Values and Attitudes across Peace Operations

Change and Stability in the Political Psychology
of Swedish ISAF Soldiers

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Abstract
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Participation in Peace Support Operations (PSOs) is one of the most common military duties assigned to present-day Western soldiers. Previous research concerned with the psychological effects of these missions on the individual soldier has focused on issues of mental health and how to ensure military effectiveness. This study takes a different perspective, and examines how PSOs affect the political psychology of the peace soldier, asking: *how and to what extent do the sociopolitical psychological orientations of the individual soldier change as a consequence of peace support operations*?

The study combines theory from clinical, social, and personality psychology to construct a framework for understanding how and why the values and the attitudes toward violence of the soldier may be affected by PSO deployments. It is argued that although combat exposure may cause changes in attitudes and values, these variables will overall remain stable across the deployment. Stability is predicted to be the norm due to the importance of certain attitudes and values to the soldierly identity, and owing to the good person-environment fit that the deployment provides for the soldiers. It is also argued that the individual's personality traits will predict levels of change and stability. Empirically, two Swedish contingents deployed to northern Afghanistan under the auspices of NATO's ISAF mission are analyzed. Change and stability are examined by combining statistical analyses of surveys with in-depth interviews carried out at both the pre- and post-deployment stages.

As hypothesized, the study finds that both values and attitudes exhibit high levels of stability across the mission. Contrary to expectations the soldiers' experiences of combat exposure had little to no effect on attitudes and values. Combat exposure was, however, limited during the deployments studied. Finally, the individual's personality traits are identified as being relatively potent factors for inducing change and stability. By demonstrating that low-exposure PSOs have only minor effects on the sociopolitical psychological orientations of soldiers, the study advances knowledge of the political psychology of the peace soldier and provides additional contributions to the fields of value and personality psychology. Among other things, the study demonstrates the stability of values in a very challenging environment, and how personality traits affect change and stability in values.

Keywords: peace support operations, peacekeeping, soldiers, ISAF, Afghanistan, political psychology, combat exposure, values, value change, attitudes toward violence, attitude change, personality, Big Five, person-environment fit

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To Gina and B.,
my two beloved girls

Preface

This study is based on original research, but parts of the theory and results have been published in peer-reviewed articles at earlier dates. Definitions and operationalizations of attitudes toward violence have been published in the article *Violent Values: Exploring the Relationship between Human Values and Violent Attitudes*, which appeared in Peace and Conflict: Journal of Peace Psychology in 2014. Results from the analyses of value change—and much of the theory on value change—have been published in *Value Stability and Change in an ISAF Contingent*, in the Journal of Personality (2015, early view).

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New Zealand possible, where I began writing this manuscript at the National Centre for Peace and Conflict Studies (NCPACS) at the University of Otago. I am grateful for the generosity showed to me by the Centre, and to all those there who made my stay so pleasurable and productive. These are, in particular, the Centre's Director Kevin Clements, Rosemary, Charles, Liselle, and my office mates. Karen and Isak, who encouraged me to make the trip, also deserve to be mentioned. There is nothing like travelling to the end of the earth to get stuff done.

Family is a funny thing. My mum always thought I should study to be a lawyer. She was at least somewhat satisfied when I said I might try and become a diplomat, but in the end I tricked her and became some kind of scholar instead. It didn't really matter that her wishes didn't come true though. She has always supported me in what I wanted to do and through her relaxed manner concerning my writing a dissertation never once let me believe that I couldn't do it. A mountain is easier to climb if it looks like an English hill. I think perhaps my father has something to do with my fascination for war and history, and the history of war. I apologize for not actually studying World War II, but hey, that was always your department. Thanks for believing in me and being proud. Brother, thanks for being there for me and sharing both the good and the bad.

And finally, I of course thank my beloved Gina. You are truly my soul mate, without whom life would have no meaning. Few who venture into research have the privilege of having as their partner somebody as intelligent and caring as you, to whom one can go with worries not only of the heart and soul, but also of those that regard Cronbach's alphas. I love you, I would be lost without you, and I can't wait to share family life with you.

Dunédin and Uppsala, 2014-2015

Abbreviations

AIC	Akaike Information Criterion
ANA	Afghan National Army
ANP	Afghan National Police
AoR	Area of Responsibility
BIC	Bayesian Information Criterion
CES	Combat Exposure Scale
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CIMIC	Civil-Military Cooperation
CNL	Camp Northern Lights
CPO	Causal-Process Observation
COIN	Counterinsurgency
ESS	European Social Survey
HQ	Headquarters
IED	Improvised Explosive Device
ISAF	International Security Assistance Force
ISR	Intelligence, Surveillance, Reconnaissance
MDS	Multi-Dimension Scaling
MONUC	United Nations Organization Mission in the Democratic Republic of Congo
MOT	Military Observation Team
NATO	North Atlantic Treaty Organization
NEO-FFI	NEO Five-Factor Inventory
OMLT	Operational Mentoring and Liaison Team
OOTW	Operations Other Than War
PCA	Principal Components Analysis
PRT	Provincial Reconstruction Team
PSO	Peace Support Operation

PTG	Post-Traumatic Growth
PTSD	Post-Traumatic Stress Disorder
PVQ	Portrait Values Questionnaire
RCI	Reliable Change Index
RPG	Rocket-Propelled Grenade
RMSEA	Root Mean Square Error of Approximation
SAF	Swedish Armed Forces
SEM	Structural Equation Model
SSVS	Short Schwartz Value Survey
SVS	Schwartz Value Survey
TIC	Troops In Contact
TIPI	Ten Item Personality Index
UAV	Unmanned Aerial Vehicle
UN	United Nations
UNFICYP	United Nations Peacekeeping Force in Cyprus
UNIFIL	United Nations Interim Force in Lebanon
UNPROFOR	United Nations Protection Force

1. Introduction

Over the past 50 years the soldiers of Western nations have experienced a significant decrease in participation in all-out warfare. As large-scale inter-state conflicts have abated, Western soldiers have increasingly engaged in peace support operations (PSOs), peacekeeping deployments, and humanitarian missions (Britt & Adler, 2003a; Dandeker & Gow, 1997, 1999). A burgeoning literature—often referred to as the "psychology of peacekeeping"—studies the influence of these types of military missions on the individual soldier. To date, this literature has mainly focused on issues of clinical mental health, and military effectiveness (for an overview, see Adler, Litz, & Bartone, 2003; Litz, 1996; Maguen, Litz, Wang, & Cook, 2004; Reed & Segal, 2000; Sareen, Stein, Belik, Zamorski, & Asmundson, 2010). Although important, this focus has left us with a glaring research gap. Specifically, little research has focused on the influence of PSOs on the social and political orientations of the individual soldier. This is despite findings that experiences of combat and conflict environments impose psychological challenges to the individual soldiers' views of the self and the world (Elder, Gimbel, & Ivie, 1991; Grossman, Manekin, & Miodownik, 2014; Maguen, Vogt, King, King, & Litz, 2006; Schok, Kleber, Elands, & Weerts, 2008). Since we know that experiences of war and violence can have detrimental effects on psychological orientations, it is critical to study the effects of these types of operations as well.

To bridge the above-mentioned research gap, this study addresses the following research question: *How and to what extent do the sociopolitical psychological orientations of the individual soldier change as a consequence of peace support operations*?

This study focuses on two types of individual-level psychological orientations: *values* and *attitudes toward violence*. Values refer to an individual's goals, motives, and driving forces in life, while attitudes toward violence denotes favorable or unfavorable opinions regarding the use of different types of force. Studying change and stability in values and attitudes will contribute a first important step in understanding the effects of PSO deployments on sociopolitical psychological orientations. To empirically explore these questions I draw on unique qualitative and quantitative data from Swedish soldiers deployed to Afghanistan. Theoretically, the study builds on and combines perspectives on trauma and change from clinical and non-clinical psychology, as well as theory on continuity and change in

identity and personality as a consequence of new life experiences, person-environment fit, and individual differences in personality traits.

This study is warranted for three reasons. First, new insights into the psychology of peacekeeping are necessary, since PSOs and similar deployments are now the main type of military mission embarked upon by many Western states. This entails a steadily increasing pool of veterans of PSOs and other low-intensity missions. In 2014 alone, at least 100 000 individuals were deployed to such missions (UN, 2014). Even minor military powers such as Finland, Norway, and Sweden have together had an estimated total of 210 000–270 000 veterans of PSOs in the post-1945 era (Republic of Finland, 2014; SOU, 2014; Stortinget, 2008-2009). There is consequently a large and growing pool of individuals about whom we know little in terms of the non-clinical psychological effects of PSOs (Britt, Adler, & Bartone, 2001; Britt, Dickinson, Moore, Castro, & Adler, 2007).

Secondly, deploying on an overseas military mission is often an important event in a soldier's life. Changes in outlooks on life, perceptions and beliefs about the world, and views of the self are powerful experiences that can be highly disturbing, increase anxiety, and impair psychological well-being (see, e.g. Aronson, 1969; Higgins, 1989; Roberts & Caspi, 2003). Possible negative consequences for the peace soldiers' individual well-being need to be understood by the nations that deploy them. Additionally, findings on the effects of war, terror, and violence on psychological orientations have demonstrated many non-clinical effects of experiencing these phenomena. These range from increasingly hostile attitudes toward out-groups (Canetti-Nisim, Halperin, Sharvit, & Hobfoll, 2009; Dyrstad, 2013), to decreases in political trust and social capital (De Luca & Verpoorten, 2011; Hutchison & Johnson, 2011), and shifts toward authoritarian values (Bonnano & Jost, 2006; Echebarria-Echabe & Fernández-Guede, 2006). These possible outcomes warrant attention also among PSO soldiers.

Third, regarding the above two points, it is also relevant to ask what societal-level consequences PSOs may cause in the long term. If there are significant influences on the values and attitudes toward violence among this growing sub-population, this may have political and social repercussions within the veterans' home countries over time. Since the majority of identified effects are often considered normatively negative, the societal consequences are a salient issue.

Thus, through an understanding of how PSOs affect the individual soldier's values and attitudes toward violence, this study will contribute knowledge of the psychological consequences of these important types of military missions, at both the individual and the societal level.

1.1 The Central Concepts: PSOs, Values, and Attitudes toward Violence

What, then, is a PSO? PSOs are commonly classified as operations that differ from pure peacekeeping operations or humanitarian missions. PSOs have the attributes of "hybrid" or "multidimensional" operations, since they contain a mixture of military forces and diplomatic and humanitarian agencies. Together, the diplomatic, humanitarian, and military agencies attempt to coordinate efforts to restore peace, security, and stability to a country (Kühne, 1999; NATO, 2001; Wilkinson, 2000). The concept is thus broader than a separation of forces (traditional peacekeeping) or the explicit motive of decimating one of the warring parties to maintain peace (peace enforcement). It also differs from purely humanitarian missions, in maintaining the option of using force. PSOs thus encompass missions that not only are characterized by possible military action, but also focus on political, economic, and humanitarian affairs (and are sometimes also labeled "multidimensional peace operations"). In empirical terms, the concept covers such missions as the UN operations in the Former Yugoslavia (e.g. UNPROFOR), observer missions to Cyprus and Lebanon (UNFICYP and UNIFIL), and the more belligerent missions deployed to the Democratic Republic of Congo (e.g. MONUC). The focus of this study is consequently on operations in which violence and the consequences of war are present, but where soldiers do not necessarily engage in lengthy periods of combat, and where other duties beyond battle are pronounced.

In order to examine the effects of PSOs on psychological orientations the study focuses on two important concepts from political and social psychology: *values* and *attitudes toward violence.* The study of values is warranted as this construct has known and validated correlates with a wide variety of social and political attitudes and behaviors. Studying how values may or may not change consequently generates knowledge applicable to a wide range of topics. Studying attitudes toward violence hones in directly on key questions in peace and conflict research: why do individuals support the use of violence and how do such attitudes change (e.g., Blattman & Miguel, 2010; Cohrs, Moschner, Maes, & Kielmann, 2005b; Walter, 2003)? Attitudes toward violence are especially important to study since they are known to play a role in subsequent violent behaviors (Anderson, Benjamin, Wood, & Bonacci, 2006; Davidson & Canivez, 2012; Funk, Elliott, Urman, Flores, & Mock, 1999). Through its focus on both values and attitudes toward violence, this study speaks both to the literature on political and social orientations, and to peace and conflict studies.

In defining "values"—the first dependent variable—I adhere fully to the conceptualization of Shalom Schwartz, who defined values as abstract motivational goals that serve as guiding principles in people's lives (Schwartz, 1992; Schwartz & Bilsky, 1987, 1990). More specifically, values

are viewed as facets of our personality in the form of deeply ingrained psychological conceptions of what end-states and behaviors are desirable and undesirable (Bilsky & Schwartz, 1994; Rokeach, 1973). Values shape conceptions of the good life, ideas regarding what behaviors are permissible, and perceptions of self, reality, and the world (Hitlin & Piliavin, 2004; Rohan, 2000). The merit of studying possible change or stability in values stems from the importance of values for understanding human political and social behavior. An individual's values have been shown to be sound predictors of such diverse phenomena as ideological orientations (Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006; Cohrs, Moschner, Maes, & Kielmann, 2005a), attitudes toward war and conflict resolution (Cohrs et al., 2005b; Halperin & Bar-Tal, 2011; Sundberg, 2014), and behaviors such as voting and political activism (Vecchione, Caprara, Dentale, & Schwartz, 2013; Vecchione et al., 2014).

The second dependent variable studied is attitudes toward violence. Already at this stage, it is useful to note that attitudes and values are distinct concepts. Attitudes are concrete and situational, while values are abstract and trans-situational (Rohan, 2000). Opinions on political issues such as health care or defense spending are attitudes, while orientations toward "freedom" or "harmony" are values. An "attitude" is defined here in the standard way, as "[…] a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). The entity to be evaluated in this study is "violence". Two distinct spheres are in focus: attitudes toward war violence and attitudes toward penal violence. Attitudes toward war encompass opinions on the legitimacy of military institutions, the conduct of war, and the use of violence within such wars. Penal violence includes the acceptability and legitimacy of institutionalized violent punishment and the use of force by police authorities.

Lastly, a definition of "change" and "stability" at the individual level is called for. This study takes a person-centered approach to change, meaning that the main interest lies in comparing individuals with themselves over time. Change thus implies that on returning home, an individual is different from before deployment. Stability means that little or no change within the individual has occurred in the course of the deployment.

1.2 Theoretical Approach

The theoretical framework of the study builds on several different strands of research into factors that facilitate or mitigate change and stability in political and social orientations. In order to create a theoretical framework relevant to the PSO environment I link these factors to the experiences and events that PSOs present to the individual soldier. From this framework

testable hypotheses on when attitudes and values will change or remain stable are obtained. The essence of the theoretical argument is that experiences of low-intensity PSOs should not produce change in attitudes and values on any significant scale. Only if soldiers experience high amounts of exposure to combat will change overcome the forces that strive for stability in attitudes and values.

The main theoretical perspectives engaged with are clinical and non-clinical perspectives on how traumatic and salient events foster psychological change (e.g. Hall et al., 2010; Tedeschi & Calhoun, 2004); how cumulative continuity in personality fosters stability in psychological orientations (e.g. Caspi & Roberts, 2001; Roberts & Caspi, 2003); and how individual differences in personality traits mitigate or facilitate change (e.g., Gerber, Huber, Doherty, Dowling, & Panagopoulos, 2013; Magnus, Diener, Fujita, & Pavot, 1993). This combination of theories creates a comprehensive theoretical framework for understanding the effects of PSOs on the individual soldier. The framework considers not only the PSO environment itself, but also how the individual soldier interacts with and experiences this environment.

In a first step, key factors for understanding change and stability in political and social variables in conflict-affected settings are identified from previous research. Five themes are highlighted as particularly important: the crucial role of exposure to violence in causing psychological change; the importance of the soldier's identity, roles, and self-concept in interpreting experiences; how identity and self-concept fit with the PSO environment; how individual-level psychological variables affect susceptibility to new influences; and, lastly, how soldiers are distinct from civilians in terms of preparations for violence. In a second step, these factors are combined with broader theory on attitude and value change. This creates testable hypotheses on the effects of deployment.

In the first set of hypotheses it is argued that if soldiers experience high levels of exposure to combat, the power of these stimuli will cause changes in both their attitudes and their values. Concerning values, change is linked to the mechanism identified in Post-Traumatic Growth (PTG) theory (Janoff-Bulman, 2004; Tedeschi, 1999; Tedeschi & Calhoun, 2004). In this perspective, salient events in the form of violence can cause psychological change by shattering cognitive schemas such as values. Changes in attitudes toward violence are theorized as effects of the mass of new informational content individuals experience when exposed to combat. However, among soldiers deployed to a PSO, the level of exposure to combat commonly varies, as violence materializes more sporadically over time and geography than in situations of all-out warfare. Moreover, the amount of combat will vary across PSOs. Since violence is not always present, an examination of the effects of the overall PSO environment is warranted.

The remainder of the theoretical framework argues that if exposure to violence is comparatively low, stability in attitudes and values will be the norm. The theoretical argument revolves around identity, self-selection, and individual differences in personality traits. Drawing mainly on the perspective of cumulative continuity in personality development (Caspi & Roberts, 2001; Caspi, Roberts, & Shiner, 2005; Roberts & Caspi, 2003), it is argued that the large-scale change in environmental and social context that PSO deployments entail—which is often theoretically expected to cause changes in attitudes and values—will be mitigated by the forces of identity continuity and self-selection. In short, stability will be the norm because the soldiers self-select into environments that invite continuity in their identities and personalities. Specifically, the soldiers' values and attitudes are themselves factors that make the soldiers select into the challenging PSO context. Consequently, the environment in which the soldiers operate resonates well with their soldierly identity and self-concept. If such person-environment fit is high, this invites continuity in personality and identity. These theoretical assumptions yield the second set of hypotheses: value and attitude scores will be highly correlated across the deployment.

The second personality component concerns individual differences in how stimuli and experiences are interpreted. Here, I introduce personality trait theory and specify the personality traits that may facilitate and mitigate change. The personality trait hypotheses posit that high levels of the traits of Conscientiousness (such as orderliness and discipline) and Emotional Stability (a stable self-image) will predict higher levels of attitude and value stability. Inversely, it is argued that higher levels of the trait of Openness to Experience will predict higher levels of change.

Lastly, I consider that both military selection and training need to be accounted for in a theory on PSO effects. Soldiers have been trained and selected as specialists in violence, while civilians have not, and this should act as a potential alleviating factor in how experiences in conflict zones are interpreted.

In sum, the theoretical argument of this study is that if levels of combat and violence are low, soldiers' values and attitudes toward violence will be stable across PSO deployments. In other words, in situations of no or low-level violence, PSOs are unlikely to have a significant effect on the psychological orientations of the deployed peace soldiers.

1.3 Case Selection and Research Design

This study seeks to contribute to the field of the psychological effects of PSOs. Two main criteria have consequently guided the case selection. First, the empirical case must qualify as a PSO; secondly, the case should include some level of combat exposure. The second criterion is important as many

but not all PSOs involve some exposure to combat and violence. The empirical case chosen is the mission undertaken in the Swedish Area of Responsibility (AoR) in northern Afghanistan, which fits both these criteria. Specifically, soldiers from two Swedish contributions to NATO's International Security Assistance Force (ISAF) were studied. Data were collected from two Follow-on Forces (Fortsättningsstyrkor, FS*),* both deployed to Afghanistan for approximately six to seven months.

Above, a PSO was defined as a military mission in which military force coexists with the conduct of political, economic, and humanitarian tasks with the goal of reaching a state of peace and stability. While the broader ISAF mission to Afghanistan has involved considerable violence and can be classified as a war rather than a PSO mission, the Swedish AoR has differed significantly from more violent areas such as Helmand, Kandahar, and eastern Afghanistan. The security situation in the northern areas of Balkh, Samangan, Jowzjan, and Sar-e-Pul (the Swedish AoR) has been much less volatile. Activities carried out by Swedish forces have included active participation in offensive operations, but have mainly been geared toward upholding security through more passive measures (such as patrolling and displaying presence), training security forces, and conducting civil-military cooperation and humanitarian endeavors. This comparatively low level of combat, combined with Sweden's involvement in diplomatic, political, and humanitarian affairs, means that that the mission can be classified as a PSO. Additionally, at least some of the soldiers in each deployment have experienced some level of combat exposure. This induces necessary variation in the exposure that has been proposed to cause changes in attitudes and values.

The study is based on a pre- and post-treatment longitudinal design, in which the same individuals are studied before and after deployment. Coupled with near "as-if" randomness in exposure to different stressors in Afghanistan this design allows for a more controlled and empirically rich study than most comparable previous research has been able to provide. I employ a "mixed-methods" approach (Johnson & Onwuegbuzie, 2004), in which quantitative surveys and qualitative interviews are combined. The quantitative component is used mainly to analyze correlational relationships, while the qualitative part focuses on contextualizing the study and deriving evidence for the proposed theoretical mechanisms. In the quantitative part, approximately 320 soldiers were surveyed immediately before and after deployment to the mission. They were asked about their attitudes to violence, values, personality traits, and experiences on the deployment. In the qualitative part, members of half a platoon of combat infantry soldiers (some 15) from a separate Swedish ISAF contingent were studied. Soldiers were again interviewed both before and after their deployment. The interviews revolved around questions of attitudes and values, but were geared toward identifying evidence of the theoretical mechanisms proposed

to induce change and stability. This combination of quantitative and qualitative methods ensures that the research questions are approached and analyzed with both theoretical and statistical rigor.

1.4 Findings and Contributions

The main findings of the study demonstrate that the soldiers' values and attitudes toward violence are highly stable across the PSO deployment. PSOs—at least those with low levels of combat exposure—thus appear to have little effect on the sociopolitical orientations of peace soldiers. In terms of how change and stability come about, the findings show that forces for change in PSOs are affected by both person-environment interactions and personality trait variables.

   First, concerning change and stability in values and attitudes toward violence, the main finding is the stable nature of both these constructs across the six-month mission. In other words, few soldiers change their values and attitudes between the pre- and post-deployment stages. Theoretically, this stability is explained through the perspective of cumulative continuity. In short, the soldiers' values and attitudes are stable owing to their importance to identity, and due to the good person-environment fit the PSO provides for self-selected soldiers. An investigation into the causal mechanisms proposed by the cumulative continuity perspective suggested that these mechanisms were, indeed, at work.

   Second, the findings identify the soldiers' personality traits as factors affecting change and stability in values. Theoretically, it is argued that individual differences in personality traits will entail differing levels of susceptibility to new stimuli, causing change and stability in values and attitudes to vary across individuals. Through statistical analyses of the survey material, it was demonstrated that higher levels of the trait of Openness to experience was associated with change, while higher levels of Emotional stability and Conscientiousness were associated with value stability. In order words, soldiers who have personalities that are more open to stimuli and are more neurotic will experience comparatively more change, while those who are orderly and self-disciplined will remain more stable.

   Third, the study produced unexpected findings in regard to how combat exposure influences change and stability in values and attitudes. Contrary to expectations, increasing levels of combat exposure did not induce more change in attitudes or values. The statistical analyses found only a weak positive effect of exposure on changes in values, while increases in exposure actually decreased the likelihood of experiencing changes in attitudes toward violence. With regards to attitudes, the interview material collected could cast some light on this outcome. While the low levels of violence experienced did not cause soldiers to reevaluate their opinions on violence,

there were signs that this exposure spurred a considerable amount of reflection on the use of force. This reflection consequently increased the soldiers' resistance to becoming more positive toward the use of force. Concerning these findings on the lack of strong combat exposure effects on attitudes and values alike, a large caveat is, however, necessary. Since the soldiers experienced only relatively low levels of exposure it was not possible to fully evaluate both of the hypotheses related to these variables. More severe exposure, such as killing an opponent or suffering the death of a comrade, may well have effects that differ from those identified in this study. A more evenhanded conclusion is, thus, that variation within the lower end of the combat exposure spectrum does little to change attitudes and values.

Taken together, these findings contribute novel knowledge to several fields. First, as the first-ever study (to my knowledge) of the effects of PSOs on values and attitudes toward violence, this study enriches the literature on the psychology of peacekeeping (e.g. Britt & Adler, 2003b; Langholtz, 1998). It does so by supplying answers to a set of questions within a sphere of the literature that has so far received little attention: sociopolitical psychological orientations. More specifically, the study's findings contribute to the literature through how they—among other things—demonstrate that although PSOs may be environments that are psychologically challenging (Adler et al., 2003; Maguen et al., 2006; Schok, Kleber, & Boeije, 2010), low-exposure missions do not seem to greatly affect soldiers' views of the political and social world. Within the same sphere, this study also contributes more evidence of the necessity of taking person-situation interactions into account when studying PSOs. The findings demonstrate good person-environment fit to be important for understanding change and stability in sociopolitical orientations. Previous research has demonstrated the importance of such interactions for understanding outcomes such as morale, cohesion, and performance (e.g., Franke, 2003; Miller & Moskos, 1995), but rarely applied this perspective to understanding change and stability at a broader psychological level. A theoretical contribution is also made to this end, by demonstrating the usefulness of the cumulative continuity model for understanding change and stability in political psychological variables in PSOs (Caspi & Roberts, 2001; Caspi et al., 2005; Roberts & Caspi, 2003). Previous research on the fit between soldier identity and mission environment has lacked such a comprehensive theoretical tool.

The study also contributes to the field of values and value change (e.g. Bardi, Buchanan, Goodwin, Slabu, & Robinson, 2014; Bardi & Goodwin, 2011; Schwartz, 1992). The findings demonstrate that stability in values was the norm across the deployment, providing further evidence on the proposed overall stability of values (e.g., Rokeach, 1973; Schwartz, 1992). Additionally, this evidence was garnered in probably the most challenging research setting to date. By using an elaborate set of tests of the stability of

values, it was also possible to demonstrate the high explanatory value of the perspective of cumulative continuity for understanding when and how values change (Caspi & Roberts, 2001; Roberts & Caspi, 2003). These findings subsequently contribute new knowledge of the nature of value change.

Finally, the study contributes to the field of personality psychology. It does so not only by applying the cumulative continuity perspective to change and stability in values and attitudes toward violence, but also through the lens of personality trait theory (John & Srivastava, 1999; McCrae & Costa, 1997). Here, the study demonstrates the effects of personality traits on change and stability in values. While previous theory had speculated on such a relationship (see, e.g., Bardi & Goodwin, 2011), this study is the first (to my knowledge) to demonstrate such links empirically. It does so by identifying which personality traits enhance and which lessen the propensity toward value change. This finding contributes to research on how values and personality traits are related (e.g., Dollinger, Leong, & Ulicni, 1996; Roccas, Sagiv, Schwartz, & Knafo, 2002).

In sum, this study makes important contributions both to the specific field of the psychology of peacekeeping and to the spheres of personality psychology and the individual-level social and political effects of PSOs, conflict, and violence.

1.5   Structure of the Study

This study is structured as follows. First, Chapter 2 presents a brief exposé of Sweden's contributions to the ISAF mission to Afghanistan. This chapter describes Sweden's military contributions and details both the political situation in northern Afghanistan as well as the tasks carried out in this area by Swedish forces. While the findings of the study are believed to be applicable beyond the Swedish case, an understanding of the research context is important for gauging the potential generalizability of the results. Next, in the theory chapter (Chapter 3), I briefly position the study in relation to previous research. Here, I extract the most prominent findings and theories from related spheres of research. These are used as building blocks for the construction of a theoretical framework for understanding the possible effects of PSOs on the individual soldier. Definitions of the concepts of values, attitudes toward violence, personality traits, and combat exposure follow. Lastly, I combine the identified building blocks with attitude and value change theory to produce testable hypotheses on the effects of PSOs. Chapter 4 then presents the research design and methods. It details the qualitative and quantitative methods applied, and presents the samples studied, the instruments used, the data collection approach, and discussions on case selection. Chapter 5 opens the empirical investigation with a quantitative and qualitative analysis of the soldiers' values and

attitudes toward violence before the deployment. This chapter introduces the research subjects and lays the foundation for examining the causal mechanisms proposed by the cumulative continuity perspective. Here, I establish how attitudes toward violence are tied to the soldiers' identities, and what values, goals, and motives the soldiers hold. Chapter 6 delves into hypothesis testing, and analyzes change and stability in values as an overall effect of the deployment experience, as well as the effects of combat exposure and personality traits. Several statistical tests are employed to study change and stability at the individual level. Chapter 7 then tests the hypotheses on change and stability in attitudes toward violence in a similar fashion to what is done in Chapter 6. Chapter 8 revisits the proposed causal mechanisms. Combining the interview material with the statistical analysis makes it possible to demonstrate what mechanisms could be discerned and what effects these had on change and stability. The final chapter—Chapter 9 —discusses and summarizes the findings and conclusions of the study. I first present and interpret the findings theoretically and substantially. Second, the main conclusions and contributions are summarized, some of the limitations of the study and its generalizability are discussed, and avenues for future research are elaborated upon.

2. Sweden in Afghanistan

This chapter provides a short empirical background to Sweden's involvement in NATO's ISAF mission to Afghanistan. It is not an exhaustive account of the war, nor a detailed walkthrough of Swedish policies or actions in Afghanistan. Instead, the purpose of this chapter is to outline the Swedish involvement and operations in northern Afghanistan to provide an understanding of the context to which the soldiers of this study are deployed.

2.1 The Swedish Commitment to ISAF

Since the initiation of Sweden's contributions to ISAF, Swedish contingents have been deployed through the Follow-on Force system (Fortsättningsstyrka, FS). As of spring 2015, FS28 was deployed to northern Afghanistan. Each follow-on force has an approximate rotation time of six months, meaning that two different forces are deployed per year.[1] Somewhat simplified, the system has relied since 2007/08 on each separate Swedish regiment of a certain size supplying troops for each follow-on force on a rotating schedule (although some specialties are not available at all regiments and are thus recruited from other bases). Before this system was instituted, troops were supplied by means of a special Swedish Armed Forces (SAF) recruitment pool for international missions.

For the larger contingents—when platoons of combat infantry have been deployed—the main contributors have been the Karlsborg regiment (K3), the Norrland regiment (I19), the Amphibious regiment (Amf1), the Life Guards (LG), the Skaraborg regiment (P4), and South Skåne regiment (P7). Significant contributions have also been made by HQ (HQ staff and intelligence personnel), by several logistic battalions (National Support Elements), and to some extent by Air Force personnel (mainly for Unmanned Aerial Vehicles; UAVs, and medical helicopters). As the lead nation in PRT MeS (Provincial Reconstruction Team Mazar-e-Sharif) from 2006, Sweden has also held command over 195 Finnish soldiers at most, and

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[1] This is not true of all unit types. Certain specialties, such as intelligence, medical, and helicopter units, may be stationed for varying periods of time.

additional Norwegian and Latvian forces (Honig & Käihkö, 2014; Salonius-Pasternak, 2012).

Sweden's involvement in ISAF began soon after the 2001 ouster of the Taleban government, with the first, albeit minor, contingent arriving at the start of 2002. At that time ISAF's mandate was limited to Kabul alone and focused on the provision of security for the interim period during which Afghan institutions were to be built. As ISAF's commitments and mandate expanded beyond Kabul—in the end encompassing all Afghan territory—so too did Sweden's involvement. Replacing a British-led PRT, Sweden agreed to take over leadership of the reconstruction, security, and state-building efforts in some of the northern provinces (Honig & Käihkö, 2014).

Thus, Sweden significantly expanded its presence and responsibilities in Afghanistan, increasing its troop strength to approximately 100 soldiers in 2005 and to about 200 in 2006 (Tham Lindell & Hull Wiklund, 2011). The largest such expansion came in March 2006, when the country took over command of PRT MeS under Regional Command North, with headquarters located in the provincial capital of Balkh province. Responsibilities were not, however, limited to Balkh province, but also included the provinces of Jowzjan, Sar-e-Pul, and Samangan (Förvarsmakten, 2014; Tham Lindell & Hull Wiklund, 2011).

In addition to establishing its main camp (Camp Northern Lights, CNL) in Mazar-e-Sharif, Sweden also constructed three Provincial Offices in the capitals of the other provinces included in the PRT's mandate: Aibak in Samangan, Sheberghan in Jowzjan, and Sar-e-Pul in the province of the same name. These offices were all successively abandoned from 2011 (Honig & Käihkö, 2014). Over time troop contributions continued to grow, to about 350 in 2008 and 500 in 2009—a level that has since been relatively stable (Försvarsdepartementet, 2008; Tham Lindell & Hull Wiklund, 2011). This rise in troop deployment also signaled a shift toward an increasing involvement in combat roles for the Swedish forces, to some extent also visible through ISAF's outright adoption of the "Clear, Hold, Build" strategy inherent in the COIN (Counterinsurgency) doctrine (Agrell, 2013; Tham Lindell & Hull Wiklund, 2011).

As planned, the Swedish government scaled down Swedish contributions toward the end of 2014 (Statsrådsberedningen, 2010). As of early 2015 only approximately 50 military personnel remained, stationed primarily at Camp Marmal outside of Mazar-e-Sharif (Försvarsmakten, 2015).

2.2 Swedish Operations in the Afghan North

The bulk of Swedish military activities in Afghanistan have been carried out under the PRT heading, centering on CNL in Mazar-e-Sharif. Before the inauguration of a PRT under Swedish command, Swedish forces were

mainly stationed at Camp Warehouse, in Kabul (later a part of Regional Command Central). After CNL was established, a second base of operations named Camp Monitor was constructed under Swedish leadership, in Sheberghan province. This base functioned as a forward operating base for combat infantry, but was abandoned in 2013 as part of the scaling-down of the ISAF presence and the security hand-over to Afghan forces (Stenberg, 2013). In addition to the PRT presence, Swedish Special Forces have also been deployed to Afghanistan from time to time.

The PRT has been one of the main methods of operations for ISAF reconstruction efforts. The PRT concept was developed by the U.S. as an integrated military, diplomatic, and aid-providing structure for use in unstable and/or occupied states to support reconstruction and the establishment of security (Bebber, 2011). The concept was created for Afghanistan, but has also been applied in the war in Iraq. The basic line of thought when the concept is applied has been to empower both central and local government structures via the local level, as opposed to attempting to control territory from a central location such as a capital city. Empowerment is thought to be attained through joint civil-military cooperation (CIMIC), and as such a PRT contains not only a military component, but also diplomats, civil servants, and aid workers (Bebber, 2011). The field manual for PRTs states the purpose and strategy as being to "pursue security sector reform, build local governance, or execute reconstruction and development" (U.S. Army, 2006, pp. 2-12). Within this broad strategy each PRT, however, has extensive freedom of action to pursue specific tactics or prioritize one or more of these three goals. Thus, while some PRTs have pursued relatively aggressive military operations (although most offensive operations conducted by ISAF are carried out by forces that are separate from the PRT structure), others have focused more on attempting to build local governance or promote development (Bebber, 2011).

