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# How situational is situational interest? Investigating the longitudinal structure of situational interest



Contemporary Educational Psychology

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#### ABSTRACT

Interest theory adopts a person-in-context perspective. In this view, a momentary experience of interest is shaped by environmental circumstances and stable personal preferences. According to the Four-Phase Model of Interest Development, environmental factors are important in defining the concept of situational interest (SI). This study investigates this assumption. Repeated measurements of SI collected from a sample of 327 high school students during problem-based learning activities were analyzed using Latent-State Trait (LST) theory. LST models allow identification of situation-specific and consistent components in repeated measurements. Results show that situation-specific effects had a strong influence on self-reported SI. Further analysis revealed that substantial variance components in SI were unconfounded with preexisting individual interest. Based on these two criteria, the findings support defining the psychological state of interest as "situational interest".

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#### 1. Introduction

Some learners are more interested than others. This is true for almost every instructional situation. To provide a scientifically valid explanation for these differences, motivation research has adopted a person-in-context view of motivation (Pintrich, 2003). This view is consistent with the longstanding Lewinian (1936) notion of a psychological situation as determined by both internal personal and external environmental forces. Accordingly, there is a general agreement in the literature on interest that the two factors, person and situation, work together and explain students' experience of situational interest (SI) (Renninger & Hidi, 2011). In a recent review, however, Renninger and Su (2012) have noted that research on interest development is still in its infancy, and a thorough understanding of *how* person and situation factors influence learner's SI across time is still lacking.

According to the Four-Phase Model of Interest Development, SI is a psychological state that is predominantly influenced by situation-specific environmental stimuli and therefore warrants the label "situational interest" (Ainley, 2006; Hidi & Renninger, 2006; Sansone & Thoman, 2005). At the same time researchers have highlighted the important role of latent dispositions and pre-existing individual interests as determinants of a situation-specific state of interest

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and coined the term "actualized individual interest" (e.g. Krapp, 2002; Schiefele, 2009). By asking the question "how situational is situational interest?", the present study seeks to provide an empirical answer in terms of the relative influence of situational factors on SI and whether the label "situational interest" is warranted. As motivation research is increasingly adopting an *in situ* perspective (Turner & Patrick, 2008), and researchers frequently draw on the Four-Phase model for their research on interest development (Renninger & Hidi, 2011), it is timely to examine some of the assumptions underlying this model with regard to SI (Ainley, 2006; Rotgans & Schmidt, 2014; Schiefele, 2009; Tsai, Kunter, Lüdtke, Trautwein, & Ryan, 2008).

In the present research, we provide an in-depth analysis of the longitudinal dynamics of the two general factors (situation and person) influencing SI and seek to extend previous research in terms of measurement of SI, research design, and statistical analysis. In line with the Four-Phase Model and previous accounts (Hidi & Renninger, 2006; Mitchell, 1993), we define SI as a two-component (Catch & Hold) and situation-specific construct. Consequently, we used a multi-dimensional measurement instrument combined with a situation-sensitive repeated measurement approach. Instead of selecting a random set of instructional situations, our research design follows recommendations by Tsai et al. (2008) and used a more controlled intervention design. We manipulated situational affordances by training teachers to deliver a sequence of scripted and different learning activities. For each activity students reported their SI. For the analysis of the longitudinal data, we used a structural equation modeling approach based on latent-state-trait (LST) theory from

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personality and social psychology (Steyer, Ferring, & Schmitt, 1992; Steyer, Mayer, Geiser, & Cole, 2015; Steyer, Schmitt, & Eid, 1999). We consider LST theory and analysis particularly relevant for interest theory because both are built on the fundamental distinction between a state construct (situational interest) and a trait construct (individual interest). LST analysis allowed us to identify situation-specific components in SI and to examine whether these were related to preexisting individual interest.

In the following sections we specify our predictions derived from the Four-Phase Model and review recent research on SI through the lens of three different yet related perspectives. First, we apply a content validation perspective and analyze theoretical accounts which characterize the psychological state of SI as a function of different developmental phases. Second, we look at the longitudinal structure of SI from a stability perspective and highlight the level of situation-specificity as an important criterion for the definition and validation of the SI construct. Third, we approach SI from a differential source perspective and look into recent efforts to determine the context-specific as well as person-specific sources of SI. Finally, we describe the present study as a coherent integration of these three perspectives.

### 1.1. The content of construct perspective: situational interest as a transforming person–object relationship

A first perspective is to analyze the theoretical conceptualization of SI by focusing on the content of the construct. Here we consider definitions of SI based on the different developmental phases proposed by Hidi and Renninger's (2006) Four-Phase Model of Interest Development, along with recent empirical findings. This state of SI combines cognitive and affective functioning as two parallel and intertwined processes (Hidi & Renninger, 2006; Renninger & Hidi, 2011; Renninger & Riley, 2013). SI emerges from a person's interaction with a particular object. Thus, another important distinctive feature of SI is the relationship between a person and some specific object (a topic, an event, an idea, etc.). Over time, SI refers to a transforming person-object relationship. According to the Four-Phase Model of Interest Development, the quality of this relationship varies as a function of the different phases of interest development. Varying amounts of affect, knowledge, and value characterize the different phases. Two phases of SI are distinguished: (1) triggered-SI or SI-Catch and (2) maintained-SI or SI-Hold.

