Article

Neither Resiliency-Trait nor Resilience-State: Transactional Resiliency/e

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Abstract
Since the 1970s, a proliferation of research and concept analysis of resiliency/e has attempted to clarify whether it is a trait or a state. Based on this dualistic approach, studies have either operationalized "resiliency" as a personality trait or "resilience" as a dynamic state. The present review of the concept argues that the trait-state dualism is likely to be a conceptual fallacy, one fundamental reason for the lack of consensus. To facilitate and build consensus, the present conceptual review calls for a transactional approach instead of the dualistic approach to the definition.

Keywords
resiliency, resilience, personality trait, dynamic state, risk factor

Introduction

Since the 1970s, a proliferation of research across various contexts and fields of psychology has attempted to clarify whether resiliency/e is a personality trait or a dynamic state (Kuldas, 2018). Different approaches and disciplines

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of psychology have led to differences in the terms used to describe the phenomenon (Atkinson et al., 2009; Southwick et al., 2014). The research has been based on either an ecological system approach to resiliency as a trait stable over time (Bonanno et al., 2015; Connor & Davidson, 2003; Wagnild & Young, 1993) or a transactional/social-ecological approach to resilience as a state, an adaptive system of family, community, or society (Hays-Grudo & Morris, 2020; Henry et al., 2015; Sameroff, 2010; Smith, 2020; Stokols et al., 2013; Ungar, 2012). To address this difference, the term "resiliency" for the trait-like conception and the term "resilience" for the state-like conception are suggested (Luthar et al., 2000). Nevertheless, these terms have been interchangeably operationalized across various research when referring to (a) individual quality, strength, attribute, or characteristic, (b) positive outcome/ adaptation, (c) dynamic state/process, (d) stress resistance, (e) recovery, (f) agency, or (g) survival (Bonanno et al., 2015; Pietrzak & Southwick, 2011; Windle, 2011).

As a trait, resiliency is referred to as heritable characteristics, distinctive qualities, strengths, or aspects of personality (e.g., the big five personality traits), which are relatively stable over time (Luthans et al., 2007). As a state, resilience refers to human cognitive and affective/motivational potentials (e.g., efficacy, hope, optimism, wisdom, well-being, gratitude, forgiveness, empathy, and courage), which are relatively malleable and open to development in an adaptive social-ecological context (Luthans et al., 2007). Accordingly, traits and states are reckonable as independent, dichotomous constructs (Luthans et al., 2007). Therefore, an exclusive focus on either trait-like resiliency or state-like resilience reflects a dualistic approach to the conceptualization, thereby reflecting and even promoting the lack of consensus.

Despite a growing interest in either resiliency-trait or resilience-state research across various contexts and fields of psychology, there is still no commonly accepted definition of resiliency/e. This is evident in a plethora of concept analyses (including theoretical, empirical, contextual, and interdisciplinary reviews) spanning the last two decades (see Aburn et al., 2016; Ahern et al., 2008; Ahmed Shafi et al., 2020; Atkinson et al., 2009; Bonanno et al., 2015; Lou et al., 2018; Luthar et al., 2000; Pooley & Cohen, 2010; Sanderson & Brewer, 2017; Schultze-Lutter et al., 2016; Southwick et al., 2014; Windle, 2011; Zolkoski & Bullock, 2012). As Aburn et al. (2016) concluded: "The most significant finding of the review was that there is no universal definition of resilience. There were, however, some common themes identified: rising above, adaptation and adjustment, dynamic process, 'ordinary magic' and mental illness as a marker of resilience" (p. 980).

The same conclusion is also drawn from the traditional field of research on resilience. Masten (2007) provided an overview of four waves of resilience

research. The first wave focused on theoretical definitions and empirical descriptions of the concept. The second wave focused on the associated variables. The third wave aimed to test ideas for appropriate resilience-based intervention. The fourth wave has been aimed at advancing the research in more integrative ways to explain the complex processes underlying resilience. These waves have reached no universally accepted theory of resiliency/e (i.e., no consensus about what resiliency/e is), leading to confusion as to how to conceptualize and operationalize it (Lou et al., 2018; Pritzker & Minter, 2014).

A widely held argument is that a theoretical account that does not discriminate between trait and state or between process and outcome may create needless complexity (Olsson et al., 2003; Southwick et al., 2014). However, the dichotomy of state and trait (i.e., the trait-state dualism) itself seems to be a source of the lack of consensus or confusion, as there is no real duality in the complementary nature of human/developing person (adaptive social-ecological system). In particular, the confusion arises when (a) an outcome and a process, (b) a relatively static personality trait and a dynamic state, or (c) an internal factor/asset and an external factor/resource, are inextricable or interchangeable in identifying resiliency/e (see Didkowsky & Ungar, 2017). This interdependency (a context-dependent dynamic process) can be referred to as transactional resiliency/e in adverse life events or situations, despite which personal characteristics are developable by adaptive social-ecological resources (Atkinson et al., 2009; Didkowsky & Ungar, 2017; Ungar, 2012; Zolkoski & Bullock, 2012).

