SHORT PAPER

Value-related goals and vocational choice: The effect of temporal distance

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Abstract

This field study examines the importance that people assign to value-related goals in their vocational decisions. We focused on the interactive effects of temporal distance from the vocational decision and the level of abstraction of the goal. Soldiers rated the importance of value-related goals for their vocational choice following their release from military service. They were presented with value-driven, abstract, decontextualized goals and with value-driven, concrete, job-related goals. For half, vocational choice was temporally close, and for the rest, it was temporally distant. Temporal distance from the vocational decision interacted with the level of abstraction of the goals in predicting their importance: When construed in the abstract, the goals were deemed more important if the vocational decision was distant. When construed concretely, the goals were deemed more important if the vocational decision was proximate.

Values are desirable abstract, superordinate, trans-situational goals, which vary in their importance, and serve as guiding principles in people's lives (Rokeach, 1973; Schwartz, 1992). Vocational theorists have long acknowledged the role played by values in occupational choice (Allport, 1961; Jacob, 1957). In particular, Holland (1997) maintained that people seek and enter work environments that permit them to "exercise their skills and abilities, express their attitudes and *values*, and take on agreeable problems and roles" (p. 4). In line with his notion of congruence, he predicted that the degree of fit between the individual's values (along with other personality variables) and the work environment type determines job satisfaction, stability, and performance (Nauta, 2010).

In support of Holland's theorizing, ample evidence suggests that people's vocational choices vary as a function of their values (e.g., Furnham, 1988; Judge & Bretz, 1992; Knafo & Sagiv, 2004; Laudeman & Griffeth, 1978; Sagiv, 2002; Williams, 1972). Furthermore, the fit between employee values and those of their work environment is related with employee's satisfaction at work (e.g., Cummings & Cooper, 1979; Dyląg, Jaworek, Karwowski, Kożusznik, & Marek, 2013; Edwards, 1992, 1996; Schuler, 1980; Su, Murdock, & Rounds, 2015).

Although there is little question that people's values are involved in their occupational choice, little is known about the underlying processes. In this research, we sought to shed light on the process through which people consider the goals associated with their values. We focused on factors affecting the importance that people assign to the degree to which a certain job will allow them to fulfill their goals. We examined the combined effects of two factors: the level of abstraction in which the goals are construed and the temporal distance from the actual vocational decision.

Level of Abstraction of Value-Related Goals

Values are abstract concepts. Indeed, previous research has highlighted the abstract, decontextualized nature of values as moral principles (e.g., Eyal, Sagristano, Trope, Liberman, & Chaiken, 2009; Hunt, Kim, Borgida, & Chaiken, 2010; Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992). We suggest, however, that the goals associated with values can vary in their abstractness. Consider the 10 values identified by Schwartz (1992) and which we used in the present study: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. These values are represented as superordinate, decontextualized, abstract high-level goals. We suggest that the same values can also be reflected in subordinate, contextualized, concrete low-level goals. The value of stimulation, for example, is associated with the abstract, decontextualized superordinate goal of experiencing excitement and challenge. We suggest that this value can also be reflected in the more concrete, domain-specific goal of experiencing unfamiliar tastes and textures of food. Similarly, whereas the value of power is associated with the higher-level, abstract goal of controlling other people's destiny, this value

can also be instantiated in the lower-level, more concrete goal of organizing social events for a group to which one belongs.

The distinction between levels of abstraction of the goals associated with values has direct implications to the domain of vocational choice. We reason that when assessing the degree to which a future job allows one to fulfill value-related motivations, one may consider either abstract, higher-order, decontextualized goals associated with the value (e.g., to succeed in life—for achievement) or more concrete, lower-order job-related subgoals associated with it (e.g., to succeed in the professional track to which I direct myself). Whereas the high-level goal is general and decontextualized, the low-level goals are more limited and contextualized (i.e., job related). We suggest that these differences in the level of abstraction of value-related motivations affect the process through which people reach vocational decisions.

