	(1.03)	3.84 _b	(1.01)	386.98**	.68
Negotiation	4.14 _a	(0.84)	4.09 _a	(0.90)	4.26 _a	(0.90)	1.18	.01
<i>Motivational outcomes</i>								
Autonomous motivation	3.50 _a	(0.84)	3.04 _b	(0.99)	3.07 _b	(1.05)	9.10**	.05
Controlled motivation	3.19 _a	(0.72)	3.03 _a	(0.92)	3.11 _a	(0.96)	1.06	.01

Note. * $p < .05$. ** $p < .01$. Subscripts within the same row that do not share the same notation are different according to the Tukey post-hoc test (set at $\alpha = .05$, two-tailed)

APPENDIX A

Table A2. Means Comparisons of the Studied Variables Across the Three Conditions (Pakistani Sample)

Variables	Conditions						<i>F</i> test	η ²
	Autonomy support (<i>n</i> = 44) 34% Female		Internal -control (<i>n</i> = 26) 54% Female		External control (<i>n</i> = 30) 30% Female			
	<i>M</i>	(<i>SE</i>)	<i>M</i>	(<i>SE</i>)	<i>M</i>	(<i>SE</i>)		
<i>Motivational outcomes</i>								
Needs satisfaction	4.39 _a	(0.11)	1.82 _b	(0.14)	2.15 _b	(0.13)	133.9***	.74
Perceived Autonomy Support	4.31 _a	(0.10)	1.61 _b	(0.13)	1.82 _b	(0.12)	178.9**	.79
Perceived Psychological Control	1.70 _a	(0.10)	4.19 _b	(0.13)	3.63 _c	(0.12)	132.9**	.74
Autonomous motivation	4.05 _a	(0.12)	3.87 _a	(0.15)	3.32 _b	(0.14)	7.685**	.14
Controlled motivation	3.44 _a	(0.11)	3.38 _a	(0.14)	3.30 _a	(0.13)	0.317	.01
Resentment	1.53 _a	(0.14)	3.28 _b	(0.19)	3.40 _b	(0.17)	46.17**	.49
<i>Behavioral Outcomes</i>								
1. Compliance	2.66 _a	(0.14)	3.06 _a	(0.18)	2.98 _a	(0.17)	1.863	.04
2. Defiance	1.52 _a	(0.12)	1.81 _{ab}	(0.16)	2.09 _b	(0.15)	4.453*	.08
3. Negotiation	4.08 _a	(0.16)	3.62 _{ab}	(0.20)	3.42 _b	(0.19)	3.968*	.08
4.Legitimacy	4.29 _a	(0.15)	3.50 _b	(0.19)	3.17 _b	(0.18)	12.41***	.21

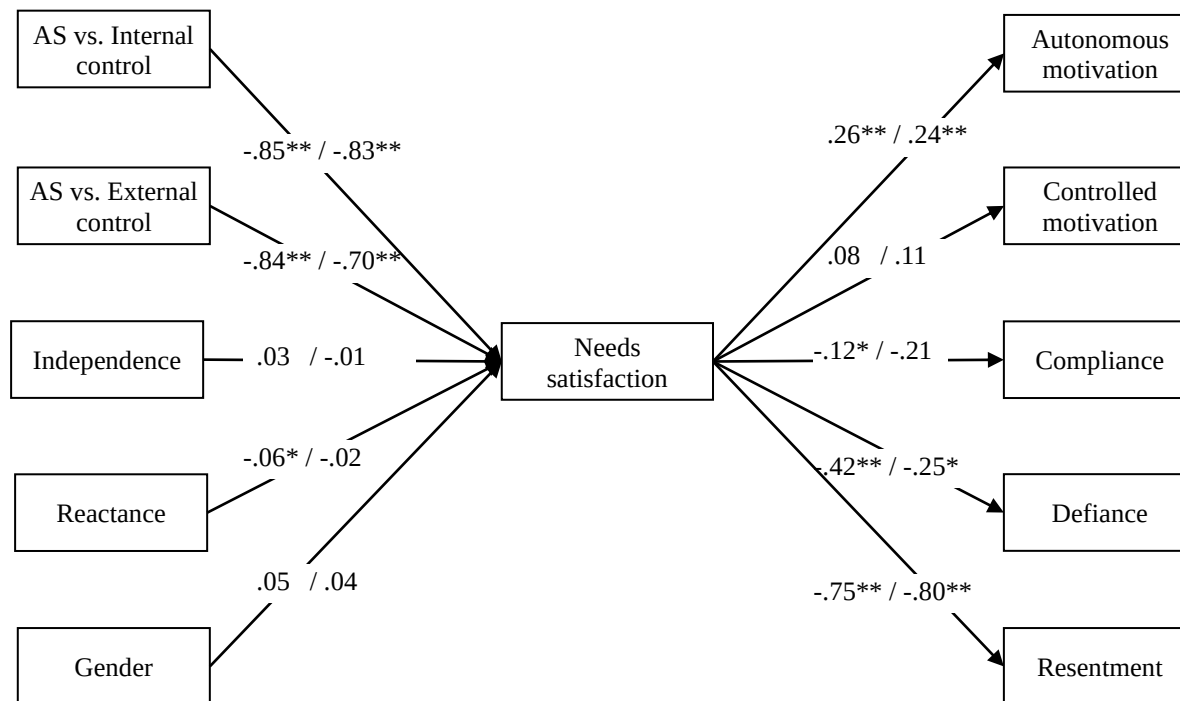
Note. * $p < .05$. ** $p < .01$. Subscripts within the same row that do not share the same notation are different according to the Tukey post-hoc test (set at $\alpha = .05$, two-tailed)

Table A3. *Mediation*

Predictor			Mediator			Dependent variable	Turkish Sample		Pakistani Sample	
							Lower	Upper	Lower	Upper
							95%	95%	95%	95%
Internal psych control	→		Needs satisfaction	→		Autonomous motivation	-0.663	-0.255	-0.762	0.008
//	→		//	→		Compliance	0.055	0.448	-0.034	0.851
//	→		//	→		Defiance	0.513	0.805	0.062	0.696
//	→		//	→		Resentment	2.443	2.783	1.591	2.407
External psych control	→		//	→		Autonomous motivation	-0.660	-0.254	-0.658	0.007
//	→		//	→		Compliance	0.055	0.447	-0.024	0.667
//	→		//	→		Defiance	0.504	0.809	0.046	0.581
//	→		//	→		Resentment	2.430	2.786	1.076	2.048

APPENDIX A

Figure 1. A process model with needs satisfaction acting as a mediator of the effects of the three conditions on the dependent variables of the study with the Turkish and the Pakistani samples (respectively, first and second coefficients).