The misconceptions or distinct conceptions of resiliency/e, and subsequent inconsistencies in operationalization of the construct, have slowed down the development of the field (Bonanno, 2012; Fergus & Zimmerman, 2005; Masten, 2007; Southwick et al., 2014). This issue has become evident in the apparent lack of fully valid measures of resilience which emerged out of and account for a diversity of socioeconomic status, sociocultural backgrounds, and adversity experiences of adolescents and youth (Kuldas, 2018). These inconsistencies have continued for the last decade and indicated the need for further theoretical delineation, particularly warranting further conceptual development to explain resilience as a dynamic-transactional phenomenon. Therefore, as Fergus and Zimmerman (2005) suggested more than a decade ago: "we need to develop a common language to bring the field to the next level" (p. 404). To this end, the present paper serves as a critical review of theoretical approaches to the conceptualization of resiliency as a trait and of resilience as a state. The review aims to provide a theoretical rationale for adopting a conceptual definition of neither the trait-like nor state-like alone, but of a transaction-like resiliency/e (mutually inclusive/transformative traits and states). The following five main

sections respectively serve as a revision of the (a) ecological system approach to resiliency as a trait, (b) transactional/social-ecological approach to resilience as a state, (c) fallacy of the trait–state dualism, (d) transactional approach to the conceptualization, and (e) antecedents, defining attributes, and consequences of the proposed concept (i.e., transactional resiliency/e).

Ecological System Approach: Resiliency as a Trait

Resiliency was initially conceptualized as a personality trait or coping style of some children which enabled them to maintain a positive developmental trajectory when confronted with considerable adversity (Bonanno et al., 2015; Waller, 2001). These children were called "hardy," "invulnerable," "superkids," "stress resistant," or "golden" (Beauvais & Oetting, 1999). However, there is no common consensus about *what constitutes the trait of resiliency*, but it is explainable by three ecological systems: engineering, ecological, and adaptive (Maltby et al., 2015). These three systems of the trait were not formulated within any single theoretical or measurement model of resiliency-trait in the psychological literature by 2015 (Maltby et al., 2015).

Adopting the three systems, Maltby et al. (2015) proposed an ecological system approach to assessing resiliency as a trait. First, the engineering system is an individual's capacity to return to an equilibrium following any disturbance (i.e., recovery or ability to bounce back). Next, the ecological resilience is the ability to resist a disturbance and to maintain stable state in terms of function, purpose, structure, or identity (i.e., demonstrating confidence in personal strengths and abilities). Last, the adaptive capacity is the ability to successfully accommodate oneself to distressing changes or environmental stressors.

From the ecological system approach, a set of positive personality traits are definable as resiliency (Bonanno et al., 2015; Connor & Davidson, 2003; Oshio et al., 2018), such as the individual ability to spring back in the face of adversity (Jacelon, 1997), to deal with change and adversity (Wagnild & Young, 1993), and to bounce back or to be stable over time (Block, 1995). Resiliency is also defined as an adaptive (stress-resistant) personal quality that permits a person to thrive in spite of adversity (Ahern et al., 2008). However, a unique or distinctive ability is not always found to characterize every resilient individual (see Arrington & Wilson, 2000). When describing characteristics of resilient children and youth, Hamby and Grych (2016) drew attention to "fundamental attribution error," the tendency to over-estimate personality traits and under-estimate the impact of the environment. This tendency is evidenced in "popular movements for so-called 'survivors'" (Walsh, 2006, p. 16). This is a tendency to attribute the adaptive or maladaptive functioning of a child to his or her nature

rather than context (Sameroff, 2020). Dannefer (1984) referred to this error as the "ontogenetic fallacy" in developmental psychology (p. 103). This fallacy reflects a contemptuous view on individuals, families, communities, or societies as "deficient, weak, and blameworthy when they can't surmount their problems on their own" (Walsh, 2006, p. 6). This view "invalidates worldviews that prioritize the well-being of the collectivity over independence and individual advancement" (Waller, 2001, p. 291).

Although some individual differences in resilience may be associated with genetic effects that make some children more or less susceptible to environmental hazards, the catalyst for these differences is their environment not the genetic effect (Rutter, 2013). In other words, a child or adolescent is unlikely to be resilient against all environmental changes across his or her life span (Luthar et al., 2000). Children and adolescents can demonstrate resilience in spite of some risks but not every risk (Southwick et al., 2014). "Resilience is not a quality of an adolescent that is always present in every situation" (Fergus & Zimmerman, 2005, p. 404). Due to different risks and changes in environment, a child may either show or lack resilience at different points in time (Rutter, 2007; Southwick et al., 2014), the child may respond very differently to the same or similar stressors (Waller, 2001). Therefore, a growing number of studies have evolved which have changed the way researchers view resilience from a static/individualistic conceptualization to the contextual/relational aspects of positive adaptation in the face of adversity (Rutter, 1987; Southwick et al., 2014; Waller, 2001).