In the specific case of the Swedish PRT it has often been argued that despite the prevalent idea of civil-military cooperation, the Swedish PRT remained highly "militarized"—in the sense that components other than the military one were lacking—throughout the entire span of its existence. This has commonly been viewed as an effect of the bureaucratic difficulties in getting the many government agencies involved to work together, as well as a reluctance among Swedish aid agencies to allow intermingling of military and civilian capabilities (Agrell, 2013; Honig & Käihkö, 2014).[2]

In terms of military activities, the Swedish PRT's AoR (Area of Responsibility) has, in a comparative perspective, been relatively calm, and little maneuver warfare has been conducted (Honig & Käihkö, 2014). The principal military activities carried out by the Swedes in Afghanistan

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[2] In fairness, this state of affairs was not limited to the Swedish PRT Rather, it was a widespread failure of the PRT system.

(through the PRT) have thus been to coordinate with and assist the ANP (Afghan National Police) and ANA (Afghan National Army) in its operations against insurgents and other non-state actors, mentoring and training these forces by means of OMLTs (Operational Mentoring and Liaison Teams), and carrying out active patrols in the AoR using MOTs (Mobile Observation Teams) for the purposes of maintaining security and identifying opportunities for development projects and other collaboration (Honig & Käihkö, 2014).

That next to no offensive operations have been led by Swedish forces does not, however, mean that Swedish troops have not been involved in combat, or that the security situation in northern Afghanistan has been completely stable. As mentioned above, northern Afghanistan is relatively secure compared with the other regional command areas in Afghanistan (West, East, South, and Central). The relative calm is mainly an effect of demographic, historical, and geographic factors, more than any effective counterinsurgency efforts on behalf of ISAF or Sweden.

The Taleban insurgency in Afghanistan has a clear ethnic dimension: most Taleban and other insurgents (such as those loyal to Gulbuddin Hekmatyar or to the Haqqani-network) are of Pashtun descent (Afsar, Samples, & Wood, 2008; Johnson & Mason, 2007). Pashtuns are an ethnic minority in the four provinces where Sweden has operated, meaning that these regular lines for mass mobilization have been more or less closed to the Taleban. This part of the Afghan north is, instead, populated mainly by ethnic Uzbeks, Tajiks, and Turkmens. In addition, during most of the Afghan civil war in the 1990s (and also in post-Taleban Afghanistan), non-Pashtun strongmen controlled these geographic areas and were most often allied against any Pashtun-dominated forces. Such strongmen (or warlords) include Abdul Rashid Dostum (Uzbek) and Atta Mohammed Noor (Tajik) (Christiansson, 2012; Mukhopadhyay, 2009). These and other powerful actors have been and continue to be opposed to the Taleban post-2001. In addition, the Afghan north is located far from the Taleban heartlands of Kandahar and Helmand, and also far away from insurgent safe havens, across the border in Pakistan—two important factors for their operational capabilities (Afsar, Samples, & Wood, 2008). Insecurity in the north has increased, however, as the Taleban insurgency has gained strength since 2005. In addition, Taleban fighters loyal to the Quetta shura (i.e. those who might be termed "real" Taleban, aligned to the central political movement out of the Pakistani city of Quetta) are only part of the problem. Other militias and armed gangs linked to drug rings also operate in these provinces and oppose the attempts of ISAF and the Afghan government to impose security (IRIN, 2013; Rubin, 2010).

Swedish exposure to combat and violence has taken place mainly during the deployments of FS17 through FS20. One source states that FS17 was involved in 42 separate battles during its six-month stay (Hildebrandt, 2011).

As of early 2015 Swedish forces in Afghanistan had suffered five national fatalities, two Afghan fatalities (interpreters) and at least a dozen additional combat-related injuries of a permanent nature (Christiansson, 2012). The number of fatalities and casualties incurred by Swedish forces is unknown, since no official attempts are made to tally body counts. A Special Forces commander estimated, however, that between 2010 and 2012 "a few dozen" Taleban operatives had been killed by Special Forces alone (Brigadier General Urban Mohlin, quoted in Lagerwall & Rosén, 2014). It is reasonable to assume that additional fatalities have been incurred, perhaps especially during the many battles that took place between Taleban forces and Swedish-supported Afghan troops during the summer of 2010.

While the provinces in the Swedish AoR have been calm in a comparative perspective, certain areas have experienced relatively pronounced levels of threat, particularly areas controlled by local Taleban. Such areas of intensified insecurity were, primarily, an area labelled "West of MeS" (made insecure by criminals allied with local Taleban), the village and surroundings of Darzab (Taleban-controlled) and the environs of the city of Sar-e-Pol, which also contained a strong Taleban presence (Christiansson, 2012; Hildebrandt, 2011; Honig & Käihkö, 2014). These areas have seen the vast share of battles and attacks against Swedish forces, as a consequence of IED attacks, attacks on MOTs, and operations conducted jointly with Afghan security forces. Attacks on Swedish forces and Swedish-supported ANA and ANP forces have mainly been conducted with IEDs, small-arms fire, and RPGs. The number of attacks has, however, reduced substantially in recent years. Consequently, the Swedish AoR represents an environment in which combat is not a common occurrence, but likewise not unknown. In certain geographical areas relations with civilians are amicable, while more hostile feelings are prevalent in others.

The application of the PRT concept has also meant that military operations have not been the only activity engaged in. Swedish forces have also conducted many activities that entail interactions with both civilians and Afghan authorities. These activities include, for instance, extensive patrolling to gather human intelligence, identifying opportunities for development, mentoring security forces (engaging in security sector reform), and liaising with village representatives to identify the needs and wishes of the civilian population (Honig & Käihkö, 2014). Thus, although combat and insecurity have been parts of the everyday lives of the deployed Swedish soldiers, many other activities of a peacekeeping or peace support nature have also been prominent during the Swedish mission to Afghanistan.

3. Military Deployments and Psychological Change

Chapter 2 is divided into three parts. The first section positions the study in relation to previous research, and also identifies findings that will be used to guide the construction of the theoretical framework. In the second section I first specify theoretical definitions of values and attitudes toward violence, after which I present general theory on change and stability in these two constructs. In the third and last section I arrive at testable hypotheses by combining these broader theories on change and stability with the building blocks from previous research, as well as the characteristics of PSO experiences.

3.1 Previous Research: Extracting Building Blocks

The psychological consequences of war and conflict have been popular themes in Western culture since the dawn of civilization. Although not steeped in modern-day language of loss, trauma, or mental health, even the Greek classics make reference to changes in behavior and feelings in the aftermath of combat (Marlowe, 2001; Modell & Haggerty, 1991). Given this enduring interest in war and soldiering it is no surprise that extensive literatures in the social and medical sciences have concerned themselves with these issues. In simplified terms, three literatures relevant to this study may be discerned: (1) the clinical study of mental health issues associated with war and other types of military deployment, (2) the sociological and psychological study of the effects of PSOs on variables important for military effectiveness, and (3) studies on the individual-level political and social effects of war and violence.

In the first strand, clinical psychology, the relationships between war and the development of Post-Traumatic Stress Disorder (PTSD) and other types of psychiatric disorders have been of prime concern. Much of this research has been carried out by military psychologists in order to understand and reduce war-related psychiatric casualties. These studies are interested in the main causes of war-related psychiatric disorders (Keane et al., 1989; Maguen et al., 2009), but also the factors—at both the individual and group level—that serve to increase or decrease resilience toward psychological

stress (Brewin, Andrews, & Valentine, 2000; Iversen et al., 2008; King, King, Vogt, Knight, & Samper, 2006). Several studies have also examined the origins and prevalence of such war-related disorders in civilian populations (e.g., Brounéus, 2010; Mollica, McInnes, Poole, & Tor, 1998; Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003).

Mental health has also been a theme in research on the psychology of peacekeeping. Studies have found that PSOs contain many of the same psychological stressors as regular military missions, such as exposure to combat and death (Adler et al., 2003; Brounéus, 2014; Sareen et al., 2010). Stressors in peace support operations also appear, however, to differ in important respects from those in other types of military operations (Brounéus, 2014; Litz, King, King, Orsillo, & Friedman, 1997). The stressors include, for instance, boredom, uncertainty of mission content (Adler et al., 2003), the need to control one's aggression as a neutral party (Litz, 1996; Litz et al., 1997), witnessing horrific acts without being able to help, and being disliked by the local populace (Weisaeth, 2003). Here too, several studies have investigated how individual-level factors such as personality and coping styles may foster resilience to psychological stress (e.g. Bartone, 2006; Bartone, Marlowe, Gifford, & Wright, 1992; Britt et al., 2001; King, King, Fairbank, Keane, & Adams, 1998).

A second line of clinical research may be found in Post-Traumatic Growth theory (PTG). PTG is a line of research within positive psychology that studies perceived feelings of personal growth in the aftermath of trauma (Tedeschi, 1999; Tedeschi & Calhoun, 2004). Findings from PTG and related research include that trauma can promote more spirituality and appreciation of life (Carmil & Breznitz, 1991; Laufer & Solomon, 2006), alterations of perceptions of the self, life-philosophy and world-view (Tedeschi, 1999), and perceptions of more personal strength and self-esteem (Aldwin, Levenson, & Spiro III, 1994; Schok et al., 2008). In other words, trauma has been found to affect not only mental health, but also perceptions of the self and the world, and perhaps even personality. This perspective has, however, only scarcely been applied in PSO research (Britt et al., 2001; Mehlum, 1995; Schok et al., 2008).

Taken together, these clinical studies point toward PSOs containing a wide range of factors that may affect the psychology of the soldier. Two findings stand out and should subsequently be accounted for in a theoretical framework on the effects of PSOs: (1) that the experience of salient/traumatic events in the form of combat and violence induces psychological change, and (2) that individual-level attributes affect the level of susceptibility to stressful experiences.

In the second literature, on the sociology and social psychology of PSOs, the majority of studies relate to variables of importance for military effectiveness (for good overviews, see Britt & Adler, 2003b; Langholtz, 1998). For instance, scholars have investigated the roles to which combat

soldiers revert during humanitarian missions (Miller & Moskos, 1995; Segal, Segal, & Eyre, 1992), how repeated deployments affect morale and motivation (Reed & Segal, 2000; Vegic, 2007), what motivates soldiers to go on peace support missions, and how they evaluate their experiences (Battistelli, Ammendola, & Galantino, 1999; Hedlund, 2011; Johansson & Larsson, 2001). Of special interest has been how the soldiers' identities affect and are affected by PSOs. Building on Moskos's (1975) depiction of Western soldiers seeing themselves as "warriors" carrying out "constabulary" duties when conducting peacekeeping, these studies have engaged with varying aspects of the soldierly identity. For instance, how PSOs may shape new and less belligerent identities that soldiers have a hard time accepting (Duncanson, 2009; Sion, 2006). Other aspects are how and when PSOs may or may not coalesce with the warrior identity (Franke, 2003; Hedlund & Soeters, 2010), and what these role conflicts or identity-to-mission incompatibilities entail for retention rates, performance, and other variables of interest to military effectiveness (see, e.g., Britt, 1998; Franke, 1999; Halverson, Wong, & Bliese, 1995; Reed & Segal, 2000).

Two findings from this line of research are of special relevance to this study. First, the soldier's identity, self-concept, and role are important in shaping experiences of PSOs. Second, PSOs may affect identities and roles when these do not fit well with the mission being performed.

A final strand of research includes the vast literature on the impact of war, conflict, and violence on individual-level social and political orientations. This research spans several fields, such as peace research, political science, and political psychology. Findings in this strand of particular value to this study mainly concern the highly variable effects of war on civilians. These range from findings by Blattman (2009) and Bellows and Miguel (2009) on the positive effects of exposure to violence on political participation and leadership in Uganda and Sierra Leone, to findings on negative effects on social capital, trust, political unity, associational membership, and support for non-violent conflict resolution (Colletta & Cullen, 2000; De Luca & Verpoorten, 2011; Grosjean, 2014; Rohner, Thoenig, & Zilibotti, 2013; Vinck, Pham, Stover, & Weinstein, 2007).

War and violence also seem to affect attitudes and ideological orientations in ways that are commonly viewed as normatively undesirable. Several studies have demonstrated how different types of violent exposure increase stereotyping of others, intensify exclusionist attitudes and in-group salience, shift attitudes toward the authoritarian end of the spectrum, and boost support for war policies and coercion (see, e.g., Bar-Tal & Labin, 2001; Bonnano & Jost, 2006; Canetti-Nisim et al., 2009; Castano, Yzerbyt, Paladino, & Sacchi, 2002; Chatard et al., 2011; Dyrstad, 2013; Echebarria-Echabe & Fernández-Guede, 2006). On values as such, Verkasalo et al. (2006) and Daniel et al. (2013) found shifts toward anxiety-based values (Security and Conformity) in relation to indirect exposure to war and

violence. Similar findings have been accrued concerning military service, exposure, and the social and political attitudes and orientations of soldiers. In studies of American veterans (mainly from Vietnam) some relatively weak evidence has been found that military service and combat exposure predict increasingly positive attitudes toward war and war policies (Brady & Rappoport, 1973; Calvert & Hutchinson, 1990; Grote, Frieze, & Schmidt, 1997). Some studies have, however, found the inverse effect (Feaver & Gelpi, 2004; Huntington, 1957). Additional contributions have been made in studies on Israeli combat veterans, where Grossman, Manekin, and Miodownik (2014) found that levels of combat exposure predicted hardened attitudes against enemies and increased support for military solutions rather than political compromise. Further studies on combat veterans have identified effects of service and/or exposure on political cynicism, civic tolerance, political alienation, and voter turnout (Jennings & Markus, 1977; Pollock, White, & Gold, 1975; Teigen, 2006). Studies in this strand consequently also point toward the possibility of PSO deployments having transformative effects. Although the most critical factor appears to be direct exposure to violence, both this strand and that of the psychology of peacekeeping trace effects that are related not only to exposure, but also to the general conflict zone and/or military environment.

At least three points from the studies in the last strand need to be taken into account in the formulation of theoretical expectations. First, exposure to violence and/or combat is a factor for change also in terms of social and political variables. Second, as in clinical psychology, powerful moderating variables can be found within the individual in this sphere as well. Third, it is questionable whether exposure and other experiences in conflict zones affect civilians and soldiers in similar ways. With the exception of the findings from Grossman and colleagues (2014), studies on change in political and social variables among veterans do not yield results as strong or consistent as those among civilians.[3]

Five factors from previous research, thus, appear key to building a theoretical framework for understanding the psychological effects of PSOs. First, both the clinical and non-clinical spheres identify experiencing combat and violence as one of the prime factors in causing psychological change from war-time experiences. Second, the identities, roles, and self-images of soldiers are important for understanding how they interpret their deployment experiences. Third, how identity factors resonate with the environmental context of the mission may also be of consequence. These findings from the sociology and social psychology of peacekeeping demonstrate that to understand the effects of PSOs we must consider such factors as individual identity and self-image, and how those factors interact with the PSO

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[3] There are, however, reasons to believe that limitations in research design and the limited samples (U.S. veterans only) may also partially account for these weak or unclear results.

environment. Fourth, individual differences in the form of susceptibility to stimuli are likely to have additional effects on how a deployment experience is interpreted, and thus whether change occurs and in what form. As was noted in both the clinical and non-clinical spheres, the effects of experiences are moderated by individual "coping" factors, such as subjectively experienced levels of psychological distress and fear/threat (Canetti-Nisim et al., 2009; Canetti, Rapaport, Wayne, Hall, & Hobfoll, 2013; Huddy & Feldman, 2011; Pyszczynski et al., 2006). This necessitates taking individual-level personality factors into account.

Lastly, it would seem that soldiers differ from civilians, which likely influences forces for change and stability. Here, it should be taken into account that soldiers are often distinguished from civilians by having self-selected and been selected (vetted), and trained to participate in violence. Thus, the sometimes powerful effects of war and violence are not necessarily the same for soldiers, who are distinctly different from civilians in important ways (as suggested also by, for instance, Grossman et al., 2014).

3.2   Defining the Concepts

Having extracted the most important findings from previous research I move on to defining the central concepts of the study. I begin by briefly discussing definitions of the terms "stability" and "change". This discussion is followed by in-depth definitions of values and attitudes toward violence. These are the study's two dependent variables. These definitions are followed by short sections on general theory and findings from previous research on stability and change in attitudes and values.

3.2.1 Stability and Change

I approach change and stability mainly through the lens of the individual: i.e. the degree to which the individual changes or stays the same across time. A different approach may have been, for instance, to focus on change in a group as a whole. Both change and stability are, however, ambiguous terms in that there are, theoretically and operationally, a number of ways in which an individual can change (Roberts, Caspi, & Moffitt, 2001). To cover as much theoretical ground as possible, I consider primarily three forms of stability that are complementary in nature. Different approaches can tell very different stories, and a fuller picture of change and stability appears through the use of several conceptualizations of these phenomena (Bergh, Akrami, & Ekehammar, 2012; Roberts et al., 2001; Robins, Fraley, Roberts, & Trzesniewski, 2001).

First, the concept of rank-order consistency (or, rank-order stability) relates to the stability of individual differences. If individual differences are

consistent across time, individuals will retain their relative placement within a sample. For instance, if two individuals decrease their appreciation of a specific value, but one of these individuals continues to rank this value higher than the other, rank-order consistency is high. Rank-order stability can, thus, coexist with other forms of change.

Second, I study intra-individual differences in stability and change, focusing on how each individual changes over time in relation to his/herself on a dimension of interest (sometimes referred to only as "individual-level change"). One is here concerned only with how the individual relates to his/herself at a previous point in time. This definition of change recognizes that, in the example given above, both individuals did experience change.

Lastly, I examine ipsative consistency/stability, which also relates to the intra-individual level. In personality psychology, this approach is commonly used to study an individual's full profile on the dimensions of interest across time. In a sense, this entails applying a person-centered, rather than variable-centered, approach. In terms of values, this means examining the level of stability not of separate values, but of an individual's full value profile. This allows one to, for instance, recognize that although one specific value may change among many individuals, this does not necessarily mean that each individual has changed much, as the full profile may still exhibit a high level of stability (Roberts et al., 2001; Roberts & DelVecchio, 2000; Robins et al., 2001).[4]

3.2.2 Values

To define values I use the conceptualization pioneered by Israeli social psychologist Shalom Schwartz. Initially together with Wolfgang Bilsky (Schwartz & Bilsky, 1987, 1990), Schwartz developed his conceptualization of values based on the work of Clyde Kluckhohn (1951) and Milton Rokeach (1973). Schwartz thus adopted the idea of values as the criteria used by individuals to select, evaluate, and justify actions, thoughts, and events (Schwartz, 1992). Schwartz and Bilsky identified at least five shared features in all or most theoretical perspectives on values: "[v]alues are, (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance" (Schwartz & Bilsky, 1987, p. 551). In a later, and somewhat simpler definition, Schwartz

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[4] The three definitions of change are operationalized in detail when they are studied empirically in the analytical chapters (Chapters 6 and 7). In-depth definitions and operationalizations, and a discussion of how these types of change and stability relate to one another, are also available in Appendix C. In short, however, rank-order consistency is studied via longitudinal correlations with latent variables, intra-individual differences are studied through the use of the Reliable Change Index (Jacobson & Truax, 1991), and ipsative stability through r and a variety of D^2 scores.

classified values as being abstract, trans-situational, and desirable motivational goals that serve as guiding principles in people's lives (Schwartz, 1992). In an even simpler rendition, our values are what we think is important to strive for in life.

Values are important to study because they can inform our understanding of the political and social attitudes and behaviors of individuals and groups. Values are believed to predict attitudes since they are central to the self-concept and one's personality structure, and function as overall schemas or cognitive patterns that drive attitudes (Bardi & Goodwin, 2011; Roccas et al., 2002; Schwartz, 2012). Values have, for instance, been shown to be sound predictors of attitudes to war (Cohrs et al., 2005b), attitudes to violence in general (Sundberg, 2014), readiness to compromise in conflict resolution (Halperin & Bar-Tal, 2011), ideological concepts such as Right-Wing Authoritarianism and Social-Dominance Orientation (Cohrs et al., 2005a), and choice of political party affiliation (Caprara et al., 2006). Values can also predict important behaviors, such as voting and voting choice (Barnea & Schwartz, 1998), political activism (Vecchione et al., 2014) religious observance (Barnea & Schwartz, 1998; Schwartz & Huismans, 1995), environmental behavior (Karp, 1996), and intergroup social contact (Sagiv & Schwartz, 1995). Consequently, the value concept is a highly useful tool for understanding the social and political mind of the individual.

Why do we have values and from where do they stem? One of the defining features of the Schwartz value theory is that values are psychological and social constructs that stem from human and societal needs. Schwartz and Bilsky (1987, 1990), and Schwartz (1992), hypothesized that the different value types express goals or motives related to three requirements for survival that are universal in the human experience: (1) the needs of individuals as biological entities, (2) the requisites for coordinated social action, and (3) the survival and welfare of social groups. In other words, values serve to direct behavior toward broader goals that can satisfy these requirements and ensure survival. Since these requirements or prerequisites are thought to be universal—and, indeed, are seen as extremely important for survival by some evolutionary psychologists (Buss, 1986)—Schwartz hypothesized that the typology of values could depict the values held by practically all individuals and cultures. Through a large number of tests over several years, Schwartz and his colleagues empirically validated the applicability of this conception of values in (at the last count) 82 countries and more than 100 000 individuals (Schwartz, 2012).

The theory and its empirical manifestation contain a total of 10 value types: Tradition, Conformity, Security, Power, Achievement, Hedonism, Stimulation, Self-direction, Universalism, and Benevolence (Schwartz, 1992; Schwartz et al., 2001). Each value captures a general and fairly broad motivation or goal. These values, and their defining characteristics, are listed in more detail in Table 2.1. The table presents the broader value types in

capitals, followed by the central goals of these types and, in brackets, more specific values that represent these goals.

Table 2.1 *Schwartz's Values (adapted from Barnea & Schwartz (1998))*

POWER: Social status and prestige, control or dominance over people and resources (social power, authority)

ACHIEVEMENT: Personal success through demonstrating competence according to social standards (success, wealth, ambition)

HEDONISM: Pleasure or sensuous gratification for oneself (pleasure, enjoying life)

STIMULATION: Excitement, novelty, and challenge in life (daring, a varied life, an exciting life)

SELF-DIRECTION: Independent thought and action – choosing, creating, exploring (creativity, freedom, independence, ability, wisdom, world of beauty)

UNIVERSALISM: Understanding, appreciation, tolerance, and protection of the welfare of all people and nature (honesty, broadmindedness, protecting the environment, meaning in life)

BENEVOLENCE: Preservation and enhancement of the welfare of people with whom one is in frequent contact (helpfulness, forgiveness, social justice)

TRADITION: Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide (devoutness, respect for tradition, humility, spiritual life)

CONFORMITY: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (self-discipline, politeness, honoring parents and elders, obedience)

SECURITY: Safety, harmony, and stability of society, of relationships, and of self (family security, national security, social order)

One of the main features of the value definition proposed by Schwartz and Bilsky was the proposition that the best way to study values is to understand their complete structural and hierarchical relationships (Rohan, 2000; Schwartz & Bilsky, 1987, 1990). In other words, concerning structure, holding certain values to be important automatically entails a conflict with values that may be classified as polar opposites. In relation to hierarchy, this means that the importance of one specific value cannot truly be known unless one knows the significance of all other values. Such a perspective on

the importance of the relative ranking is critical since values are often, by their very nature, couched in language that is positively laden (Schwartz, 1992; Rohan, 2000). Since, for instance, most people highly value both Benevolence and Universalism, it is important to understand their placement in relation to each other to grasp their actual significance for an individual. These notions of hierarchy and structure can be visualized through the proposed quasi-circumplex structure of the value types.[5] Figure 2.1 shows a depiction of this structure.

Figure 2.1 *Quasi-Circumplex Structure of Values*

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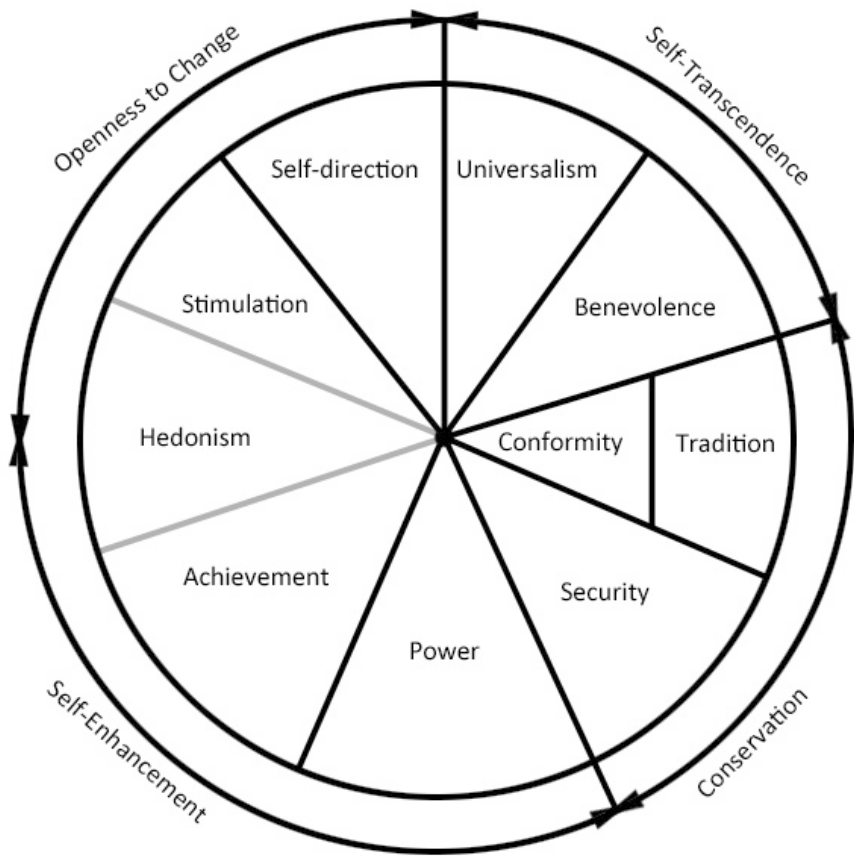
[5] The structure is "quasi-circumplex" in that the shape is circular, but has unequally spaced variables on its circumference (Perringjaquet, Furrer, Usunier, Cestre, & Valette-Florence, 2007). However, a better description of the structure in Figure 2.1 is "modified quasi-circumplex", since one of the assumptions of a quasi-circumplex structure (constant radius) is violated for the positions of Tradition and Conformity (Schwartz & Boehnke, 2004).

Figure 2.1 shows how the values, when validated in, for instance, Multi-Dimensional Scaling (MDS) or Principal Components Analysis (PCA), commonly align themselves in a two-dimensional space. The figure shows the conflicts and compatibilities among the value types: values that are adjacent to one another are compatible and thus to some extent share their motivational base (Schwartz, 2012). Power, for example, is next to Achievement, displaying a theorized relationship between these two values based on the goals they represent. In contrast, Power stands in direct opposition—i.e. in conflict—with Universalism, as Power represents the quest for such things as dominance, control, and social stratification, while Universalism represents the goals of social justice and equality. Valuing Power thus, to a high degree, involves devaluing Universalism.

Figure 2.1 also displays another important part of the theory. This is the idea that all value types relate to two over-arching dimensions of human orientations formed by four higher-order value types: Openness to change versus Conservation, and Self-transcendence versus Self-enhancement (Schwartz, 1992). The first dimension subsumes values that concern the pursuit of the new, the uncertain, and the different. In opposition to this stands Conservation, which focuses on the maintenance of the status quo, the predictable, and the stable. The second dimension focuses on rising above one's own personal interests to see to the welfare of others (Self-transcendence), versus the more egotistical focus on enhancing one's own position and status (Self-enhancement) (Schwartz, 1992; Rohan, 2000).

Since the concept of values has a tendency to become confused with other psychological concepts, it is important to clarify what values are *not*. Hitlin and Piliavin (2004) have described how values differ from four constructs that are often conflated with values: attitudes, traits, norms, and needs.[6] Values differ from the first concept (attitudes) in always being abstract and referring to ideals, while attitudes are more concrete and refer to specific attitude objects. As will be further elaborated below, attitudes are favorable or unfavorable evaluations of such objects as cars or pollution. Values refer to more abstract orientations, such as self-expression or equality, for example.

Personality traits differ from values mainly in being more fixed aspects of personality, and in lacking the evaluative component inherent in values (Hitlin & Piliavin, 2004; Roccas et al., 2002). The second aspect is the most important, as it has been shown that personality traits do indeed change somewhat over the life-course (Roberts & DelVecchio, 2000; Robins et al., 2001). Traits describe dispositions toward behavior, but do not evaluate the morality of such behavior. One might, for instance, lack self-control and conscientiousness (a trait), while still valuing orderliness and discipline (a

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[6] Please note that in what follows regarding the differences between values and the four other concepts I draw heavily on Hitlin & Piliavin's (2004) presentation.

value). Both traits and values are thought to serve as guides to behavior, but values contain a stronger element of cognitive control (the link between thoughts and behavior) than trait dispositions (Hitlin & Piliavin, 2004). This distinction is important, since the analyses that follow make use of personality trait measurements in the form of the "Big Five" personality traits (Costa & McCrae, 1992; John & Srivastava, 1999).

Norms and values are distinguishable in several respects. First, norms are classified as situation-based, while values transcend situations and contexts (Hitlin & Piliavin, 2004). Valuing respect for elders is different from knowing that this is expected behavior and acting accordingly. Second, although both norms and values can be conceptualized as group-level phenomena, values also exist on the individual level as a person's particular configuration of values. In contrast, individuals will share a perception of what norms of behavior are correct in a social situation. A useful way of conceptualizing these differences is to view norms as outside pressures to behave in specific ways, while values are internal pressures for action.

Finally, needs differ from values in being biological products that influence the quest for things necessary to the individual. Values are, instead, socially constructed and positively evaluated ways in which needs can be articulated (Hitlin & Piliavin, 2004). For example, being safe is a need all individuals have, but it may be enshrined and held as important in terms of patriotic loyalty. In this way, a positively laden value serves a biological need.

Stability and Change in Values

Values have been and continue to be conceptualized as facets of personality that—in the words of Rokeach—are "relatively stable" across the life course (1973, p.11). So far, evidence from empirical studies has supported this notion, finding high stability and little change in values across the life course (e.g., Bardi & Goodwin, 2011; Hofmann-Towfigh, 2007; Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2011; Myyry, Juujärvi, & Pesso, 2013; Sheldon, 2005). In Rokeach's perspective, the stability of values stems from their importance as central organizing factors of the self. The importance of maintaining a stable conception of the self makes values protect themselves and strive for stability (Hitlin & Piliavin, 2004; Rohan, 2000; Rokeach, 1973).

In a recent influential piece on value change, Bardi and Goodwin (2011) take a somewhat different theoretical perspective in explaining the stability of values. As in previous research, they categorize values as being cognitive structures that are central aspects of the self, but fuse this theoretical view with the one taken by Janoff-Bulman in her conception of world-views as "schemas" (1989). Schemas, commonly conceptualized as a form of "abstracted knowledge structure", serve as preexisting theories of how the

world and the self function, and guide how stimuli are interpreted (Janoff-Bulman, 1989, p. 115). Conceptualizing values as schemas further enhances understanding of why values would be stable. People will tend to unconsciously attempt to keep schemas intact by reinterpreting events in line with these cognitive structures (Bardi & Goodwin, 2011). Through this conceptualization of values as schemas, Bardi and Goodwin proposed that value change mimics the process of changes in schemas; in turn explaining their durable characteristics and the finding of "relative stability" (Rokeach, 1973, p. 11).

The use of the term "relatively stable" implies, however, that there can be change in values and value structures. In the last few years several empirical studies of and expansions on value change theory have emerged (Bardi et al., 2014; Bardi & Goodwin, 2011; Lönnqvist et al., 2011; Lönnqvist, Jasinskaja-Lahti, & Verkasalo, 2013; Maio, Pakizeh, Cheung, & Rees, 2009). In particular, two lines of inquiry have been shown to be empirically and theoretically fruitful for an understanding of when change occurs. These focus on "life-events" and "changes in life situation", respectively.

A first approach suggests that certain life-events (such as the death of a spouse or similar salient experience) may cause change. In terms of specific life events and their potential to cause alterations in values, there is more theory than direct empirical evidence to support this notion. Bardi and colleagues have, however, demonstrated how salient events such as divorce and the death of a spouse predict value change (Bardi, Lee, Hofmann-Towfigh, & Soutar, 2009). They suggested that this effect is due to a "shock" to an individual's world-view. Beyond this study, little evidence has been found in terms of life events having this effect.

Theoretical support for such an effect can, however, be leveraged by means of Post-Traumatic Growth (PTG) theory (Calhoun & Tedeschi, 1998; Tedeschi, 1999; Tedeschi & Calhoun, 2004). By conceptualizing values as psychological schemas (as done by Bard & Goodwin, 2011), it is possible to link value change to the proposed causal mechanism of post-traumatic growth. PTG is theorized to occur as existing beliefs, goals and behaviors (schemas) have been challenged or shattered by trauma (or "seismic"/"salient" events). When existing schemas are shattered and are no longer functional for an individual's life and mental health a new personal narrative is created to account for the new situation. In short, new schemas are constructed. This is in line with the same mechanisms and processes as those that cause the negative change referred to as Post-Traumatic Stress Disorder (Tedeschi, 1999, pp. 321-322).[7] Hence, the mechanism for change

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[7] It should be noted that it is not the "shock" or "seismic event" itself that causes change, but the process of coping and meaning-making that follows on the effects that these events have on the individual's schemas (Zoellner & Maercker, 2006).

in PTG theory is very similar (if not analogous) to the one proposed by Bardi and colleagues (2011) concerning value change.

A second approach proposes that large-scale changes in an individual's "life situation" (such as completely changing one's cultural context) can induce change. Changes in "life situation" refer to individuals changing their social and cultural context by, for instance, relocating, changing careers, or carrying out other life changes of some magnitude. In general, a change in life situation means that several aspects of the social and/or cultural environment are altered. When individuals find themselves in a new social context, their previously held values may be considered less functional in the new environment. As a result, new values are adopted to facilitate adaptation to the new context (Bardi et al., 2014; Bardi & Goodwin, 2011; Schwartz & Bardi, 1997). Similarly, an individual may begin to identify with new social groups and consequently shift values toward those of the new group. Some empirical evidence supports changes in values as a result of changes in environment. For instance, Lönnqvist and colleagues (2011) found changes in values in immigrants moving from Russia to Finland, while Bardi and colleagues (2014) found changes in Polish immigrants to the UK.

In sum, the scope for seeing change or stability in values has been theoretically linked to two factors: experiencing salient life events and changing life situations. In other words, change occurs if there are life events that are salient enough, and/or if a new environment constitutes a radical change in life situation.