Note. * $p < .05$. ** $p < .01$. All paths are standardized. The paths from gender, individualistic values, and reactance to the dependent variables are not shown for sake of parsimony

APPENDIX B. Regressions for Reactance with Two-way Interactions

Table B1. *Regression Coefficients for Reactance and its two-way Interactions with Internal and External Control for Turkish Participants*

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS) ¹	4.40	(0.06)		1.77	(0.05)		4.04	(0.09)		4.20	(0.06)		2.08	(0.08)	
AS vs. Internal Control (IC)	-2.69**	(0.09)	-.87	2.34**	(0.08)	.83	-0.99**	(0.12)	-.43	-2.51**	(0.09)	-.85	0.24*	(0.12)	.12
AS vs. External Control (EC)	-2.60**	(0.09)	-.83	2.50**	(0.08)	.88	-1.11**	(0.13)	-.47	-2.53**	(0.09)	-.84	0.09	(0.12)	.04
Reactance	-0.10	(0.07)	-.06	0.23**	(0.06)	.15	-0.20*	(0.10)	-.16	-0.07	(0.07)	-.04	0.04	(0.10)	.03
Gender	-0.02	(0.08)	-.01	-0.12	(0.07)	-.04	0.16	(0.11)	.07	0.14	(0.07)	.05	0.09	(0.10)	.05
<i>Two-way Interactions</i>															
Reactance X IC	0.00	(0.10)	.00	-0.20*	(0.09)	-.08	-0.03	(0.14)	-.01	-0.05	(0.10)	-.02	-0.13	(0.14)	-.07
Reactance X EC	0.12	(0.11)	.04	-0.22*	(0.10)	-.07	0.14	(0.15)	.06	0.02	(0.11)	.01	-0.21	(0.15)	-.10
F statistic:	F (6, 349) = 197**			F (6, 349) = 234**			F (6, 348) = 19.5**			F (6, 349) = 196**			F (6, 348) = 1.37		
Adjusted R ²	.77			.80			.24			.77			.01		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS)	1.52	(0.07)		1.22	(0.07)		4.12	(0.08)		3.51	(0.09)		3.20	(0.08)	
AS vs. Internal Control (IC)	0.51**	(0.10)	.27	2.57**	(0.11)	.80	0.00	(0.11)	.00	-0.47**	(0.12)	-.23	-0.17	(0.11)	-.09
AS vs. External Control (EC)	0.86**	(0.10)	.45	2.63**	(0.11)	.80	0.16	(0.11)	.09	-0.46**	(0.13)	-.22	-0.09	(0.11)	-.05
Reactance	0.21*	(0.08)	.20	0.07	(0.09)	.04	-0.19*	(0.09)	-.18	0.13	(0.10)	.11	0.06	(0.09)	.05
Gender	0.15	(0.09)	.08	-0.30**	(0.09)	-.10	-0.22*	(0.09)	-.12	0.04	(0.11)	.02	-0.20*	(0.10)	-.11
<i>Two-way Interactions</i>															
Reactance X IC	-0.03	(0.11)	-.02	0.04	(0.12)	.01	-0.07	(0.12)	-.04	-0.01	(0.14)	-.00	-0.04	(0.13)	-.02
Reactance X EC	0.24	(0.12)	.12	0.23	(0.13)	.07	-0.02	(0.14)	.01	0.05	(0.15)	.02	-0.12	(0.14)	-.05
F statistic:	F (6, 348) = 20.6**			F (6, 349) = 139**			F (6, 348) = 3.96**			F (6, 349) = 3.83**			F (6, 349) = 1.29		
Adjusted R ²	.25			.70			.05			.05			.01		

Note. * $p < .05$. ** $p < .01$

¹Autonomy support as a reference group

APPENDIX B

Table B2. *Regression Coefficients for Reactance and its two-way Interactions with Autonomy Support and External Control for Turkish Participants*

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC) ¹	1.71	(0.07)		4.11	(0.06)		3.04	(0.09)		1.69	(0.06)		2.32	(0.09)	
IC vs. Aut. Support (AS)	2.69**	(0.09)	.89	-2.34**	(0.08)	-.86	0.99**	(0.12)	.44	2.51**	(0.09)	.87	-0.24*	(0.12)	-.13
IC vs. External Control (EC)	0.08	(0.09)	.03	0.16*	(0.08)	.06	-0.12	(0.13)	-.05	-0.01	(0.09)	-.00	-0.16	(0.12)	-.08
Reactance	-0.10	(0.07)	-.06	0.04	(0.06)	.02	-0.23*	(0.10)	-.18	-0.12	(0.07)	-.07	-0.09	(0.10)	-.08
Gender	-0.02	(0.08)	-.01	-0.12	(0.07)	-.04	0.16	(0.11)	.07	0.14	(0.07)	.05	0.09	(0.10)	.05
<i>Two-way Interactions</i>															
Reactance X AS	-0.00	(0.10)	-.00	0.20*	(0.09)	.08	0.03	(0.14)	.01	0.05	(0.10)	.02	0.13	(0.14)	.07
Reactance X EC	0.12	(0.11)	.04	-0.03	(0.10)	-.01	0.17	(0.15)	.07	0.07	(0.11)	.02	-0.09	(0.15)	-.04
F statistic:	F (6, 349) = 197**			F (6, 349) = 234**			F (6, 348) = 19.5**			F (6, 349) = 196**			F (6, 348) = 1.37		
Adjusted R ²	.77			.80			.24			.77			.01		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC)	2.02	(0.07)		3.79	(0.08)		4.12	(0.08)		3.04	(0.09)		3.03	(0.08)	
IC vs. Aut. Support (AS)	-0.50**	(0.10)	-.28	-2.57**	(0.11)	-.82	-0.00	(0.11)	-.00	0.47**	(0.12)	.23	0.17	(0.11)	.10
IC vs. External Control (EC)	0.35**	(0.10)	.19	0.06	(0.11)	.02	0.15	(0.12)	.08	0.01	(0.13)	.01	0.08	(0.12)	.04
Reactance	0.18*	(0.08)	.17	0.11	(0.09)	.06	-0.25**	(0.09)	-.25	0.12	(0.10)	.10	0.01	(0.09)	.01
Gender	0.15	(0.08)	.08	-0.30**	(0.09)	-.10	-0.22*	(0.09)	-.12	0.04	(0.11)	.02	-0.20	(0.10)	-.11
<i>Two-way Interactions</i>															
Reactance X AS	0.03	(0.11)	.02	0.04	(0.12)	.01	0.07	(0.12)	-.04	0.01	(0.14)	.00	0.04	(0.13)	.03
Reactance X EC	0.27*	(0.12)	.14	0.19	(0.13)	.06	0.05	(0.14)	.03	0.06	(0.15)	.02	-0.07	(0.14)	-.04
F statistic:	F (6, 348) = 20.6**			F (6, 349) = 139**			F (6, 348) = 3.96			F (6, 349) = 3.83**			F (6, 349) = 1.29		
Adjusted R ²	.25			.70			.05			.05			.00		