Transactional/Social-Ecological Approach: Resilience as a State

Ecology refers to the scientific study of how organisms (plants, animals, people) are related to each other and to their environment, such as how individuals coexist and interact with their social and geographic environments, including different levels of interactions between the systems (Stokols et al., 2013). Unlike the ecological system approach that focuses on biological processes and the geographic environment, the social-ecological approach (since the 1960s and 1970s) addresses various influences of cultural and institutional factors on people-environment interactions (Stokols, 1996). However, this approach uses the same or similar concepts of the natural ecosystem, such as adaptation, systems, interdependence, and sustainability, to interpret interactions between individuals and communities in cultural and social contexts (see Maltby et al., 2015).

The social-ecological approach focuses on the interdependency between individual and social adaptive systems, especially family, in the presence of risk (Harrist et al., 2019; Henry et al., 2015). From this perspective, transformational effects (i.e., transactions) are inevitable. For example, a child both affects his or her immediate social environment through child-parent or student-teacher transactional relationships and is affected by the environment (Sameroff, 2010). Hence, human development is both: (a) a continuous process of adaptation and accommodation as well as (b) a product of this interdependent effects between individuals and their environment.

The interdependent effects need to be taken into account to predict relationships between risk and protective factors of human development (Hays-Grudo & Morris, 2020; Southwick et al., 2014). The context of bi-directional relationships (family, school, peer, neighborhood, and the wider society) is what modifies negative influences of risk in a positive direction, helping individuals to promote positive outcomes or reduce negative outcomes (Henry et al., 2015; Luthar et al., 2006). Resilience as a positive outcome is achieved when all immediate resources (family, school, peer, and community) are supportive, but it also depends on the active role of the developing person (Bronfenbrenner, 2005) and the presence of a considerable risk factor (DiCorcia & Tronick, 2011; Fergus & Zimmerman, 2005; Henry et al., 2015; Luthans et al., 2007; Walsh, 2006).

The conceptualization of resilience as a human developmental process, capacity, and outcome (i.e., a basic adaptive system) is consistent with existing models including: Bronfenbrenner's Ecological Systems Theory (1989) and his Bioecological Theory of Human Development (2001); Sameroff's (2009) Transactional Model of Human Development (2009) and his Unified Theory of Transactional-Ecological Models of Human Development (Sameroff, 2014); Stokols et al.'s (2013) Social-Ecological Perspective; and Ungar's Transactional Social-Ecological Perspective (2012) and his Constructionist Approach (2004). According to the social-ecological perspective, originally proposed by Bronfenbrenner (1979, 1989), proximal and distal environments surrounding children, adolescents, or youth influence their cognitive and affective developments. The social-ecological approach further highlights the active role of the developing person in these interrelationships (Bronfenbrenner, 2001). In other words, individuals interact with their social environment for adaptation in the face of adversity (Stokols et al., 2013). Sameroff (2009) added the adjective "transactional" to highlight that the environment and individual reciprocally influence each other. The transactional social-ecological perspective (Ungar, 2012), also called the constructionist approach (Ungar, 2004) or the ecosystemic perspective (Waller, 2001) takes

into account genetic influences (personality traits) that can be molded by social and cultural experiences.

The transactional approach describes a non-systematic and non-hierarchical relationship (i.e., neither linear nor unidirectional) between risk and protective factors (i.e., complexity of resilience); the dynamic interplay between context, culture, and an individual's strengths determines resilience. From this transactional perspective, resilience is more than just individual characteristics and social interactions, mainly because individuals either receive or reach services from their socio-cultural structures that allow them to overcome an adversity and chart pathways to resilience (Ungar, 2008). Risk and protective factors can be biological, psychological, social, environmental, or any combination of these. According to this theory, resilience, in the context of exposure to significant adversity, is both (a) the capacity of individuals to navigate their ways to resources for sustaining their wellbeing, and (b) an ecological condition (family, community, and culture) that provides these resources in culturally meaningful ways (Ungar, 2008). The term "navigation" refers both individual capacity to seek help (personal agency) and the availability of the help sought (Ungar, 2008).

Therefore, from the transactional social-ecological perspective, resilience is a developmental process, capacity, and outcome despite adverse life events or situations at any point across the lifespan or at any age. As a dynamic process, it involves transactions between the individual and their ever-changing environment (Masten, 2007; Smith, 2020); it enables positive adaptation in the context of significant adversity (Hays-Grudo & Morris, 2020; Luthar et al., 2000); and it is affected by both neural and psychological self-organization, including transactions between the ecological context and the developing organism (Masten & Narayan, 2012). As a capacity, it refers to the extent to which individuals exhibit resourcefulness and exert effort to negotiate, manage, and adapt to conditions of stress or trauma (Windle et al., 2011); to regulate and cope with stress in everyday life (DiCorcia & Tronick, 2011); and to use available internal and external resources in response to different contextual and developmental challenges (Pooley & Cohen, 2010) or against disturbances threatening personal viability or development (Masten, 2001). As an outcome, resilience is normal development (Fonagy et al., 1994), ordinary positive adaptation (Rutter, 2013), or recovery and maintained adaptive behavior (Garmezy, 1991) that requires protective/supportive factors (e.g., familial and societal values) against adverse life events or situations (Masten, 2001). Hence, from the transactional perspective, there is no real duality of trait and state (i.e., the dichotomy of state and trait is a fallacy) in the developing process, capacity, and outcome.