3.2.3 Attitudes toward Violence[8]

This study is also concerned with the relationship between the experience of PSOs and attitudes toward violence. In conceptualizing attitudes in general, I follow the standard definition of what constitutes an attitude: "[i]n formal terms, an attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). I.e., an attitude is a positive or negative opinion about a certain object (such as violence or fruit). The bases of attitudes encompass a diverse set of antecedents, including both a genetic base and a strong role for experiences (Petty, Wegener, & Fabrigar, 1997).

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[8] The definitions of attitudes toward violence and much of the section that deals with these conceptualizations appear, in a slightly different form, in one of my previous publications (Sundberg, 2014). In what follows I refer mainly research that has taken a comprehensive theoretical and empirical approach to attitudes toward violence by conceptualizing the wider concept of "violence". Several more disaggregated conceptualizations and empirical studies exist that focus on specific types of violence, such as spouse abuse or domestic violence. Of primary relevance for this study is, however, research that has placed types of violence in relation to each other.

The study of attitudes toward violence is of relevance as such attitudes are known to influence subsequent violent behaviors (Anderson et al., 2006; Davidson & Canivez, 2012; Funk et al., 1999). The conceptualization of attitudes toward violence adhered to in this study defines these attitudes as appraisals of acts, actors, or norms of physical harm or damage (Sundberg, 2014). This is, admittedly, a relatively broad definition as it encompasses a diverse set of referent objects to appraise. The definition, however, becomes narrower when the sub-dimensions studied are specified. This study makes use of a two-dimensional model of attitudes toward violence, focusing on: (1) attitudes toward war, and (2) attitudes toward penal code violence.[9] These dimensions of attitudes toward violence are drawn mainly from models developed by Velicer et al. (1989) and Anderson et al. (2006), but with some important modifications. The main modification of this kind entails studying only two out of their five dimensions. Several reasons underlie this choice.

First, the study of war violence and penal violence relates the study firmly to peace and conflict research. Two of the most notable forms of violence studied within the discipline are the conduct of war and the use of state repression. The attitudes examined in this study relate to collective and institutional forms of violence that are wielded by a state entity. These attitudes thus relate directly to an understanding of how and why individuals and groups engage in or support organized and collective use of force.

Second, much previous research has shown (and even more theory has argued) that different types of violence are interrelated (see, e.g., Anderson et al., 2006; Calvert & Hutchinson, 1990; Davidson & Canivez, 2012; Steenkamp, 2005). I have shown in a previous study (Sundberg, 2014) that war violence and penal violence were strongly correlated in a sample of students. I would expect this conjecture to hold among soldiers as well. Thus, if changes occur in one dimension, these may influence an individual's broader attitudes toward violence. Such a finding would be of importance for understanding consequences of change in attitudinal systems related to violence.

Lastly, previous research has not reached a consensus on what sub-dimensions of attitudes toward violence can be fruitfully conceptualized and measured. Although more dimensions than war and penal violence have been conceptualized, these are the two that have consistently appeared as distinct factors/dimensions over the last 50 years of research. Consequently, these dimensions are among the most conceptually developed and validated (for conceptual models and their dimensionality, see, e.g, Anderson et al., 2006; Bardis, 1973; Bizumic et al., 2013; Funk et al., 1999; Sahin, Baloglu, & Ünalmis, 2010; Velicer, Huckel, & Hansen, 1989).

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[9] In what follows I will use "war violence" and "penal violence", as short forms of attitudes toward war violence and attitudes toward penal violence for reasons of readability.

Attitudes toward war violence and penal violence are conceptualized through fairly standard definitions. Attitudes to war violence are defined as appraisals of: (a) the use of war by the military, (b) the use of violence in such wars, and (c) the military as an institution. Attitudes toward war violence consequently encompass acts, actors, and norms related to war as an activity, and evaluate not only the boundaries and legitimacy of wars, but also appraisals of the military organization and military values (Sundberg, 2014). This conceptualization ensures a concept that includes a broad range of attitude objects in the domain of war, the military, and armed interventions.

Attitudes to penal code violence are defined as concerning: (a) institutional violence meted out for punishment of crimes, (b) evaluations of the legitimacy and intensity of violence used by police forces, and (c) appraisals of using violence in response to the threat of criminal behavior. This definition spans appraisals of actors (penal authorities and police), acts (the use of police force), and norms (violent responses to crime). Note that this definition significantly overlaps with the concept of punitiveness as it is used in criminology and psychology (see, e.g. Langworthy & Whitehead, 1986; Payne, Gainey, Triplett, & Danner, 2004). The punitiveness concept has been an almost constant component of research on attitudes toward violence, and is consistently brought up by individuals during cognitive interviews that probe what people feel constitutes violence (Blumenthal, Kahn, & Andrews, 1969; Brady & Rappoport, 1973).

In sum, attitudes to violence are approached as consisting of (at least) two different yet conceptually interlinked dimensions of attitudes, defined so as to include appraisals not only of acts of violence, but also of actors that make use of violence, and norms on the use of force.

Stability and Change in Attitudes toward Violence[10]

Values and attitudes share a number of theoretical similarities in terms of when they change or are stable. Attitudes are generally, however, held to be relatively more malleable to change than values. This is explained theoretically by how values are sometimes viewed as "core attitudes" or abstract higher-order evaluative standards that are central and important to the self—factors that increase their resistance to change (Eagly & Chaiken, 1998; Krosnick, 1988; Krosnick & Petty, 2014; Olson & Zanna, 1993; Petty et al., 1997). Most attitudes are by contrast not central to the self, which makes them more malleable (for evidence on this see, e.g., Konty &

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[10] Research on when, why, and how attitudes change is a large field. For the purposes of this study it is not necessary to elaborate on the many models of change that exist, or to delineate all possible varieties of intervening variables between, for instance, persuasion and attitude change. Overall, I view attitude change through the lens of Eagly and Chaiken's attitude structure perspective (1998, 2014).

Dunham, 1997; Rokeach, 1973). Certain factors nevertheless need to be in play for attitude change to take place.

The bulk of research into attitude change has focused on three areas of inquiry: persuasion, social influence (sometimes referred to as "socialization"), and direct experience (Olson & Zanna, 1993; Wood, 2000). Persuasion is mainly concerned with the chain of events and characteristics encompassing the sender, the message, and the recipient of new information and how aspects of these factors affect possible attitude change (see, e.g. Johnson, Maio, & Smith-McLallen, 2005).

Social influence concerns how social contexts and social groups (or, beliefs about certain social contexts) can serve to shape and change attitudes as the individual aligns his/herself with real or imagined social norms and beliefs. Compared with persuasion, social influence is often a less overt process resulting from a multitude of cues in a person's environment (Wood, 2000). From this perspective we might, for instance, expect attitudes to change over the course of time as individuals change their social context (similar to the "change in life situation" perspective in value change).

Direct experience is a matter of contact with direct cues regarding an attitude. A direct experience may, for instance, involve experiencing the inside of a harsh penal system; something that may alter previously held punitive beliefs. Through a somewhat simplified perspective all three theoretical viewpoints hold that as new information is added in relation to a reference object (or, an attitude object), an attitude may change to accommodate this new information (Bohner & Dickel, 2011; Eagly & Chaiken, 1998; Olson & Zanna, 1993; Petty et al., 1997). This process of attaching new reference information to an attitude can take several forms, such as incorporating rational arguments (being persuaded on the basis of logic), attaching positive and negative affect to an attitude (experiencing negative emotions in relation to a previously positive attitude), or acquiring beliefs about what the "correct" attitude may be (becoming socialized in accordance with a group's beliefs). These types of experiences thus span all three of an attitude's (possible) components: affective, cognitive, and behavioral information (Olson & Zanna, 1993).

Attitudes do not always, however, change in reaction to new stimuli. The expected amount of change may, instead, be seen as a function of the number and power of stimuli encountered and an attitude's "strength". Strength is defined here as the facet of durability: an attitude's stability across time and ability to withstand attack (Krosnick & Petty, 2014). The question then becomes: what makes an attitude strong? The antecedents of strong attitudes are many, and the concept can be related to a number of similar terms. Concepts that lend strength to an attitude include, for instance, importance, centrality, value-involvement, ego-involvement, and embeddedness (Crano, 2014; Eagly & Chaiken, 2014; Krosnick & Petty, 2014; Sherif & Cantril, 1947; Sherif & Hovland, 1961). These concepts are

all related to the relevance of an attitude for the self-concept/self-image of an individual. The strength of an attitude thus has several different, but often interlinked, sources based on their importance to the individual's self and identity. Predictions regarding change and stability thus mimic what has been argued in relation to value change: if attitudes are central to, relevant for, or important to the self-concept they should be prone to stability even in the face of new stimuli (Bohner & Dickel, 2011; Eagly & Chaiken, 2014; Olson & Zanna, 1993; Petty et al., 1997).

In sum, whether or not attitudes toward violence will change as a consequence of a PSO deployment is, theoretically, a function of the strength of the individual's attitudes toward violence, and the power, type, and extent of the stimuli encountered.

3.3 The PSO and Psychological Change: Building Theory

Having defined the concepts of values and attitudes toward violence—and delineated basic theory regarding how and when they change—I now turn to formulating theoretical expectations on the effects of PSOs on the individual soldier. This is done by combining the above theoretical discussions on attitude and value change with the identified building blocks from previous research. To reiterate, these five building blocks concern the key role exposure to violence has in causing psychological change; the importance for soldiers of identities and self-concepts in interpreting deployment-related experiences; how identities and self-concepts mesh with the PSO environment; how individual-difference variables affect susceptibility to PSO experiences; and lastly, how soldiers are distinct from civilians in terms of preparations for violence.

Below I organize these five factors into three distinct theoretical discussions related to PSO deployments. The first discussion concerns how we can link exposure to violence to changes in values and attitudes, and introduces the concept of combat exposure (Keane et al., 1989). The second discussion focuses on the attributes of the soldier and the soldier's interactions with the environment. This section focuses on the importance of identity and self-concept, self-selection into PSOs, and how these factors interact with the PSO environment. Theoretically, this section draws heavily from the cumulative continuity perspective in personality psychology (Caspi et al., 2005; Roberts & Caspi, 2003; Roberts & Robins, 2004). The section also includes a brief discussion on the vetting, selection, and training of soldiers, and the possible implications of these processes on change and stability. Lastly, I discuss how individual-difference variables within the soldier may mitigate or enhance the effects of PSO experiences. This

discussion combines value and attitude theory with the literature on personality traits (specifically, the Big Five; John & Srivastava, 1999; McCrae & Costa, 1997).

3.3.1 Combat Exposure and Change

One of the strongest findings identified in previous research was that the experience of exposure to violence is likely the main factor in causing psychological change in both the clinical and non-clinical spheres. Although soldiers deployed to PSOs commonly experience levels of violence far below those of traditional warfare, PSO deployments often contain stressful, traumatic, and/or salient experiences in the form of violence.

In PSOs where conditions on the ground are poor or deteriorate, the probability of experiencing a range of salient stressors is relatively high. These experiences can include combat patrols in hostile territory, witnessing death and injury, engaging the enemy with force, and being fired upon. These are experiences that may occur even during PSOs traditionally labelled as "non-combat missions" (Weisaeth, 2003). A review of the Norwegian contingents to UNIFIL (United Nations Interim Force in Lebanon) found that a full 38.8 percent of soldiers had occasionally been exposed to gunfire, 22.4 percent had been involved in combat or combat-like situations, and some 7 percent in the early contingents had been taken hostage (Weisaeth, Aarhaug, Mehlum, & Larsen, 1993). Additional threats to life may be posed by passing through mined areas, which 44 percent of Swedish UNPROFOR (United Nations Protection Force) forces reported from Bosnia, and artillery fire, reported by 27 percent of the same contingents (Johansson, 2001). Besides threats to one's own life and combat-related experiences, soldiers may also be affected by witnessing injury and death to others. Sixteen percent of Swedish UNPROFOR troops reported often or occasionally witnessing death, and some 5 percent witnessed harassment and assaults on civilians daily or quite often (Johansson, 2001). Approaching the issue of salient experiences on mission comprehensively, Larsson, Michel, and Lundin (2000) found that 35 percent of Swedish soldiers deployed to the UN peacekeeping mission in the former Yugoslavia experienced some type of traumatic event during their mission.

Experiences of combat, violence, and threats to life in the context of military deployments have often—within the sphere of psychology—been subsumed under the wider heading of "combat exposure" (Keane et al., 1989; King et al., 2006). This concept incorporates a diverse number of highly stressful experiences. These include engaging in combat, patrolling in hostile territory, seeing one's comrades being killed or injured, and killing enemies (Keane et al., 1989). Such experiences are known to be highly salient and/or traumatic for the individual, and—again—one of the primary factors in causing Post-Traumatic Stress Disorder (PTSD) among soldiers

(Pietrzak, Pullman, Cotea, & Nasveld, 2012; Sareen et al., 2010). The concept of combat exposure hence captures a range of differing but powerful stimuli linked to violence and violence-related activities.[11]

The experience of combat exposure as a form of salient event can be theoretically linked to theories of change in both attitudes and values. Turning first to values, it was possible in the preceding section to build a theoretical bridge between the "life event" perspective on value change and PTG theory. Conceiving of values as "schemas"—organizing cognitive structures for approaching the self and the world—means that value change is conceived as occurring through a mechanism almost analogous to the one in PTG. In this perspective, salient events can affect or shatter schemas through how they challenge the individual's organizing ideas regarding the world and the self. Such challenging or shattering of schemas can subsequently force a reconstruction of cognitive structures to once again make sense of the world. In other words, salient events force change in outlooks on life, the self, and the world: the bases of values. Consequently, high levels of or repeated experiences of combat exposure should produce change in values.

We should expect combat exposure to have similar effects on change in attitudes toward violence. It may be recalled that changes in attitudes were viewed as a function of the number and the power of stimuli in relation to the strength of the attitudes themselves. Since combat exposure has been demonstrated to be a highly powerful psychological stimulus, there is theoretical reason to believe that it should induce change also in attitudes, as the power of the stimulus overcomes the attitude's strength. Additionally, an experience like combat exposure or witnessing other forms of violence is one that directly relates to attitudes toward violence. Consequently, such stimuli should be processed in direct relation to the attitudes that are of interest in this study.

From the above reasoning I derive two hypotheses on combat exposure and change in the individual soldiers' sociopolitical psychological orientations:

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[11] Not all experiences subsumed under the heading of "combat exposure" are, however, necessarily traumatic, even if they are experienced as "salient". To avoid using "salient/traumatic" throughout the text I will subsequently label these experiences simply "salient". When this term is used I am referring to events that range from the purely stressful to the actually traumatic.

Hypothesis 1. *Higher levels of combat exposure will correlate positively with higher levels of value change*

Hypothesis 2. *Higher levels of combat exposure will correlate positively with higher levels of attitude change*

3.3.2 Identity, Environment, and Selection Processes

Two additional important theoretical building blocks were identified as being (1) the identities and self-concepts of the soldiers, and (2) how these fit with the PSO environment. The importance of these two factors for stability and change likely stems from "person-situation interactions". In short, how individuals' attributes interact with the environment they inhabit. In approaching these factors I assume—in line with previous research—that beyond experiencing salient events soldiers are also affected by the PSO environment. In essence, that the social environment also exerts pressure for change in attitudes and values. For instance, changes in environment are part of value change theory's "change in life-situation" perspective (see, for instance, Bardi et al., 2014; Bardi & Goodwin, 2011; Bardi et al., 2009; Lönnqvist et al., 2011, 2013). Likewise, attitude change theory gives credence to the effects of socialization via the environment (Olson & Zanna, 1993; Wood, 2000). Consequently, soldiers may experience psychological change through the change in environment/social context that a PSO deployment brings.

That a PSO deployment involves Western soldiers entering social environments that are radically different from their home environment is an uncontroversial assumption. In deploying, soldiers become exposed to new cultures and customs with which they have previously had little or no contact. They are also deployed to a new context for six to seven months (12 months in some instances) and are—more or less—constantly on duty. Although life on the military base may be similar to life back home, significant differences do exist. For instance, while military life at home provides the possibility of escaping to friends and family in the evenings and on the weekend, there are no such opportunities during international deployment. Instead, the soldiers are essentially confined to base when not conducting operations. Leaving the base means encountering additional types of environmental stimuli. These include open or lingering hostility from the civilian population, poverty and disease, as well as mundane experiences such as boredom. These are all stressors, pressures, and stimuli known to exist among those deployed to peace support operations (see, e.g., Adler et al., 2003; Britt, 1998; Britt & Adler, 2003b; Lamerson & Kelloway,

1996; Langholtz, 1998; Litz, 1996; Maguen et al., 2004; Weisaeth, 2003).

Overall, life in conflict zones—including those where PSOs are deployed—has been classified as an imposing challenge to the human mind and our assumptions regarding the world, even without experience of actual combat (Bartone, 2006; Dolan & Adler, 2008; Elder et al., 1991; Maguen et al., 2006; Schok et al., 2008). With this in mind a six-month PSO tour may—even if no or few traumatic events are experienced—be classified as a large-scale change in social and cultural context, and thus a potential trigger for value and attitude change.

To understand how and when a new environment may influence change, two important theoretical aspects that relate to the identified identity and environment factors need to be considered. First, certain aspects of identities and self-concepts are important to individuals (Hitlin, 2003; Oyserman, Elmore, & Smith, 2012). Consequently, values and attitudes that are tied up with an individual's identity and self-concept should exhibit high levels of stability even in the face of powerful stimuli. Second, environments affect individuals differently, depending on how well the environmental context fits the individual (Bardi et al., 2014; Roberts & Robins, 2004).

Applying the cumulative continuity perspective on personality development is useful for an understanding of these factors separately and in interaction (Caspi & Roberts, 2001; Caspi et al., 2005; Roberts & Caspi, 2003; Roberts & Robins, 2004). This perspective explains why personality displays high levels of continuity and consistency across the life-course although individuals experience new events and situations (stimuli).[12]

Two major propositions from this theory are directly relevant to the study of PSOs. First, individuals will tend to commit to and maintain an identity, which also serves as a filter for life experiences. This makes individuals interpret stimuli in ways consistent with their broader personalities. Second, identity and personality also make individuals self-select into situations in which their distinct identity is reinforced by the environment. Identities are reinforced if the person-environment fit is good (Caspi & Roberts, 2001; Caspi et al., 2005; Roberts & Caspi, 2003; Roberts & Robins, 2004).[13] Thus, the cumulative continuity perspective provides a comprehensive account of the importance of both the "person" and the "situation" factors identified in

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[12] While originally developed by Caspi and Roberts to explain continuity and stability in personality traits, this framework is equally applicable to studying continuity and change in values and attitudes. This is because the theory is formulated around a broader view of personality than traits alone. It incorporates aspects such as identity and self-concept, which also tend to strive for consistency and are implicated in practically all continuity-providing mechanisms.

[13] Note that in what follows I focus on only two of the four factors that Caspi, Roberts, and Shiner (2005) identify as relevant for personality continuity: self-selection into environments ("niche-building") and identity commitment. The genetic factor in continuity is beyond the scope of this study, while the circular influence of traits on personality and identity is touched upon in section 3.3.3.

previous research. Applying this to PSO soldiers means that if attitudes toward violence and certain values are important to the soldiers' identities, this speaks in favor of their stability. Second, the PSO environment is likely to provide good person-environment fit, which will also invite continuity and stability.

Identity and Self-Concept

The first factor to take into consideration is identity: committing to and maintaining an identity (Caspi et al., 2005; Roberts & Caspi, 2003). Here, identity—or self-concept—concerns the integrated structures of roles, beliefs, values, and attitudes that individuals experience as making up their own selves.[14] This part of the cumulative continuity framework holds that: "Strong identities serve as a filter for life experiences and lead individuals to interpret new events in ways that are consistent with their identities" (Caspi et al., 2005, p. 469). A strong identity consequently yields continuity by protecting itself from identity-averse stimuli via self-defense mechanisms such as biased information processing. In a way, identity strives to keep its most central aspects stable (Roberts & Caspi, 2003). It may be recalled from the earlier discussion on general value change theory that values are conceptualized as central to the self as well as key in maintaining a conception of this self (Hitlin & Piliavin, 2004; Rohan, 2000; Rokeach, 1973). In other words, values—or at least an individual's most important values—are essential building blocks of an individual's personal identity (Hitlin, 2003). Hence, just like value change theory the cumulative continuity perspective predicts a general stability of values across the life-course.

However, attitudes are commonly not conceptualized as central to identity, which implies that they are relatively more malleable. Exceptions do, however, exist. Specifically, some attitudes are seen as important to an individual's self-concept by being highly ego-involved (Sherif, Sherif, & Nebergall, 1965; Sherif & Cantril, 1947). Sherif and Cantril classified ego-involved attitudes as those that "…have the characteristic of belonging to *me*, as being part of *me,* as psychologically experienced" (Sherif & Cantril, 1947, p. 93), or as facets of the "self-picture – intimately felt and cherished" (Sherif et al., 1965, p. iv; see also Katz, 1960 for a similar argument). Hence, an important issue for the possibility of stable attitudes is whether attitudes toward violence can be classified as ego-involved and consequently important for the soldiers' identity.

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[14] In what follows I treat "identity" and "self-concept" as interchangeable. Although some definitional differences are sometimes highlighted, this treatment is relatively commonplace (Oyserman et al., 2012). There are also a plethora of definitions of "self", "self-concept", and "identity". The one used here is in line with definitions by Oyserman and colleagues (2012) and Waterman (1984). See also Britt (2003) for an application of the concept to peacekeeping soldiers.

Research on soldiers' identity-creation has clearly shown that the soldierly identity is intrinsically linked to the ability to wield and the legitimacy of wielding force in the service of state institutions (Franke, 1999, 2003; Huntington, 1957; Winslow, 1997; Woodward & Jenkings, 2011).[15] Even among Swedish soldiers deployed as peacekeepers, fighting wars and practicing combat have been identified as important parts of their self-image (Hedlund & Soeters, 2010; Weibull, 2012). These findings demonstrate how the use of institutionalized force is strongly tied to the soldierly identity, and should thus be attitudes with high ego-involvement. In such a situation the cumulative continuity perspective predicts that attitudes toward violence, being central aspects of identity, will be stable across a PSO deployment.

Self-Selection and Environment

The above reasoning on the inherent stability of identity does not, however, mitigate the fact that PSOs can contain powerful stimuli that can overcome strongly held attitudes and values. Thus, the identity factor supplies only a partial argument. The self-selection factor and its relationship with the PSO environment will complete the argument.

The self-selection factor in cumulative continuity is based on the idea (and evidence) that personality and identity foster certain "niche-building processes" that promote continuity (Caspi et al., 2005, p. 469). In short, aspects of personality such as traits and identity influence what environments individuals seek out; and these environments tend to be ones that maintain and reinforce our preexisting identity/personality. Continuity and stability in identity through self-selection hinges, however, on achieving good person-environment fit: the match between attributes of the person and attributes of the environment (Roberts & Robins, 2004). Roberts and Robins (2004) identify two requirements for good person-environment fit. First, a person's values and needs (personality/identity) should match the category of resources available in the environment; second, a person's abilities should match the categories of demands in the environment. If these criteria are fulfilled, personality is not challenged by the new environment, which may instead reinforce existing structures through certain feedback mechanisms (Caspi et al., 2005; Roberts & Caspi, 2003; Roberts & Robins, 2004). In

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[15] In using the term "soldierly identity" I refer to that part of an individual's identity that is constructed out of those values, attitudes, beliefs, and behaviors that give meaning to what it is to be a soldier. These include, for instance, identifying with the military's values of stability, order, loyalty, and conformity, but also with the skills and characteristics necessary for being a true soldier (see, e.g., Franke, 1999; Stevens, Rosa, & Gardner, 1994; Woodward & Jenkings, 2011). In what follows I use the term "soldierly identity" and not the more well-known "military identity" to signal, first, that I study the identities held by the individual soldiers and not the military as an institution, and, second, to make it clear that the soldierly identity is constructed not only out of values and attitudes enforced by the military as an institution, but is a product also of specific contexts, such as surrounding civilian society and combat specialty.

sum, if person-environment fit is good, the environment will not exert exceedingly strong forces for change.[16]

Self-selection into the military profession has been demonstrated to be influenced by those aspects of an individual's personality, attitudes, and values that resonate with a military identity (Bachman, Freedman-Doan, Segal, & O'Malley, 2000; Bachman, Sigelman, & Diamond, 1987; Franke, 1999; Jackson, Thoemmes, Jonkmann, Lüdtke, & Trautwein, 2012; Winslow, 1997). The crucial question is therefore whether PSOs provide soldiers with good person-environment fit. In other words, can PSOs provide an environment that fits with the soldier's identity and thus promotes its continuity?

In establishing person-environment fit it is relevant to study the peace soldier's goals, needs, and motives, and how these factors resonate with the PSO environment. Studies on the motivation of European peacekeeping soldiers are informative in this regard. These soldiers' motives include altruistic goals such as helping the local populace and doing good to others, as well as more individualistic motives such as seeing and learning more about the world and other cultures, and wanting pay rises and to enhance their country's international image. Peacekeepers also seek adventure and excitement, the experience of comradeship, and a meaningful personal experience (Battistelli et al., 1999; Hedlund, 2011; Jelusic, 2004; Juvan & Vuga, 2011; Stabell, 2012; Tomforde, 2005). Turning to the demands and challenges the soldiers seek, many wish to test and acquire military skills, and see how far they can push themselves physically and psychologically. Many, too, view a deployment as a "rite of passage" and a test of whether they are indeed "real soldiers" (Battistelli et al., 1999; Hedlund, 2011; Jelusic, 2004; Johansson & Larsson, 2001; Tomforde, 2005).

Motives and challenges such as the above fit well with the conditions PSOs can provide. Altruistic goals that include helping people align themselves with PSO activities related to humanitarian aid and reconstruction, as well as with the goal of restoring peace and stability. An interest in meeting and understanding new cultures and seeing the world is fulfilled through the change in cultural context. The search for adventure and excitement also promises to be fulfilled through the sometimes contentious nature of the mission. Moreover, testing one's soldierly skills and becoming

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[16] The person-environment fit perspective is directly relevant to any discussion on change and continuity in values. Value change theory also proposes that change in values is contingent on an ability to pursue those values that are held to be important by the individual, i.e. on whether an environment provides resources to reach goals. This part of value change theory has, however, been steeped in somewhat different language from cumulative continuity. For instance, value change theory proposes that values will not change in a new environment if they are still "functional" and can be pursued (Bardi et al., 2014; Bardi & Goodwin, 2011; Schwartz & Bardi, 1997). The basic reasoning is nonetheless the same: can the environment provide the necessary resources for goal and need fulfilment?

a "real" soldier may be pursued through finally performing and testing oneself in military tasks previously conducted only in training. Consequently, a PSO should provide the self-selected soldier with a strong match in terms of resources to pursue needs and goals, as well as a sound match of abilities and demands. In other words, a good person-environment fit, resulting in stability in attitudes and values.

In sum, according to the cumulative continuity perspective, soldiers will tend to self-select into PSO environments according to their identities and personalities. In the second stage, the PSO environment provides the necessary resources and demands the soldiers are seeking, leading to stability in identity and self-concept via good person-environment fit.

Selection and Training

A last factor, in terms of how soldiers experience the PSO environment, concerns the selection and training for violence of professional soldiers. This factor was identified in previous research as one that may make soldiers less susceptible than civilians to many types of stimulus that are present in conflict zones and PSO environments. Selection and training processes provide further arguments for why we may expect the stimuli of the PSO environment not to be powerful enough to overcome soldiers' existing values and attitudes.

Turning first to selection effects, it is important to note that soldiers deploying to PSOs are not randomly drawn from a country's population. In addition to self-selecting into the military profession, soldiers are also selected—or vetted—by military authorities according to certain criteria. In most NATO countries selection by military organizations is a decisive factor in who joins the military (Jackson et al., 2012).[17] Selection tests of personality (in the broad sense) often have several goals, including selecting people with skills that foster good performance, individuals with psychological resilience, and those with the perseverance to complete harsh training regimens (Friborg, Barlaug, Martinussen, Rosenvinge, & Hjemdal, 2005; Hartmann, Sunde, Kristensen, & Martinussen, 2003; Sümer & Sümer, 2007).[18] These selection procedures—as well as the selection that occurs when trainees drop out—mean that soldiers will tend to be different from civilians in terms of psychological orientations such as personality traits and stress management (Holden & Scholtz, 2002; Sümer & Sümer, 2007; Sümer, Sümer, Demirutku, & Cifci, 2001). For instance, military personnel have

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[17] Not all peace soldiers, however, are volunteers. A considerable number of Western states still employ drafts and conscriptions of various kinds. Soldiers of this kind are still, however, vetted by military authorities before being enlisted into the ranks.

[18] Selection and vetting on psychological criteria such as resilience, stress capabilities, and cognitive ability are also used in the Swedish military establishment examined in this study. For an overview of the Swedish selection process, see FOI (2013) and Larsson, Tegern, and Broman (2013).

been found to have lower levels of the personality traits of Neuroticism and Openness to experience than comparable civilians (as noted by Jackson et al., 2012), and this may serve to make many soldiers less amenable to change through environmental socialization.

Second, although the deployment results in a new environment, deploying soldiers will not enter completely unprepared. Several troop-providing nations (such as Sweden) provide several months of pre-deployment training. This training includes mental preparedness, stress and coping skills, lectures on host-state culture and customs, as well as practical drills. Consequently, soldiers will tend to deploy in a state of comparative readiness that serves to dampen the novelty of environmental change. Pre-deployment training should also serve to create realistic expectations of what the soldiers will face when deployed. Forming realistic expectations of the mission should further stabilize values and attitudes, as expectations are critical for soldiers' psychological coping resources when they are exposed to new events (Catanzaro & Mearns, 1999; Thompson & Gignac, 2001). Realistic expectations may serve to increase the predictability of the new situation, imbue a sense of control, and reduce the novelty of stimuli (Adler et al., 2003; Thompson & McCreary, 2006).

The discussions above on the person, the environment, and person-environment interactions can be combined to provide a second set of hypotheses. The cumulative continuity perspective predicts that, owing to the soldiers' commitment to a soldierly identity, certain values as well as attitudes tied to this identity will strive for stability. Moreover, the soldiers' identities induce them to self-select into PSO environments that can provide strong person-environment fit. Combined with the selection and training procedures the soldiers undergo, the result is not only a well-fitting environment, but also one for whose novelties the soldiers are prepared. Ergo, despite the radical change in life-situation that is a PSO deployment, the soldiers' identities—which include their values and important attitudes—will remain stable. These propositions are enshrined in hypotheses 3 and 4:

Hypothesis 3. *Pre- and post-deployment value scores will be strongly correlated*

Hypothesis 4. *Pre- and post-deployment attitude scores will be strongly correlated*

3.3.3 Susceptibility as Individual-Difference Variables

The third building block identified in both the clinical and non-clinical research strands concerns the possible change-inducing or change-mitigating effects of individual-level psychological variables. In other words, individual differences in susceptibility to stimuli should be considered when

approaching change in political and social variables (Briñol & Petty, 2005; Eagly, 1981; Magnus et al., 1993). This consideration can also be approached through the cumulative continuity perspective applied above. In this model, individuals' personality traits affect the amount of change in identity and personality they experience. This in addition to the continuity-inducing factors of identity commitment and niche-building (Caspi et al., 2005; Roberts et al., 2001). In applying the cumulative continuity model for these assumptions it is prudent to rely on the Big Five model of traits with which the theory is associated.[19]

The Big Five model holds that the trait aspect of personality can be described in terms of five broad personality traits: Openness to Experience, Agreeableness, Emotional Stability, Conscientiousness, and Extraversion (Gosling, Rentfrow, & Swann Jr, 2003; John & Srivastava, 1999; McCrae & Costa, 1997). Traits are conceptualized as "[…]dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions" (McCrae & Costa, 1990, p. 23). Traits consequently often serve as latent "filters" for experiences and as consistent response styles to stimuli (Magnus et al., 1993; Olver & Mooradian, 2003). Through this filter function, I expect personality traits to mediate how PSOs affect change and stability.

A short description of these five traits is necessary for an understanding of the hypotheses that follow. Openness to Experience is a broad trait encompassing curiosity, appreciation of new experiences, and intellectual interest and creativity; to mention but a few of its facets. It also represents independence and imagination over interest in routines and order. Conscientiousness captures an individual's tendencies toward order, self-discipline, and duty, rather than disorganization and unreliability. A person high in Conscientiousness would be efficient and organized. Extraversion implies mainly positive emotions, sociability, abundant energy, and talkativeness. Those who are low in Extraversion are instead reserved and shy. Agreeableness captures overall friendliness, compassion, and caring, as opposed to showing animosity, suspicion, and distrust. An agreeable person would commonly have an even temperament and be regarded as likeable. Emotional Stability, which is sometimes labelled Neuroticism (and when this is so any measurement scale is inverted), captures an individual's level of sensitivity and nervousness, as opposed to stability and confidence. It also

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[19] In terms of individual-difference variables at the personality level that mediate stressful and/or traumatic military experiences, studies on military psychology have primarily focused on the construct of "hardiness" (Bartone, 2006; Bonnano, 2004; Kobasa, 1979). In this study, however, the focus in terms of personality constructs is broader and revolves around the Big Five model. This broader approach is motivated by the fact that the interest here lies not only with classic military stressors, but also on forces for change that stem from the overall social environment.

incorporates a measure of the propensity to vulnerability and depression, as well as impulse control (Costa & McCrae, 1992; John & Srivastava, 1999; McCrae & Costa, 1997).

Although the relationships between values and traits have been approached in a number of studies (e.g., Dollinger et al., 1996; Roccas et al., 2002; Rokeach, 1973) no studies have yet examined whether certain traits affect the propensity toward or magnitude of value change. Several possible effects on value change of particular personality traits can be hypothesized, and it is unnecessary to theorize all such possibilities. Instead, I explore those I expect to be important in the specific context of the new experiences PSOs involve.

First, the trait of Openness to Experience is likely to affect how an individual deals with stimuli that can challenge schemas. Both the PTG literature (specifically Tedeschi, 1999; but also Zoellner & Maercker, 2006) and Bardi and Goodwin's (2011) value-change model suggest that high levels of this trait are likely to facilitate higher levels of change. The mechanisms are thought to include higher cognitive complexity, which in turn invites deeper processing of events, as well as a more accepting view of change in the self overall (see also Dollinger et al., 1996). This more positive inclination toward change in the self may spur increasing levels of value change.

Second, there is reason to believe that those of low Emotional Stability (i.e. more neurotic) will be more sensitive to new experiences. Such sensitivity may create individuals that more readily interpret events as challenges to their cognitive schemas and identities (Caspi et al., 2005). Specifically, individuals whose Emotional Stability is low tend to ruminate on issues, which might translate into higher levels of attempts at meaning-making and interpretation, fostering change in values and attitudes. Low levels of Emotional Stability have also been identified as a negative factor in achieving a consolidated identity, presumably through these high levels of rumination (Clancy & Dollinger, 1993; Ozer & Benet-Martínez, 2006). In other words, the neurotic identity is unstable, and thus more amenable to change.

