

## Research Article

# Autonomy, Competence, Relatedness, and Beneficence: Exploring the Interdependence of Basic Needs Satisfaction in Postsecondary World Language Education

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## ABSTRACT

Self-determination theory (SDT) provides a cross-cultural, empirical framework for exploring what world (i.e., “foreign”) language educators can do to support the satisfaction of their learners’ basic psychological needs and, in turn, their autonomous motivation and well-being. Despite this, the identification of approaches to world language pedagogy and curriculum development that are supportive of learners’ simultaneous and interdependent—rather than individual and isolated—basic needs satisfaction has been limited. To this end, this study sought to examine the characteristics of postsecondary world language learning environments that were supportive of the balanced, simultaneous satisfactions of autonomy, competence, and relatedness, as well as beneficence, a candidate need. Participants in the study included thirteen undergraduate world language learners at a large public university in the United States. Semi-structured interviews were analyzed through a qualitative approach involving multiple rounds of deductive coding and two stages of inductive thematic analysis. Results of the analysis identified six themes representing the characteristics of world language learning environments that students perceived to support their autonomy, competence, relatedness, and beneficence. Further, the analysis identified textual evidence for the interdependent satisfaction of students’ basic psychological needs via the multidirectional influences of each need on the others. Recommendations for world language teachers and implications for theory and methodology are discussed.

*Keywords:* self-determination theory, basic psychological needs, world language learning, qualitative approach

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## INTRODUCTION

Learner well-being is increasingly recognized as an essential objective of schools and other educational institutions (Seligman et al., 2009; Weissberg, 2019) including the contexts of language teaching and learning (Dewaele et al., 2019; Noels et al., 2019; Oxford, 2016). Given its growing attention, the construct of well-being has been theorized, researched, and operationalized in varied and often conflicting ways through various theoretical frameworks (Mercer, 2021). Research informed by positive psychology, for instance, has contributed valuable and practical understandings of the efficacy of formal language education in supporting learners' happiness and well-being, such as through service to others in the language (Bouvet et al., 2017), the inclusion of music in the curriculum (Gregersen, 2016), and communal physical activity, among many other practices (Oxford, 2016). Yet despite its practicality and accessibility for language educators, the positive psychology conceptualization of well-being in language learning comprises a wide—and often inconsistent—spectrum of elements (e.g., life meaningfulness, flow, positive emotions, happiness; MacIntyre et al., 2019) reflecting an incomplete and more subjective, rather than eudaimonic, understanding of well-being.

In contrast, self-determination theory (SDT; Ryan & Deci, 2017) proposes a eudaimonic perspective toward well-being and offers a more parsimonious and empirically testable model to measure it (Ryan et al., 2008). Through an SDT perspective, well-being is supported and sustained through the satisfactions of three basic psychological needs—autonomy, competence, and relatedness (Vansteenkiste et al., 2020)—and the process of supporting well-being through these three needs in the classroom has been traditionally referred to as autonomy-supportive teaching (Reeve & Cheon, 2021). Yet although the SDT framework has undergone decades of research across cultures, ages, and domains, it has yet to contribute a practical understanding of how to foster well-being specifically within the context of language teaching and learning.

Studies exploring three basic psychological needs of SDT in language learning have characterized autonomy, competence, and relatedness in different ways, from an assumption that they are individual outcomes to be targeted in instruction to an understanding of their

interconnectedness and mutually supportive nature in the classroom. Some studies have considered how general autonomy-supportive teaching behaviors can be modified and implemented specifically in second and foreign language classrooms to support well-being (Muñoz-Restrepo et al., 2020). Other scholarship, such as that of McEown and Oga-Baldwin (2019), Davis and Bowles (2018), and Noels et al. (2019), have reviewed SDT research on basic psychological needs in language learning and teaching and have provided hypothesized suggestions for their use in diverse language classrooms.

Yet although SDT provides an empirically grounded foundation for approaching well-being in foreign language teaching, SDT-informed research in this area has not provided researchers and educators with concrete suggestions for enacting a domain-specific foreign language pedagogy that will help bring about these much-needed outcomes simultaneously. The three basic needs of SDT—autonomy, competence, and relatedness—are often treated separately in analyses and in the identification of their pedagogical antecedents, especially through studies utilizing quantitative methodologies. This has resulted in disconnected and generalized suggestions for strategies in support of basic needs as separate phenomena that, while helpful for practicing language teachers, contradict their interdependent, mutually-facilitatory nature (Ryan & Deci, 2017). Ryan and Deci (2017) explain that “put metaphorically, well-being is like a three-legged stool; pull out any one of these supports and the stool will fall” (p. 250). More research, including within language teaching and learning, must proceed with consideration to this fundamental theoretical proposition of SDT or risk misrepresenting how basic needs satisfaction and well-being are cultivated while one acquires a new language.

Thus, the critical question relevant to language teachers and many other educational stakeholders remains: What does a *needs-supportive world language pedagogy* look like, and how do I enact it in my classroom? Noels et al. (2019) write that, “given the extensive literature that shows the effectiveness of autonomy-support in other educational domains, we anticipate that many effective SDT-informed interventions could be designed for language education.” Taking up this call, as well as those by Reeve and Cheon (2021) and Ryan and Deci (2020), this qualitative interview study sought to identify the factors and characteristics of spaces for world (i.e., “foreign” or “modern foreign”)

language learning which support the simultaneous, or interdependent, satisfactions of autonomy, competence, relatedness, and the candidate basic need, beneficence (Martela & Ryan, 2016) at the university level. Further, the study seeks to deepen our understandings of the complex and interacting antecedents of these needs and how they can be leveraged by language teachers in diverse contexts to support the well-being of their language learners.