Dualistic Fallacy: Trait or State?

Although the concept dates back to the 19th century, clinical studies on the distinctive and sustainable adaptation of vulnerable children at high-risk began only in the 1970s (Werner & Smith, 1982). This individual ability to absorb change and disturbance and still maintain the adaptation is likely to be a reason to choose or coin an ecological systems term "resiliency/e" (see Holling, 1973), as this English term originates from Latin word "resile" (re-"back" + salire- "to jump, leap"), which means "to recoil or to leap back" (Fowler & Fowler, 1964), "to bounce or spring back" (Agnes, 2005). This literal meaning is deeply rooted in the origin of resiliency/e research, the field of developmental psychopathology and clinical psychology (Masten, 2011). The field originates from psychiatric and developmental studies (Luthar et al., 2000) such as psychology, trauma studies, education, social work, and epidemiology (Atkinson et al., 2009). Therefore, a convincing reason for distinctively describing the concept might be that trait-like resiliency appears in clinical practices or interventions as individual distinctive quality of adaptation, while state-like resilience takes place in learning environment which inherently refers to a developmental process (Luthar et al., 2000).

An increasing number of different studies and theorists take different positions on a given construct, which in turn may complicate rather than facilitate the conception. Early studies on resilience focused on risk factors (chronic and acute illness) that adults experienced and the vulnerability of children in impoverished and troubled families. Therefore, distinctive abilities and negative effects of an adversity were considered a criterion in defining resiliency as personality trait (Pooley & Cohen, 2010). This definition therefore lacked the other criterion, the social-ecological processes that reduce negative outcomes or promote positive outcomes (i.e., mediating the negative influence in a positive direction).

Some attempts to suggest a term referring to the social-ecological criterion are likely to be leading to the dualistic fallacy (i.e., misconception of individual and environmental characteristics as independent factors, mutually exclusive, or having part-whole relationships). For instance, Jacelon (1997) suggested the term "resilition," whereas Luthar et al.'s (2000) recommended the term "resilience" to use instead of "resiliency" when referring to the state-like conception. Although this distinction may seem insignificant as both words are synonymous nouns, Fergus and Zimmerman (2005) suggested that distinguishing resilience from a trait-based conception is vital to resilience research. In line with this recommendation, Olsson et al. (2003) asserted that a theoretical account of resilience that does not make the distinction may create needless complexity. In addition, to assure that the construct of resilience

is not taken to be an individual trait (Fergus & Zimmerman, 2005), the adjective "resilient" can be used as a descriptor of individual profiles but not as describing a person (Luthar & Zelazo, 2003).

Accordingly, it was assumed that by accurately distinguishing between resilience-state (resilition-process) and resiliency-trait, "the focus of research can become clearer and implications for practice can more readily be ascertained" (Jacelon, 1997, p. 128). These suggestions to make the distinction convey a meaning that individual differences in resiliency/e is either attributable to social-ecological characteristics or to personal traits, thereby leading to the dualistic fallacy. The fallacy is maintained by further arguments about (a) whether a risk factor must be common or specific; (b) whether resilience is an adaptive process or outcome; and (c) whether the underlying factors are called assets, resources, promotive factors, or protective factors.

Risk Factor: Common or Specific?

As conceptual reviews of literature on resiliency/e across diverse disciplines of social sciences conclude, every human being has the potential process and capacity to be resilient. Resilience is a basic human adaptive system that any individual potentially has (Masten, 2001). This potentiality, however, does not mean that individuals are born resilient, but that resilience manifests itself against a risk factor (Fergus & Zimmerman, 2005). In fact, challenging adversities may forge resilience (i.e., individuals who are challenged by adversity may become stronger); otherwise, the individual capacity for resilience may not have developed (Higgins, 1994). However, such assertions raise an issue of whether to take into account a specific risk, multiple risk factors, everyday adverse life events, or severity levels of risk (Bonanno et al., 2015). Which of them facilitate or inhibit the development of an individual's capacity for the manifestation of resiliency/e?

The transactional/social-ecological conceptualization takes into account two approaches to risk factors for the manifestation of resiliency/e in a given target population. One of the approaches argues that the existence of a specific risk factor is a prerequisite for people to show resilience (Fergus & Zimmerman, 2005). Only a group of individuals who are at a specific risk (facing serious trauma) can demonstrate resilience. In contrast, the other approach asserts that challenges and difficulties are part of everyday life (Martin, 2013). Pressure ensues from various sources. Examples are (a) physiobiological and emotional changes as a result of transition from childhood, adolescence, to adulthood (Steinberg, 2008); (b) conflicts between one's ideal self and actual self (Hankin et al., 1997); (c) and maladaptive family system (Harrist et al., 2019; Henry et al., 2015) or crisis (Walsh, 2006). As for

educational context, examples include conflictual interactions or relation-ships with peers and teachers as well as the pressure to perform well in the classroom. To overcome such an everyday pressure is an indication of resiliency/e (i.e., success in school and later in life requires students to cope with stressful situations and frustrations).