The same type of argument, but in the inverse, can be made concerning the trait of Conscientiousness. Being highly conscientious should function as a mediator that makes the individual less prone to change, since the stability and order of the self is high, as is the need for stability. The trait of Conscientiousness has some similarity with parts of the "hardiness" concept, more specifically the aspects that include a "[…] high sense of life and work commitment [and] a greater feeling of control" (Bartone, 2006, p.137; see also Bonnano, 2004). Just as hardiness functions as a buffer against the negative effects of stress in military deployments, so these aspects of hardiness and Conscientiousness should act as buffers against value

change.[20] The mechanism envisioned here is the stable, committed, and orderly psyche, which experiences the world from a vantage point of control and confidence (Caspi et al., 2005). Also, just as low Emotional Stability predicts problems with consolidating an identity, low Conscientiousness is known to have the same effect (Clancy & Dollinger, 1993; Ozer & Benet-Martínez, 2006).

The above reasoning on traits and their effects on change speak mainly to value change. Relatively little research has been carried out on the direct relationship between Big Five traits and attitude change (but, for an exception and an overview, see Gerber, Huber, Doherty, & Dowling, 2011; Gerber et al., 2013). Studies in attitude psychology have been more focused on other types of personality constructs and often specifically on the mechanism of persuasion (see, e.g., Haugtvedt & Petty, 1992; Webster & Kruglanski, 1994). Although few empirical findings thus exist on the direct relationships between the Big Five and attitude change, available theory posits that traits should have an effect on the propensity and/or magnitude of change (Eagly, 1981; Gerber et al., 2013). The same three traits identified in regards to value change may be expected to be the primary variables involved in attitude change too: Openness to Experience, Conscientiousness, and Emotional Stability.

In addition to the above statements about the effects of these traits on values (which may carry over to attitudes as well), several psychological constructs known to affect attitude change may be related to the traits in question. For example, the construct of Need for Cognition (Cacioppo & Petty, 1982)—which is an individual-difference variable measuring differences in the need for cognitive processing (thinking)—has been shown to predict stronger and more durable attitudes when need for cognition is high (Haugtvedt & Petty, 1992). High levels of Need for Cognition are also related to high levels of Conscientiousness and Emotional Stability (Sadowski & Cogburn, 1997). In effect, Conscientiousness and Emotional Stability should predict more stable attitudes. In terms of Openness to Experience, this trait has been conceptualized as the opposite pole of the Need for Closure construct (Onraet, van Hiel, Roets, & Cornelis, 2011), which denotes individual differences in the need to obtain definitive answers and avoiding ambiguity (Webster & Kruglanski, 1994). Similarly, it has been shown that individuals high in the Need for Closure are relatively resistant toward persuasion and thus attitude change (Webster & Kruglanski, 1994).

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[20] The concept of "hardiness" also incorporates aspects that are reminiscent of Openness to experience, in that it contains a portion of the type of personality that accepts challenges and changes as something positive (Kobasa, 1979). Here, however, I have a different hypothesis concerning the trait of Openness to experience than I do for Conscientiousness, thus−in a way−separating hardiness into several constituent aspects.

In view of the above findings, six hypotheses may be formulated on how personality traits affect both attitude and value change in the PSO context:

Hypothesis 5a. *Soldiers with comparatively higher scores on the Openness to Experience trait will experience higher levels of value change*

Hypothesis 5b. *Soldiers with comparatively higher scores on the Emotional Stability trait will experience lower levels of value change*

Hypothesis 5c. *Soldiers with comparatively higher scores on the Conscientiousness trait will experience lower levels of value change*

Hypothesis 5d. *Soldiers with comparatively higher scores on the Openness to Experience trait will experience higher levels of attitude change*

Hypothesis 5e. *Soldiers with comparatively higher scores on the Emotional Stability trait will experience lower levels of attitude change*

Hypothesis 5f. *Soldiers with comparatively higher scores on the Conscientiousness trait will experience lower levels of attitude change*

3.4 Summing up the Hypotheses

Let us briefly revisit what hypotheses have been proposed in the theoretical chapter, and how these relate to the study's overarching research question. The research seeks to investigate *how and to what extent the sociopolitical psychological orientations of the individual soldier change as a consequence of peace support operations*. This research question is addressed directly via more specific hypotheses.

Hypotheses 1 and 2 stipulate that *higher levels of combat exposure will correlate positively with higher levels of attitude and value change*. Put differently, the more the individual soldier is exposed to combat and violence, the more change will occur. These hypotheses were premised on theory positing that combat exposure entails such strong psychological stimuli that it overcomes preexisting attitudes and values.

Hypotheses 3 and 4 are concerned with the possible environmental effects of PSOs. Even for soldiers who do not experience combat, change may come about as a consequence of the social context. These hypotheses, however, posit that despite changes in environment, *pre- and post-deployment value and attitude scores will be strongly correlated*. Put differently, both values and attitudes will be stable across the deployment. These hypotheses are

based on predictions from the cumulative continuity perspective. It is argued that both values and attitudes toward violence are important for the soldier's identity and will strive toward continuity. Additionally, this identity will cause self-selection into environments where the said identity is rewarded if person-environment fit is good. Finally, it was argued that the soldierly identity and the PSO environment would be a good fit of this kind, and that both values and attitudes would consequently be stable.

Hypotheses 5a through 5f engage with personality trait theory, and posit that the traits of Openness to Experience, Conscientiousness, and Emotional Stability would be important individual-level variables for change and stability. Higher levels of Conscientiousness and Emotional Stability are hypothesized to lead to less change in attitudes and values, while higher levels of Openness to Experience should increase levels of change. Examining these hypotheses allows for addressing both the "how" and the "to what extent"-aspects of the research question.

4.   Research Design and Methods

This chapter outlines the overall research design of the study. First, I detail the case selection and the overarching research design. Second, I explain the quantitative approach by presenting the sample studied and the variables for statistical analysis. Lastly, the qualitative approach is presented, focusing on the structure of the interviews and the analytical method applied to study causal mechanisms.

4.1 Case Selection

The study's unit of analysis is the individual soldier deployed to a peace support operation (PSO). A PSO is defined as a military mission that combines the use of military force, humanitarian aid, and elements of state-building to attempt to restore peace, stability, and security to a host state. PSOs are multidimensional military operations in that they incorporate military as well as civilian elements and thus have wider mandates than, for instance, the classic separation of forces mandate of peacekeeping missions. Such a wider mandate includes the use of military force, but also the application of elements of state-building, the delivery of humanitarian aid, and engagement in political affairs to reach the mission's goals (Dandeker & Gow, 1997; Kühne, 1999; Wilkinson, 2000).

The case chosen for study—Swedish ISAF forces deployed to northern Afghanistan—is relevant for exploring the psychological effects of PSO deployments for several reasons. First, this deployment conforms well to the PSO definition outlined above. In its capacity as lead nation in PRT (Provincial Reconstruction Team) Mazar-e-Sharif, between 2006 and 2014 Sweden led the ISAF mission in the provinces of Balkh, Samangan, Jowzjan, and Sar-e-Pul. In terms of mandate and activities, the PRT concept applied in Afghanistan specifically aims to integrate the use of military, diplomatic, and civilian capacities to promote security and stability (Bebber, 2011). While ISAF's Afghanistan mission as a whole should be classified as engagement in full-scale war throughout most of its deployment (UCDP, 2014), a geographically disaggregated analysis of the conflict reveals a different picture. In a comparative perspective, the northern provinces that made up the Swedish AoR (Area of Responsibility) saw little warfare (Honig & Käihkö, 2014). The intensity of the war was at its highest in the south and

the east (in provinces such as Kandahar, Helmand, and Nangarhar), while the north saw much lower intensity. This means that in certain areas of Afghanistan, such as the Swedish AoR, the ISAF mission can be classified as constituting a PSO. In these areas military force is applied, but is combined with support to state-building, engagement in political affairs, and delivery of humanitarian aid.

Second, some amount of volatility has been present in the Swedish AoR, which creates scope for studying the potential change-inducing effects of combat exposure. Since the area has seen some, but only comparatively low levels of violence, individual-level variation in the magnitude of combat exposure exists. This provides a promising setting for testing the individual-level effects of experiencing salient events.

Third, focusing on the Swedish Armed Forces made it possible to conduct data collection within a reasonable time span. As the lead nation of PRT Mazar-e-Sharif, Sweden provided a large number of troops and a diversity of specialties to ISAF. Focusing on minor troop contributors such as Norway or Finland, would have necessitated data collection over several years to gather a critical mass of respondents and would also not have provided the same breadth in terms of specialties.

A focus on soldiers from only one national contingent in ISAF, however, raises the issue of generalizability. In short, do Swedish soldiers differ from those of other nations to such a degree that findings become case-sensitive? Aspects to consider in this regard are the selection and vetting of soldiers, self-selection into mission participation, and cross-country similarities on variables of interest.

In terms of selection and self-selection, the present-day Swedish system is similar to that of most Western countries in that its armed forces are an all-volunteer force.[21] All soldiers in the study have thus self-selected into the military occupation. This is important since conscripted soldiers will tend to differ in terms of motivations and attitudes from those who volunteer (see Bachman et al., 2000; Bachman et al., 1987; Hammill, Segal, & Segal, 1995 on attitude differences between self-selected soldiers and civilians). In terms of preparations for mission deployment there also appears to be few differences of importance between the Swedish Armed Forces and comparable nations. Specialized training for peacekeeping and similar duties is provided in most Western nations, including Sweden.

A final aspect to consider is whether Swedish soldiers deviate significantly from soldiers of other nations in terms of important variables such as culture, values, and attitudes. It is possible, for instance, that distinctive configurations of values will affect interpretations of experiences

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[21] As in Sweden, soldiers sent on international missions from countries such as Norway, the U.S., the U.K., and Germany are either on short-term contracts relating directly to a specific deployment, or are professional personnel for whom international service is mandatory.

and lead to effects that are country- or culture-specific. In terms of culture and value orientations Scandinavian countries often stand out in global comparisons owing to their emphasis on individualistic and self-expression values (Halman, Luijkx, & van Zundert, 2005; Inglehart & Welzel, 2005). It has, however, been shown empirically that value rankings within nations are strongly correlated with a pan-cultural baseline. This means that, although some differences exist, there is high agreement in terms of value priorities around the globe (Schwartz & Bardi, 2001). However, Western European nations share a unique set of value priorities that set them apart from the rest of the world (Schwartz, 2006; Schwartz & Ros, 1995). This may mean that the study's findings are applicable mainly to soldiers from this cultural sphere.[22] The limitations and possible generalizations of the results within and beyond this cultural sphere will be discussed in the concluding chapter.

4.2 Research Design

The study's design has been constructed specifically to enable analysis of change and stability in psychological orientations at the individual level. To this end it makes use of both statistical analyses of survey material and qualitative analysis of interview material. Both the quantitative and the qualitative components are based on a pre-post design at the level of the individual soldier. This entails that the variables of interest—values and attitudes toward violence—are measured both before and after the proposed "treatment": a six-month PSO deployment to Afghanistan. The design also combines the qualitative and quantitative components via a mixed-methods approach (Johnson & Onwuegbuzie, 2004).

A design of this type provides strong leverage for studying change and stability at the individual level for four reasons: (1) the possibility of pairing observations between points in time, (2) a pre-post design with clear treatments between t=1 and t=2, (3) dispersion of some of the independent variables with probable "as-if" randomness, and (4) an application of a mixed-methods approach that both examines causal mechanisms and complements the statistical results with rich description.

The first benefit of the study's design is the use of individual-level panel data in the pre-post setup, which allows for the pairing of individuals between t=1 and t=2. This opens up for analyses at the individual level and the possibility of tracking effects that differ across units of observation. This

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[22] The above discussion should not be interpreted as one subscribing to the view that an individual's culture entirely determines their values, attitudes, or beliefs. It should instead be read in terms of identifying distinct, but overlapping, bell-curves when cultures and countries are compared. Consequently, there are significant individual differences in value priorities within Western European (and other) countries (Schwartz & Ros, 1995).

is necessary since relying on sample-level analyses alone can be misleading. Imagine, for instance, that one analyzes a sample of unpaired individuals before and after a treatment and detects no change. The conclusion will be that the treatment has had no effect. An individual-level analysis may, however, reveal that all individuals in the sample have changed, but 50% in one direction and 50% in the other, at similar rates. Individual-level analyses of paired data can reveal such heterogeneous treatment effects and are particularly useful if one expects individual differences in susceptibility (Roberts et al., 2001).

Second, the pre-post design takes into account the configurations of variables at t=1 when changes are analyzed at t=2. It is thus possible to control for preexisting factors that make change more or less likely, as well as other confounders. Measuring variables at only one point in time, for instance after a treatment, renders such controls difficult. To exemplify, this possibility is leveraged in an analysis of how various personality traits affect the magnitude and breadth of value change. When the amount of individual-level change between t=1 and t=2 is known, the analysis can consider this measurement in relation to each respondent's personality structure.

Third, the study's design qualifies as a quasi- or natural experiment, in that we can assume "as-if" randomness in terms of exposure to salient events, such as combat exposure (Dunning, 2010). The possibility for individuals to self-select into exposure is low, and the scope for causal inference is consequently strengthened. To some extent the factor of "as-if" randomness may, however, be violated, due to the duties of different unit types. Like all the Swedish ISAF contingents up until 2013, the contingents in this study contained groups of soldiers that were more likely to experience combat (OMLT groups and combat infantry) than others (such as HQ staff and logistics groups). This possible problem is somewhat mitigated by two factors. First, not all individuals in combat groups experience exposure (or are exposed to the same degree), while some individuals in non-combat groups do. Individual-level variation in the main independent variable thus occurs both across and within soldier specialties. Second, combat and non-combat groups are similar in terms of most relevant variables.[23] This means a lower probability of pre-existing differences affecting results.

Fourth, the study uses a "mixed-methods" approach by combining statistical material and data gathered in interviews. The inclusion of a

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[23] T-tests of significant differences between combat and non-combat groups were calculated for all variables included in the analyses. The tests revealed no significant differences between groups on any of the personal values, while combat group members had slightly more positive attitudes toward penal violence. There was also a very minor and only borderline significant difference concerning the personality trait of Agreeableness. Combat soldiers were on average younger, less educated, and less experienced in terms of peacekeeping missions than the non-combat groups. There were also more females in the non-combat groups. All these variables are controlled for in the analyses, as suggested by Dunning (2010).

qualitative component mainly serves the goal of improving possibilities of drawing causal inferences. Material from the interviews is examined both separately and in combination with statistical data to study the causal mechanism proposed by theory. Identifying the theorized mechanism is a critical step in establishing the validity of causal explanations (Collier, Brady, & Seawright, 2004; Mahoney, 2010). The interview material also complements the statistical analysis with the rich description it provides. More detailed information on the soldiers' deployment experiences makes it easier to interpret and understand the statistical results. It also gives the research a human face. Guiding this process of combining quantitative and qualitative material has been the "fundamental principle of mixed methods": the idea that researchers should collect different data via different methods in such a way that the resulting combination yields complementary strengths and non-overlapping weaknesses (Johnson & Onwuegbuzie, 2004; Johnson & Turner, 2003).

4.3 Quantitative Approach

4.3.1 Sample Selection Considerations

The study's quantitative component builds on unique survey data. I collected these data by dispensing questionnaires to approximately 300 members of a 500-strong Swedish ISAF contingent on two occasions: a few weeks before the six-month tour of duty (t=1, N=320) and a few days after their return home (t=2, N=300). The fact that only 320 out of approximately 500 soldiers were surveyed was due to time and financial constraints, since not all soldiers had their pre-deployment training and post-mission debriefing at the same locations. This meant that some types of units—mainly ISR (Intelligence, Surveillance, Reconnaissance) staff and air force personnel— were not included in the survey. In terms of selection biases the individual platoons and units from the contingent as a whole were not, however, able to opt in or out of the survey procedure. Consequently, it seems unlikely that any unit-level non-response bias (such as certain combat infantry groups opting out) would exist in the sample.

The majority of the survey sample stemmed from a single regiment/base, with a second regiment providing the majority of the logistics personnel. It seems unlikely that soldiers from these regiments are systematically different than soldiers from other garrisons. They should consequently be representative of Swedish soldiers in general (per unit type). First, there is no reason to believe that the regiments surveyed were more or less likely than others to supply troops to international missions. Troop contributions to ISAF rotate among the larger garrisons, which must subsequently commit

troops at one time or another. Second, although factors such as esprit de corps and military culture may be expected to vary across regiments, the most marked differences of this kind would be between special operations units (such as *kustjägare*; amphibious special operations units) and other units. Soldiers from the regiments surveyed are thus not expected to differ from their counterparts in comparable unit types in other regiments to any significant degree.[24] Finally, the recruitment of soldiers is handled centrally, meaning that all individuals are vetted and selected according to the same principles. It is therefore improbable that particularly belligerent individuals or regiments with particular cultures were more likely to be deployed.

4.3.2 Survey Procedure

The Swedish-language questionnaires were dispensed (both at t=1 and t=2) in time slots of approximately 45 minutes that had been worked into the soldiers' schedules as part of their daily routine. At each survey session the soldiers were given a pen-and-pencil questionnaire and informed orally and in writing of the general purpose of surveying their outlook on life. No hypotheses or theoretical background were given. No inducements were offered for participation beyond the promise that any findings would—if applicable—inform the Swedish Armed Forces' veteran policies.[25]

The soldiers had been informed by their commanding officers either on the day before, or on the morning of the survey, that participation was voluntary. This was repeated at the questionnaire sessions for ethical reasons, as well as to ensure honest and reliable answers. Since an element of peer pressure may have been present once the soldiers found themselves at the survey sessions, each questionnaire had a box for withholding consent that any soldier could tick. The questionnaires of non-consenters were destroyed after collection.

Each participant was assured anonymity, but was also asked to complete a self-generated identification code. This code was completed by means of replies to five questions that the participants would answer consistently between t=1 and t=2. The code held no meaning to an outsider, but allowed for the pairing of questionnaires between the two survey sessions. Using self-generated identification codes is a practice that has been proved acceptable in matching individuals longitudinally (DiIorio, Soet, Van Marter, Woodring, & Dudley, 2000; Grube, Morgan, & Kearney, 1989). Ensuring anonymity was of importance to ensure participation in the questionnaire and also—given the sensitivity of some of the questions—for ethical reasons. Anonymity can also, to some extent, mitigate concerns of

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[24] Discussions with Swedish officers in May 2012, December 2012, and November 2014.
[25] I have begun work on writing a report on the findings of this study for the Swedish Armed Forces.

social desirability bias (providing answers known to be more desirable than one's actual opinions; Krosnick & Presser, 2010).

4.3.3 Sample Characteristics

At t=1 approximately 320 soldiers participated in the survey session, with 296 successfully completing the questionnaire and consenting to participation (93.5% response rate). The questionnaires of non-consenters and of those who did not appear to have responded truthfully were destroyed.[26] At t=2 approximately 300 soldiers participated in the session, with 230 responses being retained (77% response rate). The significantly lower response rate at t=2 was caused mainly by more soldiers at t=2 making use of their right of non-participation. Discussions with attending soldiers made it clear that filling out questionnaires was not a prioritized activity for recently returned soldiers. As discussed below, these discrepancies in response rates do not appear to be overly problematic in terms of bias. Samples at t=1 and t=2 were highly similar on most observable variables.

The pairing procedure between t=1 and t=2 was not as successful as had been hoped, with only 129 respondents (44% of pre-deployment respondents) successfully matched. This was partly due to several soldiers not wishing to identify themselves via the self-identification procedure. A second factor was that not exactly the same soldiers were surveyed at t=1 and t=2. The high requirements to ensure anonymity made it difficult to identify exactly where overlap was lacking. From discussions with the organizers of the different survey sessions it was, however, concluded that the main share of the mismatch stemmed from two logistics platoons not overlapping between the two survey sessions. Specifically, one of these platoons was surveyed at t=1 and not at t=2, and the other at t=2 but not at t=1. There do not, however, seem to be any important differences between these two logistics platoons. The platoons were, for instance, from the same regiment. Consequently, comparisons of the t=1 and t=2 samples are feasible.

Samples at t=1 and t=2 were similar overall, with no statistically significant differences in terms of control variables. The age distributions were approximately the same, with 54% and 53% of respondents having been born in 1980–89, and 16% and 14% in 1990 or later, respectively.[27] Unit type distributions were also similar, with 39% and 35% combat

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[26] Questionnaires that were destroyed due to the possibility of insincere answers were mainly those that appeared to have been completed by "satisficers", i.e. individuals wishing to proceed quickly through the questionnaire. Examples include questionnaires filled out according to an obvious pattern, and questionnaires that contained only sporadic and erratic answers (such as rating part of a value as "very similar" and a second part as "very dissimilar").

[27] Age was queried only in ten-year time spans, in order to ensure anonymity.

infantry, and 23% and 26% HQ staff, respectively. Ninety-three percent of the sample was male at both t=1 and t=2.

The matched longitudinal sample (N=129) was somewhat different from the cross-sectional dataset. The sample was still predominantly male (88%), and had a higher percentage of combat infantry (46.5%) and HQ staff (28%). The sample was similar in age structure, with 58% born in 1980–1989. The maximum educational attainment in the sample was 57% with a high school diploma, 18% with higher education without a diploma, and 24% with a university or college degree. The matched sample was somewhat less experienced than the cross-sectional dataset, with 79% of participants going on their first ISAF mission.

4.4 Quantitative Measures

4.4.1 Values

The first dependent variable—Schwartz's basic human values—were measured using the 40-item Portrait Values Questionnaire (PVQ-40, Schwartz, 2005; Schwartz et al., 2001).[28] Several different instruments are available for measuring the Schwartz values, with each variety suited to different research contexts. For example, when values are not of prime interest, the shorter 10-item SSVS may be used (Lindeman & Verkasalo, 2005). While the original 57-item battery (the SVS; Schwartz, 1992) is superior in distinguishing between the ten value types, it has certain drawbacks that limited its usefulness in this research context. The PVQ was consequently selected in preference to the SVS owing to concerns with the latter instrument's both abstract and time-consuming nature.

Concerns regarding the SVS' abstract nature center on the difficulties some individuals have in completing it, and the subsequent fatigue it induces beyond what its length already demands (Lindeman & Verkasalo, 2005; Schwartz, 2012). In comparison, the PVQ is easy to use and less time-consuming (Schwartz et al., 2001). Although Swedish soldiers have relatively high levels of education and can presumably give meaningful responses to the SVS as well, it was hoped that the use of the PVQ would assure such responses. Turning to fatigue, discussions with officers, researchers, and the SAF's research division made it clear that "questionnaire fatigue" was a salient issue for many soldiers. Questionnaire brevity was consequently a critical factor in favor of the PVQ-40. Since the full questionnaire was fairly lengthy, it was concluded that the PVQ was a

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[28] I am indebted to Shalom Schwartz for sharing the official Swedish-language version of the PVQ.

strong enough instrument for measuring values and one that also lacked the drawbacks of the SVS. The PVQ has been validated in several samples, and is able to clearly distinguish between the ten value types, as well as displaying their internal structure (Schwartz, 2012; Schwartz et al., 2001)

The PVQ consists of 40 "portraits" of individuals in the form of short descriptions of hypothetical persons. Respondents rate each portrait's similarity to themselves on six-point Likert scales. Answering the question "How much like you is this person?", the respondent rates him/herself on a scale ranging from "very similar" (1) to "very dissimilar" (6). The responses to these questions enable the respondents' values to be indirectly inferred from their self-reported similarity to the portraits, as opposed to the direct elicitation of values from the SVS (Schwartz et al., 2001).

The number of items per value varies from three to six, depending on the breadth and complexity of each value. Universalism, which spans a broad theoretical concept, is measured by means of six portraits. Stimulation has fewer facets and is measured by only three items. After rating, items are collapsed into their respective values. However, since the interest is in value *priorities*, it is necessary to transform scores so that each value's relative standing becomes clear. To exemplify, two individuals might rate Stimulation with a score of 4. The relative position of Stimulation in the value hierarchy of these two individuals becomes clear, however, only when this score is related to their respective scores for the other values. If nothing else is noted, value scores throughout the study have been centered around a respondent's mean across all values to create this relative positioning (Schwartz, 2012; Schwartz et al., 2001).

Table 4.1 below displays a few sample items per value, as well as Cronbach's alphas of the constructs at t=1 and t=2. Internal reliabilities for the values are similar to those that appear in other studies using the PVQ (Bardi et al., 2009; Schwartz, 2005). The full list of items used is available in Appendix B.1.

(table on next page)

Table 4.1 *Sample Items and Internal Reliability*

Value	*a* t=1	*a* t=2	Sample items
Tradition	.43	.49	"It's important to him to be humble and modest. He tries not to draw attention to himself."
Conformity	.65	.71	"He believes he should always show respect to his parents and to older people. It is important to him to be obedient."
Security	.55	.67	"Having a stable government is important to him. He is concerned that the social order be protected."
Power	.61	.60	"He always wants to be the one who makes the decisions. He likes to be the leader."
Achievement	.76	.84	"It's very important to him to show his abilities. He wants people to admire what he does."
Hedonism	.78	.79	"He really wants to enjoy life. Having a good time is very important to him."
Stimulation	.71	.79	"He thinks it is important to do lots of different things in life. He always looks for new things to try."
Self-direction	.59	.71	"Thinking up new ideas and being creative is important to him. He likes to do things in his own original way."
Universalism	.72	.78	"He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life"
Benevolence	.64	.70	"It's very important to him to help the people around him. He wants to care for their well-being."

Note. Data from full samples at t=1 (approx. N=294) and t=2 (approx. N=228).

Table 4.2 below displays descriptive statistics for the ten value types. The table is arranged in order of value importance (centered scores), with the first value being the most and the last value the least important.

Table 4.2 *Descriptive Statistics for Value Types*

Value	Mean (SD)	Min.–Max.
Self-direction	.55 (.63)	−1.1–2.4
Benevolence	.52 (.54)	−1.2–2
Hedonism	.42 (.80)	−1.7–2.8
Security	.09 (.53)	−2–1.4
Stimulation	.07 (.83)	−2–1.8
Conformity	.05 (.66)	−2.4–1.5
Universalism	−.02 (.65)	−2.2–1.6
Achievement	−.09 (.75)	−2.1–2
Power	−.81 (.80)	−2.9–1.3
Tradition	−.88 (.64)	−2.6–1.3

Note. Data from full sample at t=1 (approx. N=294)

As a final step in instrument selection I also validated data-to-theory fit using Confirmatory Factor Analysis (CFA) and by constructing a correlation matrix. This is an additional step toward an adequate research design, since validation can confirm that the selected items can identify the theoretical concepts within the data used. The CFAs demonstrated that the data have a reasonably good fit to the theorized structure of values. A correlation matrix was also constructed to test the proposed circular structure of the values (since this could not be tested in the CFA). The correlation matrix demonstrated that although the data contain some discrepancies from the hypothesized theoretical structure, the overall pattern of conflicts and compatibilities among values was as expected. In sum, data-to-theory fit is strong enough to warrant the data's use for analyses of values and value structures. The logic, process, and results of these validation tests are detailed in Appendix A.1.

4.4.2 Attitudes toward Violence[29]

Attitudes toward violence—the second dependent variable—were measured using a battery constructed out of items from previous research, but with some modifications and additions. As outlined in Chapter 2, two sub-dimensions of attitudes toward violence are studied: attitudes to war and attitudes to penal violence.

The final survey instrument contained 16 items (statements), with eight each for the two subdimensions. Examples of the items for the war dimension are: "The threat of military force is often the best way to keep down aggressive states" and "The killing of civilians should be accepted as an unavoidable part of war". Turning to penal violence, examples include: "Generally speaking, the sentences handed out to criminals are too lenient", and "Police often treat demonstrators too roughly" (reverse-coded). The full list is available in Appendix B.2. These items were randomly dispersed in the questionnaire's section on attitudes toward violence. Some items were also reverse-coded to avoid possible acquiescence effects. All items were measured on a seven-point Likert scale, which ranged from "Disagree totally" (1) to "Agree totally" (7). After scoring the items were collapsed into indices that represented scores for each dimension. The final attitude variables thus had a range of one through seven, where seven represents the most positive attitudes. Note, however, that when Structural Equation Models (SEM) are utilized for analysis, the loadings of each indicator on the latent variable (each dimension of attitudes), and not this index variable, are used. Table 4.3 below displays descriptive statistics, reliabilities, and test-retest scores for these variables.

Table 4.3 *Descriptive Statistics for Attitudes toward Violence*

Dimension	Mean (SD)	Min.	Max.	a t=1	Test-retest r
Attitudes to War Violence	4.7 (.91)	1.6	6.8	.66	.82
Attitudes to Penal Violence	4.2 (.94)	1.8	6.8	.67	.79

Note. Data from full sample at t=1 (approx. N=294).

In arriving at the instrument used I attempted to follow the best practices in questionnaire design proposed by Krosnick and Presser (2010). First, I

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[29] Much of the text under this heading stems from Sundberg (2014).

created a first-cut inventory of items based on instruments from previous research. In this process, the Velicer Attitudes Toward Violence Scale (VATVS; Velicer et al., 1989), the Attitudes Toward Violence Scale (ATVS; Anderson et al., 2006), items from Brady and Rappoport (1973), and the militarism scale employed by Nelson and Milburn (1999), were scrutinized for theoretically relevant items. Second, I removed items that were not suitable for cross-cultural transfer. These were mainly items that referred to events, scenarios, and cultural images that were clearly derived from Vietnam, the Cold War, and U.S. cultural contexts. Deciding what items to include in the final questionnaire was, lastly, the result of several rounds of pretesting.

In a first step, the items remaining on the list were exposed to pretesting at the Department of Peace and Conflict Research, Uppsala University. This was done to check for face validity, applicability, and acceptable variance and distributions. The remaining items were exposed to scrutiny at a research seminar, where the dimensions of interest had been made clear to the participants, and where participants evaluated items for face validity. Lastly, the items were pretested on a few samples of students.

Table 4.3 displays the internal reliabilities (Cronbach's alphas) of the variables. These are slightly lower than what one would have hoped, since the cutoff point for acceptable alphas is commonly set at .70 (Nunnally, 1978).[30] However, the issue of low alphas is not necessarily crippling. The most important question is always whether items have theoretical validity overall. This question cannot be settled by psychometric methods alone (Borsboom, Mellenbergh, & van Heerden, 2004). Since these are two theoretically well-validated attitudinal dimensions which also appear as distinct dimensions (see the validation procedure below), this problem of low internal reliability may be said to be somewhat mitigated (Schmitt, 1996). Additionally, the alpha scores are close to a level of .70.

Whether theoretically valid or not, low alphas can be disruptive in calculations of, for instance, disattenuated correlations (correlations that control for unreliability). To permit disattenuation, I collected additional data on the two attitude dimensions from a student sample. Data were gathered in two waves from a sample of approximately 60 students to allow calculation of test-retest reliabilities. This exercise yielded good two- to three-week test-retest reliabilities (from .79 to .82), making it possible to disattenuate correlations using this measurement.

As argued above concerning the validation of the values data, it is important to establish whether data-to-theory fit is acceptable also for attitudes toward violence. This becomes crucial since alpha scores were

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[30] Note that Cronbach's alphas for the two dimensions were higher when these instruments were first pre-tested on a student sample. For this reason, it was deemed feasible to use these batteries in the full study as well.

somewhat lower than common standards. I consequently subjected the attitude data to a validation procedure using CFA. This analysis confirmed that a two-dimensional model was superior to a one-dimensional one, that the two dimensions were highly correlated (at .77), and that data-to-theory fit was acceptable. These procedures are detailed in Appendix A.2.

4.4.3 Personality Traits

To measure the personality traits of the individual soldier I used the Swedish-language version of the Ten Item Personality Index (TIPI; Gosling et al., 2003). The TIPI is a very brief battery of items for measuring the Big Five personality traits (or, the Five-Factor Model). The Big Five are commonly assessed with more extensive instruments such as the 60 item NEO-FFI (Costa & McCrae, 1992). However, since questionnaire brevity was a necessity use of the TIPI was warranted. Use of the TIPI does mean the loss of the ability to distinguish between specific facets of the Big Five traits. In contexts where specific trait facets are not the main focus of a study, the TIPI has, however, been shown to have acceptable psychometric properties for capturing the Big Five (Gosling et al., 2003).

The TIPI measures the Big Five personality traits that were delineated as being of theoretical interest in this study: Extroversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. Each personality trait is measured by means of only two items, and the outcomes are averaged to create the final score for each trait. The respondent scores his or her likeness with a given trait-item, with responses ranging from "Disagree strongly" (1) to "Agree strongly" (7). Descriptive statistics for the TIPI are available in Table 4.4 below.

Table 4.4 *Descriptive Statistics for Ten-Item Personality Index*

Trait	Mean (SD)	Min.	Max.	a t=1
Extroversion	4.9 (1.2)	1.5	7	.65
Agreeableness	5.1 (1.0)	2	7	.32
Conscientiousness	5.4 (1.1)	2	7	.53
Emotional Stability	5.6 (.98)	2	7	.55
Openness to Experience	5.5 (.91)	3	7	.30

Note. Data from full sample at t=1(approx. N=296).

4.4.4 Combat Exposure

To test the hypotheses on the effects of combat exposure on value and attitude change the study relies on a modified version of the Combat Exposure Scale (CES) (Keane et al., 1989). Keane and colleagues created the CES to capture and quantify stressors encountered by Western soldiers in military operations. The scale is composed of seven items, which range in severity from going on combat patrols and performing other dangerous duties, to the percentage of comrades killed, wounded, or missing in action. To account for differences in severity, items are differently weighted. For instance, "seeing someone hit by incoming enemy rounds" is weighted more heavily than "firing rounds at the enemy" (Keane et al., 1989, p. 53). The instrument thus incorporates activities that are relatively rare as well as those that take place with some frequency. Consequently, the measurement not only captures highly traumatic events such as the death of comrades, but also more frequent low-level stressors that may be cumulative over time. All seven items are listed in Table 4.5 below.

The CES has been demonstrated to have sound psychometrical properties, as well as high validity for Western military forces on modern battlefields and peacekeeping/enforcement missions. In several studies focusing on combat trauma the CES has been applied to track both PTG (Aldwin et al., 1994; Jennings, Aldwin, Levenson, Spiro III, & Mroczek, 2006) and PTSD (Brailey, Vasterling, Proctor, Constans, & Friedman, 2007; King et al., 1998).