Temporal Distance from the Actual Vocational Decision

The social structure directs people to think about their vocational decisions in a variety of settings. Sometimes these settings encourage people to think about their vocation very soon before such decisions are made, while at other times thinking about the vocational decision occurs a very long time before the actual decision is made. For example, people can think about their vocational decision just before they choose a major (then, the weighting of considerations and the decision are temporality proximate), or they may think about their vocational decision before they take a gap year (then, the weighting of considerations and the actual decision are temporarily distant). We suggest that the temporal proximity of the actual decision affects the process through which people reach vocational decisions.

Level of Abstraction of Goals and Temporal Distance of Decisions

Construal level theory (CLT) (Liberman & Trope, 1998; Trope & Liberman, 2010) allows for theorizing and testing the combined effects of temporal proximity and concreteness of motivational considerations. CLT distinguishes between a high-construal and a low-construal level of objects. Consider, for example, the behavior "writing a paper." Low-level construals of this behavior are its concrete, contextualized representations that include its subordinate and incidental features (e.g., "typing in letters on a keyboard"), whereas high-level construals of this behavior are its abstract, schematic, and decontextualized representations that extract its gist (e.g., "conveying an idea"). According to CLT, objects that are psychologically distant from direct experience, such as events that will occur in the distant future, are construed on a higher, more abstract level, whereas objects that are psychologically close to direct experience, such as events that will occur in the near future, are construed on a lower, more concrete level. Furthermore, temporal distance increases the perceived importance of high-construal aspects of an object, whereas temporal proximity increases the perceived importance of its low-construal aspects (Halamish, Nussinson, & Ben-Ari, 2013; Liberman, Sagristano, & Trope, 2002; Liberman & Trope, 1998).

Consistently with CLT, values, which are abstract constructs, were shown to guide people's plans for temporally distant situations, but to affect to a lesser degree their plans for the near future. Thus, Eyal et al. (2009) had their participants indicate the importance that they assigned to each of the 10 values identified by Schwartz and then indicate the likelihood that they would perform each of the 30 behaviors with three behaviors corresponding to each of the 10 values (e.g., "use environmentally friendly products" corresponded to universalism). Correlations between each value and the mean likelihood of performing its corresponding behaviors were higher when the behaviors were planned for the distant than for the near future (see also Chen, Shechter, & Chaiken, 1996; Hunt et al., 2010; Kivetz & Taylor, 2007).

We propose, however, that value-related thinking is not necessarily high construal and abstract. It could also be low construal and concrete. Thus, temporal distance interacts with the abstraction in which value-related goals are construed, in their effects on attitudes and behavior: when the goals associated with values are represented as concrete, contextualized, and low level, they may matter more in the near future rather than in the distant future. In contrast, when the goals associated with values are represented as abstract, decontextualized, and high level, they may matter more in the distant future rather than in the near future.

Applying this reasoning to the context of occupational choice, we hypothesize that:

H1. When making a vocational choice, temporal distance interacts with the abstraction in which value-related goals are construed in their effects on their importance.

H2. People assign higher importance to the degree to which a future occupation will allow them to express their higher-order, decontextualized goals when the choice is to be made in the distant future than when it is to be made in the near future.

H3. Conversely, people assign higher importance to the degree to which a future occupation matches their lower level, job-related goals when considered from temporal proximity than when considered from temporal distance.

Method

Participants and design. Participants were Israeli soldiers. Military service is compulsory and typically

lasts 2 years for women and 3 years for men. Israeli soldiers typically face the need to make a vocational decision when they are released from military service. Soldiers were asked about their release date. Those whose release date was either within 21–24 months or within 3 months were asked whether they would agree to participate in a study. Those who agreed served as the final sample of 108 respondents (mean age = 20.25 years, age range 18–24 years, 47 men).[1] Half the respondents (mean age = 19.69 years, age range 18–22 years, 28 men) were about to be released from service within 21–24 months ("distant" condition), and the rest (mean age = 20.81 years, age range 20–24 years, 19 men) were about to be released within 3 months ('near' condition). The design was 2 (temporal distance from end of service: distant vs. near) × 2 (construal level of the value-related goal: abstract vs. concrete). Temporal distance was varied between participants, whereas construal level of the value-related goal was manipulated within participants.