Note. * $p < .05$. ** $p < .01$

¹Internal control as a reference group

APPENDIX B

Table B3. *Regression Coefficients for Reactance and its two-way Interactions with Internal and External Control Conditions for Pakistani Participants*

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS) ¹	4.31	(0.10)		1.70	(0.09)		4.28	(0.15)		4.38	(0.11)		2.66	(0.14)	
AS vs. Internal Control (IC)	-2.76**	(0.18)	-.82	2.53**	(0.17)	.85	-0.86**	(0.25)	-.34	-2.55**	(0.19)	-.80	0.40	(0.24)	.19
AS vs. External Control (EC)	-2.50**	(0.16)	-.80	1.87**	(0.16)	.67	-1.04**	(0.24)	-.44	-2.23**	(0.17)	-.74	0.33	(0.22)	.16
Reactance	0.08	(0.12)	.04	0.24*	(0.12)	.15	-0.16	(0.17)	-.11	-0.07	(0.12)	-.04	-0.14	(0.17)	-.11
Gender	-0.05	(0.15)	-.02	0.15	(0.14)	.05	-0.17	(0.21)	-.08	0.11	(0.16)	.04	-0.22	(0.20)	-.11
<i>Two-way Interactions</i>															
Reactance X IC	-0.27	(0.27)	-.05	-0.20	(0.26)	-.04	0.23	(0.39)	.06	0.33	(0.29)	.07	0.01	(0.37)	.01
Reactance X EC	0.00	(0.22)	.00	0.16	(0.21)	.05	-0.41	(0.31)	-.15	-0.00	(0.23)	-.00	0.14	(0.29)	.06
F statistic:	F (6, 90) = 58.21**			F (6, 90) = 49.00**			F (6, 91) = 5.48**			F (6, 90) = 44.93**			F (6, 91) = 1.01		
Adjusted R ²	.78			.75			.22			.73			.00		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS)	1.51	(0.11)		1.53	(0.14)		4.08	(0.16)		4.04	(0.12)		3.44	(0.11)	
AS vs. Internal Control (IC)	0.30	(0.18)	.17	1.75**	(0.24)	.59	-0.47	(0.27)	-.19	-0.18	(0.20)	-.09	-0.16	(0.18)	-.10
AS vs. External Control (EC)	0.50*	(0.17)	.30	1.81**	(0.22)	.65	-0.59*	(0.25)	-.26	-0.76**	(0.19)	-.42	-0.11	(0.17)	-.07
Reactance	0.18	(0.13)	.17	0.19	(0.17)	.11	-0.01	(0.18)	-.01	-0.02	(0.14)	-.02	-0.07	(0.13)	-.07
Gender	0.51**	(0.15)	.31	-0.20	(0.20)	-.01	0.13	(0.22)	.06	0.27	(0.17)	.15	-0.30	(0.15)	-.20
<i>Two-way Interactions</i>															
Reactance X IC	0.19	(0.28)	.07	-0.10	(0.37)	-.02	-0.15	(0.41)	-.04	0.10	(0.31)	.04	-0.09	(0.29)	-.04
Reactance X EC	0.19	(0.22)	.10	0.23	(0.30)	.07	-0.53	(0.33)	-.19	0.24	(0.25)	.11	-0.00	(0.23)	-.00
F statistic:	F (6, 91) = 5.07**			F (6,90) = 15.83**			F (6, 91) = 2.06			F (6, 92) = 3.18*			F (6, 92) = 0.88		
Adjusted R ²	.20			.48			.06			.12			-.01		

Note. * $p < .05$. ** $p < .01$

¹Autonomy support as a reference group

APPENDIX B

Table B4. *Regression Coefficients for Reactance and its two-way Interactions with Autonomy Support and External Control for Pakistani Participants*

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC) ¹	1.55	(0.14)		4.24	(0.14)		3.43	(0.20)		1.83	(0.15)		3.06	(0.19)	
IC vs. Aut. Support (AS)	2.76**	(0.18)	.94	-2.53**	(0.17)	-.97	0.86**	(0.25)	.39	2.55**	(0.19)	.91	-0.40	(0.24)	-.21
IC vs. External Control (EC)	0.26	(0.19)	.08	-0.66**	(0.18)	-.24	-0.18	(0.27)	-.08	0.33	(0.21)	.11	-0.07	(0.26)	-.03
Reactance	-0.19	(0.24)	-.10	0.5	(0.23)	.03	0.08	(0.35)	.05	0.25	(0.26)	.14	-0.13	(0.33)	-.10
Gender	-0.05	(0.15)	-.02	0.15	(0.14)	.05	-0.17	(0.21)	-.08	0.11	(0.16)	.04	-0.22	(0.20)	-.11
<i>Two-way Interactions</i>															
Reactance X AS	0.27	(0.27)	.11	0.20	(0.26)	.09	-0.23	(0.39)	-.12	-0.33	(0.29)	-.13	-0.01	(0.37)	-.01
Reactance X EC	0.27	(0.30)	.07	0.35	(0.29)	.11	-0.64	(0.43)	-.23	-0.33	(0.32)	-.09	0.13	(0.41)	.06
F statistic:	F (6, 90) = 58.20**			F (6, 90) = 49.00**			F (6, 91) = 5.48**			F (6, 90) = 44.93**			F (6, 91) = 1.01		
Adjusted R ²	.78			.75			.22			.73			.00		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC)	1.81	(0.15)		3.29	(0.20)		3.60	(0.21)		3.86	(0.16)		3.28	(0.15)	
IC vs. Aut. Support (AS)	-0.30	(0.18)	-.19	-1.75**	(0.24)	-.67	0.47	(0.27)	.22	0.18	(0.20)	.10	0.16	(0.18)	.11
IC vs. External Control (EC)	0.20	(0.20)	.12	0.06	(0.26)	.02	-0.12	(0.29)	-.05	-0.59**	(0.22)	-.32	0.05	(0.20)	.03
Reactance	0.36	(0.25)	.35	0.08	(0.33)	.05	-0.16	(0.37)	-.11	0.08	(0.28)	.08	-0.16	(0.26)	-.17
Gender	0.51**	(0.15)	.31	-0.02	(0.20)	-.01	0.13	(0.22)	.06	0.27	(0.17)	.15	-0.30	(0.15)	-.20
<i>Two-way Interactions</i>															
Reactance X AS	-0.18	(0.28)	-.13	0.10	(0.37)	.05	0.15	(0.41)	.08	-0.10	(0.31)	-.07	0.09	(0.29)	.07
Reactance X EC	0.01	(0.31)	.01	0.33	(0.41)	.10	-0.38	(0.46)	-.14	0.13	(0.35)	.06	0.09	(0.32)	.05
F statistic:	F (6, 91) = 5.07**			F (6, 90) = 15.83**			F (6, 91) = 2.06			F (6, 92) = 3.18**			F (6, 92) = 0.88		
Adjusted R ²	.20			.48			.06			.12			-.01		