## LITERATURE REVIEW

### Basic Psychological Needs Theory

Basic psychological needs theory (BPNT), one of the mini-theories of SDT, lends itself as the primary theoretical pillar of the theory and this study (Ryan & Deci, 2017). BPNT posits that the satisfaction of the basic psychological needs for autonomy, competence, and relatedness are highly interdependent, objective prerequisites of human flourishing within any one of life's domains, including schools and education (Niemic & Ryan, 2009). The explanatory power and separability of these needs have been replicated across numerous domains and diverse contexts (Vansteenkiste et al., 2020). Additionally, SDT posits that the frustration of these needs will be associated with poor functioning and ill-being regardless of the value one places on them, the knowledge one has of them, or the desire one has to attain their satisfaction or frustration (Ryan & Deci, 2017). In this way, basic needs are like psychological nutrients; autonomy, competence and relatedness are to a student's well-being as sun, soil, and water are to a healthy, thriving plant (Sheldon & Ryan, 2010).

The basic need for *autonomy* refers to “the need to self-regulate one's experiences and actions” (Ryan & Deci, 2017, p. 10) and is associated with feelings of volition, freedom, and acting in congruence with one's internalized values. *Competence* refers to feelings of mastery and capability and is satisfied when one “feels able to operate effectively within their important life contexts” (Ryan & Deci, 2017, p. 11). The third basic psychological need, *relatedness*, is affiliated with experiences of belongingness, care, mutual concern, reciprocity, and social connectedness (Baumeister & Leary, 1995; Reeve, 2016). The satisfactions of autonomy, competence, and relatedness have been shown to predict well-being between (Chen et al., 2015) and within

individuals (La Guardia et al., 2000), including over time (Ryan et al., 2010). One of the essential qualities of basic psychological needs is that they are mutually fulfilling and intercorrelated; the three needs are highly interdependent and most often arise simultaneously, with each inciting the actualization of the others. Because of this, the three needs “tend to positively relate to one another, especially at an aggregated level of analysis” (Ryan & Deci, 2017, p. 249). While autonomy has been identified as the most salient and compelling basic need (Ryan & Deci, 2017), the satisfactions of competence and relatedness also share reciprocal relationships with each other and with autonomy. In education, for instance, students who do not feel capable in a task (competence) will be less likely to engage with it on their own accord or be interested in it (autonomy). Similarly, students who feel cared for and supported by their peers and teacher (relatedness) will feel more willing to engage autonomously in class and integrate their own beliefs, perspectives, and values in their learning (autonomy). In this way, students' interdependent satisfactions of autonomy, competence, and relatedness are essential for fostering well-being in schools.

In addition to the three basic needs, a new candidate need, beneficence, has been proposed and explored in a series of recent studies (Martela & Ryan, 2016; Martela et al., 2018). Beneficence, or benevolence, refers to “a subjective sense of having a positive prosocial impact on others” (Martela & Ryan, 2016, p. 751). Beneficence has not yet ‘passed the test’ to be considered a basic psychological need due to its frustration not leading to ill-being. For this reason, Martela and Ryan (2020) explain that beneficence may more accurately be described as a wellness enhancer but that more study is needed. Given this need, this study also sought to explore self-reported instances of beneficence satisfaction in order to more deeply explore its relationships and interaction with language learners' satisfactions of autonomy, competence, and relatedness.

### Needs-Supportive Teaching Practices

The field of education has been a key area of SDT research. SDT considers schools to be foremost a space for supporting the well-being of learners, in which learning and achievement outcomes are natural byproducts of learners' healthy human development (Niemic & Ryan, 2009). The purpose of schools, through this perspective, is to support

students in becoming “empowered and confident in their learning and problem solving and feel a sense of belonging to their schools and larger human community” (Ryan & Deci, 2017, p. 354).

Educators can make changes to their own classrooms, interactions with students, and school or institutional culture to help satisfy learners’ basic psychological needs and, in turn, their overall well-being (Niemic & Ryan, 2009; Ryan & Deci, 2020). Termed “autonomy-supportive teaching” (Reeve, 2016; Reeve et al., 2004), this growing list of empirically tested teacher behaviors has been organized foremost to promote learner autonomy, which naturally assists in supporting the satisfactions of competence and relatedness. Such an approach to teaching has been shown to predict many important student outcomes (Patall, 2019), such as engagement (Jang et al., 2010), autonomous motivation (Levesque et al., 2004), achievement, and decreased anxiety (Black & Deci, 2000). Recently, Reeve and Cheon (2021) have further called for needs-supportive teaching interventions emphasizing the satisfactions of all three needs rather than a primary emphasis on autonomy. Educators who are supportive of students’ basic psychological needs “first and foremost consider their students’ frame of reference in designing and motivating learning tasks” and “minimize the sense of coercion, evaluative pressure, and control, and they maximize a sense of choice and volitional engagement” (Ryan & Deci, 2013, p. 199). Autonomy supportive teaching practices remain the most studied because the consistent action of taking into account students’ perspectives naturally elicits feelings of care and connectedness (relatedness) as well as confidence, capability, and effectance (competence; Reeve, 2016).

To support autonomy, teachers can listen to students and incorporate students’ input, be aware of and acknowledge students’ emotions, needs, perspectives, interests, and experiences, pique students’ curiosities, be flexible and open-minded, welcome criticism, and provide students with choices and options (Assor et al., 2002; Reeve & Jang, 2006; Reeve et al., 2004). In school, the need for competence can be supported through setting clear expectations and guidelines for activities (Farkas & Grolnick, 2010), through help and appropriate scaffolding (Jang et al., 2010), and positive feedback (Mouratidis et al., 2008). Students’ needs for relatedness can be fulfilled when a student feels “that their teacher genuinely likes, respects, and values him or her” (Niemic & Ryan, 2009, p. 139). Teachers’ behaviors

supportive of relatedness can include promoting community and cohesiveness through collaboration and teamwork (Sparks et al., 2015) as well as day-to-day interactions with and between students that embody care, warmth, interest, and interpersonal support (Sparks et al., 2016).