It is nonetheless arguable that this instrument fails to capture all mission-level stressors encountered during PSOs, including such phenomena as boredom and uncertainty of mission content (Adler, Litz, & Bartone, 2003), being humiliated, and witnessing horrific acts without being able to help (Weisaeth, 2003). Not all these factors, however, can be considered salient or traumatic. Thus, as a measurement of salient events related to military deployments the CES is a good choice.[31] Moreover, making use of existing scales ensures comparability and overlap in terms of instrument validity.

This study makes use of a version of the CES that has been specifically designed to suit the Swedish environment in northern Afghanistan (Ingesson-Thor, n.d.).[32] This choice of a modified version was made after

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[31] I attempted to cover more conceptual ground by including two additional items in the questionnaire. These items were inspired by questions that had been used in debriefings of previous Swedish ISAF contingents. They read: "Have you been involved in the treatment of wounded people; ISAF, civilians or others?" and "Have you experienced a feeling of powerlessness, or that your situation on the mission has been outside of your control?". The inclusion of these items in the composite variable did not, however, increase construct validity, nor change any of the results.

[32] I am indebted to Mats Liljegren, Alf Ingesson-Thoor, Peter Butor, and Jacob Wennerholm for their assistance in deciding on the use of instrument. Alf Ingesson-Thoor is the architect of the specific modification used here.

consultations with psychologists and psychiatrists in the employ of the Swedish Armed Forces. In the experience of the Armed Forces the scale steps of the original CES were not fine-grained enough to capture the comparatively low levels of exposure that Swedish soldiers faced (compared to the Vietnam War, in relation to which the instrument was created). Use of the original scale often yielded results with problematic "floor effects", where the scoring obscured differences in actual exposure. The modifications consisted of "scaling down" the steps on the score sheet, for example, by partitioning the original's "3–12 times" into steps of "2–5 times", "6–10 times", and "11+ times". This induces more variation and better represents actual exposure. After scoring and weighting, the seven items are collapsed into a composite variable with a theoretical range of 0 to 40. Descriptive statistics for this variable are available in Table 4.5 below, and complete scoring and weighting procedures are available in Appendix B.3.

Table 4.5 *Descriptive Statistics for Combat Exposure Scale (CES)*

Item	M (SD)	Min.	Max.	*a*
Did you ever go on combat patrols or have other dangerous duty?	5.5 (2.8)	0	8	-
Were you ever under enemy fire?	1.03 (1.1)	0	4	-
Were you ever surrounded by the enemy?	.4 (1.32)	0	8	-
What percentage of the men in your unit were killed, wounded or missing in action?	.1 (.43)	0	2	-
How often did you fire rounds at the enemy?	.18 (.61)	0	4	-
How often did you see someone get hit by incoming or outgoing rounds?	.37 (1.12)	0	8	-
How often were you in danger of being injured or killed in the line of duty?	1.63 (2.2)	0	8	-
CES (composite score)	8.8 (6.2)	0	26	.61

Note. Data from the matched dataset at t=2. N=129

Table 4.5 demonstrates that scores on the CES variable are driven by responses to question 1 on combat patrols and other dangerous duty and that the soldiers were involved in few firefights and other combat-related activities. These scores conform to reports on the level of hostilities in the Swedish AoR during the contingent's deployment. That the majority of battlefield stressors encountered by the soldiers were of the "everyday" variety may be construed as problematic in terms of theory. Several scholars, however, attest to the fact that although fighting, killing and feeling that one's life is at risk are the main stressors in war, the everyday stress caused by an overarching feeling of threat and uncertainty is also of importance (Boman, 1982; Marlowe, 2001). This means that although the final measurement is highly skewed toward the left (signifying no or low exposure) it should be theoretically relevant for studying the pressures and stressors of combat. Finally, the skewed nature of the variable means that transformed variables are sometimes used in the analyses.

4.5 Controls

The analyses also include a set of control variables. While there is little consensus on the best practices for control variables it is generally seen as important to avoid the inclusion of irrelevant variables that reduce parsimony and effectiveness in the models, and, conversely, not to exclude relevant variables (King, Keohane, & Verba, 1994). Beyond this there is still discussion on whether the "Rule of Three" should apply, or if all plausible controls should be included (see, e.g, Achen, 2002; Achen, 2005; Dunning, 2010; Kadera & Mclaughlin Mitchell, 2005).

In this study I chose to include controls that are known, or may be suspected of being, confounders that affect both the dependent (values and attitudes) and independent variables (combat exposure and personality traits). A few of these controls (such as Age) are also variables that were identified as differing between combat and non-combat groups. These are warranted to include, in order to account for possible self-selection effects that violate assumptions of "as-if" randomness (see section 4.2).

The control variables included are *Age*, *Sex, Socioeconomic Background, Civilian Education, Military Education*, and *Previous Mission Experience*. These variables were all collected by means of self-report, and scored as ordinal variables (except for *Sex*, which is a nominal measurement). A more thorough description of categories and scoring is available in Appendix B.4.

4.6 Qualitative Approach

The study's quantitative element is complemented by a qualitative component based on interviews carried out with soldiers before and after their deployment. The addition of this qualitative component serves the goal of studying the proposed causal mechanisms behind change and stability. The qualitative data is combined with statistical data to this end, but also makes independent contributions in parts of the empirical analysis.

Studying the causal mechanisms of the theoretical framework is valuable for claims of causal inference. For instance, the veracity of the claim that good person-environment fit (X) causes stable values (Y) depends not only on corroborating correlational evidence, but also on establishing the existence of such fit (Hedström & Ylikoski, 2010; Mahoney, 2010). Without observing causal mechanisms, a theory can sometimes be reduced to a function of "mechanism-based storytelling" (Hedström & Ylikoski, 2010, p. 54). Thus, although statistical evidence is in line with a proposed hypothesis, theory can become but a narrative that *may* explain this unless evidence of causal processes is observed. The combination of interview material and statistical data will help cast light on this study's proposed mechanisms.

An additional benefit of the qualitative component is that it supplies "thick description" to the otherwise "thin" observations that the statistics supply (Collier et al., 2004). A qualitative interview component consequently supplies "[…]depth, detail, and perspective", shedding light on what a PSO and experiences upon it actually mean for those deployed (Brounéus, 2011, p. 131).

4.6.1 Qualitative Design and Interview Sample

In terms of research design the qualitative setup is similar to the quantitative component. Respondents were studied at both t=1 and t=2, but with t=2 set to six months after homecoming. This was done in order to allow the soldiers time to reflect on their experiences. The in-depth interviews were semi-structured—meaning that all respondents answered the same core questions—but with several open-ended queries. The open-ended approach allows the conversations to take different turns depending on the respondent's points of view and willingness to talk. As opposed to a survey interview, an open-ended in-depth interview allows both researcher and respondent to explore a topic freely and avoids forcing answers into pre-defined templates (Brounéus, 2011; Rubin & Rubin, 2005). The open-ended approach consequently supplies rich, in-depth data.

The interviews at both t=1 and t=2 centered on the main variables under study: the soldiers' values, their attitudes toward violence, and their experiences of salient events. To gain a deeper understanding of the PSO deployment experience, the interviews also inquired into other topics.

Soldiers were, for instance, asked to narrate what a normal working week on the deployment involved, whether they believed they would change as an effect of the PSO, and were invited to speak freely of any experiences on the mission they felt were noteworthy. Core questions were commonly supplemented by several probes in directions suggested by the respondent's answers. In this way, a topic was exhaustively explored. The interview templates and the core questions at t=1 and t=2 are given in Appendix D.

A purposive sampling strategy was used for the interviews. To maximize overlap between the quantitative and qualitative components the purposive sampling focused on the group of soldiers that featured most often in the quantitative sample: young, male, combat infantry soldiers. The interview sample was thus selected to be broadly representative of combat infantry soldiers, and not of the entire ISAF contingent. This overlap increases possibilities for the qualitative and quantitative results to "speak to each other" (sometimes referred to as "sequential" mixed-methods sampling; Teddlie & Yu, 2007).

To access a sample with the above characteristics I requested access to half a platoon of male, combat infantry soldiers aged 20-25. The commanding officer approached three squads that fit this description and requested their participation, with 14 out of 16 agreeing to participate. This sample was all-male, with an average age of 23, and composed entirely of members of combat infantry units. The soldiers were informed on several occasions of the voluntary nature of the project and all were assured anonymity. Interviews at t=1 were carried out over two days at the soldiers' base, took on average 50 minutes to complete (from 25 to 90 minutes), and were conducted in Swedish. All respondents agreed at t=1 that I be allowed to contact them after homecoming for follow-up interviews. Note that these soldiers were from a different contingent than the survey sample.

At t=2, approximately six months after their homecoming, 11 respondents were available for follow-up interviews. One soldier did not wish to participate in the follow-up interviews, while two could not be reached.[33] All but one of these follow-up interviews were conducted by telephone, since arranging organized interview sessions of the kind conducted at t=1 was not feasible. This was because the soldiers were dispersed across a large geographical area, and many had either left their employment or had been transferred to new units after homecoming.

Conducting telephone interviews for in-depth/qualitative interviewing has often been seen as sub-optimal compared to face-to-face interaction (Holt, 2010; Sturges & Hanrahan, 2004). Concerns mainly regard negative effects on data quality due to decreases in rapport and in the ability to pick up on

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[33] The only available way to reach these individuals was via phone, and those who could not be reached either did not answer a repeated number of calls, or had had their phone numbers terminated.

non-verbal communication (Miller, 1995). Findings on the benefits of face-to-face interviews versus telephone interviews are, however, mixed. Several studies downplay the negative effects of phone interviews for research topics where complete immersion in the research context is unnecessary, and social desirability biases are unlikely (Green & Krosnick, 1999; Holt, 2010; Sturges & Hanrahan, 2004). To a certain extent these criteria apply to this study. Rapport had been established at the first interview session, and direct participation in the research context was not necessary. Additionally, since each interviewee freely chose interview mode and all but one opted for telephone interviews, the choice of this approach was warranted. Each interview took between 20 and 35 minutes to conduct. The comparatively shorter interview time at t=2 was a product of a less extensive interview template.

4.6.2 Analytical Method

In terms of analytical method (i.e. how the interview material was organized and analyzed) I made use of psychological thematic analysis. This method is defined by Braun and Clarke as "[…]a method for identifying, analyzing, and reporting patterns (themes) within data" (2006, p. 79). A "theme" here entails a form of patterned response, which can recur within the data or be deemed to be significant (or "key") in relation to the research question posed.

   I classify a theme as a pattern that recurs with some frequency across and within respondents and/or appears to be personally important in the respondent's conceptualizations or narratives. Themes are mainly identified deductively through the lens of relevant theory and previous research, and the method should thus be classified as a theory-driven thematic analysis (Braun & Clarke, 2006). Regarding motives for deployment, for instance, I classified the respondents' answers to the interview questions according to their semantic content, but mainly in relation to the theoretical conceptualizations of the various values. However, the analysis, goes beyond mere classification, and also attempts to interpret specific meanings within and across themes and individuals. Accordingly, in addition to classifying specific words and sentences used to articulate a theme, the analysis also interprets how certain phrases may be related to the concepts studied. This theory-driven approach assures a close-knit relationship between the quantitative and qualitative methods of analysis, as both analyses are driven by examinations of the same theoretical concepts.

   The method's focus on identifying patterns and themes in a structured way makes it a good tool for the study of causal mechanisms. In examining mechanisms it is imperative to identify observations consonant with the specified mechanism across a number of units. The way thematic analysis

structures interview material into themes makes it possible to identify such observations across and within units with relative ease.

Applying thematic analysis is also a method suitable to the goal of attaining thick and rich description. Although a search for patterns and themes imposes and sets interpretive boundaries, the method still allows for descriptions that are rich in detail. Moreover, restricting the tool of analysis to themes and patterns assures the identification of experiences and events with applicability beyond the individual. The method thus still allows for the study of the subjective meanings and conceptualizations of the soldiers' experiences and understandings of the world, which is key to a rich and detailed description (Brounéus, 2011; Rubin & Rubin, 2005).

4.6.3 Tracking Causal Processes

The primary goal in including a qualitative component is to observe the causal mechanisms proposed by theory. Identifying both correlational evidence and observations supportive of the proposed mechanisms serves to increase causal leverage (Hedström & Ylikoski, 2010; Mahoney, 2010). Using a combination of the quantitative and the qualitative material I study three different causal processes: (1) the mechanism translating combat exposure into value and attitude change, (2) the mechanism of value and attitude importance and stability, and (3) the mechanism of person-environment fit.[34]

The study approaches causal mechanisms through a focus on identifying "causal-process observations" (CPO) (Collier et al., 2004; Collier, Brady, & Seawright, 2010; Mahoney, 2010). A CPO is defined as a "[…]piece of data that provides information about context, process, or mechanism and that contributes distinct leverage in causal inference" (Collier et al., 2004, p. 252). In short, the identification in a corpus of material of observations that support the existence of the proposed causal mechanism.

Mechanism One: Schema Reconstruction and Information Processing

The hypotheses on combat exposure posited that both value and attitude change would increase as a function of increasing exposure. For values, change would occur as a consequence of the reconstruction of challenged or shattered schemas, while for attitudes change would materialize in response to the mass of new information received from these events (Eagly & Chaiken, 2014; Tedeschi, 1999; Tedeschi & Calhoun, 2004). Using the

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[34] It was−regrettably−not possible to study in detail the causal processes linking personality traits to change and stability. Although the interviews inquired into the soldiers' personality traits, the questions posed and answers received at t=1 did not provide sufficiently detailed data for such an analysis.

interview material, I attempt to observe if these processes of schema reconstruction and attitude transformation through cognitive and/or emotional processing occur in direct conjunction with the experience of combat exposure.

For these mechanisms to be valid, a certain chain of events should be observable in the data. First, the soldiers should experience combat exposure as a salient, traumatic, and/or powerful event. Second, this event should produce new thoughts, insights, or feelings that are processed in relation to values and attitudes toward violence. Lastly, a feeling or experience of having changed in relation to this event should occur.

To ascertain whether these mechanisms are in play, I engaged in discussions with the soldiers on their experiences of combat exposure and other salient events. These interviews all took place at t=2. In a first stage, I inquired into their experiences of combat exposure and similar events and allowed them to talk freely about these. Questions at this stage focused on establishing the nature and meaning ascribed to these events. In a second stage I probed the soldiers for experiences of new thoughts, feelings, and/or reconstruction of identity in relation to this experience, again allowing them to speak freely. Questions here focused on understanding whether, and if so how, these experiences affected their views on violence, and their values and identity. Third, I inquired whether they felt these events had affected them in terms of change.

Combat exposure is likely, however, not to be the only event or experience that can cause changes in the soldiers' attitudes and values. Consequently, I also inquired into the soldiers' other experiences in an attempt to identify additional factors for change or stability.

Mechanism Two: Attitude and Value Importance

The cumulative continuity perspective predicts that attitudes and values of importance for identity will be stable. To verify that stability is induced by the importance factor, it must subsequently be established if attitudes toward violence are important to the soldiers' identities, and what values are more or less important to the individual. In this way, it may be observed if the specified properties of a proposed independent variable coexist with the proposed outcome (Mahoney, 2010).

To examine this mechanism in relation to attitudes toward violence the interviews inquired open-endedly at t=1 into the respondent's views on the legitimacy and permissibility of different types of violence, how they viewed their relationship to violence when deployed, and to what extent each soldier identified himself with the military. Questions also revolved around how interested each soldier was in experiencing Troops In Contact (commonly referred to as "TIC", denoting some form of violent interaction with enemy forces), and whether the soldier had or had had any thoughts or moral qualms about the use of force on the mission. These questions provide

answers on the importance of attitudes toward violence by studying how the soldierly identity is constructed, how important it is for the respondent, and how attitudes toward violence may be bound to this identity. This interview material is analyzed in close conjunction with the survey material in the empirical chapters.

When the same mechanism is studied with respect to value importance, a somewhat different approach is necessary owing to the nature of values. Values are theoretically viewed as constituting parts of identity, meaning that they are important by definition (Hitlin, 2003). The hierarchical organization of values means, however, that some values will be more important than others. Hence, I would expect the most important values to be more stable than those of less importance. Examining values, I thus focus on establishing their relative importance, since these properties of each value— according to the mechanism—should be related to their level of stability. In studying value rankings, however, I do not make direct use of the interview material. The nature of the scoring procedure for values establishes each value's relative importance and is sufficient to depict the soldiers' rankings.

Mechanism Three: Person-Environment Fit

Turning to the last mechanism, the theory of cumulative continuity predicts that values and attitudes toward violence will be stable if person-environment fit is high. This mechanism is studied by, first, establishing at t=1 what goals and challenges the soldiers seek in relation to their deployment. Comparing these wishes with self-perceived fulfilment at t=2 enables levels of person-environment fit, per value and for attitudes toward violence, to be established by means of the interview material. This type of information makes it possible, for instance, to compare the stability of each value with observed levels of person-environment fit.

To study person-environment fit the interviews, in a first stage, inquired at t=1 into what challenges, goals, and motives each soldier had in seeking out the military profession and for deploying to Afghanistan. At t=2 I prompted the respondents with their pre-deployment statements and asked them to what extent, how, and why, each of these had been fulfilled. Such a comparison of goal-fulfilment vis-à-vis stated goals/motives yields an approximation of how well the deployment catered to values, needs, and challenges. In other words, how good person-environment-fit was.

In establishing person-environment fit in terms of values, I interpreted the soldiers' statements on their motives and goals through the lens of values. To exemplify, if a soldier stated his goal as "testing my physical and psychological limits", this was taken as an indication of the importance of the Stimulation value. Similarly, if the respondent answered that he wished to "help others" or "make a difference for the world" this was interpreted as being an endorsement of Universalism. I also inquired into why the respondent felt this motive was important, to validate the motive's

conceptual content in relation to Schwartz's theory. This assumption of goal/motive and value overlap is based on the view that motives are key functions and the primary contents of the value concept (Parks & Guay, 2009; Rokeach, 1973; Schwartz, 1992).

To study person-environment fit concerning attitudes toward violence, the interviews focused more on the soldiers' military identities and skills and how these would fit the mission environment. For instance, statements by a soldier that he wished to "test his military skills" or "discover whether I am a true soldier" were interpreted as motives related to the soldierly identity. These motives are not directly linked to attitudes toward violence. They are, however, directly connected to the part of identity concerned with the use of force. If this identity remains stable so, too, should attitudes toward violence.

4.6.4 Ethical Issues in In-depth Interviews

In-depth interviews on sensitive topics require careful reflection on ethics on the part of the researcher. Important aspects for ensuring an ethical approach to this study were to provide (1) complete anonymity for the participants, and (2) voluntary participation. The issue of anonymity has been mentioned in the above discussions of the survey and interview samples, but may require additional expansion. The need for anonymity stems mainly from two sources: the sometimes sensitive and personal nature of the topics discussed, and the respondents' position of dependence in relation to their employer (the Swedish Armed Forces).

First, discussing personal goals and major motivational drivers in life can be a deeply personal experience, and several interviewees shared experiences, perspectives, and opinions in confidence. Personal views on violence and the use of force, too, are a sensitive topic, as "more positive" views of violence may be regarded as taboo. Many also expressed political views during the conversations. Ensuring that the soldiers' views and perspectives on these topics could not be associated with a specific individual was thus of the utmost importance. All soldiers were also employed by the Swedish Armed Forces. Although the merits and demerits of this organization were not a prominent topic, some of the views expressed on other topics may be construed as sensitive or of such a nature that they may impact negatively on the soldiers' employment.

Complete anonymity was thus ensured to all participants (in the interviews and surveys alike), and my independence vis-à-vis the Swedish Armed Forces was also stressed. Finally, all research material was kept under lock and key or behind digital firewalls. After interviews had been conducted at t=2 and the material analyzed, all written interview material was also completely anonymized and all names and phone numbers were discarded. Such measures to protect the security of one's informants is key

in conducting ethically sound research (Brounéus, 2011). These measures to provide anonymity were approved by the Swedish Ethical Review Board.

The second issue was voluntary participation, which is important not only for ethical reasons but also for reliability and validity. Respondents obliged to participate are not likely to give reliable or valid answers. Voluntary participation was ensured, first, by making sure that the soldiers' commanding officers informed them of the voluntary nature of the project. Second, I repeated this message before each interview and survey session. Third, all participants were informed that they could end an interview at any time without the risk of repercussions.

Other ethical considerations, such as the issue of possible re-traumatization due to discussion of a person's experiences with death, severe bodily harm, or other trauma, were also reflected upon and precautions taken to design interviews in the safest possible way (Brounéus, 2011). These precautions included, for instance, my studying the mission history of the interview sample's deployment to determine whether any particularly traumatic experiences had occurred. None of the interviewees had engaged in outright combat or experienced traumatic situations in which they felt their own or their comrades' lives were directly threatened. While other experiences were brought up in the interviews none of the soldiers discussed these topics as traumatic.

4.7 Structure of the Empirical Analysis

The empirical analysis proceeds in three separate steps. First, in Chapter 5, I study the soldiers' values, attitudes, and motives for deployment at the pre-deployment stage using both the survey and interview material. This chapter, among other things, introduces the values and attitudes of the deployed soldiers and, more importantly, starts of the investigation into the proposed causal mechanisms. It does so by examining the importance of values and attitudes toward violence to the soldiers' identities, as well as establishing the prerequisites for good person-environment fit. These investigations allow for an examination of the causal mechanisms at the post-deployment stage.

Second, Chapter 6 and 7 delve into hypothesis testing using the survey material. Both these chapters begin with the study of how combat exposure and the soldiers' personality traits affect change and stability in the dependent variables (values and attitudes toward violence). This amounts to statistical tests of hypotheses 1, 2, and 5a to 5f. Since these analyses demonstrate only what variables affect change and stability, but cannot provide completely satisfactory answers regarding the levels of value and attitude stability across the deployment, additional analyses are warranted. Subsequently, the remaining sections of these two chapters examine the degree of value and attitude stability between the pre- and post-deployment

stages. Using several statistical tests I here examine how the PSO in general—and not specific variables—affect levels of stability across the deployment. Essentially, these analyses compare scores on the dependent variables between t=1 and t=2 and amount to statistical tests of hypotheses 3 and 4.

Third, in Chapter 8, I revisit the proposed causal mechanisms at the post-deployment stage. In this chapter I combine the results of the statistical tests with pre- and post-deployment observations related to causal processes. The chapter both revisits the propositions on causal mechanisms put forth in Chapter 5, as well as introduces new interview material collected at t=2. In this chapter I, finally, draw conclusions regarding the outcomes of the hypothesis testing.

5. Pre-Deployment: Values, Attitudes, and Motives

This first analytical chapter studies the soldiers' values and attitudes at the pre-deployment stage, as well as their motives for deployment. Examining the soldiers' value hierarchy, their configuration of attitudes toward violence, and how their identities are constructed is a necessary exercise for three reasons.

First, establishing a baseline in terms of values and attitudes toward violence not only introduces the data, but will also help in understanding the outcome of the hypothesis-testing. Second, although data-to-theory fit has been validated at an earlier stage, the data can still contain discrepancies or peculiarities that are important to clearly map and understand. For example, from previous research we would expect differences between soldiers and civilians concerning both values and attitudes, and that these are of relevance for understanding the soldiers' psychological structures (see, for instance, Bachman et al., 2000; Priest & Beach, 1998). Third, this analysis initiates the study of the causal mechanisms. The mechanism that specified that values and attitudes must be important to the soldiers' identities to be stable requires an examination of these variables at t=1. Similarly, the mechanism on the effects of person-environment fit necessitates the study of the soldiers' goals and motives for the PSO deployment. These analyses set the stage for the subsequent revisiting of the mechanisms at t=2.

In what follows I first establish the soldiers' value hierarchy at the pre-deployment stage, using mainly the survey data. In the second section I combine both the interview and the survey material to establish whether or not attitudes toward violence are important to the soldiers' identities. Finally, I examine the expressed goals and motives of the soldiers, and subsequently establish the prerequisites for good person-environment fit. I approach this final section using only the qualitative data.

5.1 Value Structures at Pre-Deployment

The first step toward understanding the soldiers' predominant value structure is to examine how their value hierarchy is organized or, in other words, which values are the most and least important. Table 5.1 below consequently

presents the soldiers' value hierarchy at t=1, arranged in descending order of importance, using scores centered on the individual's mean.

Table 5.1 *Value Importance at t=1*

Value	Mean (SD)	Min. – Max.
Self-direction	.55 (.63)	−1.1–2.4
Benevolence	.52 (.54)	−1.2–2
Hedonism	.42 (.80)	−1.7–2.8
Security	.09 (.53)	−2–1.4
Stimulation	.07 (.83)	−2–1.8
Conformity	.05 (.66)	−2.4–1.5
Universalism	−.02 (.65)	−2.2–1.6
Achievement	−.09 (.75)	−2.1–2
Power	−.81 (.80)	−2.9–1.3
Tradition	−.88 (.64)	−2.6–1.3

Note. Data from full sample at t=1 (approx. N=294)

The table shows how the value hierarchy is arranged in three distinct clusters of varying importance. Self-direction, Benevolence, and Hedonism occupy the top of the hierarchy, and Power and Tradition the bottom. Five values create a middle cluster in which differences in importance are small.

Turning first to the mechanism of value importance, the theoretical framework of cumulative continuity predicts that values will be stable, partly because they are important to the individual's identity. Since not all values are equally important, owing to the hierarchy inherent in value structures, the theory implies that stability should vary according to value importance. The rankings displayed in Table 5.1 provide relatively clear expectations in terms of this mechanism. First, as the lowest ranked values, Power and Tradition should display the lowest levels of stability, all else being equal. Second, the three top-ranked values (Self-direction, Benevolence, and Hedonism) should display the highest levels of stability. Predictions are somewhat more difficult to make for the third cluster. Based, however, on the theoretical notion that values are important parts of identity, it seems reasonable to expect that stability will trump change for this cluster as well, but that stability may be somewhat lower than for the top three values.

Turning back to examining the value structure in general, the arrangement of the soldiers' values suggests a structure relatively similar to

what one would expect of young Scandinavians, who tend to display "post-materialist" or "self-expression" values (Halman et al., 2005; Inglehart & Welzel, 2005). This typically northern European orientation is seen in how the Self-Transcendence and Openness to Change dimensions (which encompass, for instance, the Self-direction and Benevolence values), overall, outweigh the Self-Enhancement and Conservation dimensions (Power and Tradition). To understand how this value hierarchy helps constitute the soldiers' identities I also compared these value rankings with those of a representative sample of Swedes.[35] Cross-sample comparison is often the best way to understand the value structures of specific sub-cultures, since cross-cultural agreement on the least and most important values is high (Cohen & Shamai, 2010; Schwartz & Bardi, 2001). A comparison of hierarchies can consequently identify how Swedish soldiers' values and identity construction differ from "regular" Swedes. Such a comparison yielded a number of statistically significant differences (in t-tests with unequal variances), the largest being the soldiers' positive deviations in terms of Conformity and Security (.67 and .35, respectively), and a negative deviation on Universalism (−.40). This illustrates how soldiers, compared with civilians, attach unusually high importance to Conformity and Security, and unusually low importance to Universalism. This higher appreciation of Security and Conformity should be viewed as an expected deviation, signifying the soldiers' attachment to military values and a soldierly identity. "Military values" or the "military ethic" are clearly related to these values, as the military's creed is encompassed by the high importance of factors such as conformity, subordination, collectivism, and stability (Franke & Heinecken, 2001; Huntington, 1957; Malone & Paik, 2007). Concerning Universalism, this value signifies appreciation of equality, fairness, peace, and the well-being of all, which may clash with the overall conceptualization of what military missions entail. Regarding these differences, the soldiers appear to have value hierarchies consonant with a soldierly identity.

Since the statistical data can aptly demonstrate value rankings and differences in value priorities I refrain from making use of the interview material to further establish the soldiers' value hierarchy. The interview material gathered at t=1 does, however, provide a highly similar portrayal.

In sum, the analysis of value structures at t=1 revealed three distinct clusters of values that varied in importance. Self-direction, Benevolence, and

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[35] This sample is drawn from the European Social Survey (ESS, 2012). The ESS data uses a different variety of the PVQ, employing 21 instead of 40 items (see Verkasalo, Lönnqvist, Lipsanen, & Helkama, 2009 for a discussion of the PVQ21). I center the scores of the PVQ21, which renders cross-sample comparisons possible. In comparisons between the soldiers and the ESS sample, the samples are age-cropped (maximum age set to 32) and all-male. This cropping was conducted since both gender and age are known to have effects on value priorities (Schwartz, 2005; Schwartz & Rubel, 2005). A graph illustrating the value differences between the samples is available in Appendix E.4.

Hedonism were the three most important values, and subsequently those for which I expect to see the highest stability. Tradition and Power were the least important, and should thus be significantly less stable. Finally, the remaining values occupied a middle ground. Their levels of stability are consequently likely to vary somewhat, but overall be more stable than the lowest cluster. Additionally, the soldiers' values deviated from those of civilians in a way that suggests the construction of and attachment to a soldierly identity.

5.2 Attitude Structures at Pre-Deployment

My approach to the soldiers' attitudes at the pre-deployment stage differs somewhat from my approach to values. While, in the section on value importance, it was feasible to study the relative importance of each value and subsequently draw conclusions regarding value importance and identity construction, the same is not true of attitudes toward violence. Unlike values placed high in a hierarchy, it cannot be assumed that a positively held attitude is important to an individual's identity. In what follows I consequently place more emphasis on the interview material, with which I try to establish how attitudes toward violence are linked to the soldierly identity. Nonetheless, I compare the soldiers' attitudes toward violence with that of a different sample, so as to illustrate a baseline and confirm the existence of an expected comparatively positive view of the use of force. Using both the survey and the interview material not only illustrates how the soldiers conceptualize their attitudes toward violence, but also reveals whether these attitudes are important to identity. If they are, the cumulative continuity perspective on attitude importance predicts that these attitudes will be stable across the deployment.

In the comparison of the soldiers' attitudes with other samples, however, no representative sample of Swedes was available. Instead, the university students on which the items were pre-tested serve as a group for comparison. Although a representative sample would have been preferable, it is relevant to establish whether attitudes toward violence differ between these two groups. If, for example, the soldiers are less supportive of war violence than the students, this might indicate that the items are in fact reflecting some other construct. The logic is that those who have self-selected into the military, and for whom fighting wars is an important part of their identity, should be more positively inclined toward this attitude dimension (Hedlund & Soeters, 2010; Weibull, 2012).

Table 5.2 *Attitudes toward Violence in Student and Soldier Samples*

Dimension	Soldiers		Students			
	Mean (SD)	Min.–Max.	Mean (SD)	Min.–Max.	Diff.	t-test
War Violence	4.7 (.91)	1.6–6.8	3.0 (1.01)	1–6.7	1.7	19.59***
Penal Violence	4.1 (.94)	1.8–6.8	2.9 (.94)	1.3–6.6	1.2	13.62***

Note. Soldier N= 294 (approximately), student N =221 (approximately). T-tests with unequal variances.

As Table 5.2 shows, expectations regarding possible differences in attitudes toward violence are confirmed. The soldier sample is significantly and substantially more positive toward both forms of violence, with the largest difference score (1.7) concerning attitudes toward war. The soldiers' median values were also markedly higher than among the students across both dimensions, being especially high for war violence (4.75 versus 2.86 for the students). The soldiers' means are thus not affected by a few extreme values, but reflect a generally more positive evaluation of violence. These findings are in line with results from studies on U.S. soldiers, which have found that career-oriented soldiers have more positive attitudes toward the military and war than comparable civilians (Bachman et al., 1987; Hammill et al., 1995).

In the student sample the differences in evaluations of the two forms of violence are minuscule, showing that they are viewed as equally legitimate (or, illegitimate). The soldier sample, however, placed special emphasis on war violence as the most approved of form of violence. This is in line with theoretical expectations of attitudes toward war being important for the soldierly identity. In such an interpretation, soldiers value this form of violence because war-fighting and soldiering are their raison d'être, and must thus be valued in order for self-esteem to be high. Although penal violence is viewed less favorably, the relatively high appreciation of this form of violence is likely related to a stronger notion among the soldiers, in relation to the students, of institutionally-based violence being legitimate. It is also likely that the soldiers evaluate this type of violence relatively positively because they associate themselves with the state to a high degree.

The interview material gathered at t=1 reveals a similar depiction of the soldiers' attitudes toward violence: opinions are relatively favorable and closely linked to the soldierly identity. The interviews demonstrate that these attitudes are the product of four themes: (1) a positive conception of the military and military life; (2) a view of violence in war as a legitimate force

for good; (3) the idea that combat would define them as "true" soldiers; and (4) high levels of trust in the benevolence and legitimacy of state institutions.

Concerning opinions on the military and military life, the majority of soldiers are attracted to the structure, order, and camaraderie of military life, as well as its positive effects on "character". Typical phrases concerning the importance of fellowship and camaraderie include "… we have a damn good fellowship […] here it feels like we are all part of a big family in some way" (Soldier 3), and that "… it is one of the most important things, one of the most important" (Soldier 2). Concerning order, structure, and hierarchies, the general consensus is that these are, overall, positive factors that increase efficiency and resolve: "I like the structure, and that it is physical […] it's simple, somebody says 'do that', you answer 'yes'" (Soldier 13), and "It's a good thing *[participatory decision-making]*, but that everything has to be super-democratic, that everybody needs to join in and talk…that's not how you get an efficient structure" (Soldier 11). The intensity of this need for order and structure differs, however, between those who see it more as a personal and institutional good and those who feel that these types of structures are of broader importance: "People need to get in line more in society […] I think more people should do military service, because you get nervous when you are out on the town and you see all the damn idiots. As I said, the civilian darkness" (Soldier 6).[36] Overall, most of the soldiers perceived the military profession and their life in it as being something of a different world, cut off from society:

> Most of us have similar values…that is, we think more or less the same regarding both how society should work and how it should be inside the gates *[of the garrison]*; this is its own little society where you follow the rules and…well, behave properly, to put it simply. Which…you get a contrast when you step outside the gates […] You leave for the weekend and just… 'Oh, this is what it's like in the world'" (Soldier 5).

Strong emphasis is also placed on the positive effects of military life on character. This positive evaluation seems to be based on its importance for testing the individual's limits, both physically and psychologically. A representative statement is that: "Risks and challenges are important in order to take the next step as a person" (Soldier 1), oftentimes followed by comparisons with civilian life: "… *[in the military]* you always do

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[36] "Civilian darkness" is a term used—at least openly—by only a few of the interviewees. The term signifies what some feel are the negative aspects of civilian society. Typical content concerns a lack of politeness and respect, too high a regard for materialism, and a lack of "toughness" in the form of complaining about what these soldiers deem to be minor incidents (cancelled train services being of particular concern).

performance-based things, you feel good afterwards, you feel that you were able to push yourself to the limit, something which you couldn't do as a civilian" (Soldier 2). This theme of the importance of testing limits is strongly related to the motivational theme of risks, challenges, and excitement, which will be discussed further in the section on person-environment fit.