Note. * $p < .05$. ** $p < .01$

¹Internal control as a reference group

APPENDIX C. Regressions for Independence with Two-way Interactions

Table C1. Regression Coefficients for Independence and its two-way Interactions with Internal and External Control for Turkish Participants

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS)	4.41	(0.06)		1.74	(0.05)		4.06	(0.09)		4.21	(0.06)		2.07	(0.08)	
AS vs. Internal Control (IC)	-2.70**	(0.09)	-.87	2.37**	(0.08)	.84	-1.02**	(0.12)	-.44	-2.53**	(0.09)	-.86	0.25*	(0.11)	.13
AS vs. External Control (EC)	-2.61**	(0.09)	-.83	2.52**	(0.08)	.88	-1.14**	(0.13)	-.48	-2.54**	(0.09)	-.85	0.07	(0.12)	.04
Independence	0.04	(0.07)	.03	0.06	(0.06)	.04	-0.06	(0.10)	-.06	0.07	(0.07)	.05	-0.05	(0.09)	-.05
Gender	-0.02	(0.08)	-.01	-0.12	(0.07)	-.05	0.18	(0.11)	.08	0.14	(0.08)	.05	0.19	(0.10)	.10
<i>Two-way Interactions</i>															
Independence X IC	-0.10	(0.10)	-.04	-0.09	(0.08)	-.04	-0.07	(0.13)	-.04	-0.09	(0.09)	-.03	-0.28*	(0.12)	-.17
Independence X EC	-0.00	(0.10)	-.00	-0.06	(0.08)	-.03	0.06	(0.13)	.03	-0.08	(0.09)	-.03	-0.34**	(0.12)	-.21
F statistic:	F (6, 349) = 196**			F (6, 349) = 223**			F (6, 348) = 17.9**			F (6, 349) = 194**			F (6, 348) = 7.08**		
Adjusted R ²	.77			.79			.22			.77			.09		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS)	1.50	(0.07)		1.21	(0.07)		4.14	(0.08)		3.50	(0.08)		3.19	(0.07)	
AS vs. Internal Control (IC)	0.52**	(0.10)	.28	2.58**	(0.11)	0.80	-0.04	(0.11)	-.02	-0.47**	(0.12)	-.22	-0.16	(0.11)	-.08
AS vs. External Control (EC)	0.90**	(0.10)	.48	2.65**	(0.11)	0.81	0.13	(0.11)	.07	-0.43**	(0.12)	-.20	-0.08	(0.11)	-.04
Independence	0.10	(0.08)	.11	0.06	(0.08)	0.04	0.05	(0.09)	.06	0.07	(0.09)	.07	-0.09	(0.08)	-.10
Gender	0.08	(0.09)	.04	-0.33**	(0.10)	-0.11	-0.25*	(0.10)	-.14	-0.05	(0.11)	-.02	-0.12	(0.09)	-.06
<i>Two-way Interactions</i>															
Independence X IC	0.15	(0.11)	.10	-0.04	(0.12)	-0.01	0.04	(0.12)	.03	0.20	(0.13)	.11	-0.10	(0.12)	-.07
Independence X EC	0.11	(0.10)	.07	0.05	(0.11)	0.02	0.07	(0.12)	.05	0.26*	(0.13)	.15	-0.23*	(0.11)	-.16
F statistic:	F (6, 348) = 17.8**			F (6, 349) = 134**			F (6, 348) = 1.79			F (6, 350) = 7.13**			F (6, 350) = 5.2**		
Adjusted R ²	.22			.69			.01			.09			.07		

Note. * $p < .05$. ** $p < .01$. Autonomy support as a reference group

APPENDIX C

Table C2. Regression Coefficients for Independence and its two-way Interactions with Autonomy Support and External Control for Turkish Participants

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC) ¹	1.71	(0.07)		4.11	(0.06)		3.03	(0.09)		1.68	(0.06)		2.33	(0.08)	
IC vs. Aut. Support (AS)	-2.70**	(0.09)	.89	-2.37**	(0.08)	-.86	1.02**	(0.12)	.45	2.53**	(0.09)	.88	-0.25*	(0.11)	-.13
IC vs. External Control (EC)	0.09	(0.09)	.03	0.16	(0.08)	.06	-0.11	(0.13)	-.05	-0.01	(0.09)	-.00	-0.18	(0.12)	-.09
Independence	0.07	(0.07)	-.04	-0.03	(0.06)	-.02	-0.13	(0.09)	-.12	-0.01	(0.06)	-.01	-0.32**	(0.09)	-.34
Gender	-0.02	(0.08)	-.01	-0.12	(0.07)	-.05	0.18	(0.11)	.08	0.14	(0.08)	.05	0.19	(0.10)	.10
<i>Two-way Interactions</i>															
Independence X AS	0.10	(0.10)	.04	0.09	(0.08)	.04	0.07	(0.13)	.03	0.09	(0.09)	-.03	0.28*	(0.12)	.16
Independence X EC	0.10	(0.09)	.04	0.03	(0.08)	.01	0.13	(0.13)	.07	0.01	(0.08)	-.00	-0.07	(0.12)	-.04
F statistic:	F (6, 349) = 196**			F (6, 349) = 223**			F (6, 348) = 17.9**			F (6, 349) = 194**			F (6, 348) = 7.08**		
Adjusted R ²	.77			.79			.22			.77			.09		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC)	2.02	(0.07)		3.79	(0.08)		4.11	(0.08)		3.04	(0.09)		3.04	(0.08)	
IC vs. Aut. Support (AS)	-0.52**	(0.10)	-.29	-2.58**	(0.11)	-.82	0.04	(0.11)	.02	0.47**	(0.12)	.23	0.16	(0.11)	.09
IC vs. External Control (EC)	0.38**	(0.10)	.20	0.08	(0.11)	.02	0.16	(0.12)	.09	0.04	(0.13)	.02	0.07	(0.11)	.04
Independence	0.25**	(0.08)	.27	0.02	(0.08)	.02	0.09	(0.08)	.10	0.27**	(0.09)	.27	-0.19*	(0.08)	-.22
Gender	0.08	(0.09)	.04	-0.33**	(0.10)	-.11	-0.25*	(0.10)	-.14	-0.05	(0.11)	-.02	-0.12	(0.09)	-.06
<i>Two-way Interactions</i>															
Independence X AS	-0.15	(0.11)	.09	0.04	(0.12)	.01	0.04	(0.12)	-.03	-0.20	(0.13)	-.11	0.10	(0.12)	.06
Independence X EC	-0.04	(0.10)	.03	0.09	(0.11)	.03	0.03	(0.11)	.02	0.06	(0.12)	.04	-0.13	(0.11)	-.09
F statistic:	F (6, 348) = 17.8**			F (6, 349) = 134**			F (6, 348) = 1.79			F (6, 350) = 7.13**			F (6, 350) = 5.2**		
Adjusted R ²	.22			.69			.01			.09			.07		

Note. * $p < .05$. ** $p < .01$

¹ Internal control is a reference group.