## Supporting Basic Needs in Language Education

Research within the area of SDT and language learning emerged just over two decades ago from Noels and colleagues’ work exploring the motivational orientations of foreign and second language learners in Canada (Noels et al., 1999). Recent years have seen an expansion and refinement of this work into a heuristic model of the SDT motivational process in L2 learning (see Noels et al., 2019). Within this comprehensive model, a growing segment of research has sought to identify the environmental antecedents of basic psychological needs satisfaction in the language learning process; in other words, what language teachers can do to support learners’ satisfactions of autonomy, competence, and relatedness in diverse language learning settings.

The strategies and approaches identified or recommended in this research, however, have not always been specific to language teaching and learning. Many suggestions for strategies and approaches have only been extrapolated or hypothesized from general education-related research within basic psychological needs theory, or have been found to be only associated with basic needs satisfaction and not causally responsible. While generalized recommendations for autonomy- and needs-supportive teaching are undoubtedly important to all disciplines, including world language education, the distinctive aims and methods of language teaching in contrast to other subject areas lend support to the need for domain-specific suggestions for satisfying language learners’ basic needs. Further, few of these studies have examined basic psychological needs from an interdependent, mutually-facilitatory perspective. This has left a sizable gap in this area regarding empirically derived needs-supportive teaching practices. The following sections synthesize a range of work within SDT research to provide a clearer image of what forms of language learning environments may be conducive to the interdependent and simultaneous satisfactions of autonomy, competence, and relatedness.



To support autonomy in the language classroom, research suggests providing students with choice and rationale (Muñoz & Ramirez, 2015) and setting aside time for learner reflection in class (Shelton-Strong & Mynard, 2018). Yarwood et al. (2019) suggested creating a low-stakes, casual, and conversational language learning environment to support autonomy. Competence has been found to be associated with taking risks in the language classroom (Dincer et al., 2012), having opportunities to communicate in the target language (TL; McEown et al., 2014) and receiving appropriate, meaningful feedback (Dincer, 2014). To support relatedness, findings from a small selection of studies suggest creating opportunities for students to learn about and discuss each other's and their teacher's interests, hobbies, and perspectives through the target language. This could be supported through promoting debate (Davis, 2018), interpersonal involvement with members of the target language community who speak the language (Noels, 2005), student-teacher dialogue journals (Fukuda et al., 2011), and peer advising (Fukuda et al., 2015). While these instances of individual basic need satisfaction were likely tethered to the satisfaction of others, the studies themselves did not explicitly take an interdependent perspective toward needs satisfaction and, therefore, those mutual connections were not illustrated.

Other studies have approached basic psychological needs satisfaction with varying degrees of consideration to their interdependent nature. Jones et al. (2009) examined university students' qualitative responses regarding their individual satisfactions of their basic psychological needs after participating in various foreign language learning activities. Throughout many of the activities, students referenced the perceived effects of communicating in Spanish in supporting their needs, such as how speaking in Spanish with peers (competence) about relevant topics (autonomy) helped students to get to know each other (relatedness). Other studies (Muñoz-Restrepo et al., 2020) have instead considered how general strategies for supporting autonomy, competence, and relatedness may also be used in the foreign language classroom. Printer's (2019) study with Spanish learners in Switzerland aligns most strongly with the interdependent nature of basic needs. Results from the qualitative study found that communicative, co-constructed storytelling was particularly conducive to the satisfaction of all three needs simultaneously. He writes:

The autonomy provided by the stories imbued student ownership over their learning while simultaneously increasing their competence as their own ideas were selected and used in the plot. Constructing a story together encouraged a sense of belonging and cohesion both to their classmates and the teacher, thus satisfying all of SDT's basic needs (Printer, 2019, p. 11).

Similarly, a study by Muñoz and Ramirez (2015) identified interdependent associations between teachers' supports for the three basic needs, with relatedness acting as a critical influence on the others. Although general strategies for supporting basic needs, in addition to suggestions for supporting individual needs separately, are vital in this work, treating basic needs as disconnected phenomena does not accurately reflect the theoretical tenets of SDT. For this reason, there is a significant need for studies which not only recognize the interdependence of basic needs in their theoretical frameworks and methodologies, but also seek to identify and understand the characteristics of language learning spaces which incite their simultaneous satisfactions.

To address these needs, this qualitative study was guided by two research questions (RQs):

RQ1: What characteristics of world language learning environments do postsecondary students perceive to support their satisfactions of autonomy, competence, relatedness, and beneficence?

RQ2: How is the interdependent nature of basic psychological needs actualized in postsecondary world language education?

## METHOD

### Context and Participants

The context of this study was situated within undergraduate level world language courses at a large public university in the southeastern region of the United States. The world languages department at the university offers courses in Arabic, Chinese, Classics, French, German, Italian, Japanese, Portuguese, Russian, Spanish, and Swahili. Participants in this qualitative study included thirteen ( $N = 13$ ) undergraduate students who were enrolled in one or more world languages courses at the university during the Spring 2020 semester. The participants were recruited from

a larger pool of respondents to a previous survey who had indicated interest in a follow-up interview. A sample of participants with a representative range of languages and course levels was intended to gain a deeper understanding

of how students experience the interdependent satisfactions of basic psychological needs in postsecondary world language study (Table 1).