Turning to the actual use of violence, the interviews also revealed an overall relatively "positive view" of the use of deadly force, in line with the statistical results. This perspective appeared to be founded on a strong conviction of being the "good guys" who are there to help and that force is thus legitimate, and the idea that the use of force was not only the ultimate test, but also defined them in terms of combat infantry (themes two and three). A related topic during the interviews was the opinion that the use of deadly force in self-defense was almost completely unproblematic.

The conviction that violence would be used for the side of good was one held by practically all of the interviewees. Although not all believed that they themselves or ISAF could do much for Afghanistan's future, the majority of interviewees described the intervention in Afghanistan as something positive and the eventual use of violence as protecting this good: "When it comes to Afghanistan, what I think is that violence will speed up the process—which is a tragic thing—but it will speed up the process of making things normal… I hope" (Soldier 2). Many also mentioned using violence for good in more concrete terms, focusing on perceptions of themselves as those who do good:

> If violence is used against us, if anyone shoots at us for instance, then we have to protect ourselves; alternatively if someone used violence against the populace and things like that, against those who cannot protect themselves. That is why we are there, to support and help the civilian population and their security forces (Soldier 4).

Even more important than conceiving of themselves as the "good guys" was the perception that combat would define them and test them as combat infantry. Interest in combat was most clearly outspoken when the interviewees were queried regarding their interest in experiencing Troops In Contact (TIC), and when their motives for international deployment were probed. As was touched upon earlier in this section, seeking risk, excitement, and physical and psychological challenges was important to the soldiers. Practically all soldiers agreed that TIC was the ultimate manifestation of these factors, expressed through statements such as: "I have an itch to end up in a TIC: that is the test! I want to know what it is like to be in battle. I almost see it as my goal with the mission" (Soldier 9) and "This is what we've been practicing the most, what we've been practicing during military

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service and these two years. As soldiers" (Soldier 10). To the direct question of whether a TIC would amount to the final test of their prowess as soldiers, practically all responded in the positive: "… it's a part of the soldierly profession, I'd say. For a combat infantry soldier, and we are a combat infantry company normally, then it's… I don't know if I'd call it nice, but it's pretty important to know how you will function in battle" (Soldier 14). [37] The overall consensus was that combat was a decisive factor for their self-image as true and tested soldiers.

Discussing the topic of violence in self-defense, practically no soldiers expressed any qualms or moral dilemmas, instead offering the view that when it boils down to "me or him" (or one's comrades) the use of violence is called for. The following two quotes are illustrative in this regard: "I see no problems in it *[using violence]*, at all. They want to kill me, so I want to kill them. I guess it's the way you have to think, otherwise it wouldn't work" (Soldier 6), and "I would not hesitate; the way I feel now… to, well, protect us and our lives and the lives of others, with the use of ultimate force" (Soldier 5). Although such a perspective cannot clearly be classified as being one that endorses violence in a positive sense, it should be viewed as demonstrating a clear stance of violence as a natural and legitimate reaction. Although "unproblematic" was the dominant response in discussions on violence in war, this should not be interpreted as the soldiers not having thought about what the use of violence would mean for them, in terms of consequences:

> I think that my way of looking at it is…well, maybe that I get this image in my head when I have to use it *[violence]*, it's like… then I think about these cases I've seen with Taleban beating women and stoning women and older men and anyone who doesn't think like they do. Then I feel that… I mean, the first thing I think about then is not going to be "Shit, there's another person, I wonder how he's doing and what he's feeling". Because then I just think it will be… you, know, it will be like "he's shooting against us, let's shoot back" and if we're lucky we'll stop some trouble. But then, afterwards, then I'm sure those thoughts will come: "What the fuck, what have I done? What happens now?" (Soldier 3).

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[37] The "normally" used here represents the soldiers' expectation of being stationed in Afghanistan mainly for guard and escort duties, although they were combat infantry by training. When actually deployed, these soldiers had duties that were, however, a mix of combat infantry tasks and guard and escort duties.

Additionally, although the vast majority of soldiers were interested in experiencing TIC, no one expressed great enthusiasm at the prospect of offensive operations, and most felt that the use of violence should be seen as a last resort.

Discussion of other forms of violence, such as the interpersonal use of force, shed further light on how the soldiers conceptualized and also legitimized the use of collective and institutionalized force (theme four). Asked to explain the difference between institutionalized and interpersonal types of violence, answers consistently focused on voluntary participation, formalization, and rules. In some instances, the theme of voluntary participation was expanded to include other forms of violence, with the logic that volunteering negated any negative aspects of violence: "With regulated boundaries I don't see a problem" (Soldier 13), and "But then I also think that if football hooligans want to fight each other, sure, do that, but where no one else can get hurt and don't destroy anyone's property. Then it's all on the same terms" (Soldier 11). The idea that violence is qualitatively different when rules are formalized and participation is voluntary is presumably widespread beyond this sample. It would appear, however, to mark a dividing line between what forms of violence are legitimate and which are not. This sheds some light on the soldiers' relatively positive views on attitudes toward war and penal violence. The soldiers clearly conceive of these two dimensions as being formalized and rule-bound. This sets these forms of violence apart from others and infuses them with legitimacy.[38]

When their attitudes toward penal violence as such were examined, the soldiers maintained positive views of this type of violence as well. It is worth mentioning at the outset that of 14 interviewed soldiers, three maintained a goal to attend police academy at some future date. This is not only likely to affect how these soldiers view the police, but also reflects their relatively positive views toward the justice system. As was mentioned above, many members of the sample tended to favor order, structure, and rules, and equated such a state of affairs with the justice system. Overall, few interviewees saw any major problems with the use of police force, within some boundaries: "There's a lot of violence out there and, as I said, I think that's unnecessary. But if it's violence related to—what should I call it?— the legal frame, then I don't see anything wrong with it" (Soldier 4), and "…it's the same with the police *["it" referring to violence to do good]*.

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[38] This separation of formal and informal violence also bears clear signs of adherence among the soldiers to the concept of "military masculinity" (Higate, 2003; Hopton, 2003). Hopton (2003) has argued that although military masculinity carries with it properties of "hegemonic masculinity" (such as violence, domination, stoicism, and heroism; Connell, 1995) the military and the state have always propagated a different type of masculinity, in which self-discipline, rules, and control decide when violence may be unleashed. In essence, although violence is encoded as masculine, the true soldier exerts control over these forces. One clear sign of this military masculinity among the soldiers is that they have no objection to violence as long as formalization and control are in effect.

There are those who commit crimes and stuff like that, who tread on other people's lives and destroy their lives, and then of course it's OK to use violence" (Soldier 2). Much as the soldiers viewed ISAF and the Swedish mission as institutions that used violence for good, so too did they view the police and other penal institutions as legitimate wielders of institutionalized force.

In sum, evidence gathered from the interview material suggests support for the notion that the soldiers' identities and self-concepts are tightly bound up with their comparatively positive attitudes toward war, and to a certain extent with their attitudes toward penal violence. This intermingling seems based both in the idea that the military as an institution and military life itself constitute a set of strong values (order, stability, respect) to which one wants to adhere, and, second, that combat will be the defining moment for this soldierly identity. In addition, they view the state as a legitimate wielder of force through the conceptualization of the state (and themselves) as the "good guys". A strong appreciation of the state would appear to be an important factor in granting the institutionalized and formalized types of violence with positive value. Taken together, this paints a portrait of the peace soldier as being someone who—in terms of attitudes toward violence—relies heavily on trust in the benevolence of the state's monopoly of violence, in combination with a firm idea of being on the side of what is morally right. Formalization, rules, and a clear mission in terms of helping, construct an image of violence that is relatively positive. Relating these findings back to the theory of stability and change in attitudes entails establishing support for the notion that attitudes toward violence are important for the soldiers' identity. Consequently, we should expect high levels of stability across the deployment.

5.3 Motives for Deployment

I turn now to an examination of the soldiers' stated goals and motives for deployment. This analysis is not only the first step in evaluating the person-environment fit mechanism proposed by the theory of cumulative continuity, but is also instructive for an understanding of the motivational content the soldiers place in the different values. I approach the person-environment fit mechanism by first studying the soldiers' stated goals and motives at the pre-deployment stage. These motives and goals are subsequently compared with the soldiers' experience and sense of goal-fulfillment at t=2. If this mechanism is at work, attitudes and values related to unfulfilled goals and motives should exhibit lower stability than those with higher levels of fulfillment. Since goals that refer to both values and to the soldierly identity/attitudes toward violence appear simultaneously in the interview material, I analyze these variables in parallel. Since no statistical data were

gathered to this end, I rely on the interview material and present the observed goals and motives in the form of identified themes.

In terms of values, the goals and motives most often mentioned may be linked to the values of Benevolence, Self-direction, Stimulation, Universalism, and Achievement. In terms of attitudes toward violence, the majority of soldiers mentioned factors such as testing one's military skills and finally knowing—through the experience of combat—whether one was a "true soldier". Most were clear on their wish to engage in combat to these ends.

Military Camaraderie: "If they go, I go"
The most prominent theme in terms of deployment motives touches on both the value of Benevolence and the soldiers' attachment to their military identity: the sense of military camaraderie. Benevolence was identified as the most important value in the sample, and was invoked in the interviews with reference to loyalty toward one's comrades and the fellowship the soldiers had built over the years.[39] A relatively prevalent answer among the soldiers was that if one soldier from the company was going, so were they: "My most important motive is another one *[the interviewee here refers to a previously mentioned motive]*, and that is camaraderie. Why should my comrades go out there if I don't?" (Soldier 13), and "A lot of it is about that you go with people that you know, and then you get some kind of feeling— what should I call it—'if they go I go'. You don't want to leave anybody hanging you know?" (Soldier 4).

That military camaraderie is important for the soldierly identity too emerges clearly from the above sections on attitude importance. The majority of soldiers pointed out the strong nature of their military bond, and how they viewed their group as separate from surrounding, civilian, society. As one soldier put it, maintaining cohesion and camaraderie was "one of the most important things, one of the most important" (Soldier 2). It thus appears that the deployment may serve as a way for the soldiers to maintain the camaraderie they hold dear.

This type of motive differed from many of the others that were invoked. As the above quotations imply, the high value placed on Benevolence and camaraderie served, to some extent, as a form of negative driver: a value that would be violated if the soldiers chose not to deploy.

Tests and Risks: "You need to be able to push yourself to the limit"
Positively articulated motives include the attainment and pursuit of "tests" and risks. This theme was articulated by the majority of the soldiers as the most or second-most important. Within this theme, the soldiers saw

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[39] The soldiers interviewed had—almost all of them—spent some three to four years in the same company.

deploying to Afghanistan as an opportunity to test and challenge their physical and psychological limits, to test their soldierly skills and show their value as soldiers, and to experience adventure and risk. The test, the risk, and the adventure were stated both as separate motives and (most often) as a package. In terms of values, these motives are most closely related to Stimulation and Achievement.

Regarding testing one's boundaries, the following quotes are representative of the soldiers' general sentiment: "The risk on the mission is also important to me. That's when you get more excitement, more of a challenge. In one way, going on a mission is the ultimate test of one-self" (Soldier 10), and "… you need to be able to push yourself to the limit—I mean physically and psychologically—and it's important to test those limits" (Soldier 12). This motive concerning challenges and pushing boundaries was the most prominent one, but it was followed by, and closely related to, the test of soldierly skills. These two motives can be linked to both the Stimulation and Achievement values, in that the soldiers seek to show and test their abilities under challenging and hazardous conditions. The test of soldierly skills is also, however, related to their identity as soldiers. This test was formulated in terms of finally knowing whether you were actually cut out to be a soldier:

> You want to see if you can actually do your job. I'd like
> to continue within the military and I thus believe that if I
> am going to stay in the military then at the least I have to
> know if I can do this for "real". Otherwise I think I have
> no place in the military (Soldier 4).

Another Achievement-oriented remark is: "… just, you know, an overall feeling, that you get your shit together and resolve the task at hand and you—if you can do it—then you can be a little satisfied and a little proud of yourself, that you did something" (Soldier 5). These accounts appear to tap into two different types of "tests", oriented toward character and skills respectively. Further probing revealed that this motive was important not only for the deployment, but most soldiers stated that they found excitement, adventure, and challenging themselves to be important aspects of their lives.

The importance of excitement, risk, and the test of being a true soldier was also articulated when attitudes toward violence were discussed. To some extent, this theme was covered in discussions on the importance of attitudes toward violence to the soldiers' identity, but it deserves additional mention. Practically all soldiers agreed that combat was the ultimate manifestation of tests, risks, and excitement. This was expressed in statements like: "I have an itch to end up in a TIC: that is the test! I want to know what it's like to be in battle. I almost see it as my goal with the mission" (Soldier 9), and "You want something *[combat]* to happen because you want to challenge yourself.

And you want to see what you can take, how you will perform" (Soldier 11). A host of similar statements demonstrate that the search for risks and tests are related not only to certain values, but also to the soldiers' military identities.

Self-Development: "There's so much to do and we have so little time"
A third prominent theme concerned development and growth of the self, most often through "seeing the world", experiencing an adventure, and/or searching for a unique experience. This motive seems most clearly linked to the values of Self-direction and Stimulation. One soldier formulated this as:

> Especially now when we're getting close to deployment and you start to think about that you're going, then I've somehow started to think that I want to do something with my life. And… this feels like an opportunity to do something with my life. There's—how should I put it?—it feels like there's so much to do and we have so little time here (Soldier 3).

This type of individualistic motive was almost as pronounced as the desire for risk and excitement, and emerged even more clearly when soldiers were prompted regarding how deployment related to their sense of duty. Very few soldiers saw going on the mission as something they did out of a sense of service or patriotic loyalty, but as a choice for their own benefit. One such benefit was stated as forms of personal growth: "I'm doing this mainly for myself, to see how I might grow as a person. And to actually see something of the world. That's why I'm going" (Soldier 6). That this motive is not only related to experiencing novelty (Stimulation) becomes clear from the soldiers' tendency tend to couch their statements in phrases about wishing to explore and understand the world: "I think my eyes will be opened to new cultures, new countries and things like that. More than if you just travelled. You can travel for half a year, to a tourist paradise you know, but I don't think you'll get as much out of that" (Soldier 10). Personal growth and an evolution of the self through broadened horizons was repeated by many: "I think it *[the mission]* can be positive in that you'll become a little more aware of what the world looks like. People are maybe a little too deep into their own bubble in such a prosperous country as this one" (Soldier 14), and:

> I have an itch to go out there and see what it feels like […] I mean, we're going to one of the most impoverished countries in the world, you know? How does stuff work there? Can these people still be happy, you know? How does it work for them? […] Maybe I will learn to not be

so spoiled. At least that's what I hope I will bring back
(Soldier 3).

This theme consequently seeks personal development and growth, as well as new experiences of exploring the world. These motives do not seem to have a strong relationship with attitudes toward violence, and are instead mainly linked to the values of Self-direction and Stimulation.

Altruism: "If not me, who?"
Altruistic motives were also present to a high degree. Although a minority of respondents held that helping Afghanistan and the people there was their primary goal, this motive surfaced as one of the top three in a majority of interviews. This motive is linked to the value of Universalism and its focus on supplying help to the needy. Very few interviewees felt that they could personally make a difference to people's lives in Afghanistan, but they were still driven by a desire to try to help: "… but I think that as long as I can feel that I'm contributing something to someone, then I'm happy. If I can make it safe for a few people to live there, or anything like that, then that's better than doing nothing" (Soldier 13). A second soldier voiced the common perspective that somebody had to do something:

> …and then also maybe that you can help a little bit you know? Not that you can create peace on earth or in this case Afghanistan, I understand that of course. But…maybe I can do more down there than I can from the couch watching TV. At least I hope so. […] If you can do that then I think that's good, like a really nice bonus (Soldier 7).

A mix of the more individualistic and the more altruistic motives was also a common denominator. One relatively typical combination of many of the motives described above is revealed in the words of the following soldier:

> It's something I wanted to do since I did military service *[go on a mission]*, since it feels like you want to test yourself in some way, but I also want to go there and help. It might sound like a cliché, but that's how I feel […] *[I want to help]* people in general, like. People who are worse off than us. It's like…well, it feels like you want to do something, it feels like…well, after military service you start to think about different stuff than what your civilian friends think about. That they're focused on small problems, everyday problems. And… when they

talk about "why are you going?", then I just ask them "if not me, who will?" (Soldier 11).

Military Life: "We have our own little society"
Discussions in the sections on attitude and value importance touched on the importance and the soldiers' appreciation of military life. This approval of order, structure, and rules was linked to the importance the soldiers attach to the values of Security and Conformity (section 5.1). These two values cannot, however, be linked directly to any stated motives for deployment. In terms of person-environment fit I do not, however, believe that these values will exhibit any comparative instability. Security and Conformity were linked to military values and to the soldiers' appreciation of military life; in a way they represent the hallmark of military institutions. Since the mission environment is even more militarized than the soldiers' home environment, the deployment is consequently likely to fit these values well. This reasoning applies to attitudes toward violence as well. We saw in the preceding section on attitude importance not only that attitudes toward violence were important parts of the soldiers' identities, but also that these attitudes had a strong footing in a positive evaluation of military life itself. Consequently, the enhanced military environment of the deployment should also provide a good person-environment fit concerning attitudes toward violence.

From the above analysis, a number of factors are discernible that will need to be present on the deployment in order for the soldiers to experience good person-environment fit. The goals to be fulfilled were articulated by the soldiers as experiencing camaraderie (related to Benevolence and appreciation of military life), experiencing risks, adventure, and challenges (Stimulation and Achievement, as well as the test of soldierly skills), personal growth and new perspectives (Self-direction and Stimulation), and a wish to help those less fortunate (Universalism).[40] It was also argued that, although the Security and Conformity values were not mentioned in direct relation to any motives for deployment, these values are likely to have good person-environment as well. Chapter 8 will revisit these stated goals (and assumptions) and evaluate levels of person-environment fit in relation to observed levels of stability and change.

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[40] It is noteworthy that the motives expressed by the interviewees are in line with what has been found in previous research. Several studies have mapped the motives voiced by (primarily) European soldiers who choose to go on PSO-type missions, and have identified very similar motives (Battistelli et al., 1999; Hedlund, 2011; Johansson & Larsson, 2001; Juvan & Vuga, 2011; Stabell, 2012; Thompson & Gignac, 2001; Tomforde, 2005). Accordingly, the Swedish peace soldiers appear to be similar to their counterparts in other Western European nations in terms of motives and goals.

6.   Change and Stability in Values

Using the survey material, this chapter examines change and stability in values as a consequence of the deployment to Afghanistan. The first section addresses the specific variables proposed by theory to predict change and stability in values. This entails testing hypothesis 1 on combat exposure and change, and hypotheses 5a to 5c on the effects of personality traits. These hypotheses are tested by means of multivariate regression analysis. The regression analyses demonstrate what specific variables affect change and stability, but have little to say about the degrees of change and stability present in the sample. Having established how individual-level variables relate to change and stability I, consequently, examine levels of value stability across the PSO deployment.

   In this second section, several statistical techniques are utilized to compare value scores between t=1 and t=2. Studied here are, thus, the degrees of value stability present at the individual and sample levels between pre- and post-deployment. Longitudinal correlations are analyzed to establish rank-order stability, intra-individual differences in change are approached via the Reliable Change Index (RCI; Christensen & Mendoza, 1986; Jacobson & Truax, 1991), and ipsative stability is studied using several value profile variables. This amounts to testing hypothesis 3, which proposed that value scores would be highly correlated across the deployment. An examination of the causal mechanisms behind value change and stability follows in Chapter 8.

6.1 Values, Combat Exposure, and Personality Traits[41]

I begin the analysis of the survey material through examining the effects of the main independent variables on change and stability in values. This amounts to examining hypothesis 1 and 5a to 5c. Hypothesis 1 concerns combat exposure, and posits that higher levels of exposure correlate positively with change in values. Hypotheses 5a to 5c concern personality traits, and suggest that individual soldiers' levels of Emotional Stability, Conscientiousness, and Openness to Change predict change and stability.

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[41] Note that the results from the analyses of change and stability in values have previously been published in Sundberg (2015).

Specifically, higher scores on Emotional Stability and Conscientiousness are expected to predict stability, and higher scores on Openness to Change to predict more change. The analyses also contain a set of control variables, such as age and previous mission experience, to control for confounders (scoring is available in Appendix B.4).

The analysis is performed with multivariate regression, using both logistic and OLS models. Structural Equation Modeling (SEM) would have been preferable, owing to this method's superiority in handling measurement error (Acock, 2013). However, when the panel dataset is used the ratio of parameters-to-observations is too high for such models to converge satisfactorily.[42] Multivariate regression with composite variables as indicators means somewhat higher levels of measurement error, but is still a satisfactory and commonly applied method of analysis.[43] In what follows I will first examine the predictor variables' effect on change in general, i.e. whether change occurred in the soldiers' value systems overall. In a second step I also examine how the predictors fare in an analysis of changes in specific values and directions.

6.1.1 Changes in the Value System

In an analysis of value change, because of the multifaceted nature of the concept, it is necessary to use several different dependent variables to measure change. A total of five different dependent variables are used below. Each captures a different aspect of the phenomenon of change. In all models except Model 4 (profile stability) higher coefficients signify more change.

In Model 1, change was measured using a dichotomous variable: whether a soldier has experienced change on one or more values in the value system as a whole when comparing pre- and post-deployment scores. This variable thus captures the probability of seeing any change in the full system of values (coded as 1 if change occurred). "Change" in individuals was identified by the Reliable Change Index method (RCI; Christensen & Mendoza, 1986; Jacobson & Truax, 1991). For each individual's value scores, the RCI calculates an algebraic difference score (between t=1 and t=2) that is then compared with the distribution of change scores expected if no change had taken place. Following Robins and et al. (2001), I classified an individual as having changed if the probability of observing that individual's value change score was less than 5% (i.e. using a 95%

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[42] Although it is disputed how many observations per parameter are necessary for solid analyses, the number of observations in the panel dataset and the number of variables employed do not allow even a majority of the models to converge.

[43] The composite variables in the pre-post analyses below produce practically the same findings as when Structural Equation Modeling (SEM) is used, which also implies that the composite variables function well.

confidence interval). To account for measurement error I employed reliability scores as reported by Schwartz (2005) in calculating the RCI[44].

The dependent variables in Models 2 and 3 measure two types of magnitude of change. Model 2 uses the additive number of reliable changes in values per soldier. The theoretical distribution of this variable is 0 to 10, with the sample containing a minimum score of 0 (denoting a completely stable value structure) and a maximum score of 8 (a highly volatile structure). In Model 3 the dependent variable captures the additive total of difference scores across all values in the system per individual (minimum score .9, maximum 12.1). This variable does not take into account whether a value saw reliable change, but only sums the value difference scores between t=1 and t=2.

Dependent variables in Models 4 and 5 capture two varieties of value profile stability across the deployment. Model 4 uses a profile stability correlation (*r)* that captures variation in profile shape between t=1 and t=2. This measurement captures change and stability in the individual's value hierarchy. The score is calculated as each individual's Pearson's *r* correlation between values at t=1 and t=2. This variable has a distribution of −.47–.98, with a score of .98 denoting a highly stable profile. Model 5 uses a D^2 variable, which captures profile variation across time in shape, elevation, and scatter (Cronbach & Gleser, 1953). It thus captures a broader level of profile difference across the deployment than *r*. This variable has a min.–max. distribution of .2–31.9. A more in-depth explanation of the computation of these variables is available in Appendix C.1.[45]

The independent variables used are combat exposure (CES) and the Big Five indicators. The Big Five personality traits enter the regressions as ordinal variables derived from their index scores. The coding of the combat exposure measure is more complicated as a result of theoretical expectations of its effects. Post-traumatic growth (PTG) theory predicts that a shock to schemas should be expected only either after cumulative exposure reaches a certain threshold or as a consequence of a severe experience (Powell et al., 2003; Tedeschi & Calhoun, 2004). For this reason, a linear dose-response relationship between CES and change was considered inadequate to capture the theoretical expectations of how shocks can affect schemas. Instead, the exposure variable in the analysis is classified as follows: 0 if below, and 1 if above, the mean (below or above 8.8). This cut-off point was arbitrary, since no guidance was available from previous research. Control variables that entered the regressions were age, sex, socioeconomic background,

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[44] Details on the calculations of the RCI are available in Appendix C.1.

[45] A full correlation matrix of the dependent variables is also available in Appendix B.5. I chose not to analyze the D''^2 and D'^2 scores both for reasons of brevity and since D''^2 and profile stability *r* are correlated at .99. The results for the predictors in Table 6.1 are also, however, similar when these dependent variables are used, in that the personality traits are the strongest predictors (and in the expected directions).

educational level, military educational level, and previous mission experience. The coding of these variables is detailed in Appendix B.4. Results for the five models are presented in Table 6.1.

Table 6.1 *Multivariate Regressions on Value Change*

	Model 1 [a]	Model 2 [b]	Model 3 [c]	Model 4 [d]	Model 5 [e]
CES	.99*	.33	.33	−.01	−.04
Openness	.31	.3*	.34*	−.02	.89**
Emotional stability	.09	−.26*	−.35**	.05**	−.6*
Conscientiousness	−.34	−.28**	−.21	.05**	−.7*
Agreeableness	.31	.14	.1	−.002	.17
Extroversion	.11	−.03	−.06	.01	−.07
Age	−.31	−.1	−.09	.001	.24
Sex	−.2	.06	.53	.06	−.34
S-E background	.06	−.05	−.03	.01	−.16
Education	−.55*	−.2	−.35*	.02	−.38
Military education	.18	−.08	−.03	−.03	.05
Experience	−.06	.14	.23	−.007	.64*
Adj. R^2/Pseudo R^2	.09	.01	.02	.05	.04

Note. Matched sample used, N=129. *** p<.01,** p<.05, * p<.10. All coefficients are unstandardized.

[a] Dichotomous indicator coded as 1 if one or more values showed reliable change. [b] Indicator constructed out of the total number of values that showed reliable change. [c] Indicator constructed out of the total difference score across all values. [d] Value profile stability calculated with *r*. [e] Value profile stability calculated through D^2.

The results yield mixed support for the hypotheses.[46] Starting with combat exposure, this variable has a statistically significant effect (at .10) only in Model 1, and lacks any significant relationship with change in Models 2–5. Combat exposure consequently fails to affect the magnitude of change (Models 2 and 3) and the intra-individual ranking of values (Models 4 and 5). These results do not appear to be the product of the specific coding of the CES variable. A series of alternative specifications, such as its raw score and cubic and log transformations were also examined but functioned no better as predictors.

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[46] Since the control variables showed no consistent results across the models, I refrain from any deeper analysis of the sporadic effects found.

Although statistical significance was weak, the effects in Model 1 were relatively substantial in terms of magnitude. Simulation models demonstrated that the probability of a soldier experiencing change in Model 1 when all explanatory variables were held at their mean and CES at 0 was .75. [47] A change in combat exposure from below to above the mean (0 to 1) increases the predicted probability of change to .89. Thus, although the probability of experiencing change is already high at .75, increasing combat exposure has a fairly strong effect. In more concrete terms, this means that soldiers that are exposed to above average levels of combat are about 20% more likely to experience some level of change in their value system. Nonetheless, this effect was found at the .10-level, and only on this broad measurement, which captured whether any magnitude of change occurred in one or more values. Support for hypothesis 1 should thus be classified as weak at best.

An important caveat should be noted, however, concerning the testing of this hypothesis. Levels of combat exposure experienced by the soldiers studied must be classified as varying only within a low range. This may have consequences for the interpretation of the results in relation to the theoretical propositions concerning the effects of combat exposure. I address this caveat in more detail at the end of this chapter.

Turning to the other independent variables, the Big Five personality traits produced stronger and more consistent effects. While traits lacked any effects on the dichotomous measure of change (Model 1), Openness to Experience, Emotional Stability, and Conscientiousness were relatively consistent predictors across the remaining four models. Increases in Openness predicted change in three out of four models, Emotional Stability predicted stability in four models, and Conscientiousness predicted stability in three models. In comparison with the other variables in the models, these three traits outperformed all others. Results were also in line with the predictions of hypotheses 5a to 5c.

Higher levels of the trait of Openness to Experience predicted elevated levels of change in the form of increasing magnitude (Model 2 and 3) and one of the forms of profile stability (D^2, Model 5). These results are supportive of hypothesis 5a. In applied terms this means that the more individual soldiers are inclined toward inviting novelty and new experiences, the more likely they are to experience changes in values as a consequence of deployment.

In terms of Emotional Stability, higher scores on this trait predicted stability in values across Models 2–4, supporting hypothesis 5b. Consequently, the more emotionally stable individual soldiers are, the

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[47] All analyses and simulations carried out to demonstrate the substantiality of results were conducted using the Stata plug-in Clarify (Tomz, Wittenberg, & King, 2003) or the prvalue function (Long & Freese, 2014).

smaller changes in values they will experience on deployment. Theoretically, this effect was thought to be dependent on a personality that has achieved, or which strives toward, a consolidated identity. These individuals were also expected to be less sensitive to stimuli, and thus more prone toward stability.

Finally, hypothesis 5c posited that higher levels of Conscientiousness would predict stability in values. This hypothesis also received support, since higher levels of this trait predicted increased stability in Models 2, 4, and 5. Consequently, soldiers with highly conscientious personalities experience less change in values as a result of deployment. Theoretically, this is thought to be an effect of a stable and orderly self, as well as a hardy personality that is relatively insusceptible to stimuli.

In sum, the above analyses found only very weak evidence for the hypothesis that increasing combat exposure would predict change (hypothesis 1), and more substantial support for hypotheses 5a to 5c on the effect of personality traits on change and stability.

6.1.2 Changes in Specific Values and Specific Directions

A second step in examining the determinants of value change is to study changes in *specific values* and in *specific directions*. It is possible that, for instance, combat exposure affects specific values more than the overall value structure: something that would not be visible in the above analyses. To investigate whether this was the case, I ran a series of multivariate regressions similar to the ones specified for Table 6.1, but with dependent variables representing (1) changes in specific values, and (2) changes in positive and negative directions for each specific value. These regressions are not displayed in the tables owing to the number of models, but are instead summarized in the text.[48]

In the analysis of changes in specific values (but whatever direction) the same independent variables and control variables as in Table 6.1 entered the models, regressing on dichotomous change variables (0= no change and 1= change) based on the RCI. These models capture whether any reliable change had occurred in each value. In these models none of the independent variables displayed strong or highly consistent results. Combat exposure predicted changes only in Conformity (b=1.3, p<.10); Emotional Stability predicted stability in Achievement (b=−.43, p<.05) and Stimulation (b=−.42, p<.10); Conscientiousness stability in Benevolence only (b=−.56, p<.05); and Openness to Experience change in Universalism (b=.57, p<.10) and change in Hedonism (b=1.97, p<.05). The control variables had few and inconsistent effects, and Extroversion predicted stability in Hedonism (b=−1, p<.10), and Agreeableness change in Universalism (b=.8, p<.05). Thus, combat exposure did not exert consistent and strong effects in this type of

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[48] Tables are available on request.

analysis either. The effects of the personality traits were somewhat more consistent and the signs as hypothesized.

In the second step, I studied changes in specific directions for the ten values. Again, independent and control variables from Table 6.1 were utilized, but the dependent variables now registered reliable changes per value in positive and negative directions. Each value was thus studied as two variables: reliable increases and decreases, respectively, in appreciation of Tradition, for example. For a few value types this entailed a very low number of observations of change and subsequent failures in model convergence. Again, however, combat exposure failed to show any strong predictive capacity. The CES variable predicted only negative change in Benevolence (b=1.5, p<.10) and positive change in Stimulation (b=1.3, p<.10). Personality traits did not perform as well in these analyses as in the previous two approaches, but Conscientiousness and Emotional Stability (mainly) continued to exert their stabilizing effects. Such effects were, however, found in fewer regressions than in the preceding analyses. Again, the control variables displayed few and inconsistent effects.

In more concrete terms, the level of combat exposure experienced by the deployed soldiers appears not to have had any strong effect on changes in specific values, or in specific directions. Personality traits, however, exhibited somewhat more consistent results in inducing change and stability in values among the soldiers.

6.1.3 Interaction Effects

Although conditional hypotheses were not specified in the theoretical chapter, it may be of interest to investigate whether the effects of combat exposure depend on an individual's personality traits. Combat exposure may, for instance, exert effects on change only in the presence of certain personality trait configurations. To study such possibilities, I specified interaction terms and divided the sample into different sub-samples for further analysis. In the interaction models, I first created new personality variables, splitting each trait into Low, Medium, and High conditions. The Medium condition (score of 2) was calculated as one standard deviation above or below the sample's mean score for each trait, and the Low (1) and High (3) conditions any rating below or above that score respectively. This variable was then multiplied by the dichotomous combat exposure variable to create a multiplicative interaction term that entered the regressions together with each variable component (Brambor, Clark, & Golder, 2006).[49]

The traits of Openness and Emotional Stability showed no significant interactions, which means that neither the effects of combat exposure nor these personality traits are dependent on each other. The interaction term for

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[49] Tables containing the interaction and component terms are available in Appendix E.

Conscientiousness*CES was, however, significant in Models 3–5. In these models, the two component terms (CES and Conscientiousness) had negative and significant signs, while the interaction term was positive. Consequently, in the condition of low exposure (CES=0), Conscientiousness has a stabilizing effect, and in the condition of Conscientiousness equaling 0 (which is not substantively possible), combat exposure decreases value change. Interpreting these results in substantive terms, it would seem that the identified stabilizing effect of Conscientiousness (in the models without interactions), is reduced when in the condition of higher levels of combat exposure. Splitting the sample in two and creating sub-samples of high and low combat exposure partially confirms these results, since increases in the trait of Conscientiousness have a stabilizing effect only in the sub-sample for which combat exposure is 0 (in Models 2–5). Thus, the effect of Conscientiousness on stability would appear to be conditional on the level of combat exposure experienced. This effect is retained if a continuous measurement of combat exposure is used instead of the dichotomous one.

This conditional effect begged the question of whether the effects of combat exposure might vary across soldier specialties, since the probability of experiencing—as well as the level of—combat exposure differs for combat and non-combat soldiers. Splitting the sample into two parts based on whether the soldiers were combat group members and running the full models without interaction effects (Models 1–5 in Table 6.1) demonstrated that in Models 3–5 the CES variable (below or above the mean of combat exposure) had the hypothesized effect of increasing the magnitude of value change among soldiers who were not combat infantry. The effects were, however, substantially weak and significant at around $p<.07$. This finding can be interpreted as combat exposure having different effects across specialties (although this effect replicates in terms of interaction effects only in Models 4 and 5), with soldiers trained as combat infantry being less affected by combat exposure. In view of the training that different specialties receive, this result should be interpreted as intuitive: soldiers trained for combat are less affected by exposure to such events.