APPENDIX C

Table C3. Regression Coefficients for Independence and its two-way Interactions with Internal and External Control for Pakistani Participants

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy Support (AS) ¹	4.30	(0.10)		1.68	(0.10)		4.30	(0.15)		4.39	(0.11)		2.68	(0.14)	
AS vs. Internal Control (IC)	-2.71**	(0.17)	-.81	2.52**	(0.17)	.84	-0.87**	(0.24)	-.35	-2.60**	(0.19)	-.80	0.41	(0.23)	.19
AS vs. External Control (EC)	-2.48**	(0.16)	-.79	1.99**	(0.16)	.71	-1.23**	(0.23)	-.52	-2.27**	(0.18)	-.75	0.27	(0.22)	.13
Independence	0.13	(0.10)	.09	0.10	(0.10)	.07	-0.07	(0.14)	-.07	0.03	(0.11)	-.02	-0.15	(0.13)	-.16
Gender	-0.11	(0.15)	-.04	0.08	(0.15)	.03	-0.10	(0.21)	-.04	0.15	(0.16)	.05	-0.17	(0.20)	-.09
<i>Two-way Interactions</i>															
Independence X IC	-0.30	(0.17)	-.10	0.03	(0.17)	.01	0.09	(0.25)	.04	0.10	(0.19)	.03	-0.12	(0.23)	-.06
Independence X EC	-0.16	(0.17)	-.06	0.14	(0.17)	.05	-0.45	(0.24)	-.21	-0.12	(0.18)	-.04	-0.02	(0.23)	-.01
F statistic:	F (6, 90) = 59.75**			F (6, 90) = 45.22**			F (6, 91) = 5.78**			F (6, 90) = 44.81**			F (6, 91) = 1.59		
Adjusted R ²	.79			.73			.23			.73			.04		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Autonomy support (AS)	1.50	(0.11)		1.51	(0.14)		4.07	(0.16)		4.04	(0.12)		3.45	(0.11)	
AS vs. Internal Control (IC)	0.26	(0.18)	.14	1.75**	(0.24)	.58	-4.44	(0.27)	-.18	-0.20	(0.20)	-.11	-0.13	(0.18)	-.08
AS vs. External Control (EC)	0.62**	(0.17)	.36	1.96**	(0.23)	.70	-0.64*	(0.25)	-.28	-0.72**	(0.19)	-.40	-0.16	(0.17)	-.10
Independence	0.02	(0.10)	.03	0.17	(0.14)	.13	0.10	(0.15)	.10	0.01	(0.11)	-.01	-0.05	(0.10)	-.07
Gender	0.46**	(0.16)	.28	-0.12	(0.21)	-.04	-0.10	(0.23)	.04	0.29	(0.17)	.17	-0.28	(0.16)	-.19
<i>Two-way Interactions</i>															
Independence X IC	-0.16	(0.18)	-.10	-0.14	(0.24)	-.05	-0.15	(0.27)	-.07	0.30	(0.20)	.17	-0.11	(0.18)	-.07
Independence X EC	0.27	(0.18)	.17	0.18	(0.23)	.07	-0.07	(0.27)	-.03	0.09	(0.19)	.06	-0.09	(0.18)	-.06
F statistic:	F (6, 91) = 4.40**			F (6, 90) = 16.01**			F (6, 91) = 1.41			F (6, 92) = 3.60**			F (6, 92) = 1.14		
Adjusted R ²	.17			.48			.02			.14			.01		

Note. * $p < .05$. ** $p < .01$

¹Autonomy support as a reference group

Table C4. *Regression Coefficients for Independence and its two-way Interactions with Autonomy Support and External Control for Pakistani Participants*

Predictors	Autonomy support			Psychological control			Legitimacy			Needs satisfaction			Compliance		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC) ¹	1.58	(0.14)		4.21	(0.14)		3.43	(0.19)		1.79	(0.15)		3.10	(0.19)	
IC vs. Aut. Support (AS)	2.71**	(0.17)	.93	-2.52**	(0.17)	-.97	0.87**	(0.24)	.40	2.60**	(0.19)	.93	-0.41	(0.23)	-.22
IC vs. External Control (EC)	0.23	(0.19)	.07	-0.53**	(0.19)	-.19	-0.36	(0.27)	-.15	0.32	(0.20)	.10	-0.14	(0.25)	-.07
Independence	-0.17	(0.14)	-.11	0.12	(0.14)	.10	0.02	(0.20)	.02	0.06	(0.15)	.05	-0.27	(0.19)	-.29
Gender	-0.11	(0.15)	-.04	0.08	(0.15)	-.03	-0.10	(0.21)	-.04	0.15	(0.16)	.05	-0.17	(0.20)	-.08
<i>Two-way Interactions</i>															
Independence X AS	0.30	(0.17)	.15	-0.03	(0.17)	.02	-0.09	(0.25)	-.06	-0.10	(0.19)	-.05	0.12	(0.23)	.09
Independence X EC	0.13	(0.20)	.05	0.11	(0.20)	.04	-0.55	(0.28)	-.25	-0.21	(0.22)	-.08	0.10	(0.27)	.05
F statistic:	F (6, 90) = 59.75**			F (6, 90) = 45.22**			F (6, 91) = 5.78**			F (6, 90) = 44.81**			F (6, 91) = 1.59		
Adjusted R ²	.79			.73			.23			.73			.04		