**Table 1.** *Participants in the Qualitative Phase*

Name	Interview format	Gender and racial/ethnic identity	Language, course level, and relationship to degree major or minor
Cody	Zoom	M, Asian	Japanese (Elem./Neither)
Cora	In-person	F, Latinx	Spanish (Adv./Major)
Courtney	Zoom	F, White	French (Elem./Neither)
Daniela	In-person	F, White	Spanish (Adv./Maj.) & Italian (Int./Minor)
Hannah	Zoom	F, White	Spanish (Int./Neither)
Liam	In-person	M, White	French (Adv./Minor)
Mark	In-person	M, White	Spanish (Int./Neither)
Melissa	Zoom	F, Biracial	Japanese (Adv./Neither)
Michael	In-person	M, White	Italian (Elem./Minor)
Nicole	Zoom	F, White	German (Int./Minor)
Paige	In-person	F, White	French (Elem./Minor)
Summer	Zoom	F, White	Spanish (Adv./Major)
Tess	Zoom	F, White	Spanish (Adv./Minor)

*Note.* Names are pseudonyms. F = female; M = male; Neither - neither major nor minor; Elem. = elementary; Int. = intermediate; Adv. = advanced

## Instrument and Data Collection

Data collection involved interviews with students about their current and previous world language learning experiences. Interviews were guided by a semi-structured interview protocol (see Appendix). Semi-structured interviews entail the use of instruments which “organize and guide the interview but can also include specific, tailored follow-up questions within and across interviews” (Ravitch & Carl, 2016, p. 154). The interview protocol included questions about students’ current and prior language courses and levels (e.g., Are you majoring or minoring in this language?), their reasons for learning a new language (e.g., Why are you learning this language?), and their expectations and impressions from the courses (e.g., What are your goals for your current WL course?). The second

half of the protocol sought to identify instances in which students felt their needs for autonomy, competence, relatedness, and beneficence were satisfied (e.g., In your current or past WL classes, think of a time where you felt ... a sense of personal control or freedom [autonomy] / effective or capable [competence] / like you belonged or were cared for [relatedness] / like you had a positive impact on the welfare of others [beneficence]. What made you feel that way?). Interviews were conducted both in person and over Zoom due to the complications arising from the COVID-19 pandemic. The duration of the interviews ranged from 24 to 47 minutes ( $M = 36$  minutes). The data corpus comprised 7 hours and 25 minutes of audio. The audio from each interview was recorded, transcribed, and verified. Coding and thematic analysis were performed in

Dedoose, a web-based software package for qualitative data analysis.

### Qualitative Analysis

This study employed a qualitative approach to analysis. Qualitative research is less common in research informed by SDT yet is much needed and ideally suited for this work. Qualitative studies have contributed new understandings of basic psychological needs satisfaction and self-determined motivation in various contexts, including in postsecondary education (Hodge et al., 2014; Nagpaul & Chen, 2019; Wisniewski et al., 2018). Given the strong correlations between the three needs and their statistical tendency to converge in quantitative approaches, such as factor analyses, qualitative approaches may be particularly apt to examine the interdependency of autonomy, competence, and relatedness, in addition to helping “in identifying concrete manifestations and themes underlying experiences of need satisfaction and frustration” (Vansteenkiste et al., 2020, p. 6). For instance, in a study by Wisniewski et al. (2018), a qualitative exploration of university students’ experiences of autonomy, agentic engagement, and role redefinition “uncovered some of the nuances of participants’ agentic engagement” (p. 15), providing a unique contribution to SDT’s conceptualization of engagement. To this end, the qualitative approach utilized in this study was both deductive and inductive in nature; deductive coding allowed for close alignment with the SDT framework, while inductive thematic analysis of coded instances allowed for the identification of themes and patterns representing environmental supports for basic needs satisfaction.

The analysis in this study involved three rounds of coding and two stages of inductive thematic analysis. Analysis began with an initial application of an *a priori* code set to the data corpus. The *a priori* codes represented each of the three basic psychological needs of SDT (i.e., autonomy, competence, relatedness) as well as the wellness enhancer and/or candidate need, beneficence (Ryan & Deci, 2017; Martela & Ryan, 2016). After coding, the researcher(s) then transitioned to an inductive approach to identify themes *within* each set of coded excerpts (e.g., competence). The first research question informed this stage of thematic analysis, which involved the identification of self-reported factors (e.g., pedagogical, personal, out-of-class) supporting each basic psychological need. A second

round of coding applied these new themes to the data corpus, and representative excerpts for only the most frequently occurring themes were selected and included as textual evidence.

To address the second research question regarding the interdependence of basic needs during world language study, a final stage of inductive analysis was performed. The purpose of this stage was to understand how the satisfaction of one need (e.g., autonomy) during world language study may have facilitated others (e.g., competence), and vice versa. Higher-order themes representing the unique influence of one basic need on another (e.g., the influence of autonomy on competence) were identified within equivalent combinations of previous themes (e.g., factors supporting autonomy and factors supporting competence). As before, a third and final round of coding applied these higher-order themes to the interview data, and representative excerpts were selected.

Validity was ensured by integrating multiple rounds of coding, analytic and reflective memos, and dialogic engagement with critical colleagues throughout the course of the study. These steps assisted in fostering “researcher reflexivity on the data corpus (Saldaña, 2013, p. 42) and provided the opportunity for critical scrutiny of what and how inductive themes were identified (Bhattacharya, 2017).

## RESULTS

### RQ1

Several themes representing characteristics of world language learning environments were identified for each of the basic psychological needs and beneficence. Figure 1 depicts these themes and their key supporting excerpts.

#### *Autonomy*

Each of the 13 student participants referred to recent experiences of autonomy satisfaction in their world language studies, resulting in 32 total coded instances. Through inductive analysis, two themes were identified which embodied characteristics of world language learning environments students perceived to support their satisfaction of autonomy: *Self-Endorsed Target Language Use* and *Choice in Curriculum*.