Procedure. Participants were approached at their military base and were invited to take part in a short study. They completed the questionnaire individually. They were informed that they had the right to withdraw from the study at any point. The order of the questionnaires was as follows: manipulation of the saliency of temporal distance, measurement of value-related goals, and measurement of demographics. At the end of the study, participants were debriefed and thanked.

Materials

Manipulation of temporal distance. An opening page presented the questionnaire as referring to the participant's vocational domain following military service. Next, depending on their reported date of release from military service, and in order to increase the salience of the respective temporal distance, participants read that they were about to complete their military service within a very short (or long) time. As a manipulation check, and in order to further increase the salience of the respective temporal distance, participants were asked (i) to think about the timeline from today to the last day of their military service and (ii) to indicate the perceived temporal distance from their last day of military service on a 5-point scale from *very close* to *very distant*.

Measurement of value-related goals. Participants were asked to think about their choice of a vocational domain following military service and to complete the value-related goals in the vocational domain (VRGVD) questionnaire developed for this study.

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[1]Two hundred and eighty soldiers were approached. Their ranks varied from private to staff sergeant. We do not have information with respect to the rate of agreement to participate in the study in each condition separately, nor with respect to the roles in which the participants served.

The questionnaire consisted of a list of 20 possible considerations related to vocational choice. Participants were asked to rate the degree to which each consideration deems important on a 6-point scale, ranging from 0, *not important at all*, to 5, *of supreme importance*. Half the considerations involved abstract, decontextualized higher-order goals associated with the 10 values identified by Schwartz (1992) (e.g., "The ability to derive personal joy"—hedonism) and the rest involved more concrete subgoals that form lower-level job-related instantiations of these values (e.g., "The ability to work under comfortable conditions"—hedonism) (see Table 1).

Results

Pilot Studies

Pilot 1. To validate the distinction in the VRGVD questionnaire between abstract decontextualized goals and concrete job-related goals, a sample of 40 students (mean age = 27 years, age range 20–59 years, 13 men) rated the degree to which each of the considerations applies to life in general or is specific and job related (on a scale from 1—*specific, job-related* to 7—*general, applies to life in general*). Across the 10 goals, the abstract considerations were rated as more general ($M = 5.20$, $SE = 0.20$) than the concrete ones ($M = 3.44$, $SE = 0.36$), $t(18) = 4.25$, $p < .0001$. For all 10 goals, the abstract consideration was rated as more general than the concrete one. The pairwise difference was statistically significant for eight out of the 10 goals ($p < .05$).

Pilot 2. To test whether each of the 20 considerations in the VRGVD questionnaire represents the value we intended it to represent, we asked 66 students (mean age = 26.01 years, age range 20–34 years, 32 men recruited and run by a surveys company over the Internet) to rate for each of seven or six considerations to what degree it fitted each of the 10 values. The considerations were rated on a scale from 1—*doesn't fit at all* to 7—*fits very well*. Because of the length of the task (each of the 20 items of the VRGVD was rated 10 times, one for each of the 10 Schwartz values), we divided the items in three sets, and each was rated separately by a different group of judges.

Overall, the considerations were rated as highly fitting the values from which they were driven ($M = 5.99$, $SD = 0.58$). For 17 out of the 20 considerations, the value from which the consideration was driven was rated as the one that fits the consideration best.