As such, according to both approaches, overcoming either a specific adversity or a common challenge distinguishes between individuals who demonstrate resiliency/e and those who do not. The two approaches can be considered as "the outcome focused approach" to resiliency/e. From such an approach, achievement of positive outcomes despite challenging or threaten-ing circumstances is considered to be the main indicator of resilience. This approach hereby leaves developmental processes largely unexplained.

Adaptation: Process or Outcome?

Against adversity, resilience arises from normal adaptive systems of human development and it fails when these systems are damaged or overwhelmed (Rutter, 1987). This implies that resilience is a normal regressive and pro-gressive process. The resilience process, capacity, and outcome can be either strengthened or weakened by a distressing event (Werner & Smith, 1992). However, this conception of resilience as a normal adaptive process is often confused with positive adjustment, coping, or competence, which are either an outcome or a developed internal asset in the social-ecological context (Fergus & Zimmerman, 2005). As Fergus and Zimmerman elaborated, posi-tive adjustment, coping successfully with a traumatic event (e.g., the death of a loved one), overcoming negative effects of a risk, or avoidance of a nega-tive consequence is a positive outcome of the resilience process (i.e., the process of avoiding, overcoming, or succeeding despite adversity). Resilience is a process when individuals draw on internal assets, such as competence (i.e., an acquirable and developable intrapersonal factor) or on external resources to overcome a distressing event or situation (e.g., the transition to middle school) and achieve positive outcomes or healthy development (e.g., academic achievement), but it is an outcome when individuals have success-fully overcome exposure to a risk and achieved positive results (Fergus & Zimmerman, 2005).

However, if positive outcomes are deemed to be "individual efforts to cope and adapt to the demands of the surrounding culture, community, and institu-tions, then the definition of what is positive will be different across situations, and even among individuals in similar circumstances" (Trickett & Birman, 2000, p. 381). Furthermore, to define resilience as a relatively good outcome leaves researchers unclear about what contributes to this development, thereby

complicating its prediction (Bonanno et al., 2015; Hjemdal et al., 2006). Research on resilience in children and adolescents has been mainly aimed at identifying what contributes to the development, so that predictive and intervention models of resilience could be developed (Atkinson et al., 2009).

For a comprehensive conception that may facilitate further research and prediction, Hjemdal et al. (2006) provided the following definition: "Resilience is the protective factors, processes, and mechanisms that, despite experiences with stressors shown to carry significant risk for developing psychopathology, contribute to a good outcome" (p. 84). Hjemdal et al. (2006) hereby suggested clarifying essential factors and processes that modify the impact of adversity as well as taking into account individual stress adaptation across a variety of clinical and nonclinical samples. Further research aimed at this clarification would make a distinct contribution compared with research on good development in general.

Assets, Resources, Promotive Factors, or Protective Factors?

While there has been a lack of consensus on the theoretical definition of resilience, empirical evidence has been building a consensus on the underlying factors, referred to as "protective factors," "promotive factors," "assets," "resources," or "strengths," which facilitate human potential capacity for negotiating, managing, and adapting to distressing or traumatic events or conditions (see Hays-Grudo & Morris, 2020; Lou et al., 2018; Windle, 2011). The leading theorists have commonly identified resilience from three aspects: (a) individual (e.g., psychological and neurobiological), (b) social (e.g., family cohesion and parental support), and (c) community (Windle, 2011). To distinguish between these factors, Fergus and Zimmerman (2005), also Sacker and Schoon (2007), considered "assets" internal and "resources" external to the individual. "Assets might include factors such as competence and efficacy; resources encompass the contextual or environmental influences" (Windle, 2011, p. 157).

However, assets residing within the individual is frequently confused with the myth of the "golden child," assuming that resilience is innate whereby children simply resist the negative effects of adversity (Beauvais & Oetting, 1999). As Beauvais and Oetting stated: "Resilience is not an innate characteristic that magically prevented the negative environment from influencing the child. The real causes of the child's success are protective factors" (p. 101). As an axiomatic instance, a new-born baby has no innate trait-protection for the survival; a human infant cannot survive without the caregiving environment (Sameroff, 2010). To avoid the confusion, the term resources can be used to emphasize the social-ecological influences on healthy development

of children and adolescents; the positive contextual effects that help them face various risks or challenges they experience as they move into adulthood (Sacker & Schoon, 2007). The term hereby places the resilience theory in a more social-ecological context, away from the conceptualization of resilience as a personality trait stable over time.