The theme *Self-Endorsed Target Language Use* was the most salient of the two; of the 32 coded instances of autonomy satisfaction, 14 illustrated this theme. In this theme, students described moments in and outside of their world language courses in which they engaged in self-endorsed, volitional use of the target language. Participants' interviews coded for this theme emphasized feelings of personal control and self-determination in how they communicated in the target language. This involved students actively negotiating, presenting, and interpreting meaning in the target language from their own beliefs, values, and perspectives, rather than perceiving from their teachers that their own interests and identities were insignificant to their learning. Instances of autonomy satisfaction within this theme often coincided with students engaging with course themes that were personally relevant, cultural, or critical in nature. Cora, an advanced Spanish learner, described the autonomy satisfaction she felt arising from the value that she, her peers, and her teacher placed on diverse student perspectives in her film class:

I guess that was very mentally engaging for me, just like, there's so many perspectives coming into this one classroom where we're all discussing this one thing ... We all watched the same thing and we're all going to draw different opinions on it ... and then being able to vocalize that, it was just very, I don't know, it was just rewarding. (#1)

The second theme, *Choice in Curriculum*, refers to learners' feelings of choice and self-direction in their world language courses and directly represented eight of the coded instances of autonomy. Students' experiences of choice encompassed self-directed engagement with course assignments, projects, and curricular themes. In her intermediate level Italian course, Daniela described how having a choice in how she completed her final project supported the satisfaction of autonomy:

It was a video project and you got to do it about anything that you wanted to. And so a lot of us of course chose trips ... and so I got to talk about my senior trip that I took with my mom... Looking up the vocabulary and learning how to form these sentences about something that actually mattered to me and was really important to me, that was great for me. (#2)

## Competence

All 13 of the student participants referred to recent experiences of competence satisfaction in their world language studies, resulting in 35 total coded instances. Through the researcher(s)' pedagogical lens, one major theme within competence satisfaction was identified—*Effective Target Language Communication*—which represented 18 coded instances of competence. Learners' descriptions of situations in which they felt they were communicating effectively in the target language with others—interpersonally, interpretively, or through presentation (ACTFL, 2012)—were regularly associated with their feelings of competence, capability, and confidence. Competence satisfaction was also supported when learners felt that the target language they produced was comprehended and responded to by others. Daniela, also an advanced learner of Spanish, described how her success during a one-on-one speaking assessment with her professor was a turning point in her Spanish studies, as she had switched to a Spanish major just a few days before and had been struggling with feelings of being behind:

He was asking me questions that were on the review and that were required for him to grade me on, but it was a conversation. At the end of it he was like, "You did really well. Your pronunciation was spot-on ... you had a grammar hiccup here or there, but you know, who doesn't" ... And so in that moment I felt competent and capable and those kinds of things. (#3)

Opportunities for authentic communication and comprehension, particularly with others who were proficient in the target language, were also associated with competence satisfaction. Melissa, an intermediate learner of Japanese, explained how she felt this at home and abroad:

Most of the times I've felt that way is when I'm talking to a native speaker and they can understand what I'm saying. ... I got that feeling a lot when I was in Japan, and I got that feeling a lot when the students visiting from Japan were here. (#4)

## Relatedness

Relatedness satisfaction, or perceived feelings of connectedness, community, and care, were also frequent in the participants' responses, resulting in 36 total coded



instances. Two themes within relatedness satisfaction were identified: *Engagement in a Target Language Discourse Community* (15 coded instances) and *Teacher Investment* (10 coded instances). In the first theme, *Engagement in a Target Language Discourse Community*, students described how engaging in respectful and empathetic conversations in the target language facilitated feelings of connection, love, and community in class. Students frequently emphasized the critical role of the teacher in organizing such an open dialogic space. Cora explained how her Spanish film teacher's decision to create such a space forged relationships and vulnerability between herself, her peers, and her teacher:

She was like, "I want this to be a discussion space where everyone feels safe" and ... "We're not all gonna agree on the interpretation or some of these scenes are gonna be uncomfortable." ... And so, I think, overall, I felt very comfortable and like I could approach her with even personal stuff, which I did, and she was really, really nice about it. (#5)

The second theme, *Teacher Investment*, refers to students' perceptions that their teachers cared about them and their studies, actively sought to understand each student's "language journey," and adapted the curriculum to these journeys. Daniela consistently praised her Italian teachers for making her feel welcomed, cared for, and important both inside and outside of class:

Every single time I see them on campus they make a point to say hi to me and ask me how my studies are going... I had a couple of them that emailed me while I was in Rome and asked me how it was going ... because, like, they are invested in my language journey even if they're not my teacher at that point in time. (#6)

### **Beneficence**

The satisfaction of beneficence, or the sense of prosocial impact on others, was reported by only nine students for a total of 12 coded occurrences. Comparing this to the number of students reporting the satisfactions of autonomy, competence, and relatedness, there were significantly fewer instances of beneficence satisfaction. One major theme within beneficence satisfaction was identified—*Helping via Language*—which encompassed students' self-reports of helping others through the target language and was coded

eight times. Students' perceptions of prosocial included experiences afforded by their academic studies (e.g., service-learning, study abroad) and also networks outside of class (e.g., a job). Only one student (Summer) recounted feelings of beneficence arising from service-learning courses, while others described situations outside of class, such as at work, where they used their target language proficiency to help others. Integral to this theme was how students' prosocial behaviors were enabled through language. Daniela, who worked part-time at a prison, described a situation which characterizes beneficence satisfaction and the theme *Helping via Language* in which an inmate who did not speak English needed medical attention:

I have a close relationship with one of my supervisors, and they were like, "Wait, you speak Spanish, don't you?" ... But I was able to go and talk with him and figure out what was going on and provide him medical treatment because of that. And if I had not been there and if I could not have it and if I didn't speak the language you know would he have gotten medical care? (#7)

### **RQ2**

In addition to themes within needs (RQ1), higher-order themes were identified representing the influence of one basic need on the satisfaction of the others. Figure 1 depicts these themes linking each need with the others and their key supporting excerpts.