Main Study

Preliminary analyses. To further examine the distinction between abstract and concrete goals, we conducted a principal components analysis with orthogonal rotation (Table 1). In accordance with the assumed two factors underlying the content of the questionnaire (considerations involving abstract/general

Table 1 Considerations (and their factor loadings) as a function of value and construl level

Value	Construl level	Consideration	A	B	C
Self-direction	High	The ability to experience independence, openness to novelties, curiosity, and creativity. (10)	−0.34	0.39	−0.210*
	Low	The extent to which I will be able to regulate my activities on my own. (15)	0.74	−0.05	
Stimulation	High	The ability to experience excitement and challenge. (5)	−0.25	0.55	−0.007
	Low	The extent to which I will be able to vary the domains within which I work. (14)	0.44	−0.05	
Hedonism	High	The ability to derive personal joy. (12)	−0.22	0.49	−0.218*
	Low	The ability to work under comfortable conditions. (8)	0.72	−0.12	
Achievement	High	The ability to succeed in life. (3)	−0.01	0.7	−0.074
	Low	The ability to succeed in the professional track to which I direct myself. (7)	0.61	−0.21	
Power	High	The ability to possess social power and to determine other people's destiny. (20)	−0.04	0.53	0.370**
	Low	The ability to acquire experience with workers management. (1)	0.44	0.36	
Security	High	The ability to acquire myself economic security. (18)	0.12	0.77	−0.009
	Low	The ability to work in a safe environment. (11)	0.71	−0.04	
Conformity	High	The ability to behave according to norms and social expectations. (6)	0.07	0.67	0.112
	Low	The ability to work in a place governed by clear rules. (16)	0.74	0.05	
Tradition	High	The ability to conserve my family's tradition. (17)	0.14	0.7	0.036
	Low	The ability to preserve a fixed day order. (4)	0.72	−0.02	
Benevolence	High	The ability to take care of the well-being of those who are dear to me. (9)	0.03	0.65	0.263**
	Low	The ability to allow those who are close to me a worthy standard of living. (19)	0.68	0.18	
Universalism	High	The ability to promote equal opportunities in Israeli society. (13)	0.06	0.71	0.316**
	Low	The ability to work with people who come from different social backgrounds. (2)	0.53	0.22	

Note: Numbers in parentheses are the order in which the considerations were presented.
A = loading on component 1; B = loading on component 2; C = correlation between high-construl and low-construl considerations derived from the same value.
*$p < .05$;
**$p < .01$.

goals and considerations involving concrete/job-related goals), the number of factors was limited to two. The emerging two factors accounted for 43.18% of the variance with each item loading on its appropriate factor. Primary loadings exceeded 0.41, and (excluding one item) cross-loadings were lower than 0.18.

Perception of temporal distance. The vast majority (94.4%) of the participants in the "distant" condition perceived the ending of their military service as either very distant or distant, whereas the vast majority (96.3%) of the participants in the "near" condition perceived the ending of their military service as either very close or close, $\chi^2(4) = 103.2$, $p < .0001$. Three participants from the "distant" condition and two participants from the "near" condition perceived their temporal distance from the ending of their military service as "medium."

Importance ratings of value-related goals. Average importance ratings of the value-related goals involved in the choice of vocational domain were analyzed using an analysis of variance with factors of construl level of the value-related goal (abstract vs. concrete; within participants) and temporal distance from end of service (distant vs. near; between participants). The average importance provided by participants in the "distant" condition ($M = 3.80$, $SE = 0.06$) did not differ from that of participants in the "near" condition ($M = 3.69$, $SE = 0.06$), $F(1, 106) = 1.95$, *ns*. The average importance of the abstract value-related goals

($M = 4.01$, $SE = 0.05$) was significantly higher than that of the concrete value-related goals ($M = 3.49$, $SE = 0.06$), $F(1, 106) = 47.44$, $p < .0001$, $\eta^2 = .31$.