According to Sameroff (1999), a better term for the positive end of individual experience of adversity is "promotive" rather than "protective" factor. Promotive factors lead to positive effects on both children at high- and low-risk, whereas protective factors only facilitate the development of children at high-risk (Sameroff, 2010). However, promotive factors may also be considered either "assets" or "resources" that can help adolescents and youth face risks (e.g., socio-economic disadvantages), reduce negative effects, or avoid negative consequences (Beauvais & Oetting, 1999). Alike promotive factors, assets are internal/intrapersonal characteristics, such as coping skills, self-efficacy, social competence, (Fergus & Zimmerman, 2005), academic competence, motivations, and beliefs (Sacker & Schoon, 2007), and resources are external/interpersonal protective factors. Interpersonal resources include parental support, adult mentoring, or community organizations that promote their positive development (Fergus & Zimmerman, 2005) and positive attitudes toward education (Sacker & Schoon, 2007).

Accordingly, intrapersonal assets and interpersonal resources can be more appropriate terms to describe and explain what characterize resiliency/e. However, the interpersonal resources and intrapersonal assets may differ on their magnitudes, that is, the degree of resilience in a given context is dependent upon the capacity of both (a) the extent to which that context has available resources, and (b) individuals navigate their ways to these resources (Ungar, 2008). Thus, the extent to which the resources and assets contribute to resilience processes and outcomes depends on neither personality traits nor social-ecological states alone, but on both, transactional/interdependent effects.

Neither Trait nor State: Transactional Approach to the Conceptualization

The focus centralized on personality traits or individual characteristic implies that a person who is unable to thrive and produce positive outcomes under stressors or when facing severe adversity is responsible for his or her plight. Put another way, the consideration of resilience as a static individual trait places the blame on adolescents for failing to overcome adversity and casts doubt on the usefulness of prevention programs, because individual traits may not be amenable to a change or alteration (Fergus & Zimmerman, 2005).

This conception provides no guidance for further research, practice and policy to design appropriate interventions (Luthar et al., 2000). If, researchers believe that "an individual consists of a set of unchanging traits then there is no need for developmental research" (Sameroff, 2010, p. 12).

Therefore, leading theorists (e.g., Garmezy, Luthar, Masten, Ungar, and Werner) have agreed that resilience is not an inherent or unique personal quality that only some children are born with. Resilience is not peculiar to a heroic child (Garmezy, 1991), is not a distinctive trait (Luthar et al., 2000), is not fixed character, but it changes over time (Werner, 1986). Masten (2001) and colleagues (Masten et al., 1990) explicitly rejected the conception of resilience as a trait alone. In Rutter's (2012) words, resilience is not and cannot be a personality trait only but a dynamic process that can vary in different contexts. Resilience can be learned and developed at any age based on reciprocal relationships between individuals and their environments (Gillespie et al., 2007).

Hence, as Masten (2011) strongly argued, the conceptualization of resilience needs to go beyond being tied to personal characteristics. This suggestion is not disregarding genetic influences, rather conveying that resilience is a characteristic of environment as much as of personality (Ungar et al., 2013) and a risk factor (Shiner et al., 2017). Cumulative experiences of adverse life events or conditions shape personality traits such as conscientiousness (Shiner et al., 2017). This affirms Ungar et al.'s (2013) definition that resilience is simultaneously a personal quality and reflection of socio-cultural context. Individuals not only engage in social interactions, but also negotiate for accessing or receiving socio-cultural and psychical resources (Ungar, 2011).

As a result, the suggested conceptualization is based on the transactional social-ecological perspective. This means what makes a person resilient is a mixture of intrinsic and extrinsic characteristics (Ungar, 2008) or transactions between characteristics of individuals and the environment. Resilience arises when individuals are able to use their intrinsic (e.g., coping skills) and extrinsic characteristics (e.g., familial and social support). For this, the external resources must be accessible and relevant (Ungar, 2008), such as a caring (supportive and friendly) relationship in family, community, and school. Therefore, Ungar (2004) proposed decentralization of individual ability when explaining resilience. Resilience can be rather explained as an adaptive function of the capacity of socio-cultural and physical environment to facilitate growth rather than a sole result of individual differences in the capacity of children and adolescents (Ungar et al., 2013). Socially and culturally meaningful relationships and opportunities either trigger or suppress personal characteristics such as motivation, sense of agency, temperament, and genetic

predispositions toward particular behaviors (e.g., anxiety and impulsivity). Hence, for the better understanding of resilience, the focus can be on the socio-cultural and physical environment (i.e., processes that create risk or promote positive growth) rather than blaming children and adolescents for the lack of resilience (Ungar et al., 2013). As Ungar elaborated, the focus needs to be not solely on how well a child is individually able to take advantage of external resources. Instead, the central focus needs to be on delineating the antecedents, defining attributes, and consequences.

Transactional Resiliency/e: Antecedents, Defining Attributes, and Consequences

Adopting a social-ecological approach, Dyer and McGuinness (1996) identified two antecedents, three defining attributes, and three consequences of resilience process. The two antecedents are an experience of adversity (risk factor) and availability of an emotionally caring person (external protective factor) at some point in an individuals' life. The three critical attributes are a sense of self, determination, and a prosocial attitude. The three consequences are: a toughening effect, a sense of overcoming, and an effective coping.