#### ***Autonomy ↔ Competence***

Five instances were coded illustrating the reciprocal relationship between autonomy and competence. The first hypothesized connection is the influence of autonomy on competence, which suggests that language learners who use the language volitionally and communicate from their own values (autonomy) and perspectives will likely feel capable to communicate effectively (competence). Tess, an advanced Spanish learner, described a situation in her course where she and her peers were discussing a multidimensional and critical topic, namely feminist theory and the legality of sex work. In this case, she makes explicit

the influence of her self-endorsed use of Spanish on her feelings of capability to communicate effectively in Spanish.

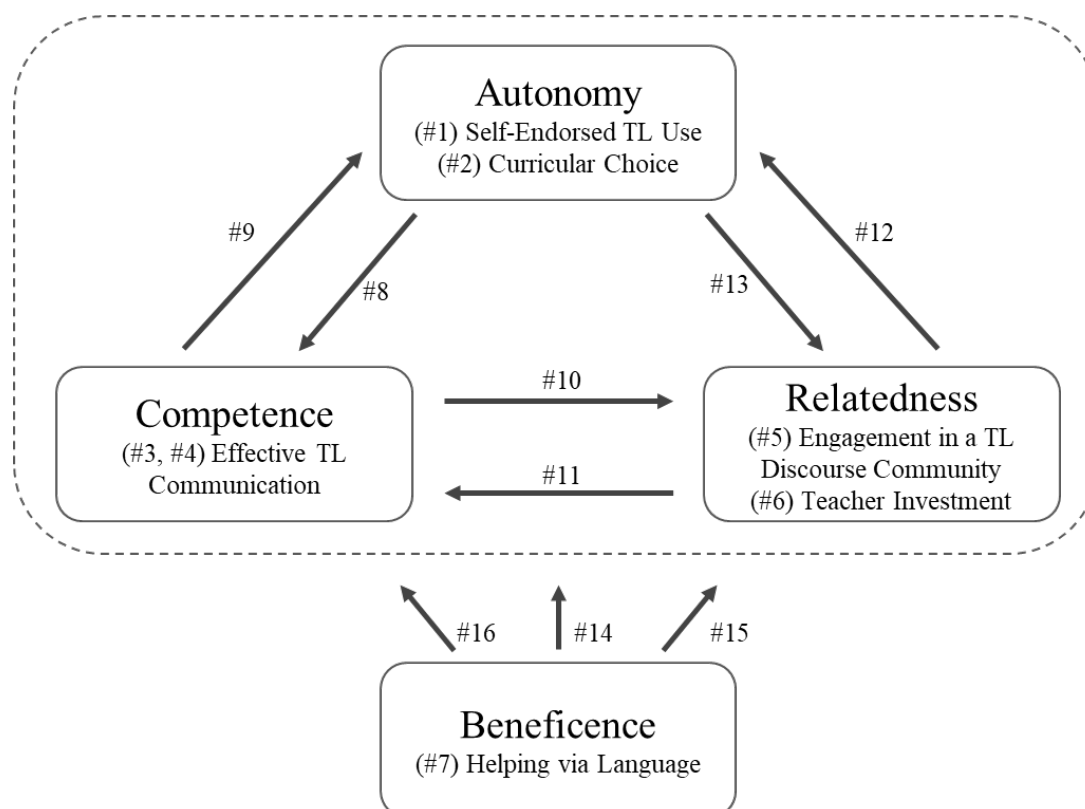
And I have very strong opinions on that and women's bodily autonomy. And I was able to voice those opinions in class and hold kind of like a pseudo discussion or argument with another kid in class about it ... it just felt good to be able to speak and voice my opinions without having a language inhibition necessarily, and not just inhibition of not knowing the language ... because I know the language, but do I know the language? (#8)

The second hypothesized connection is the influence of competence on autonomy, which suggests that learners'

feelings of effective communication in the target language leads them to do so in a more self-endorsed way, through which they are likely to integrate their beliefs and values. Mark's description of instantaneous comprehension and communication in his intermediate level Spanish speaks to this influence.

When like a professor will ask questions in class and I understand what they say, to have been able to just spit out the answer and not really think of each word individually, but just, I know how to respond to that and I don't even have to think about it in English and translate it one by one, I can just say it. And so that's really like a good feeling. (#9)

**Figure 1.** Findings and Corresponding Excerpts Representing the Interdependent Nature of Basic Psychological Needs Satisfaction in World Language Learning



### **Competence ↔ Relatedness**

Four instances were coded for the interdependence of autonomy and competence. The hypothesized path from competence to relatedness satisfaction positions the

acquisition of a new language as an experience in which effective communication with others in the target language facilitates connectedness and care between students and

their teachers. Hannah, an intermediate Spanish learner, explained how world language courses are apt to do just that:

Yeah, I think I made some good, solid friends in there. And I think actually, in my experience, the language classes are the easiest ones to make friends with, because they really encourage you to talk to each other, and talk to each other in Spanish. But yeah, to just have conversation and become more comfortable. And it's kind of a vulnerable experience anyway. So, then, when everyone's doing it, it's like you're closer. (#10)

Students' narratives also reflected the influence of relatedness on the satisfaction of competence. In this connection, students felt more willing and comfortable to talk in the target language when they perceived they were part of a caring and judgement-free community of world language learners. Mark captures this hypothesized influence of relatedness on competence when describing his intermediate level Spanish course:

Speaking out in a class is easier when you know the other people, because it just kind of feels more conversational. ... And I've gotten to know the people in the class, so I feel comfortable just talking, 'cause I know no one's gonna judge me for me just saying something. (#11)