Predictors	Defiance			Resentment			Negotiation			Autonomous motivation			Controlled motivation		
	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β	B	(SE)	β
Internal Control (IC)	1.76	(0.14)		3.26	(0.19)		3.63	(0.21)		3.84	(0.16)		3.32	(0.14)	
IC vs. Aut. Support (AS)	-0.26	(0.18)	-.16	-1.75**	(0.24)	-.67	0.44	(0.27)	.21	0.20	(0.20)	.12	0.13	(0.18)	.09
IC vs. External Control (EC)	0.36	(0.20)	.21	0.21	(0.26)	.07	-0.20	(0.29)	-.09	-0.52*	(0.22)	-.29	-0.02	(0.20)	-.01
Independence	-0.14	(0.15)	-.17	0.02	(0.20)	.02	-0.05	(0.22)	-.05	0.29	(0.16)	.34	-0.16	(0.15)	-.23
Gender	0.46**	(0.16)	.28	-0.12	(0.21)	-.04	0.10	(0.23)	.04	0.29	(0.17)	.17	-0.28	(0.16)	-.19
<i>Two-way Interactions</i>															
Independence X AS	0.16	(0.18)	.15	0.14	(0.24)	.08	0.15	(0.27)	.10	-0.30	(0.20)	-.26	0.11	(0.18)	.11
Independence X EC	0.43*	(0.21)	.27	0.32	(0.28)	.012	0.08	(0.31)	.04	-0.20	(0.23)	-.12	0.02	(0.21)	.02
F statistic:	F (6, 91) = 4.40**			F (6, 90) = 16.01**			F (6, 91) = 1.41			F (6, 92) = 3.60**			F (6, 92) = 1.14		
Adjusted R ²	.17			.48			.02			.14			.01		

Note. * $p < .05$. ** $p < .01$

¹ Internal control as a reference group

APPENDIX D. Correlations between Measured Variables (Turkish Participants)

Table D1. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables for Turkish Participants

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Trait-like Measures</i>																
1. Age	-															
2. Gender	-.19	-														
3. Autonomy Support	-.01	.03	-													
4. Parental Control	-.07	.09	-.75	-												
5. Reactance	-.03	.06	-.61	.61	-											
6. Independence	.09	-.09	-.13	.15	.34	-										
<i>Situational Measures</i>																
7. Perceived Autonomy Support	-.02	.05	.06	-.05	-.11	-.01	-									
8. Perceived Psych Control	.02	.01	-.05	.08	.14	.01	-.84	-								
9. Needs Satisfaction	-.03	-.02	.05	-.04	-.13	.00	.89	-.87	-							
10. Resentment	-.00	.08	-.05	.05	.16	.05	-.82	.80	-.89	-						
11. Compliance	-.06	-.06	-.07	.09	-.05	-.26	-.05	.07	.00	-.12	-					
12. Defiance	.04	-.07	-.13	.12	.29	.22	-.42	.42	-.45	.51	-.30	-				
13. Negotiation	.11	.07	.31	-.27	-.22	.07	.04	-.00	.05	-.02	-.26	.05	-			
14. Legitimacy	-.02	-.09	.12	-.13	-.19	-.06	.51	-.47	.57	-.62	.18	-.46	.08	-		
15. Autonomous Motivation	.02	-.02	-.08	.10	.09	.22	.19	-.20	.29	-.22	-.13	.02	.04	.11	-	
16. Controlled Motivation	-.03	.09	.01	.11	.00	-.25	.10	-.05	.15	-.16	.42	-.32	-.11	.25	-.03	-
<i>M</i>	21.05	0.65	3.77	2.15	2.82	6.08	2.73	3.29	2.61	2.87	2.18	1.95	4.16	3.37	3.22	3.12
<i>SD</i>	2.13	0.52	0.86	0.88	0.85	0.97	1.46	1.33	1.39	1.51	0.94	0.88	0.88	1.11	0.98	0.86

Note. Values equal or higher than |.10| and |.14| are statistically significant at $p < .05$. and $p < .01$, respectively.

Table D2. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables for Turkish Participants**Autonomy Support Condition**

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Trait-like Measures</i>														
1. Age														
2. Gender	-.34													
3. Reactance	-.06	.15												
4. Independence	-.02	.04	.34											
<i>Situational Measures</i>														
5. Perc. Autonomy Support	-.08	.33	-.13	.07										
6. Perc. Psych Control	-.10	-.06	.31	.08	-.29									
7. Needs Satisfaction	-.01	.26	-.10	.11	.61	-.32								
8. Resentment	-.03	-.03	.21	.14	-.36	.24	-.52							
9. Compliance	-.08	-.18	.03	-.06	.01	.16	-.08	.06						
10. Defiance	.04	-.08	.33	.16	-.35	.25	-.34	.48	.01					
11. Negotiation	.17	.08	-.21	.04	.29	-.28	.45	-.51	-.10	-.26				
12. Legitimacy	.01	-.06	-.27	-.08	.16	-.13	.12	-.32	.08	-.37	.30			
13. Autonomous Motivation	.01	.12	.11	.07	.07	.11	.19	-.01	-.16	.01	.17	-.08		
14. Controlled Motivation	-.04	-.01	.07	-.12	.08	.16	.11	-.07	.22	-.21	-.10	.20	.00	
<i>M</i>	20.97	0.67	2.72	-0.03	4.42	1.74	4.21	1.22	2.07	1.5	4.14	4.04	3.5	3.19
<i>SD</i>	2.36	0.52	0.85	0.9	0.63	0.62	0.64	0.44	0.83	0.57	0.84	0.86	0.84	0.72

Note. Values equal or higher than |.17| and |.23| are statistically significant at *p* less than or equal at .05. and .01, respectively. Perc = Perceived

APPENDIX D

Table D3. Means (M), Standard Deviations (SD), and Bivariate Correlations of the Measured Variables for Turkish Participants

Internal Control Condition

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Trait-like measures</i>														
1. Age														
2. Gender	-.17													
3. Reactance	.02	.02												
4. Independence	.22	-.05	.35											
<i>Situational Measures</i>														
5. Perc. Autonomy Support	.21	-.18*	-.12	-.09										
6. Perc. Control	.05	.17	.05	-.05	-.21									
7. Needs Satisfaction	.08	-.25	-.15	-.01	.54	-.48								
8. Resentment	-.12	.26	.09	.02	-.37	.30	-.66							
9. Compliance	.03	-.09	-.09	-.34	.26	-.13	.34	-.46						
10. Defiance	.03	.10	.18*	.29	-.24	.13	-.35	.45	-.54					
11. Negotiation	.12	-.06	-.27	.07	-.04	.03	-.04	-.01	-.33	.07				
12. Legitimacy	.09	-.12	-.20	-.13	.28	-.16	.54	-.58	.36	-.42	-.02			
13. Autonomous Motivation	.01	-.06	.10	.26	-.01	-.12	.18	-.05	-.11	.13	.00	-.11		
14. Controlled Motivation	-.02	.03	.01	-.22	.17	.02	.23	-.15	.48	-.42	-.08	.36	-.21	
<i>M</i>	21.14	0.69	2.88	0.03	1.71	4.11	1.69	3.8	2.32	2.03	4.09	3.03	3.04	3.03
<i>SD</i>	2.19	0.52	0.9	0.98	0.73	0.65	0.68	1.03	0.93	0.86	0.9	1.06	0.99	0.92