A decade later, Gillespie et al. (2007), conducted a re-examination of the concept analysis, by Dyer and McGuinness (1996), and identified four antecedents, three defining attributes, and four contextual consequences of resilience. The four antecedents of resilience are: (a) the presence of adversity, (b) the perception of adversity (i.e., adverse situation that an individual construes as traumatic or stressful), (c) the intellectual capacity to interpret adversity both cognitively and socially, and (d) a realistic worldview (i.e., a realistic optimism rather than a false optimism or depressive attitude). The three defining attributes are self-efficacy, hope (future goal orientation and optimism), and coping. The four contextual consequences are: (a) successful integration in a social or cultural context; (b) the development of personal control; (c) psychological adjustment; (d) personal growth.

The two concept analysis, further empirical evidence (DiCorcia & Tronick, 2011; Fergus & Zimmerman, 2005; Hays-Grudo & Morris, 2020), and theory-building research (Henry et al., 2015; Luthans et al., 2007) confirmed that the presence of risk factor, interpersonal/protective factor (family adaptive systems), and intrapersonal/promotive factor is an essential requirement of resilience. This corresponds to three aspects of resilience: (a) intrapersonal assets (e.g., efficacy and realistic optimism), (b) interpersonal resources within the family (i.e., a stable, caring, and supportive family environment), and (c) interpersonal resources outside of the family, a caring, and supporting social environment.

Therefore, "resilience is defined by the context, the population, the risk, the promotive factor, and the outcome" (Fergus & Zimmerman, 2005, p. 404). This suggests conceptualizing transactional resiliency/e as a dynamic process, capacity, and outcome of developing person in a corresponding population, context, and risk. This conceptualization may resemble Grotberg's (1995) definition, "the human capacity to face, overcome and be strengthened by or even transformed by the adversities of life (p. 9), and three sources of resilience: *I have* (external support), *I am* (inner strength), and *I can* (interpersonal skills). However, different from the Grotberg's definition, the proposed conceptualization suggests that resiliency/e is not merely the capacity to be transformed by but also to transform adversities in their life (i.e., transactional effects).

Resiliency/e transcends interactions between interpersonal, intrapersonal, and risk characteristics. Transcending interactions means children, adolescents, or youths do not necessarily retain or show the same characteristics either during or after experiencing a risk and/or protective factor; transactions bring about transformation of the characteristics (Kuldas et al., 2021). A common example, some individuals are not only transformed by their low socioeconomic status but also transform it into high one within short or long term. Another example, children who were severely bullied, despite which demonstrated successful academic achievement, would be identified with resiliency/e rather than being victims of peer-bullying. In contrast, children who demonstrated no resiliency/e would be identified with being victims of peer-bullying.

Therefore, what *I have* (inter-personal resources/developmental process) transcends interactions within the bio-social-ecological context; what *I can* (developmental capacity/intra-personal assets) is based on what I have, the level of bio-social-ecological resources and intrapersonal assets; *what makes me who I am* (developmental outcome) is the exceptional achievement or psychological accommodation because of interpersonal, intrapersonal, and risk characteristics. For example, in a school context of victimization of peer-bullying, a caring and supportive teacher is what I have. Therefore, I can demonstrate resiliency/e (e.g., exceptional achievement or psycho-social accommodation). This demonstration due to interpersonal, intrapersonal, and risk characteristics makes me who I am. In this example, to consider age, gender, skin color, ethnicity, sexual orientation, physical appearance, physical ability, cognitive ability, classroom ethnic composition, teacher diversity, school ethos, school policies, teacher efficacy, and teacher attitude would be the minimum requirement for the operationalization of transactional resiliency/e in further research (Kuldas et al., 2021). Such research might hereby provide insights into the question: how does resiliency/e vary

(transact) by characteristics of individual (e.g., ethnicity and risk perception), risk (e.g., ethnicity-based victimization of peer-bullying), context (e.g., classroom ethic composition and school policy), and promotive factor (e.g., teacher and school principal)?

However, the non-systematic and non-hierarchical premise of the transactional conceptualization (e.g., neither linear nor unidirectional relationships between intrapersonal, interpersonal, and risk characteristics) provides no straightforward rationale for where resiliency/e originates from and, thus, for preparation of an early intervention. Instead, the approach provides a multifactorial rationale (i.e., characteristics of individual, risk, and context hold no deterministic role but rather a probabilistic role in resiliency/e) that might retard rather than facilitate research and intervention to promote resiliency/e. If a research design includes each and every aspect of the transactional resiliency/e, it might delay or complicate findings and intervention efforts (Kuldas, 2018).

Notwithstanding this limitation, the non-linear and multidirectional premise shifts attention from direct to indirect causality (multifactorial causation) and helps to understand why resiliency/e is not determined by every risk, protective, and promotive factor or why an early intervention does not determine a later outcome. The transactional conceptualization hereby helps research to identify presence or absence of a specific risk and/or protective factor within a context that accounts for only a part of the whole effect/variability in resiliency/e. This identification may in turn build up toward understanding cumulative effects that cut across bio-social-ecological levels of risk, protective, and promotive factors. In other words, instead of measuring effect of a risk, protective, promotive, or context factor one by one, their cumulative effects on the developing child are central to the understanding.