As expected (H1), temporal distance from end of service and construl level of the value-related goal interacted in their effect on average importance ratings, $F(1, 106) = 61.16$, $p < .0001$, $\eta^2 = .37$ (Figure 1). Consistent with H2, the abstract value-related goals were attributed higher importance from temporal distance ($M = 4.36$, $SE = 0.07$) than from temporal proximity ($M = 3.65$, $SE = 0.07$), $t(106) = 7.23$, $p < .0001$, Cohen's $d = 1.40$. In contrast, and consistent with H3, the
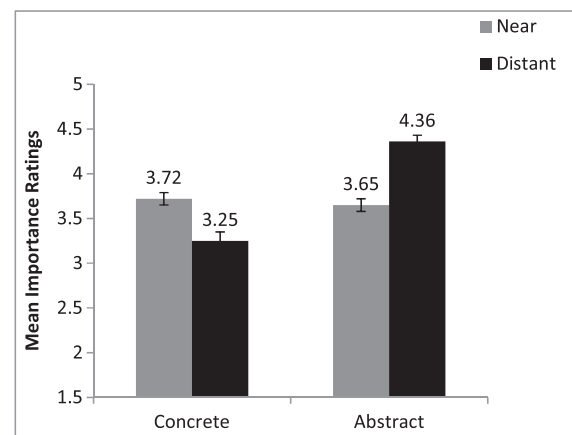
Fig. 1: Mean importance ratings as a function of construl level of consideration (concrete vs. abstract) and temporal distance from end of military service (distant vs. near). Error bars represent standard errors

concrete value-related goals were attributed higher importance from temporal proximity ($M = 3.72$, $SE = 0.07$) than from temporal distance ($M = 3.25$, $SE = 0.10$), $t(106) = 3.73$, $p < .0001$, Cohen's $d = 0.72$.[2,3]

Furthermore, participants in the temporal distant condition attributed higher importance to abstract value-related goals ($M = 4.36$, $SE = 0.07$) than to concrete value-related goals ($M = 3.25$, $SE = 0.10$), $t(53) = 9.45$, $p < .0001$, Cohen's $d = 1.71$. However, participants in the temporal proximity condition attributed similar importance to abstract value-related goals ($M = 3.65$, $SE = 0.07$) and to concrete value-related goals ($M = 3.72$, $SE = 0.07$), $t < 1$.

Discussion

We examined the importance people attribute to a variety of value-related goals in the context of vocational choice. Participants evaluated the importance of two sets of value-related goals: a set of abstract, life-in-general goals, and a set of concrete, job-related goals. Consistent with hypotheses, abstract, life-in-general value-related goals were deemed more important for vocational choice when considered from temporal distance than when considered from temporal proximity. In contrast, concrete, job-related value-driven goals were deemed more important when considered from temporal proximity than when considered from temporal distance. Furthermore, participants attributed higher importance to abstract than to concrete value-driven goals when they considered the goals from temporal distance. However, participants attributed similar importance to abstract and to concrete value-driven goals when they considered the goals from temporal proximity.

These findings suggest that in considering vocations, the relative importance of abstract versus concrete goals decreases the nearer a person is to making an actual choice. This could lead to changes in vocational choices as the time for implementing the choice is getting nearer. For example, when considering her residency, a first year medicine student may tend towards a residency that allows for the fulfillment of her life-in-general value-related goals (e.g., heart surgery that fits her general abstract need to determine other people's destiny) more than towards a residency that allows for fulfillment of specific value-related goals that have to do with the job characteristics and the work environment (e.g., family medicine that fits her need to

preserve a fixed day order). The relative importance of abstract versus concrete considerations might change however as the time of decision is approached, which might result in a change of preferences (see Fiedler, 2007, for a general discussion on preference reversals related to distance).

The correlations between the two sets of goals were positive for some of the values, negative for others, and absent for the rest. Most interesting were the negative correlations found between the importance attributed to the abstract and concrete goals. We found this pattern only for self-direction and hedonism. We interpret these negative correlations as expressing an inherent conflict that people perceive between the motivations expressed by these values when considered as general, life-in-general goals, as opposed to when they are applied to the concrete work setting. The work setting may not be perceived as a setting well suited to attain hedonism or self-direction goals, and the higher the importance people attributed to the abstract, life-in-general consideration, the less they perceived the concrete consideration as an acceptable instantiation of the goal.