Note. Values equal or higher than |.19| and |.24| are statistically significant at $p < .05$, and $p < .01$, respectively. Perc = Perceived
For exceptions to the rule above * indicates $p < .05$. ** indicates $p < .01$

APPENDIX D

Table D4. Means (M), Standard Deviations (SD), and Bivariate Correlations of the Measured Variables for Turkish Participants

External Control Condition

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Trait-like measures</i>														
1. Age														
2. Gender	.00													
3. Reactance	-.07	-.01												
4. Independence	.07	-.26	.33											
<i>Situational Measures</i>														
5. Perc. Autonomy Support	-.06	.00	.02	.05										
6. Perc. Control	.03	.19	.01	-.05	-.32									
7. Needs Satisfaction	-.10	-.29	-.05	.02	.43	-.44								
8. Resentment	-.02	.25	.23	.07	-.34	.19	-.62							
9. Compliance	-.14	.06	-.13	-.36	-.04	-.07	.22	-.45						
10. Defiance	.04	-.17	.37	.24	-.07	.13	-.13	.25	-.41					
11. Negotiation	-.00	.21	-.18	.11	.09	.17	-.02	.07	-.35	.20				
12. Legitimacy	-.16	-.19	-.05	.02	.28	-.19	.47	-.50	.26	-.26	.06			
13. Autonomous Motivation	.06	-.15	.13	.32	-.05	.00	.23	-.12	-.09	.16	-.01	.21		
14. Controlled Motivation	-.03	.24	-.05	-.37	.01	-.12	.17	-.28	.55	-.33	-.17	.16	.06	
<i>M</i>	21.05	0.60	2.87	-0.01	1.81	4.26	1.68	3.84	2.16	2.40	4.26	2.94	3.07	3.11
<i>SD</i>	1.79	0.51	0.77	1.05	0.77	0.52	0.71	1.01	1.07	0.94	0.9	1.05	1.05	0.96

Note. Values equal or higher than |.19| and |.25| are statistically significant at $p < .05$. and $p < .01$, respectively. Perc = Perceived

APPENDIX E. Correlations between Measured Variables (Pakistani Participants)

Table E1. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables for Pakistani Participants

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	-.02													
3. Reactance	.05	.10												
4. Independence	.02	-.13	.50											
5. Perceived Autonomy Support	.07	-.06	-.01	.08										
6. Perceived Control	-.08	.06	.16	.05	-.83									
7. Needs Satisfaction	.03	-.11	-.03	.05	.90	-.83								
8. Resentment	-.02	.07	.17	.06	-.74	.74	-.83							
9. Compliance	-.00	.09	-.09	-.23	-.19	.15	-.20	.14						
10. Defiance	-.02	-.16	.31	.08	-.20	.32	-.27	.45	-.19					
11. Negotiation	-.10	-.06	-.13	.08	.30	-.23	.30	-.21	-.43	-.04				
12. Legitimacy	-.02	.08	-.14	-.09	.49	-.47	.62	-.68	.02	-.55	.20			
13. Autonomous Motivation	.12	-.08	.04	.17	.27	-.17	.42	-.35	-.22	-.06	.23	.37		
14. Controlled Motivation	-.12	.23	-.04	-.15	.11	-.08	.12	-.17	.41	-.22	-.19	.31	.02	
<i>M</i>	21.74	0.38	2.21	0.07	2.86	2.93	3.05	2.55	2.86	1.77	3.76	3.74	3.78	3.38
<i>SD</i>	2.55	0.51	0.78	1.01	1.45	1.29	1.39	1.29	0.93	0.83	1.06	1.10	0.84	0.72

Note. Values equal or higher than |.20| and |.27| are statistically significant at $p < .05$. and $p < .01$, respectively. Perc = Perceived

APPENDIX E

Table E2. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables for Pakistani Participants

Autonomy Support Condition

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	.27													
3. Reactance	.02	.11												
4. Independence	-.01	-.38	.55											
5. Perceived Autonomy Support	-.03	.20	.12	.21										
6. Perceived Control	-.20	-.26	.36	.20	-.25									
7. Needs Satisfaction	-.09	.25	-.10	-.02	.59	-.38								
8. Resentment	.09	-.20	.18	.18	-.27	.41	-.65							
9. Compliance	-.14	-.02	-.11	-.21	.02	.06	.06	.12						
10. Defiance	.10	-.33	.17	.14	.06	.36	-.47	.64	.09					
11. Negotiation	.07	-.04	-.02	.17	.18	-.01	.16	-.01	-.33	-.06				
12. Legitimacy	-.08	.20	-.14	-.11	.15	-.30*	.65	-.68	.01	-.83	.14			
13. Autonomous Motivation	-.03	.03	-.04	.05	.22	-.13	.66	-.29	.01	-.30	.35	.48		
14. Controlled Motivation	-.13	.01	-.06	-.15	.06	-.06	.36	-.25	.32	-.21	-.14	.36	.40	
<i>M</i>	21.72	0.34	2.16	0.15	4.31	1.70	4.39	1.53	2.66	1.52	4.08	4.29	4.05	3.44
<i>SD</i>	2.58	0.48	0.87	1.11	0.60	0.58	0.73	0.92	0.94	0.70	0.74	0.90	0.72	0.71

Note. Values equal or higher than |.32| and |.40| are statistically significant at $p < .05$. and $p < .01$, respectively. Perc = Perceived
For exceptions to the rule above * indicates $p < .05$. ** indicates $p < .01$.

APPENDIX E

Table E3. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables of the Study for Pakistani Participants

Internal Control Condition

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	-.49													
3. Reactance	-.09	.23												
4. Independence	-.11	.15	.26											
5. Perceived Autonomy Support	.28	-.00	-.02	-.18										
6. Perceived Control	-.06	.01	-.03	.15	-.45									
7. Needs Satisfaction	.26	-.14	.38	.12	.50	-.54								
8. Resentment	-.11	.21	.05	.04	-.33	.43	-.39							
9. Compliance	.11	.16	-.18	-.26	.09	-.14	-.11	-.10						
10. Defiance	-.01	.05	.54	-.11	-.01	.06	.11	.20	-.42					
11. Negotiation	-.11	-.26	-.04	-.04	.08	-.13	.15	.01	-.53	.03				
12. Legitimacy	-.04	.12	.21	.06	.24	-.21	.43	-.46	.23	-.29	-.00			
13. Autonomous Motivation	.07	-.23	.19	.30	.02	-.08	.39	-.27	-.42	.15	.14	.10		
14. Controlled Motivation	-.16	.49	.04	-.13	.19	.10	-.10	-.15	.55	-.13	-.45	.35	-.26	
<i>M</i>	21.92	0.54	2.16	0.08	1.61	4.19	1.82	3.28	3.06	1.81	3.62	3.50	3.87	3.38
<i>SD</i>	2.38	0.58	0.68	0.96	0.79	0.70	0.64	0.83	1.04	0.92	1.17	0.97	0.93	0.86