During the initial phase of interest development (Triggered-SI or SI-Catch), a person is confronted with environmental stimuli, some of which may garner attention. The initial attention to certain stimuli is typically but not exclusively accompanied by positive emotions (Hidi, 2006). Focused attention and positive emotion are thus two prototypical experiences related to the first phase of interest development (Triggered-SI or SI-Catch). In the following phase of development (Maintained-SI or SI-Hold), the person-object relationship acquires a different quality. Many researchers (e.g. Harackiewicz, Durik, Barron, Linnenbrink, & Tauer, 2008; Lewalter & Willems, 2009; Linnenbrink-Garcia, Patall, & Messersmith, 2012; Linnenbrink-Garcia et al., 2010; Mitchell, 1993) have identified an incipient sense of value for the object of interest as indicative of this particular phase.

More recently, studies (Rotgans & Schmidt, 2011, 2014) have also shown that SI can energize knowledge-seeking behavior on a shortterm, situational basis and thus can be regarded as an intentional state of wanting to know more about an object. Note that this is different from actively and consistently asking curiosity questions, which is indicative of emerging individual interest. This situational type of epistemic orientation toward the interest object has a clear maintenance function, as it initiates further engagement with the object. Conceptually, this represents a knowledge component in SI, which according to the Four-Phase Model is an integral aspect of the different phases of interest development. This notion of epistemic orientation may also distinguish Hold from situation-specific value constructs (Wigfield & Eccles, 2000) or from purely affective constructs such as enjoyment (Reeve, 1989). Thus, researchers have argued for an epistemic orientation component as a core characteristic of interest at the level of the situation, as a response to environmental cues such as collative variables (Berlyne, 1970; Chen, Darst, & Pangrazi, 2001; Deci, 1992; Fredrickson, 2004; Lewalter & Willems, 2009; Reeve, 1989). Based on these accounts we view Hold as an experience that combines a growing sense of value with an epistemic orientation toward this content.

As the potential for experiencing interest is in the person (Hidi & Renninger, 2006), any situation can potentially support the experience of Catch and Hold. Thus, in one and the same situation, individuals may have experiences that are associated with Catch and experiences that are associated with Hold to varying degrees of intensity. In line with this assumption, researchers have used multidimensional measures of SI and confirmed this structure for a single situation (e.g. Harackiewicz et al., 2008; Lewalter & Knogler, 2014; Lewalter & Willems, 2009; Linnenbrink-Garcia et al., 2010, 2012; Mitchell, 1993). In the present study, we extend this research and investigate the structural stability of SI across a set of situations. We hypothesize that a multi-dimensional structure best represents the data independent of situational affordances. As the model assumes a developmental progression from Catch to Hold, we also expect that students with high levels of Catch are more likely to also display high levels of Hold.

### 1.2. The longitudinal stability perspective: situation-specificity and consistency of situational interest

A second theoretical perspective focuses on the level of situationspecificity as the defining characteristic of the SI construct. Broadly speaking, the Four-Phase Model rests on the fundamental distinction between situational and individual interest. The two concepts of this dichotomous model differ mainly with regard to their situation-specificity. SI refers to a person–object relationship that is linked to specific situational circumstances, such as a specific setting (e.g. classroom), certain people (e.g. students of a course), and a specific content-related activity (e.g. self-regulated inquiry on a specific topic). Thus, SI has been defined as a state at the level of current processes (Krapp, 2002) and as learning-task specific (Chen et al., 2001). As such, SI refers to a single, situation-specific person– object relation, which may or may not develop further (Schiefele, 2009).

In contrast, during subsequent developmental phases (emerging individual interest and well-developed individual interest), the situational frame is gradually blurred. People with an emerging or well-developed individual interest demonstrate a strong tendency to reengage with their object of interest across time and across contexts (Renninger, 2009). In other words, the person–object relationship gains stability and strength when people move to later phases of interest development, such that a well-developed individual interest refers to a person–object relationship which displays a high level of cross-situational consistency. Hence, the level of situation-specificity vs. cross-situational consistency (longitudinal stability) is an indicator of a person's developmental phase of interest.

One way to address the question of "*how situational is situational interest*?" is therefore to determine the degree of situationspecificity in SI. According to the Four-Phase Model, a high level of situation-specificity can be expected for SI (Hidi & Renninger, 2006) whereas a high level of cross-situational consistency can be expected for individual interest. Researchers have pointed out that the core property of situation-specificity is not reflected in research designs in which SI is measured only once as this "makes it Download English Version:

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