In sum, the analyses of the predictors of change and stability in values identified no to only weak support for the proposition that increases in combat exposure correlate with higher levels of change (H1). The soldiers' personality traits, however, displayed relatively consistent results across the different models and analyses, demonstrating how the soldiers' personalities predict how PSOs will affect their values (H5a to 5c) to some extent.

6.2 Value Stability across the Deployment[50]

Having examined the effect of specific variables on change and stability in values, I turn to the analysis of levels of change and stability across the six-month PSO deployment. I again employ the survey material, but now track the degrees of change and stability across the deployment experience, in essence conducting comparisons of value scores between t=1 and t=2. This amounts to testing hypothesis 3, which posited that value scores would be highly correlated between the two points in time. These analyses are conducted by studying three different types of change and stability: rank-order stability, individual-level change through the Reliable Change Index, and ipsative stability. I explain each method of analysis as it occurs throughout the analysis.

6.2.1 Rank-order Stability: Values

The first analysis is the study of rank-order stability: the stability of individual differences between at least two points in time. Examining rank-order stability is especially useful to capture possible heterogeneous treatment effects, such as individuals changing in different directions in response to the same treatment (Lönnqvist et al., 2011; Robins et al., 2001). Since no hypotheses on changes in specific directions have been posited, use of this method is appropriate. A measurement of rank-order stability will register deviations at t=2 from t=1 irrespective of changes in a positive or negative direction. The measurement can thus provide a broader picture of change than, for instance, mean-level comparisons between two points in time.

Rank-order stability is assessed by means of longitudinal correlations between an individual's values scores at t=1 and t=2.[51] To reduce measurement error, Structural Equation Modeling (SEM) is used to calculate correlations (Acock, 2013; Little, Bovaird, & Siegers, 2006). Using the panel dataset, separate models were constructed for each value under study, in which two latent constructs (each value at t=1 and at t=2) were allowed to correlate freely. To create measurement invariance between the two points in time, constraints were set for loadings and error variances for each construct. Lastly, error variances were allowed to correlate between t=1 and t=2, as is

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[50] Note that the results from the analyses of change and stability in values have previously been published in Sundberg (2015).

[51] Note that this method is only an operationalization of rank-order consistency, and not a perfect measurement. Rank-order consistency is related to the relative placement of individuals within a group; in this instance in the form of values. Longitudinal correlations capture this only indirectly. Using longitudinal correlations is, however, standard operating procedure in personality research when studying rank-order consistency (see, for instance, Mõttus, Johnson, & Deary, 2012; Roberts & DelVecchio, 2000; Specht, Egloff, & Schmukle, 2011).

commonly recommended (Leikas & Salmela-Aro, 2014; Mõttus et al., 2012). The models were estimated using maximum likelihood estimation with missing values, and model fits ranged from decent to excellent.

Table 6.2 *Latent Rank-Order Correlations Model*

Value	Correlation	$X^2(df)$	RMSEA	CFI
Tradition	.57***	22.9 (21)	.03	.99
Conformity	.92***	20.9 (21)	0.0	1.00
Security	.83***	89.1 (37)	.11	.87
Power	.84***	15.7 (11)	.05	.98
Achievement	.79***	55.6 (21)	.12	.93
Hedonism	.91***	12.6 (9)	.06	.99
Stimulation	.74***	8.9 (14)	0.0	1.00
Self-direction	.88***	34.9 (21)	0.7	.94
Universalism	.82***	142.1 (57)	.11	.86
Benevolence	.92***	27.7 (21)	.05	.98

Note. ***p<.01. Matched sample used (approx. N=125 across models). Standardized estimates reported.

Table 6.2 demonstrates results that, overall, are strongly supportive of the proposition of hypothesis 3 on the high stability of values across the deployment. The average test-retest correlation between pre- and post-deployment value scores was .83, and all values but Tradition displayed stability coefficients of a strong nature (using the standard .70 cutoff point; Robins et al., 2001). Subsequently, across the deployment experience as a whole, the soldiers' values will tend to be highly stable and exhibit little change. These results are also robust if longitudinal correlations with composite variables are used to represent the values. Applying test-retest scores from Schwartz (2005) to be able to disattenuate correlations provides an average disattenuated correlation of .72, and an attenuated correlation of .64. Results per value using this method were also highly similar to those in the latent rank-order correlations model.

Although stability is the norm, some variations across specific values are in evidence. Specifically, the values of Tradition and Stimulation were the least stable (.57 and .74, respectively), while Hedonism, Conformity, and Benevolence displayed very high levels of stability (above .90). Remaining differences in stability were relatively minor, and not statistically significant. These results show that, across the deployment, the values of Tradition and

Stimulation tend to shift places in the value hierarchy more often than the others, while Hedonism, Conformity, and Benevolence do so the least.

Beyond this variation, there appears to be no obvious pattern in stability and change that can be interpreted theoretically. To a minor extent those values that were the most important at t=1 (Self-direction, Benevolence, and Hedonism) may be interpreted as being the most stable. Differences in stability between, for instance, Self-direction and Power (the least important value) were not, however, statistically significant. Likewise, there is no clear evidence of overarching dimensions (Conservation versus Openness to Change, and Self-transcendence versus Self-enhancement) differing in stability to any great degree. In sum, however, results garnered from the analysis of rank-order stability are strongly in favor of the predictions of hypothesis 3 on the high stability of values between t=1 and t=2.

6.2.2 Reliable Change Index: Values

A second step entails analyzing intra-individual differences in change and stability. Studying this level of analysis as well is warranted because strong rank-order correlations can coexist with meaningful and significant amounts of change at the intra-individual level, especially in cases where treatment effects are not uniform across cases (Lönnqvist et al., 2011; Robins et al., 2001).

This analysis applies the Reliable Change Index method (Christensen & Mendoza, 1986; Jacobson & Truax, 1991). I follow the same classification scheme as that used previously to categorize reliable changes for the dependent variables used in the regressions. I thus calculated an algebraic difference score between t=1 and t=2 for each value, which was then compared with the distribution of changes scores we would expect to see if no change had taken place. Following Robins et al. (2001), I classified an individual as having reliably changed on each value if the probability of observing that individual's change score was less than 5%. In a last stage, a chi square test was carried out to compare the distribution with a regular bell curve distribution. To account for measurement error I again used reliability scores as reported by Schwartz (2005) in calculating the RCI.[52] In Table 6.3, columns two, three, and four present the numbers and percentages of individuals in the sample whose value ratings increased, saw no reliable change and decreased, respectively. The far-right column displays the total frequencies and percentages of reliable changes in the sample (whether positive or negative).

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[52] Details on the calculations of the RCI are available in Appendix C.1.

Table 6.3 *Individual-level Change Using Reliable Change Index*

Value	Increased (%)	Stable (%)	Decreased (%)	X^2 (2, N=129)	# changed (%)
Tradition	19 (15%)	83 (64%)	27 (21%)	290.3, p<.01	46 (36%)
Conformity	8 (6%)	116 (90%)	5 (4%)	10.1, p<.01	13 (10%)
Security	10 (8%)	115 (89%)	4 (3%)	17.2, p<.01	14 (11%)
Power	23 (18%)	89 (69%)	17 (13%)	208.1, p<.01	40 (31%)
Achievement	23 (18%)	79 (61%)	27 (21%)	341.1, p<.01	50 (39%)
Hedonism	2 (1.5%)	124 (96%)	3 (2%)	.34, p>.06	5 (4%)
Stimulation	13 (10%)	104 (81%)	12 (9%)	63.3, p<.01	25 (19%)
Self-direction	6 (5%)	117 (90%)	6 (5%)	6.3, p<.05	12 (9%)
Universalism	12 (9%)	107 (83%)	10 (8%)	45.4, p<.01	22 (17%)
Benevolence	10 (8%)	108 (84%)	11 (8%)	39.5, p<.01	21 (17%)

Note. Matched sample used, N=129.

The RCI analysis provides results that differ somewhat from those garnered from the analysis of rank-order stability. Use of the RCI reveals that 103 of 129 (79.8%) soldiers changed on at least one value, showing that at least some change as a consequence of the deployment was the norm and not the exception. A majority of the soldiers who experienced change did so, however, for only one or two values (N=65, 50.5%). More dramatic levels of change were highly unusual, with only 5% of soldiers experiencing changes in five values or more. These changes were statistically significant in a chi-square test at the standard threshold of p<.05 for all values but Hedonism.

This individual-level analysis also demonstrates that most of the change that occurs is dispersed relatively evenly between increases and decreases in the importance of values. Changes in Stimulation, Self-direction, and Universalism were, for example, almost completely evenly divided between increases and decreases. These results suggest that the deployment does not exert pressures for change that are homogeneous among the individual soldiers.

Approximately one-third of the soldiers experienced changes in the values of Tradition, Power, and Achievement, while around one-fifth (17–20%) experienced changes in Stimulation, Universalism, and Benevolence. Changes found for Self-direction were border-line significant, reliable changes for Hedonism were not significant, and around 10% saw changes in Conformity and Security.

Tradition was the least stable value, which might have been expected on the basis of the findings from the rank-order analysis, where this value displayed comparatively low levels of rank-order consistency. Power, however, displayed a high level of rank-order stability (.84), yet many soldiers registered change on this value. Further elaboration on these results may be of importance to grasp more clearly how and why these differences occur. Exemplifying using the Power value, individual-level increases or decreases in this value do not automatically mean that the soldiers' relative ranking of the value has changed. Consequently, although quite a few changes occurred on this value, it remains ranked toward the bottom of the hierarchy by most of the soldiers.

Comparing the RCI results with those from the longitudinal correlations also reveals an incongruence concerning the value of Achievement. Almost 40% of soldiers experienced change in this value, which, however, exhibited a correlation of .79. Delving into this discrepancy I also studied mean-level (normative) changes in values between t=1 and t=2. Use of a latent-means model revealed that Achievement was the only value on which mean-level changes occurred between the pre- and post-deployment stage (full results and model specifications are available in Appendix E.2). Between t=1 and t=2 a slight drop in the importance of this value occurred within the sample. Consequently, although rank-order stability for this value was high, an overall decrease in its mean importance occurred as a consequence of the deployment. Results regarding the comparative stability and instability of the different values are analyzed further in Chapter 8, where I revisit the expectations of the causal mechanisms.

The results displayed in Table 6.3 also imply that deployment exerts more pressure on certain overarching dimensions than on others. Compiling the values into composite variables to capture these dimensions and comparing their rates of change resulted in some statistically significant differences. Self-enhancement was the least stable dimension, Openness the most stable, and differences between Self-transcendence and Conservation

were not significant (in paired t-tests). Note, however, that the comparative instability of Conservation is almost entirely caused by the instability of the Tradition value. These results should be interpreted as the deployment exerting effects mainly on the Self-enhancement dimension.

To sum up the RCI analysis, the tentative conclusions reached through the study of rank-order stability need to be somewhat modified. Although the general conclusion on the relative stability of values still holds, the RCI provided evidence on the existence of some change at the level of the individual soldier. This was evident both from the fact that the majority (79.8%) of soldiers experienced as least some change, and from that some values had rates of change above 30% across the whole group of soldiers. Thus, some change does occur, but its magnitude and breadth is small.

6.2.3 Ipsative Stability: Values

Lastly, I turn to an analysis of intra-individual differences in stability and change through the study of ipsative stability. Ipsative stability is a measurement of individual-level stability and compares, depending on the specific test, change or stability in an individual's value profile between at least two points in time. The object of comparison here is an individual's full configuration of values across time, and not each value separately. I employ four measures of ipsative stability that together capture the three ways in which value profiles may vary: elevation, scatter, and shape (Robins et al., 2001). When studying value profiles, shape is arguably the most important aspect to study, given the relative structure of the construct. The measurements are a profile consistency correlation (r), D^2, D'^2, and D''^2 (D-squared measurements are detailed in Cronbach & Gleser, 1953). A note on the logic and calculations of these scores is available in Appendix C.

Turning first to r and D''^2, which encompass shape only, profile consistency correlations between the two points in time average .75, with a minimum of −.47 (very unstable profile) to .98 (almost complete stability) (SD=.22). This score is driven by stability scores that are skewed toward high stability, with only a few soldiers exhibiting low or negative stability. The D''^2 results were highly similar, with a mean of .44 (SD=.39) and a distribution from .04 to 2.6. Together, these results should be interpreted as profiles exhibiting high level of stability in terms of the shape of the soldiers' value profiles, and thus that their overall ranking of values was stable also intra-individually. For D^2 the mean was 4.4 (SD=3.89) with a distribution of .2 to 31.9, and for D'^2 the mean was 3.5 (SD=.2.94) with min.–max. scores of .2 to 18. These low mean scores should also be interpreted as evidence of profile stability, with the large variation in distributions being evidence of a few outliers in terms of instability.

Interpreting these change scores in a more substantial manner, the identified stability in profile shape (r and D''^2) means that each individual's

ranking (for instance having Self-direction as the most, Benevolence as the second, and Universalism as the third most important value) underwent little change overall. If we view each individual's ranking of values in the form of peaks and valleys on a graph, this topography looks relatively stable across the two points in time. This means that the majority of changes visible in sample-level analyses are not caused by a few individuals experiencing substantial amounts of change, but that—again—changes to the value system are dispersed across a high number of individuals who experience small-scale change. D'^2 captures variation in scatter, and shape, and D^2 variation in scatter, shape, and elevation. These scores point to intra-individual change encompassing more change in the form of elevation (means) than in terms of scatter and shape. Overall, however, intra-individual stability in values should be categorized as high.

In sum, with regards to individual-level stability and change, the analysis of RCI and ipsative stability provides us with further evidence on the stability of values across the deployment: the proposition enshrined in hypothesis 3. Although a majority of soldiers experienced some change, these changes were relatively minor in that few values changed, and intra-individual profile stability was high.

6.3 Summing up: Values across the Deployment

Summing up the hypotheses on change and stability in values means finding mixed support for the proposed hypotheses. The analyses of the specific variables proposed to predict change and stability point to two conclusions: (1) combat exposure has little to no effect on the stability of values, while (2) the personality structure of the individual plays an important role in such change.

Starting with hypothesis 1, the empirical evidence was not supportive of the proposition that higher levels of combat exposure would correlate positively with higher levels of value change. Increasing levels of combat exposure affected only the broadest measurement of value change— experiencing any level of change in the entirety of the value system—and then only at the .10-level. In substantive terms, these results can mean that the combat exposure peace soldiers experience has little or no relationship with their sociopolitical psychological orientations in the form of values. One major caveat is, however, necessary to consider in relation to this conclusion: there is a possibility that the levels of combat exposure experienced by the soldiers were simply too low for the hypothesized effect to occur. The mean exposure of 8.8 (SD=6.2) should be classified as being low, and can be illustrated more concretely in how very few soldiers experienced, for instance, being fired upon or firing at the enemy. This caveat is discussed in more detail in the concluding part of the study. Some,

but still relatively weak, evidence that more intense combat exposure may have the proposed effects was garnered from splitting the sample according to military specialty. Among non-combat soldiers exposure had somewhat more consistent effects on value change in the hypothesized direction. This may imply that combat exposure can change values, but only if it involves levels of exposure high enough to outweigh the type of combat training the soldiers have received.

Stronger evidence in favor of personality traits as influential factors—hypotheses 5a to 5c—was, however, obtained. The traits of Openness to experience, Emotional Stability, and Conscientiousness predicted change and stability in the hypothesized directions in three to four out of five models. It deserves to be mentioned that these results were demonstrated when scores for all of the personality traits were controlled for. Viewing these results in combination means that the soldiers' personalities are ascribed a relatively strong role as determinants of value change across the deployment. Comparing these effects with the weak effect found for combat exposure also implies a stronger role for the soldiers' interpretations of events than for the objective nature of their occurrence. Subsequently, the individual soldier's psychological makeup should be seen as a factor explaining how sociopolitical psychological orientations may or may not change in PSOs.

Turning to the analysis of change and stability across the deployment, hypothesis 3 posited that value scores between t=1 and t=2 would be highly correlated and stability, accordingly, high. Empirical evidence speaks strongly in favor of this hypothesis. The mean longitudinal correlation stood at .83, most values saw few reliable changes, and individual value profiles displayed high levels of stability. Consequently, the deployment as an overarching factor would seem to have only a small effect on the soldiers' values. The analysis also demonstrated that change was dispersed differently across values, since some values exhibited greater stability than others. In terms of overarching dimensions, the Self-enhancement dimension exhibited somewhat lower stability and the Openness dimension higher stability than Conservation and Self-transcendence (but only in the RCI analysis). These differences in outcomes across values and dimensions may be explainable through the lens of person-environment fit, and will be revisited in Chapter 8. In sum, hypothesis 3 on the proposed stability of values across the deployment received ample support. In terms of value change, the peace support deployment thus had little effect on the sociopolitical psychological orientations of the soldiers.

7. Change and Stability in Attitudes toward Violence

Having studied change and stability in values in Chapter 6, I address the same topic in Chapter 7, but now with regard to attitudes toward violence. As was the case when studying values, this chapter relies on the analysis of the survey material and is divided into two sections. In the first section I examine the specific variables proposed by theory to predict change and stability. Accordingly, I evaluate hypotheses 2 and 5d to 5f, which posit that increasing levels of combat exposure will correlate positively with attitude change, and that the soldiers' personality traits will affect change and stability. These hypotheses are tested using multivariate regressions and interaction effects.

In the second section I move on to the test of hypothesis 4: that attitudes to violence will be strongly correlated across the deployment and thus be highly stable. Since the analyses in the chapter's first section have little to say in regards to levels of stability (they mainly inform us of what events and individual attributes influence change and stability) a second round of statistical tests is necessary. Here, I study the degree of stability in attitudes between the pre- and post-deployment stages, examining both longitudinal correlations and individual differences in change and stability. An examination of the causal mechanisms behind changes in attitudes to violence follows in Chapter 8.

7.1 Attitudes, Combat Exposure, and Personality Traits

The analysis of change and stability in attitudes toward violence begins with studying the proposition that specific variables will affect the levels of change and stability experienced by individual PSO soldiers. Of primary interest are the hypotheses that increasing levels of combat exposure will correlate positively with attitude change (hypothesis 2), and that the soldiers' scores on the traits of Openness to Experience, Emotional Stability, and Conscientiousness will be predictive of attitude change and stability (hypotheses 5d to 5f). The analyses also include a number of control variables to control for confounding factors (scoring is available in Appendix B.4).

The multivariate regressions were conducted using logistic regressions as all dependent variables were dichotomous. As when the determinants of value change were studied, the ratio of parameters-to-observations precluded the use of SEM. In what follows the analysis will, first, study the effects of the independent variables on change in general (in any direction). In a second step I test whether exposure and/or personality traits affect change in terms of increases or decreases in evaluations of violence. In other words, if these factors make for more or less positive attitudes toward violence.

7.1.1 Changes in Attitudes toward Violence

In Table 7.1 the analyses begin with the study of changes in attitudes toward violence, irrespective of the direction of this change. The dependent variables are dichotomous, and coded using the same RCI method as was applied in creating dichotomous variables on value change (Christensen & Mendoza, 1986; Jacobson & Truax, 1991). A score of 1 denotes reliable change in an attitude dimension (in any direction), and 0 no such change.[53]

In terms of independent variables, the models employ a continuous measure of combat exposure and not the dichotomized version used in the analysis of value change. This variable is used because the theory on changes in attitudes due to combat exposure is not formulated in the form of "shocks". Instead, a cumulative measure of increasing exposure will capture whether a soldier experienced no, little, or greater exposure.[54] The Big Five variables enter the regressions as ordinal variables derived from their index scores. The same control variables as were used to study value change are utilized, with the addition of the "Combat group" variable. This variable captures whether a soldier was a member of a combat infantry squad (coded 1 if this is the case) or not. The addition of this control variable is premised on controlling for the possibility that soldiers in combat groups have self-selected into this specialty and thus hold more positive attitudes toward violence. Additionally, specific group dynamics might be in play in units whose prime purpose is direct combat.

Table 7.1 below displays the results from two models, in which all independent and control variables are allowed to predict dichotomous change variables for the two types of violence.

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[53] Details on the calculations of the RCI are available in Appendix C.1.
[54] Using the dichotomous combat exposure measure (above or below the CES mean), however, produces similar results on the effects of combat exposure on attitudes.

Table 7.1 *Logistic Regressions on Attitude Change (1)*

Variable	Model 1 Change in war violence	Model 2 Change in penal violence
CES	−.13**	−.41***
Openness	.12	.49
Emotional stability	.25	−.05
Conscientiousness	−.73***	−.34
Agreeableness	−.36	−.24
Extroversion	.39	.38
Combat group	1.8**	1.3
Age	−.65*	−.19
Sex	−.31	-.38
S-E background	.03	-.11
Education	−.47	−.97*
Military education	−.50	−.39
Experience	−.69	.31
Pseudo R^2	.26	.34

*Note. N=129. ***p<.01, **p<.05, *p<.10*

Starting with results for hypothesis 2, the results yield no support for the proposition that increasing levels of combat exposure induce more change in attitudes. Instead, the results indicate that combat exposure has the inverse effect. For attitudes toward both war violence and penal violence, increasing combat exposure correlated with decreasing probability of soldiers experiencing change. In other words, the more combat soldiers saw, the less likely they were to change their attitudes toward violence. This effect was the strongest for the penal violence dimension, where each additional step in combat exposure decreases the chances of seeing change with a b-coefficient of −.41 (p<.01). This effect was somewhat weaker for war violence (b=−.13, p<.05). Thus, combat exposure does indeed appear to be a salient factor in change and stability, but not in the way hypothesized.

Concerning the hypotheses on the effects of traits on change and stability, the Big Five variables displayed little predictive value (hypotheses 5d to 5f). The exception concerned Conscientiousness and its effects on changes in

attitudes toward war, where a strong effect toward stability was registered (b=−.73, p<.01). More conscientious soldiers are thus significantly less likely to change their attitudes toward war (supporting hypothesis 5f). Soldiers with more openness do not, however, change more (in contradiction of H5d), and soldiers who are comparatively more emotionally stable do not experience less change (contradicting H5e).

In terms of control variables, membership in combat group stood out as factor for change in attitudes toward war violence. The effect was also relatively strong (b=1.8, p<.05), suggesting that members of combat groups experience more change than non-combat soldiers. Studying this result in combination with those on combat exposure provides a puzzling finding. Participation in a combat group results in a significant increase in the probability not only of experiencing change but also of combat, while actually experiencing combat would appear to decrease the probability of change.[55] This result suggests an effect of specific group dynamics. Previous research has shown that units with predominantly combat-oriented tasks tend to have stronger warrior identities, mainly due to their internal sub-cultures (Segal, Reed, & Rohall, 1998; Sion, 2006). Prolonged "exposure" to such an in-theater culture may serve to enhance aspects of this warrior identity. A possible outcome may be a more positive view of war and warfare. This explanation is, however, relevant only if the changes associated with the combat group variable make attitudes toward war more positive. This is analyzed in the next section.

7.1.2 Changes in Specific Directions

In a second step, I study whether combat exposure and personality traits affect change in attitudes toward violence in a positive or negative direction. In other words, do the independent variables produce more positive or more negative attitudes toward violence? In these analyses the same variables as above, with the exception of the dependent variables, are used. Models 4–5 use a variable that registers only reliable changes toward more positive attitudes, while Models 6–7 use the same type of variable but with negative changes. Thus, positive coefficients imply that increases in the independent variable correlate with increases in the probability of change in the specified direction. In these analyses two control variables, however, need to be dropped at times. Owing to the low number of individuals changing their ratings of penal violence, the sex and combat group variables sometimes become perfect determinants, distorting results. When these variables are dropped, the table cell reads "omitted". Consequently, results should be interpreted with caution, since the observations of change are few in number.

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[55] The average level of combat exposure for members of combat groups is 10.8, while for non-combat groups the average score is 6.

Table 7.2 *Logistic Regressions on Attitude Change (2)*

Variable	Model 4 Increase in war violence	Model 5 Increase in penal violence
CES	−.16*	−.88**
Openness	.002	1.1
Emotional stability	.19	.69
Conscientiousness	−1.2***	−.11
Agreeableness	−.53	−.06
Extroversion	.37	−.04
Combat group	2.3**	(omitted)
Age	−.70	.38
Sex	.33	(omitted)
S-E background	.12	.30
Education	−.75	.15
Military education	−.28	−.15
Experience	−.43	−.67
Pseudo R^2	.35	.52

Note. N=129. ***p<.01, **p<.05, *p<.10

(table continues on next page)

Table 7.2 *Logistic Regressions on Attitude Change (2) (continued)*

Variable	Model 6 Decrease in war violence	Model 7 Decrease in penal violence
CES	−.04	−.05
Openness	.20	.13
Emotional stability	.35	−.06
Conscientiousness	.44	−.09
Agreeableness	−.03	−.42
Extroversion	.65	.06
Combat group	.60	(omitted)
Age	−.19	−.48
Sex	−2.4	(omitted)
S-E background	−.39	−.42
Education	.43	−.59
Military education	−1.0	−.47
Experience	−1.3	.09
Pseudo R^2	.19	.09

Note. N=129. ***p<.01, **p<.05, *p<.10

Turning first to combat exposure, results in Models 4–5 demonstrate that more exposure to combat decreases the probability of soldiers becoming more accepting of war violence (b=−.16, p<.10) and penal violence (b=−.88, p<.05). Compared with those who experience no or relatively little combat exposure, those who had such experiences were less inclined toward becoming more positive toward violence. Combat exposure had no relationship with the probability of soldiers decreasing their acceptance of violence (Models 6–7). These results thus demonstrate that the previously identified effect—that combat exposure decreases the probability of change—is mainly driven by this variable's negative relationship to becoming more accepting of violence. Consequently, combat exposure has the opposite effect of what was posited in hypothesis 2: instead of increasing levels of change, exposure appears to decrease the probability of changes in attitudes toward violence.

Combat group membership has the opposite effect: one in line with what was previously discussed. Models 4–5 demonstrate how membership in the combat specialty is strongly related (b=2.3, p<.05) to increases in the soldiers' positive evaluations of war violence. Combat group membership has no effect in Models 6–7, which means that soldier specialty is unrelated to decreases in their evaluation of violence. It was not possible to evaluate the effect of being in a combat group on positive change in attitudes to penal violence since combat group membership becomes a perfect predictor of this outcome. Still, the paradox alluded to in the paragraphs above appears to play out as expected: being a member of a combat group appears to be a strong factor in boosting the soldiers' positive evaluation of attitudes toward violence, while actual combat somewhat decreases this probability.[56] When the effects of combat exposure are considered it should also be kept in mind that the effects are stronger than what is displayed in the table for Models 4 and 5, since the regression models dampen the visible effect when combat group is held constant at its mean.

Once again, neither the personality traits nor the control variables had any strong effects on the soldiers' propensity toward increases in attitudes toward violence after deployment. An exception concerns Conscientiousness and war violence, where increases in this trait were associated with a lesser probability of soldiers experiencing change (b=−1.2, p<.10). The negative effect on overall change found for Conscientiousness is thus also driven by the relationship with the variable tracking change in the positive evaluation of violence.

Results thus point firmly at the overall pattern identified in the preceding analysis being driven mainly by the variable that captured the propensity toward change in positive attitudes to violence. None of the control variables or personality traits had any effects on the propensity toward change in attitudes to violence in the negative direction.

7.1.3 Interaction Effects

As in the analysis of value change, in studying attitudes toward violence I tested for interaction effects between exposure and personality traits. However, the number of individuals experiencing change in their attitudes to violence was low, and only interactions concerning positive changes in war violence appear to be substantially interpretable (and are thus presented below). In these interaction models the multiplicative interaction terms were composed of the continuous CES variable and the three-step personality

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[56] Running interaction models in which combat group membership is multiplied with the continuous CES score to create an interaction term reveals no significant interaction effects in the models tracking positive changes in attitudes. Likewise, no significant interaction effects were found for CES*combat group on the models tracking negative changes in attitudes toward violence.

variables described in the chapter on value change (Low, Medium, and High for each trait). Tables and graphs detailing these results are given in Appendix E.1.

In these models on positive change in attitudes toward war violence, the interaction terms were positive and significant for all three personality trait interactions (Conscientiousness, Emotional Stability, and Openness). The component variables in the Conscientiousness models were both negative and significant, showing how both Conscientiousness and combat exposure reduce the likelihood of change in a positive direction. The positive interaction terms show, however, how higher levels of combat exposure reduce the stabilizing effects of Conscientiousness. In the models for Emotional Stability and Openness, the personality variables are not significant, while the CES scores are negative and significant. These interactions thus show how, when combat exposure increases, the effect of Emotional Stability is actually reversed, and higher levels of Emotional Stability actually predict more change in attitudes. The same is true in the interaction model for Openness, but with a more powerful effect. In these models, high levels of Openness interact with combat exposure to induce more—not less—change in attitudes.

These results can be interpreted only as weak support on the effect of personality traits on change and stability in attitudes toward violence. While Conscientiousness retained its effects on stability, the component trait variables of Openness and Emotional Stability were not significant, while the interaction terms were. The latter two personality traits consequently exerted little effect on their own, but showed some relationship with increasing amounts of attitude change in interaction with combat exposure. While the effects found for Openness were intuitive (interaction increasing the amount of change) the opposite was true for Emotional Stability. In these models the interaction was also positive, while Emotional Stability was theorized to have a dampening effect on change. In sum, the regression analyses provide no support for hypothesis 2 on a positive correlation between increasing combat exposure and increasing change in attitudes, and only partial support for hypothesis 5f on Conscientiousness inducing stability in attitudes.

7.2 Attitude Stability across the Deployment

Having studied specific variables that affect change and stability in attitudes toward violence, the second section of Chapter 7 analyses the degree of attitude stability across the PSO deployment. The same survey material as in the first section is employed, but is now put to use in a series of comparisons of attitude scores between t=1 and t=2. These analyses establish the degree of attitude stability at both the sample and individual levels. Consequently, I

examine hypothesis 4, which posits that the soldiers' attitudes toward violence will be strongly correlated between pre- and post-deployment. I employ, however, somewhat different statistical techniques than when studying values. For instance, I do not examine ipsative stability, since the relative placement of the two dimensions on the intra-individual level is of little theoretical interest. The techniques used for analyzing levels of stability in attitudes toward violence are, instead longitudinal correlations (rank-order stability), and the Reliable Change Index (intra-individual differences in change).

7.2.1 Rank-order Stability: Attitudes toward Violence

I begin the analysis with the study of rank-order stability, again operationalized as longitudinal correlations between t=1 and t=2. As in studying values with this method, I use SEM to construct latent variable models for each value. In these models loading and error variances were constrained to be equal at the two points in time, while the latent variables (each value dimension at t=1 and t=2) were allowed to correlate freely to reveal the longitudinal correlations. Additionally, error terms were correlated between the two points in time. Since the war violence and penal violence dimensions were measured with eight items each, I created four parcels as indicators for the latent variables. This choice was based on the relatively low item-to-subject ratio. Items were parceled by assigning the items with the four highest loadings to one parcel each, and then adding the items with the next highest loadings to each parcel using the same method of designation (fifth highest loading parceled with the highest loading and so on) until all indicators had been assigned to a parcel (Little, Cunningham, Shahar, & Widaman, 2002). Maximum likelihood estimation with missing values was used, and model fits were excellent.

Table 7.3 *Rank-Order Stability of Attitudes toward Violence*

Dimension	r	X^2 (*df*)	RMSEA	CFI
War violence	.75***	19.54 (21)	0.0	1.0
Penal violence	.91***	24.46 (21)	.04	.99

Note. *** p<.01. N=129.

Results in Table 7.3 are supportive of hypothesis 4 as both attitude dimensions show longitudinal correlations above the .70 cut-off point. Both dimensions are thus strongly correlated across the deployment and consequently highly stable. Applying a different method and making use of simple test-retest and disattenuated correlation techniques, yields the same results as those above. These results demonstrate that—just as was the case when studying values—the soldiers' attitudes toward violence experience little change between the pre- and post-deployment stages. It is consequently highly likely that returning soldiers' attitudes toward violence will be very similar to those they held before leaving for the mission.

Results in Table 7.3 also demonstrate that the penal violence dimension was substantially more stable than the war violence dimension (.91 versus .75). The penal violence dimension consequently changes less across the deployment than do attitudes toward war. These results can be interpreted as speaking against the causal mechanism of attitude importance, as it has been argued that war violence is highly important for the soldiers' identities. This dimension should subsequently display higher levels of stability than the less important dimension of penal violence. A more in-depth investigation of this result will be conducted in Chapter 8, which delves into the causal mechanisms. Note, however, that the war violence dimension still exhibits a substantial amount of stability.

7.2.2 Reliable Change Index: Attitudes toward Violence

As was argued when analyzing change and stability in values, additional analyses beyond rank-order stability are necessary to draw firm conclusions. In approaching intra-individual differences in change and stability in attitudes I again make use of the Reliable Change Index (RCI) (Christensen & Mendoza, 1986; Jacobson & Truax, 1991), and a 95% confidence interval as suggested in previous research (Robins et al., 2001). A chi square test is lastly carried out to compare the distribution with a regular bell curve distribution. To account for error associated with the reliability of the items, test-retest reliabilities are also entered into the RCI equation.[57] Results are displayed in Table 7.4 below.

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[57] Details on the calculations of the RCI are available in Appendix C.1.

Table 7.4 *Individual-level Change Using Reliable Change Index*

Dimension	Increased	Stable	Decreased	X^2 (2, N=129)	No. of changed
War violence	16 (12.5%)	106 (82%)	7 (5.5%)	64.1, p<.05	23 (18%)
Penal violence	8 (6%)	115 (89%)	6 (5%)	11.9, p<.05	14 (11%)

Note. N=129. Two week test-retest correlations collected from a student sample.

Results produced by this method provide evidence in line with that garnered from examining rank-order stability. Overall, few individuals experienced change between t=1 and t=2, and the change that did occur was mainly related to the war violence dimension. Eighteen percent of soldiers experienced change in the war violence dimension, while only 11% did so for penal violence. Both the rank-order stability and RCI analyses thus demonstrate that the penal and war violence dimensions were stable across time, but that the penal dimension had comparatively higher stability.

The relatively little change that occurred in terms of attitudes toward violence occurred in both directions, with some soldiers increasing and some decreasing their evaluation of violence. Increases in the acceptance of violence were more common, with 24 changes in a positive direction and only 13 changes occurring in the negative direction. Thus, becoming more positive to violence was more common than becoming more negatively inclined. While the dispersion in terms of directionality was practically even for penal violence, more than twice the number of soldiers increased rather than decreased their positive evaluation of war violence, with 16 individuals becoming more positive and 7 more negative. However, these differences in changes in positive and negative directions were small since no mean-level changes were identifiable from study of the full sample.[58] Additionally, the most common outcome of the deployment was for soldiers to experience no change at all in their attitudes toward violence. Thus, again, the available evidence points to stability being the norm for attitudes toward violence as well, in support of hypothesis 4.