### ***Relatedness ↔ Autonomy***

The mutually supportive relationship between relatedness and autonomy was apparent in five coded instances. The first directional connection from relatedness to autonomy satisfaction suggests that care and relationships in world language study (relatedness) assist in enabling and sustaining autonomous target language communication (autonomy). Cora describes how the teacher in her Spanish film class encouraged students to speak from their identities and perspectives by being vulnerable and empathetic herself:

Our professor shared some really deeply personal stuff that happened in her life and then made it feel very comfortable for other people. And at the last day of class, one of the girls spoke up and was just like, "This was a safe place for me to feel like I have a voice, and that even if something bad happens to you, you can still have a sense of empowerment." And a lot of us hung back

after that class, and wanted to hug [the instructor] afterwards. (#12)

Students also described experiences during their world language learning representing the impact of autonomy on relatedness. This hypothesized connection posits that the learners' self-endorsed, autonomous use of the target language helps to facilitate the feelings of care and connection between learners. In his Spanish class, Mark's opportunities to share his perspectives on relevant topics with his peers helped to forge personal bonds and community:

We'll have questions like, "What do you like about your professors? What do you not like about your professors?" ... We can all kind of relate to that when we say, "This is something I really don't like." And then we're all, "Oh, yeah, I know what you mean." So it builds relevance and kind of builds that sense of, we're all still students and have very similar backgrounds when it comes down to things. (#13)

### ***Beneficence → Autonomy, Competence & Relatedness***

Beneficence satisfaction, or feelings of prosocial impact, did not exhibit interdependence, and instead exhibited a unidirectional independence. Unlike autonomy, competence, and relatedness, for which there was evidence that their individual satisfactions incited beneficence and each other, the satisfaction of beneficence seemed to take only a supportive role in the satisfactions of the other needs. In other words, there was evidence (three coded instances total) that feelings arising from prosocial behaviors did help learners to engage autonomously in their language studies (autonomy) and communicate effectively (competence) while also helping to expand their discourse community into their local community (relatedness). These three satisfactions on their own, however, did not incite learners to feel a sense of prosociality.

Participants' prosocial engagement through the target language helped them to feel more competent in their ability to communicate effectively. Summer illustrated how her advanced Spanish service-learning course facilitated this influence: "I felt like we were doing something that was a true need right then and there, but also being able to better my Spanish and feel like I actually have a very good grasp on the language" (#14). The satisfaction of relatedness

could also be influenced by students' engagement in helping behaviors. Cora's experiences at her job demonstrated the influence of beneficence on relatedness:

A lot of times they'll have customers that don't speak any English at all ... So they'll [her coworkers] call me from all the way across the store ... Afterward, they [the customers] were like, "Oh, thank you, you're so helpful!" And I do have a real sense of pride of just like, I'm glad I was able to help them ... And then sometimes they'll come back and be like, "Oh, yeah, will you help me again?" (#15)

Finally, the satisfaction of beneficence could enable feelings of autonomy. Summer explained how her service-learning course was organized to incite student choice and autonomy:

An actual need for their location is that they had just put out a new admission packet, and so we were able to translate their whole admission packet, ... this was something that they really needed right then and there and we were able to say, "Hey, we can do that." ... We got the opportunity to choose where we worked and choose exactly what we did as long as it fulfilled a certain amount of hours. (#16)

## DISCUSSION

This qualitative study sought to examine how university world language learners experience the interdependent satisfactions of autonomy, competence, relatedness, and beneficence during their language studies. Results from the analysis identified several patterns in how the 13 undergraduate world language learners in the United States perceived these satisfactions while learning a new language. Further findings presented evidence demonstrating the interdependence of these students' satisfactions of autonomy, competence, and relatedness, while also providing additional evidence for the enhancing, rather than interdependent quality of beneficence satisfaction.

Results from the first research question found recurrent themes in how each basic psychological need was satisfied during the students' language studies, which suggested several useful needs-supportive characteristics of language learning spaces. The most salient and frequent characteristic across autonomy, competence, relatedness, and beneficence

satisfaction was students' self-reports of communicating meaningfully in the target language both in and outside of the classroom. Engagement in communication, rather than a focus on language form (i.e., grammar), was deeply rooted within themes representing the three needs and beneficence. In this study, target language communication referred to a student's ability to communicate effectively in the target language to function in diverse settings for various purposes (ACTFL, 2012). Communication also encompasses the interpersonal (i.e., negotiation of meaning through speaking, signing, or writing), interpretive (i.e., listening and reading), and presentational (i.e., one-way presentation through speaking or writing) modes of communication (ACTFL, 2012).

The satisfaction of each basic psychological need addressed an important component of target language communication. For many of these world language learners, communicating effectively in the language (competence) from their own perspectives, values, and backgrounds (autonomy) within a caring community of peers (relatedness) was a gateway to interdependent needs satisfaction and, in turn, enhanced well-being. This adds to a growing segment of research which has recognized the communicative use of language to be conducive to needs satisfaction and well-being (Printer, 2019; Shelton-Strong & Mynard, 2020; Yarwood et al., 2019). In particular, Printer's (2019) study found that students' use of target language in the co-construction of stories helped to satisfy secondary learners' needs for autonomy, competence, and relatedness simultaneously. Similarly, Yarwood et al. (2019) identified a mutual relationship between university English learners' interpersonal communication and their satisfactions of competence and relatedness, which have further been associated with continued language study and student retention (Davis, 2020).