Note. Values equal or higher than |.42| and |.53| are statistically significant at $p < .05$, and $p < .01$, respectively. Perc = Perceived

APPENDIX E

Table E4. Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of the Measured Variables of the Study for Pakistani Participants

External Control Condition

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	-.01													
3. Reactance	.20	.02												
4. Independence	.16	-.08	.69											
5. Perceived Autonomy Support	.27	-.01	.09	-.05										
6. Perceived Control	-.17	-.02	.38	.27	-.32									
7. Needs Satisfaction	.10	-.36	-.07	-.17	.73	-.25								
8. Resentment	-.10	.17	.29	.30	-.52	.40	-.75							
9. Compliance	.09	.09	.01	-.20	-.28	-.04	-.23	-.04						
10. Defiance	-.16	-.25	.31	.34	.07	.34	.10	.26	-.54					
11. Negotiation	-.25	.14	-.31	.02	.17	.01	.16	-.06	-.41	.15				
12. Legitimacy	.03	.01	-.35	-.42	.39	-.22	.52	-.56	.17	-.34	.12			
13. Autonomous Motivation	.34	-.16	.20	.11	.12	.28	.27	-.17	-.19	.33	.02	.19		
14. Controlled Motivation	-.07	.22	-.08	-.22	.17	-.27	.01	-.09	.48	-.32	-.05	.23	-.29	
<i>M</i>	21.60	0.30	2.34	-0.19	1.82	3.63	2.15	3.40	2.98	2.09	3.42	3.17	3.32	3.30
<i>SD</i>	2.74	0.47	0.71	0.90	0.66	0.76	0.76	1.01	0.78	0.83	1.24	1.12	0.76	0.59

Note. Values equal or higher than |.38| and |.48| are statistically significant at $p < .05$. and $p < .01$, respectively. Perc = Perceived

Vignettes in English

Autonomy-Supportive Scenario:

ENG: You had high expectations of graduating this semester, so the last thing you were expecting was to fail this class. You probably did your best, so we understand that this result was not what you hoped for. Sometimes, things do not work out as planned. That's okay. Yes, you may have postponed your graduation, but you can learn from your failure. Now you have an opportunity to pass this class with a much higher grade, and successfully graduate. If you need any help, we will always be there for you. Please, do your best now and try to graduate with no further delays. You can rely on us, let's get the job done.

Internal Psychological Control Scenario:

ENG: You gave us false hope by making us believe that you were graduating this semester. How can we feel anything other than devastation and disappointment? Don't you feel guilty for delaying your graduation? We guess you didn't put enough effort into passing your class even though we worked hard to look after you and the family. We did everything in your best interest. Is it too much to ask you to finish school on time? Do you not regret that you didn't make the necessary effort to pass this class? Is this the thanks we get for all of my efforts and sacrifice? We implore you, do not ever disappoint us again. Make sure you work really hard so that you can graduate without further delays.

External Psychological Control Scenario:

ENG: We can't believe that you got yourself into such a horrible situation! We expected more from you. We thought we agreed that you would graduate on time, but we can see that you have not taken this seriously. To graduate on time and be a successful person, not only must you work hard, but you must really want it. It is obvious what you must do for this mistake to not repeat itself and for you to graduate. We expect you to take our guidance seriously this time and graduate with no further delays. We will check up on you to see if you are doing exactly as we ask of you. We also are not happy with this situation, but we can't let your failure waste our time and money once again.

Vignettes in Turkish

Özerklik Desteęi Senaryosu:

TR: Bu dönem mezun olacağını düşünüyordun ve bu dersten kalabileceğın de aklının ucundan dahi geçmemiştı. Biz yine de elinden gelenin en iyisini yaptığını tahmin ediyoruz ve bu durumun beklediğın gibi olmadığını anlıyoruz. Bazen işler planladığın gibi gitmeyebilir. Bu çok doğal. Evet, mezuniyetini uzatmış oldun ancak bu başarısızlıktan bir ders çıkartabilirsin. Bu durumu şu an bir fırsata çevirip dersini daha yüksek bir notla geçerek mezun olabilirsin. Eğer yardıma ihtiyacın olursa her zaman arkadayız. Lütfen artık elinden gelenin en iyisini yap ve okulunu daha da uzatmadan mezun ol. Biz hep buradayız senin için, hadi şu işi halledelim.

İçsel Psikolojik Kontrol Senaryosu:

TR: Bizi bu dönem mezun olacağına inandırıp ümitlendirdin. Üzülmek ve hayal kırıklığına uğramaktan başka ne yapalım? Okulunu uzattığın için hiç mi suçluluk duymuyorsun? Herhalde dersini geçmek için de pek çabalamadın ama biz ailemize ve sana bakabilmek için tüm gücümüzle çalışıyoruz. Her şeyi senin iyiliğın için yapıyoruz. Derslerine çalışıp okulu zamanında bitirmeni beklemek çok mu? Bu dersi geçmek için daha çok çaba göstermediğın için pişmanlık hissetmiyor musun? Bizim onca çabamıza, emeğimize bunu mu layık gördün? Senden rica ediyoruz, bizi bir daha böyle bir hayal kırıklığına uğratma. Daha da uzatmadan mezun olmak için gelecek dönem dersine iyice çalış.

Dışsal Psikolojik Kontrol Senaryosu:

TR: Böylesine kötü bir duruma düşmen inanılır gibi değil. Senden daha iyisini beklerdik. Okulu zamanında bitireceğın konusunda anlaşmıştık ancak belli ki bu konuyu pek ciddiye almamışsın. Vaktinde mezun olmak ve başarılı biri olmak için sadece çalışmak değil aynı zamanda bunu istemek de gerekir. Bu durumun tekrar etmemesi ve en kısa sürede mezun olman için ne yapman gerektiğı açıkça ortada. Bu sefer bizim tavsiyelerimizi ciddiye almanı ve daha fazla gecikme olmaksızın mezun olmanı bekliyoruz. Dediklerimizi yerine getirip getirmediğın düzenli olarak kontrol edeceğiz. Bu durumdan biz de memnun değiliz ama bir daha böyle bir başarısızlıkla ne senin ne ailemizin vaktini ve parasını heba etmene izin veremeyiz.