In any case, the importance participants attributed to a consideration involving an abstract, life-in-general, value-driven goal in making a vocational choice was not indicative of the importance they attributed to a consideration involving concrete job-related subgoal driven from the very same value. This has important implications because findings of our study indicate that temporal proximity affected the importance of the two types of goals.

As far as we know, this is the first *field* study to examine the interaction between the effects of temporal distance and construal level on judgment and decision making. Although we view this as an advantage of the study, it introduces a limitation. Whereas in most previous studies conducted within the framework of CLT participants were asked to imagine scenarios involving different amounts of psychological distance from the target event (Liberman, Trope, & Stephan, 2007), in this study participants in the two conditions actually differed with respect to how temporally distant the target event (release from military service) was from them. As a result, participants in the two conditions may have differed on variables other than temporal distance such as on how relevant the vocational decision was for them or how much knowledge about their opportunities they had. As we did not assess differences between the two conditions on these variables, we cannot tell whether the effects of temporal distance demonstrated in this study are independent of them.

Another limitation of this study is that we did not register the rate of agreement to participate in the study separately for the two groups of participants. Hence, we do not know whether the groups differed in this respect and whether agreement to participate in the study has affected the results.

Finally, in our study, temporal distance from the moment of vocational choice was operationalized as

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[2]When we analyzed the data excluding the three considerations that (according to the results of Pilot 2) did not fit best the values from which they were driven, the expected interaction between construal level of the consideration and temporal distance remained highly significant, $F(1, 106) = 56.73$, $p < .0001$, $\eta^2 = .37$.

[3]When we analyzed the data excluding the five participants for which there was a mismatch between subjective and objective temporal distance (all perceived their temporal distance from the end of their military service as "medium"), the expected interaction between construal level of the consideration and temporal distance remained highly significant, $F(1, 101) = 70.02$, $p < .0001$, $\eta^2 = .41$.

temporal distance from end of military service. Although not all soldiers who complete their military service immediately start working, we reasoned that the next "developmental stage" for young Israeli adults involves vocational choice. Thus, the assumption is that release from military service renders the question—"what am I to do for profession in life"—*relatively* psychologically close. Having said that, it should be acknowledged that in our study, participants in the "near" condition were still up to 3 months away from their release from military service and probably even more temporally distant from their actual moment of vocational choice. Our data show that participants in the "near" condition attributed similar importance to concrete and to abstract value-driven goals. It is possible that this results pattern reflects a degree of psychological distance experienced from vocational choice even on the part of participants in our "near" condition and that immediately before making a vocational decision, people attribute higher importance to concrete than to abstract value-driven goals. Future research should examine the effect of psychological distance on the importance attributed to abstract and concrete value-driven goals from shorter temporal distance.

While acknowledging these limitations, we think the current results hold both theoretical and practical merit. On a practical note, it seems important that occupational counselors would be aware to the fact that consultants who are temporally more distant from their vocational choice attribute more importance to abstract motivations, whereas those who are closer to vocational choice attribute more importance to concrete motivations. Counselors may choose to match the level of construal of the considerations they bring to the consultants' awareness to the temporal distance at which she is from making the choice (e.g., moral principles when the choice is distant but everyday work conditions when the choice is close). Alternatively, they may choose to draw the consultants' attention to considerations to which she is oblivious (everyday work conditions when the choice is distant and moral principles when the choice is close). In any case, awareness on the part of the counselors and consultants is warranted.

The current research also contributes to the study of values. Unlike previous research, which emphasized the abstract nature of values (Bardi & Schwartz, 2003; Feather, 1990, 1995; Kluckhohn, 1951; Rokeach, 1973) and their importance in taking decisions made from temporal distance (Eyal & Liberman, 2010; Eyal et al., 2009; Giacomantonio, De Dreu, Shalvi, Sligte, & Leder, 2010), the results of this study suggest that value-related thinking can also be concrete and low level in which case it may affect decisions made from temporal proximity more than decisions made from temporal distance. The results suggest that value-related goals may predict preferences for both the distant and near future—depending on the level of abstraction in which these goals are construed.

Conflict of Interest

The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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