Across these themes, it is important to note how students' self-reported needs satisfaction was not confined to organized learning spaces, such as world language classrooms, events, or assignments. Instead, students often recognized the satisfactions of their basic needs outside of class, such as at work, while studying abroad, or other instances of using the target language in their daily lives (Marijuan & Sanz, 2017). The distinction lends support to research showing the impact of authentic language learning experiences not only on students' development of target language proficiency, but also on their well-being (Dewaele



et al., 2019) It also aligns with Noels et al.'s (2019) SDT motivational model for L2 learning which positions basic psychological needs satisfaction alongside the influence of broader social forces and additional perceived support outside of the classroom. Future studies in this area, particularly those informed by SDT, may consider expanding the scope of their research to acknowledge the formative role of informal learning experiences taking place outside of their academic studies, or out-of-class language learning (OCLL) (Fathali & Okada, 2016; Maros & Saad, 2016), on students' learning and well-being.

The study also contributes a qualitative perspective to the candidacy of beneficence as a basic psychological need. In line with previous research, instances of beneficence and prosocial impact were clearly identifiable in students' responses and distinguishable from autonomy, competence, and relatedness (Martela & Tapani, 2018; Martela & Ryan, 2016, 2020). Interdependent themes in the data illustrated the supportive role of beneficence on the three basic needs, lending empirical support to research showing the impact of prosocial behaviors on well-being (Weinstein & Ryan, 2010) and happiness (Aknin et al., 2019). No evidence, however, indicated that beneficence was satisfied as a result of the other three needs, further positioning beneficence as a wellness enhancer rather than a fourth basic psychological need (Martela & Ryan, 2020). Regardless of its categorization, the recurrence and influential power of the few students' sensations of beneficence cannot be denied. Echoing the few instances of beneficence in this study, the integration of community-based service-learning into world language classes may be a particularly effective way of also supporting learners' autonomy, competence, relatedness, and well-being in addition to their target language proficiency (Bouvet et al., 2017; Lee et al., 2017).

There are a few limitations of this study. First, the methodology involved the analysis of only self-reported instances of basic psychological needs satisfaction rather than triangulating these reports with classroom observations and other data sources. In addition, the experiences learners recalled often occurred before their current semester course, which may have intensified any bias and inaccuracy in their responses. Second, the interviews took place at a single point in time for each student rather than continuing regularly over time through follow-up conversations. Finally, the context of the study was situated at the postsecondary level at one university in the United States.

For this reason, the findings should not be generalized to other language learning contexts and levels.

## CONCLUSION

This qualitative study contributes a framework of evidence for the "three-legged stool" (Ryan & Deci, 2017, p. 250) interdependence of basic psychological needs satisfaction in postsecondary world language study in the United States. In addition, the analysis identified several themes representing environmental antecedents to students' interdependent basic needs satisfaction during their language studies. It is critical that future research and any implications for practice place pronounced emphasis on the highly correlated, mutually supportive nature of autonomy, competence, and relatedness during language teaching and learning (Ryan & Deci, 2017). Ignoring this foundational principle of SDT may result in promoting unsound findings and suggestions for teaching.

Future research should work to identify world language teachers' behaviors, broader pedagogical moves, and macrostrategies which may be supportive of interdependent needs satisfaction (Davis & Printer, in press; Reeve & Cheon, 2021). Experimental studies which assess student outcomes such as language proficiency, engagement, and basic needs satisfaction in reference to classroom and curricular interventions are needed to identify characteristics of needs-supportive language classrooms. In addition, there is a need for more qualitative and mixed-methods research to examine how students' different motivational orientations, cultures, identities, and support networks influence the satisfaction of needs, as "qualitative methods could provide more deeply articulated understandings of the experience of self-determination (or not) in language learning" (Noels et al., 2019, p. 107).

While some themes in this study were applicable to any educational discipline (e.g., *Choice in Curriculum* and *Teacher Investment*) in line with general recommendations for autonomy-supportive teaching (Reeve, 2016; Reeve & Cheon, 2021), others were distinctly interwoven into the contexts of language learning and teaching (e.g., *Self-Endorsed Target Language Use*, *Effective Target Language Communication*, *Engagement in a Target Language Discourse Community*, and *Helping via Language*). This unique finding provides some support for the potential need

for domain-specific conceptualizations of autonomy- and needs-supportive teaching illustrating how needs satisfaction is actualized within different educational disciplines (e.g., mathematics, art, drama). While the general principles of autonomy-supportive teaching (Reeve, 2016) were clearly identifiable across interviews and themes, they did not on their own fully account for how these world language learners experienced basic psychological needs satisfaction and well-being. Nonetheless, the findings do reinforce some established student-centered pedagogical approaches and communicative strategies (Davis & Printer, in press), both general and for language teaching, such as culturally responsive pedagogy (Ladson-Billings, 2014), social justice in world language teaching (Glynn et al., 2018), and the high-leverage teaching practices for world language teaching (Glisan & Donato, 2017).

### Ethics Approval & Consent to Participate

This study was reviewed and granted exemption by the University of Arkansas Internal Review Board (approval no. 2001244987). All participants provided written informed consent prior to enrollment and data collection in the study.

### Funding

There was no funding involved in the completion of this research.

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## APPENDIX

### ***Semi-structured interview protocol***

1. Tell me a little bit about your current or previous world language course.
  - a. What language and level were you enrolled in?
  - b. Are you majoring or minoring in this language?
  - c. Why are you learning this language? Did anything change about your motivation for learning the language during the course?
  - d. Why did you enroll in the course?
  - e. What did you expect from the course?
  - f. What are your goals for your current WL course?
  - g. What were your overall impressions of the class?
2. In your current or past WL courses, think of a time where you felt...
  - a. A sense of freedom or volition, or like you were in control?
  - b. Effective, competent, or capable?
  - c. Connected to others, like you belonged, or were cared for?
  - d. Like you had a positive impact on others, benefitted the welfare of others, or contributed to something greater, such as society?
3. For each of these feelings, what made you feel that way? What did your instructor or peers do to make you feel that way?