However, across various contexts and psychological literature, the emphasis can be on development of the process, the capacity, the outcome, or a combination of them, while taking into account their interdependent or cumulative effects (Southwick et al., 2014). For example, as the capacity-outcome approach, a study focused on the development of personal strength to overcome challenges that are part of everyday life (Martin, 2013). Another research focused on the developmental capacity of at-risk children and youth to achieve better than expected outcomes (Sapienza & Masten, 2011). As an example of the process-capacity-outcome approach, a longitudinal study of high-risk children and families focused on the developmental context, how resilience develops over time in the context of person-environment interactions (Egeland et al., 1993). Further research that adopts any of these approaches would be based on the core idea that resilience is a multi-determined and ever-changing state, capacity, and outcome of transactional forces

within a given ecosystemic context (Waller, 2001). Otherwise, measuring resiliency/e as only the outcome, the capacity-outcome, the process-outcome, or the process-capacity (i.e., not measuring the interdependent or cumulative effects) can be considered a non-transactional approach.

Hence, the transactional approach differs from a non-transactional one when research measures cumulative direct and indirect effects (e.g., a parallel-multiple mediator or moderated mediation model) of the resilience process, capacity, and outcome within the corresponding population, context, and risk. Such an empirical research, as a series of cross-sectional surveys, was conducted by the first author. Kuldas (2018) measured the resiliency/e process (i.e., interpersonal resources as perceived parental and teacher care), capacity (i.e., intrapersonal assets as academic performance goal and educational optimism), outcome (i.e., grade point average—GPA), and risk factor (i.e., low socioeconomic status—SES) in a specific educational context (secondary school setting of one of the most socioeconomically disadvantaged rural area in Malaysia) in order to test a parallel multiple mediator model (allowing mediators to correlate but not causally affect each other). The research found that most adolescent participants reported failure or underachievement in five core subjects (Mathematics, Science, English Language, Bahasa Melayu, and History), but some students with the same disadvantaged background showed exceptional achievement (minimum grade B), referred to as academic resilience (Kuldas, 2018). As compared to those non-resilient students (low grade achievers with low SES), academically resilient ones (high grade achievers with low SES) had significantly greater levels of perceived parental and teacher care as well as academic performance goal and educational optimism. Indirect effects of the interpersonal resources on their GPA were significantly more than direct effects of the intrapersonal assets. Their perceived parental care appeared to be the most effective interpersonal resource predicting the outcome, whereas academic performance goal was the most effective intrapersonal asset. Further empirical research might adopt similar approach and require a moderated mediation model. Such a model might test whether students' perceived parental and teacher care have a direct effect on their achievement-goal motivation and thus exert an indirect effect on their achieved outcome when they have low SES (i.e., testing moderated mediation effects on the relationship between the achievement-goal motivation and achieved outcome).

Conclusion

The present conceptual review has argued that one fundamental reason for the lack of consensus on the definition of resiliency/e can be the dualistic fallacy,

the trait-state dualism. The exclusive focus of either trait-like resiliency or state-like resilience reflects a dualistic approach to the conceptualization, leading to confusion as to how to conceptualize and operationalize it. To facilitate the consensus building, this concept analysis has called for a transactional approach instead of the dualistic approach to the conceptualization.

The traditional literature suggests various definitions, many of which were not theoretically founded (Fonagy et al., 1994). A collection of empirical findings has resulted in new definitions, but they all convey some aspects of resilience (Hjemdal et al., 2006). The bulk of literature refers to resiliency/e as an adaptive capacity or psychological adjustment. However, "adaptation is usually equated with an individual's successful coping under stress rather than the amount the individual's environment facilitates human development" (Ungar et al., 2013, p. 349). In this sense, the concept adaptation, adaptive capacity, or coping skills falls short of reflecting resilience as a psychosocial-ecological construct. As Ungar (2011) described, the adaptive capacity is activated or promoted not only by the extent to which social, cultural, and physical resources promotes it in the presence of a risk, but also the extent to which individuals negotiate for using these resources. However, this does not mean that resiliency/e is just an outcome of this interaction.

Resiliency/e is more than the process-person-context-risk interaction. Interactions can be still reckonable as between independent entities, as if individual and environmental characteristics are independent or having part-whole relationships. Resiliency/e transcends interactions between intrapersonal, interpersonal, and risk characteristics, mainly because children or youths do not necessarily retain or show the same characteristics either during or after experiencing a risk and/or protective factor (Kuldas et al., 2021). Therefore, resiliency/e can be conceptualized as transactional—a dynamic process, capacity, and outcome of developing person in a corresponding population, context, and risk.

Declaration of Conflicting Interests

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Ethics Approval

The review of the literature involved no human subject, therefore, ethical approval for research involving humans was waived.

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