The analysis of the two-dimensional structure of attitudes toward violence (carried out in Chapter 4) demonstrated that penal violence and war violence were strongly related, correlating at .77. Theoretically, it is also expected that beyond the interrelationships of the dimensions, changes in

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[58] See Appendix E.3 for a table on this mean-level analysis.

one dimension should partly occur concurrently with changes in the other. Correlational evidence supports this assertion, as changes in the two dimensions of attitudes correlated to some degree. Correlating the difference scores between t=1 and t=2 demonstrated that changes in attitudes toward war correlated .23 with changes in attitudes toward penal violence (p<.01). These results point toward changes in one dimension being empirically related to changes in the other; as was posited theoretically.

7.3 Summing up: Attitudes toward Violence across the Deployment

Viewed together, the analyses of the predictors of change and stability in attitudes point toward two conclusions: (1) combat exposure did not have the hypothesized effect on change in attitudes, and (2) the personality structure of the individual plays a lesser role than anticipated in change and stability.

Starting with the proposition that higher levels of combat exposure would correlate positively with changes in attitudes toward violence, this hypothesis (H2) received no support. Instead, it was demonstrated that increasing levels of combat exposure predicted a decreasing likelihood of change in attitudes. Study of changes in positive and negative directions revealed that the effect stemmed solely from increasing combat exposure making it less likely that a soldier would change attitudes in a positive direction (becoming more accepting of violence). Thus, combat exposure did indeed affect the stability of attitudes toward violence, but inversely to the theoretical prediction. Combat exposure on a PSO thus appears to function not as a factor for change, but as a factor that stabilizes opinions on the use of force. As was noted concerning combat exposure's lack of effects on value change it is, however, important to keep in mind that levels of combat exposure were low.

Turning to the hypotheses on personality traits (hypotheses 5d to 5f), evidence was obtained only on the hypothesized effects of Conscientiousness (5f). While levels of Emotional Stability and Openness displayed no effects on attitude change, Conscientiousness had a strong mitigating effect on soldiers experiencing positive change in attitudes toward war. Some weak evidence was obtained on the existence of effects of Emotional Stability and Openness when in interaction with combat exposure. This effect was, however, only in the hypothesized direction for Openness. Consequently, while these three personality traits had relatively strong and consistent effects in the hypothesized direction on values, at least two of them have only weak relationships with changes in attitudes on deployment. These differences in effects on values and attitudes are addressed theoretically in the concluding chapter. A final finding of interest

in this section of the analysis was the effect of combat group membership on attitude change. Relatively consistently, membership in this specialty predicted substantial increases in the probability of becoming more positive toward war violence. This result implies that the effects of deployment vary across specialties, and that those who are specifically trained for combat more easily increase their positive evaluation of violence.

The findings of the final analysis generated strong support in favor of hypothesis 4. This hypothesis posits that attitude scores will be strongly correlated across the deployment. The analyses identified strong longitudinal correlations (rank-order stability), and few individuals experienced change on the individual level (a maximum of 23 out of 129 soldiers, on the dimension of war violence). Additionally, no mean-level changes were identifiable. On the basis of these results it should thus be concluded that attitudes to violence were stable across the deployment, and that a PSO deployment has only little effect on the soldiers' attitudes toward violence. Levels of stability between the two dimensions, however, differed, with the war violence dimension being the least stable. This result speaks against the theoretical framework, which posited that attitudes to war were likely to be more stable than attitudes toward penal violence due to the importance of the former attitudes to the soldierly identity. Possible reasons for this unexpected finding are expanded upon in Chapter 8, where I revisit the proposed causal mechanisms.

8. Post-Deployment: Combining Mechanisms and Hypotheses

In Chapter 8 I revisit the causal processes specified by the theoretical framework as influencing change and stability in the soldiers' sociopolitical orientations: (1) value and attitude change as a consequence of schema reconstruction and information processing brought on by combat exposure, (2) value and attitude importance, and (3) person-environment fit. The baselines for examining the influence of these mechanisms were addressed already in Chapter 5, where the soldiers' values, attitudes, and motives at the pre-deployment stage were examined. It was there concluded what value hierarchy was present in the sample, that attitudes toward violence were important for the soldierly identity, and what motives, values, and attitudes served as prerequisites for good person-environment fit. Having tested the hypotheses I now place the statistical results in direct relation to these mechanisms in order to further evaluate claims of causal inference based on the theoretical framework.

8.1 Mechanism One: Schema Reconstruction and Information Processing

To identify the first mechanism—how combat exposure may translate into changes in attitudes and values—I probe whether a certain chain of events is visible in the interview data. Specifically, that soldiers experience combat, feel that these events were of a traumatic or salient nature, and, finally, reconstruct schemas or update attitudes in direct relationship to these events. It should be recalled, however, that the statistical evidence of combat exposure causing changes in attitudes and values was weak at best. Exposure affected only the broadest type of value change—change in at least one value in the full structure—while predicting increased stability in attitudes toward violence. Despite this lack of correlational evidence in favor of the hypotheses, a study of the soldiers' experiences of combat exposure can shed light on these statistical findings. In examining the effects of combat exposure I used the interviews carried out six months after deployment (t=2). Relevant for this analysis are the sets of questions on whether the soldiers

had experienced any change in attitudes and values, and questions regarding TICs (Troops In Contact) and other stressful events.

In the interview material, three main themes on combat, other salient experiences, and change and stability can be discerned. First, the statistical finding of stability trumping change recurs in the interviews. Second, the soldiers themselves attributed the lack of change in both attitudes and values to their not having experienced true combat. Third, some indications of at least a more nuanced and problematizing view of violence having evolved were present in the interviews. This third theme contained observations that would appear to confirm the existence of the proposed causal mechanism in regard to attitudes, albeit with a different outcome than hypothesized. I begin with addressing themes one and two in concert, since they are closely linked.

In line with the statistical results, very few of the soldiers interviewed felt that they had changed their values or attitudes toward violence to any great degree. Nor was any evidence to the contrary identifiable. This pattern emerged both when the soldiers were asked about change in general, and when they were asked to compare their current values and attitudes with those at t=1. They articulated this stability in terms of not having changed as individuals, although they felt that the deployment experience had been an important event in their lives. A majority of soldiers also expressed the view, albeit with somewhat less certainty, that their comrades had not changed. This uncertainty stemmed mainly from the view that if such change had occurred, some might be hiding it from their surroundings: "I haven't noticed such things in anyone else either. Of course, people…people are… when they're down there, you don't show it very much. You try to keep it all inside to a certain extent, so if people were affected, then it was difficult to spot" (Soldier 10). Some had noticed change not in terms of values or goals, but at a level that more resembles that of broader personality. This was most often related to "reintegration" back into civilian life:

> Yes. Some people, some of them *[changed]*… I mean, for me it was a big thing going to Afghanistan and all that, but for some… I mean, I've gotten back in the game pretty fast, but I've noticed that some colleagues and good friends, they became different, they changed. I mean that they changed as people, they have a hard time letting go off things. Getting back into everyday life. Even though we didn't experience any disastrous things down there it's…it's a big thing for people and some have a hard time letting go of it (Soldier 9).

While several soldiers stated that they had gained some new perspectives and perhaps "grew" as individuals, most believed that the absence of any

broader changes was the consequence of not experiencing events that were traumatic or salient enough (the second identified theme).

At t=1 several soldiers expressed the belief that both experiences of poverty and conflict might affect them, but also held a belief that combat was *the* primary transformative factor. Parts of this belief had been acquired from colleagues and friends who were Afghan veterans, who seemed to feel that combat had been the most important part of their deployment experiences: "I've had many friends who have been in the game and stuff like that, and they all have different experiences. But violence seems to be a big transformative thing for people" (Soldier 4). This belief in the transformative power of combat was further heightened at t=2, and especially pronounced when the soldiers talked about their attitudes toward violence. Discussing this relationship between combat and change in attitudes, one soldier stated: "No, no, I wouldn't say that I've changed at all. But maybe I would've if I had had to use violence, but I didn't have to. No, it's the same as before" (Soldier 7). Another responded: "No, not really. Nothing really happened, so I think it's difficult to change that position" (Soldier 10). Whether this preconceived notion of the transformative power of combat affected how they looked back on their experiences and what these meant for them as individuals is difficult to gauge.

The most notable theme concerning how combat related to attitudes toward violence was the acquisition of greater respect for, or more nuanced perspectives on, the use of force. More than actually having increased or decreased their appreciation of violence, soldiers seemed to feel that they had developed new perspectives on the complexities of the use of force. When prompted on possible change in attitudes toward warfare, one solider replied: "Yeah, maybe partly *[I've changed]*. This thing with there being such unclear boundaries regarding when a threat really was present or not. That you have to be damn careful in keeping an eye on the situation" (Soldier 5). Elaborating on his pre-mission attraction toward TIC, the same soldier continued: "Down there you got a whole different type of respect for what it might entail. That it's not a damn…it's not something you just brush off afterwards, but that it's something that can really scar you if it happens" (Soldier 5). A second soldier disclosed that:

> When you get down there and get to see it, then you do get a different kind of view of it all, so it does become a little different. And the situations that you might perceive as completely clear at home are not as clear down there. Since the consequences of your actions become so big, or something like that. It's not like you're just fighting one enemy in this type of unconventional warfare, when anyone can be an enemy. It's not clear who is who. So, I mean, if we were ever close to a situation, then it took a

good while before you could come to any conclusion (Soldier 3).

A third soldier described how deployment experiences sparked rumination, but did not actually change his views to any great extent:

> Shit, that's a tough question. Yeah, well, no…I mean you were in the mix a few times, got guns raised to your face—I mean you've had a few AK47s in your face—but in some way you chose not to fire any shots in those situations. […] We didn't have that much action, so it's damn hard to say. I guess maybe you know a little more what you are doing now, know more how to read situations. You did always have a lot of thoughts in your head, "What happens if I press the trigger now?", you know. But no, I don't think so [*that he changed*] (Soldier 9).

Other soldiers shared similar stories; borderline incidents did occur which spurred some new thoughts, but did not in the end—they felt—lead to any substantial change in their attitudes toward the use of force. The more dominant theme was that the use of violence was somewhat more complicated than what they had initially thought.

This new perspective that the soldiers gained is likely related to what was found in the statistical analyses: increases in exposure function as a determinant of more attitude stability. Of additional importance, these narratives of new insights related to the use of force are informative concerning the proposed causal mechanism relating combat exposure to change. The theoretical argument proposed that soldiers would experience combat exposure, would begin to update their beliefs in relation to the new information this stimulus brought with it, and, finally, change their attitudes. The interview clearly data indicates the existence of such a relationship between exposure and the processing of new information related to attitudes toward war. This processing, however, had an effect that was not line with the hypothesis.

Within the same theme on the stabilization of attitudes, some soldiers expressed that their views were "affirmed" more than anything else. With regard to this "affirmation" of beliefs, some brought up the theme of law and order and stability:

> You notice how things can go crazy if the justice system doesn't work, and I guess Afghanistan is a very clear example of that. There is no working society. So that might have been enhanced for me. Or, maybe not

> enhanced, but it kind of confirmed to me what I already
> thought (Soldier 10).

Similar themes were present in other interviews, where the soldiers underlined the great disparities between Afghan and Swedish institutions and structures. Unexpectedly, most were appalled by the lack of accountability in Afghanistan, something which they felt enhanced their pre-existing beliefs.

What bearing do the above findings have on the understanding of the statistical results and the evaluation of the causal mechanisms? First, the identified lack of large-scale changes in values is visible in the interview material as well. In relation to this absence of change, the interviews also demonstrated that the soldiers did not experience any events they deemed to be traumatic: which is in line with the level of exposure in the statistical sample. Consequently, it was not possible to identify the causal process that would induce changes in values. The proposed causal chain was broken already at the stage where exposure was to reach the level of trauma and force schema reconstruction. Since combat exposure within both the samples analyzed was of a low magnitude, the most reasonable conclusion to draw is thus that the causal mechanism of value change (and consequently hypothesis 1) was not actually possible to evaluate. It can therefore be claimed only that low levels of exposure do not cause value change, while asserting that the overall theory has been refuted is dubious.

Second, the interview material suggests that the causal mechanism proposed to yield changes in attitudes toward violence resulting from combat exposure was indeed at work, although experiences of combat and combat-like situations did not result in changes in attitudes. The interviews suggested that borderline experiences of combat did indeed spark new thoughts and rumination (information processing) on the use of force. This processing led not to changes in attitudes, however, but to insights on the possible problems, moral dilemmas, and consequences associated with combat. The soldiers discussed these insights as complicating their previously straightforward views on the use of force, which was consonant with the statistical findings. Consequently, I would argue that the causal mechanism was in play, but produced outcomes contrary to theoretical expectations. Hypothesis 2 should thus be viewed as lacking supporting evidence.

Finally, it is worth noting that the theme of stability was dominant the interview material as well. This points in the same direction as the statistical findings. In essence, relatively little change occurred in values and attitudes toward violence. The soldiers themselves attributed this absence of large-scale changes to the lack of combat: in other words to the absence of the key factors of the proposed causal processes.

Relating this combined study of the causal mechanisms and the statistical results back to hypotheses 1 and 2 on the effects of combat exposure yields

somewhat different conclusions than those that may have been drawn based on the statistical findings. Proper evaluation of hypothesis 1 was not possible, since combat exposure did not appear to reach levels that might induce trauma. The theory underlying hypothesis 2 may, however, have to be reformulated in the future. The mechanism of increased information processing of attitudes toward violence was indicated to be in force, but its effects were not in line with the theoretical propositions.

8.2 Mechanism Two: Value and Attitude Importance

The identification of the second causal mechanism was premised on establishing the order of importance of values, and whether attitudes toward violence were important to the soldiers. The ranking of values before deployment was established in Chapter 5, as was the importance of attitudes toward war and penal violence for the soldierly identity. Having established the stability of attitudes and values, it is consequently possible to evaluate the validity of the mechanisms of attitude and value importance contributing to stability in sociopolitical orientations across the deployment.

Beginning with values, the analysis of the soldiers' rankings demonstrated three clusters of varying importance. Self-direction, Hedonism, and Benevolence were the most important values, and Tradition and Power the least. The values in the second—middle—cluster were Security, Conformity, Universalism, Achievement, and Stimulation. The statistical results on stability and change tallied relatively well with these clusters of importance, and thus provide support for value importance as a mechanism for stability.

The three top-ranked values all displayed some of the highest levels of stability in both the RCI and rank-order stability analyses. Hedonism saw change in only five individuals and displayed a rank-order stability of .91, Self-direction saw twelve changes and a .88 correlation, and Benevolence registered 21 changes and a .92 correlation. In the same way, Tradition and Power stood out as two of the three least stable values, which is also consonant with the predictions of the mechanism. While Power saw a relatively impressive .84 correlation, a full 40 individuals reliably changed on this value. Tradition was by far the least stable value, with 46 changes and a longitudinal correlation of only .57. However, the third least stable value, Achievement, displayed lower stability than what the theory on value importance would predict, with 50 individuals changing and a rank-order correlation of .79. This last result should be classified as not being completely in line with the mechanism.[59] Lastly, Security and Conformity

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[59] Achievement was ranked as the third least important value at t=1, but differences between this value and the next in the hierarchy (Universalism) were not statistically significant.

displayed stability that was almost on par with those of the top three values. In other words, the stability of these values was higher than their relative importance would suggest. These middle-ranked values were, however, proposed to have high stability.

Overall, the proposed causal mechanism on value importance seems to have relatively strong merit. Possible causes of the identified deviations from predictions are discussed in the next section, where it is argued that levels of person-environment fit contributed to the unexpected outcomes.

Turning to attitudes toward violence, Chapter 5 established that attitudes toward violence were indeed important to the soldierly identity. As predicted by theory, both attitude dimensions were also shown to be stable across the deployment. At pre-deployment it appeared, however, that attitudes toward war were more important to the soldiers than attitudes toward penal violence. The proposed mechanism thereby implies that the war dimension should have been more stable than the penal violence one. The war violence dimension was, however, demonstrated to be less stable than the penal one (longitudinal correlations of .75 versus .91). This particular result consequently speaks—to some degree—against the mechanism.

One plausible explanation for this deviation can, however, be extracted from an analysis of the interview material. The interviews demonstrate that the majority of noteworthy events experienced by the soldiers on deployment were related to war and the military. This might mean that the war dimension—although more important to the soldiers' identities—faced more incoming stimuli than did the penal dimension, which in turn affected stability negatively. Such an explanation would be consistent with outcomes of attitude change being a function of both attitude strength and the amount of stimuli encountered (Eagly & Chaiken, 2014). If few attitudinal stimuli are encountered in relation to penal violence we would expect this dimension to remain more stable than one that is constantly activated and exposed to pressures from the surrounding environment.

In the interviews, the soldiers only rarely reflected on stimuli relating to penal violence. Instead, the majority of noteworthy experiences that were freely described were related directly to the military sphere. The soldiers described a work routine in which they either waited for days for something to do, locked inside the base camp, or were engaged in intensive patrol duties that might span several days.[60] It has previously been noted that the interviewed soldiers experienced no instances of TIC, but during patrol duty they did experience events that some recall vividly. One group, for instance, had their vehicle torched at a police camp, another had an angry group of

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[60] The soldiers did not actually just sit around and wait while in camp, but instead often performed inventory and cleaning duties. These duties were, however, not viewed by very many as "real work". Quite a large portion of time was also spent on base when on standby as a Quick Reaction Unit (QRU).

residents and police attempt to pull them from their vehicles, and several soldiers described mine sweeping in both day and night operations as relatively stressful. False alarms regarding IEDs having been planted outside of the camp gates also occurred. More mundane, but still noteworthy, events and stressors occurred whilst in camp. One soldier stated:

> I think it affected me more than I think. Being surrounded by walls and knowing that it is dangerous outside. And that also on the inside you are surrounded by weapons…and well, I think that affected me quite a lot actually (Soldier 13).

This type of pressure was mentioned as a factor related both to the military dangers of Afghanistan and to the fact that the soldiers could, at any time, be called out on a mission. This pressure was felt by most of the soldiers while deployed, and one soldier stated that: "… as soon as you heard someone moving their weapons, clicking and clacking it, it makes you jump. Even if you weren't scared, it just made you jump" (Soldier 13). Since the soldiers' narratives of deployment were practically all focused on aspects related to warfare and military life, this explanation on differences across dimensions in terms of stimuli has at least some validity.

In sum, although a few deviations from the mechanism's predictions can be noted in the empirical material, the causal effect of value and attitude importance is relatively strongly supported by the qualitative and quantitative material. Relating these findings back to the results for hypotheses 3 and 4—which demonstrated strong correlations between t=1 and t=2—means ascribing validity to the theoretical propositions regarding the effects of value and attitude importance.

8.3 Mechanism Three: Person-Environment Fit

The final mechanism proposed by the theoretical framework concerned levels of person-environment fit. The cumulative continuity perspective posits that value and attitude stability will be high if good person-environment fit exist. In Chapter 5, the pre-deployment motives and goals of the soldiers were analyzed to understand the prerequisites of good person-environment fit. Here, it was proposed, in short, that if the stated goals and motives were fulfilled on mission, this would amount to good person-environment fit for values and attitudes linked to said goals. To study this proposition at the post-deployment stage, I relied on the interview material gathered at t=2.

Examining the fit of values, the vast majority of those interviewed were in agreement that the bulk of their goals and motives had been fulfilled

during deployment. Concerning the goal of sustaining camaraderie (linked to Benevolence), the soldiers maintained, overall, that although minor conflicts arose due to confinement to base and shared living spaces, "[*group cohesion*] was, looking back, greatly enhanced. You grew to be very close" (Soldier 9). A second important goal broached by the soldiers was to help Afghans and Afghanistan (associated with Universalism). A majority of soldiers felt that this goal had also been fulfilled, albeit not to the same extent as the motive related to Benevolence. Most felt that the Swedish presence had been and was helpful for Afghans, but some maintained that they would have liked to be able to do more personally: "I like to think that we did some good, but it also felt frustrating at times. It felt like you wanted to do more—that you could've done more—but weren't allowed to" (Soldier 7). A third goal commonly raised in the interviews concerned growth of the self through the experience of an adventure, a unique experience, and "seeing the world". As with the two previously mentioned goals the vast majority of soldiers also felt that this goal—linked to Stimulation and Self-direction—had also been fulfilled. Soldiers related stories both of having "seen the world" and of how they had experienced a unique adventure: "It was a very positive and good experience. It was so interesting, and especially toward the end your eyes were opened and you could see what lay behind everything" (Soldier 13). Focusing more on the adventure aspect, a second soldier said: "I'll always carry this with me, I have to say. I don't think I'll ever experience anything like it again […] It was just such a special thing to have done" (Soldier 2).

The only real exception in terms of goal and motive fulfilment concerned the goal of experiencing risks and testing oneself. This goal was, in the analysis of values and attitudes at pre-deployment (Chapter 5), linked to the values of Stimulation and Achievement, and also to attitudes toward war. There was wide agreement across the interviewees that practically all other goals had been partly or fully fulfilled, with the exception of the final or "ultimate test": "*[Motive]* number two, to experience what it is to be a soldier for real; we never got that test that we thought we would get" (Soldier 13). This lack of the ultimate test of one's character and military skills—whether one is a true soldier or not—was most strongly linked to the absence of TIC and heavily stressful experiences:

> I thought I would be a little more exposed to stress, or have some situation in which I was intensely stressed. And OK, there were many stressful situations, but they were still controlled to some extent. I thought I'd have some sort of chaotic experience (Soldier 2).

Other soldiers were more explicit in exactly what was missing: "It was a great first mission, but I missed that…that bullets would hit the plating so to

say. It doesn't have to be a bloodbath […], but you want to be tested, and I wasn't 100% tested" (Soldier 9). Although the majority of soldiers mentioned that they had not experienced the "test" they had been looking for, many still thought that many other aspects of their skills had been tested:

> I got a lot of experience down there, even if it wasn't
> linked to battle itself. But combat-preparation activities.
> You've gotten a lot more experienced in that area, what
> works and what does not. But battle itself, then I would
> say that I'm missing that experience (Soldier 5).

This implies that, despite the lack of combat, there was a widespread feeling among the soldiers of having at least partly proved themselves. The Stimulation aspect of this goal would also appear to have been fulfilled to a larger extent than the test of skills (linked to Achievement and attitudes toward war), since the majority of soldiers seemed to feel that adventure and excitement had been present.

In terms of the soldiers' stated motives the overall patterns identified in the interview were relatively clear. Goals and motives related to the values of Benevolence, Self-direction, Stimulation, and Universalism saw full or high levels of fulfilment. Goals related to Achievement were, however, lacking in comparative fulfilment. Attitudes toward war were most strongly tied to the test of skills and character, which also saw only partial fulfilment. Interpreting goal fulfilment through the lens of person-environment fit, the interview material seems to support the proposed causal mechanism.

Benevolence, Self-direction, Stimulation, and Universalism were all values with good person-environment fit and exhibited comparatively high stability: a result in line with the proposed mechanism. Additionally, Achievement saw poorer person-environment fit, and exhibited lesser stability in the statistical analysis. The test of combat was related not only to Achievement, but also to attitudes toward war, through how this test would define soldiers as true warriors. The lower stability exhibited by attitudes toward war (compared with attitudes toward penal violence) may thus be linked to how the deployment environment failed to provide the precise military trials the soldiers sought.

In the analysis of the soldiers' motives and goals at pre-deployment (in Chapter 5), it was mentioned that although Security and Conformity were not raised by the soldiers in terms of goals and motives, these values would still have good person-environment fit on the deployment. This argument was based on the proposition that military beliefs and identities are tightly bound up with these two values that encompass the notions of collectivism, obedience, and defense of stability and order. As expected, the deployment seemed to provide these two values with good person-environment fit, since the militarized deployment environment accentuated military structures and

a military mindset. There was broad agreement among soldiers that the deployment environment enhanced many of the aspects of military life that the soldiers appreciated: "There was something about how life worked down there […] It was simple. You knew what you were supposed to do, you had a mission, you had a goal. You worked toward something real, something that actually mattered" (Soldier 5). In discussing life on the base, many soldiers made clear that garrison life had basically been transferred from Sweden to Afghanistan, but that work now had a sense of being practiced more seriously: "You get to do your job for real, and people don't butt in with their ideas. Now you can just say 'Quiet, I know my shit and we do it this way because it works'" (Soldier 6). Most respondents maintained that they wanted to deploy again if possible, as military life had become more interesting when practiced "for real". This evidence on good person-environment fit between the deployment and the values of Security and Conformity are consonant with the high levels of stability identified in the statistical analysis.

The above discussion on the good fit provided for individuals that appreciate military life is partly applicable to attitudes toward violence as well. It was demonstrated in Chapter 5 that the soldiers' comparatively positive attitudes were linked to their appreciation of the effects military life has on character. It was consequently argued that the enhanced military environment on the deployment would provide the soldiers with good fit also concerning attitudes toward violence. As was described above, this was only partly true. The soldiers expressed only partial satisfaction with this fit, as they were challenged, but felt that the experience of combat was missing. This lack of perfect fit may consequently—as has been noted above—explain the somewhat lower stability of the attitudes toward war dimension.

In sum, there was identifiable evidence indicating the existence of the person-environment fit mechanism, as well as its proposed effects on change and stability.

8.4 Summing up: Mechanisms and Hypotheses

The examination of the theoretical framework's proposed mechanisms casts some new light on the statistical hypothesis testing. Specifically, it is now possible to draw firmer conclusions on the validity of some of the study's findings.

Beginning with H1 and H2, the statistical results did not favor either of these hypotheses. Increasing levels of combat exposure did not induce more change in neither attitudes nor values. Studying the causal mechanisms made it clear, however, that serious evaluation of hypothesis 1 was not possible, since levels of combat exposure did not reach the magnitude necessary to induce the type of trauma necessary for schema reconstruction.

Consequently, the only conclusion that can be drawn is that low levels of combat exposure do not serve to spark change in values. The statistical results did not support hypothesis 2 either. Increases in combat exposure caused not more, but less, change in attitudes toward violence. Using the interview material made it possible to track parts of the proposed causal process. Exposure did cause rumination and information processing, but the outcome of these processes was not change, but stability. This means that, in effect, the theory underlying hypothesis 2 (on increases in combat exposure predicting more change in attitudes toward violence) may have to be reformulated for the context of PSOs. The evidence suggests that increasing combat exposure (but on a low level overall) causes stability—not change—in attitudes toward violence owing to the type of reflection it stirs. In sum, full evaluation of hypothesis 1 was not possible, while hypothesis 2 was not supported by the evidence. These results point to a conclusion that—at least in an environment of low-level exposure—combat exposure does not serve to change the sociopolitical psychological orientations of soldiers: at least not in the form of values and attitudes toward violence.

Hypotheses 3 and 4 posited that the soldiers' values and attitudes toward violence would be strongly correlated across the deployment. The statistical results supported these propositions. Examining the mechanisms behind such stability yielded some, but not perfect, support for the existence and function of the proposed causal processes. To a high degree most of the soldiers' values displayed stability levels that were consonant with their position in the value hierarchy, as established at t=1. Slight exceptions were noted for the lower stability of Achievement, and the higher stability of Security and Conformity. These deviations were, however, possible to explain by examining the final mechanism: person-environment fit. Studying this last mechanism revealed differences in person-environment fit between Security and Conformity, and Achievement. While Security and Conformity experienced good levels of person-environment fit, Achievement did so to a lesser degree. The levels of stability exhibited by these values may thus be linked to varying levels of person-environment fit. For the other values studied through this mechanism, results were in line with expectations: person-environment fit matched levels of stability to a high degree.

Results were less clear on hypothesis 4 on the stability of attitudes toward violence. Here, the high importance attached by the soldiers to attitudes toward war vis-à-vis penal violence was not matched by the exhibited levels of stability. Although the war violence dimension showed considerable stability, it was less stable than the dimension of penal violence. An explanation for this discrepancy may be that the vast majority of stimuli experienced by the soldiers on deployment related to the war violence dimension. The person-environment fit perspective may also provide a possible explanation. Although it was argued that person-environment fit was relatively high in terms of attitudes toward war, the soldiers did not

experience the severe military challenges they had expected. It was subsequently argued that person-environment fit was less than perfect, which might also have induced lesser stability.

In sum, both hypotheses 3 and 4 should be seen as empirically supported not only by the statistical results, but also to a high degree by the study of causal mechanisms. Value and attitude importance, as well as person-environment fit, emerge as potent factors for understanding change and stability across a PSO deployment. To conclude, PSO deployments have little effect on the sociopolitical orientations of the deployed soldiers.

9. Discussion and Conclusions

This study concerns the effects that PSOs and experiences on such deployments have on the psychology of the individual peace soldier. The overall aim of the study has been to provide new empirical and theoretical knowledge of how these important military missions—in which thousands of soldiers engage each year—affect the social and political psychology of the individual peace soldier. Specifically, the driving research question has been *how and to what extent the sociopolitical psychological orientations of the individual soldier change as a consequence of peace support operations*. To answer this question, the study has examined change and stability in values and attitudes toward violence as a consequence of the mission deployment in general, the combat exposure suffered, and the individual soldier's personality traits. These factors were studied using data gathered from two Swedish ISAF contingents, deployed to northern Afghanistan for approximately six months. The contingents were studied using quantitative and qualitative data gathered at both the pre- and post-deployment stage.

Three main findings stand out as the most important conclusions of this research. First, PSO deployments are found to have little influence on the soldiers' sociopolitical orientations in the forms of values and attitudes toward violence. Both values and attitudes were highly stable across the deployment, which was explained theoretically by the importance these attitudes and values had for the individual soldiers, as well as by how the deployment provided values and attitudes with good person-environment fit.

The second finding of importance stems from the results that demonstrated that the soldiers' personality traits have relatively strong effects on change and stability in values across the deployment. This finding shows that on PSOs with low levels of exposure, the change that occurs in the soldiers' values is linked more to their personalities than to events such as combat.

A third finding concerns how increasing levels of combat exposure do not cause higher levels of value and attitude change, in contrast to what was hypothesized. In other words, soldiers experiencing combat do not change to a higher degree than their comrades without such experiences. The levels of combat exposure experienced on the missions studied were, however, of a limited nature. Taking this caveat into account, the conclusion to be drawn is, instead, that variation within the lower end of the exposure spectrum has little to no effect in inducing change in attitudes and values. In sum, PSOs

that involve little or no combat have very limited effects on the sociopolitical psychological orientations of soldiers.

This chapter will proceed as follows. First, I summarize and discuss in more detail the results of the empirical analyses, and relate these results to the overarching research question. Second, some of the implications of the study design and the methods used for the results will be elaborated upon, to address issues related to causal inference and generalizability. Third, the study's results are discussed in relation to the different strands of theory and the previous research with which the study engages. In this section I also specify the more specific contributions of the study. In addition, findings that were beyond the direct scope of the theoretical framework will be approached in more detail. Throughout these sections, possible avenues for future research are also noted. Lastly, some notes on the practical implications of the study will be presented.

9.1 The Effects of PSOs on Values and Attitudes toward Violence

Before the initiation of the in-depth discussion of the findings, a brief overview of the main results of the hypothesis-testing is provided in Table 9.1. The testing of these hypotheses jointly provides a comprehensive answer to the research question.

Table 9.1 *Overview of Hypothesis Testing*

Hypothesis	Claim	Support
H1	Higher levels of combat exposure will correlate positively with higher levels of value change	No (only weak support)
H2	Higher levels of combat exposure will correlate positively with higher levels of attitude change	No
H3	Pre- and post-deployment value scores will be strongly correlated	Yes
H4	Pre- and post-deployment attitude scores will be strongly correlated	Yes

(table continues on next page)

Hypothesis	Claim	Support
H5a	Higher scores on Openness to Experience predict higher levels of value change	Yes
H5b	Higher scores on Emotional Stability predict lower levels of value change	Yes
H5c	Higher scores on Conscientiousness predict lower levels of value change	Yes
H5d	Higher scores on Openness to Experience predict higher levels of attitude change	No
H5e	Higher scores on Emotional Stability predict lower levels of attitude change	No
H5f	Higher scores on Conscientiousness predict lower levels of attitude change	No (partial support only)

The study's first main finding is that PSO deployments have little effect on the soldiers' sociopolitical orientations. This was demonstrated mainly through studying the stability of values and attitudes toward violence across the PSO mission. Results obtained from the testing of hypotheses 3 and 4 provide strong evidence so as to the highly stable nature of value systems and attitudes toward violence across the six-month deployment to Afghanistan. In other words, few soldiers change their values and attitudes between the pre- and post-deployment stages. While there are practically no results from previous research with which the results concerning attitudes toward violence can be compared, the high levels of stability displayed by the values are in line with findings from other studies that, however, have examined values in less challenging environments (e.g., Bardi et al., 2009; Hofmann-Towfigh, 2007; Lönnqvist et al., 2011).

In explaining these results in theoretical terms, the study draws on the perspective of cumulative continuity, which posits that the personalities and identities of individuals will strive toward consistency. Combining this perspective with the characteristics of both PSOs and the soldiers that deploy to these missions, the theoretical framework proposes that values and attitudes that are important for the soldiers' identities will be stable, and that additional stability will be induced by the good person-environment fit that the PSO provides for self-selected soldiers. The investigation into these mechanisms for stability suggests that these causal processes are, indeed, at work. To a large extent those values that are the most important to the soldiers, and those for which good person-environment fit is identifiable, are

the most stable. Similarly, lower (but still relatively high) stability was in evidence among the values ranked bottom in terms of importance, and where person-environment fit was inferior.

Importance and person-environment fit were indicated to play the same role in the stability of attitudes toward violence. In other words, attitudes toward violence are stable due to their importance to the soldierly identity, and since PSO deployments provide good person-environment fit for this identity. Unexpectedly, however, the war violence dimension exhibited less stability than the penal violence dimension. This is unexpected, since the pre-deployment investigation into attitude importance suggests that attitudes toward war are more important than attitudes toward penal violence to the soldiers' identities. An analysis of the interview material presented probable explanations of this outcome. First, practically all attitudinal stimuli of note experienced by soldiers during the mission were directed toward the war violence dimension. While attitudes to penal violence were consequently not confronted by new information, attitudes to war violence were bombarded by cues that challenge pre-existing notions and cause comparative instability. Second, at post-deployment, the majority of soldiers maintain that they had not been fully tested as soldiers, mainly due to their lack of combat experiences while deployed. It is possible that this amounts to a less than perfect person-environment fit for the soldiers' attitudes, in effect causing some instability. Notwithstanding this relative instability, both dimensions of attitudes toward violence were highly stable between pre- and post-deployment.

Examining the results concerning values and attitudes toward violence together means concluding that PSOs—at least those with low levels of exposure—have little effect on the sociopolitical orientations of peace soldiers. Concerning the *how*, these findings demonstrate a strong role for the cumulative continuity perspective in the identified stability of values and attitudes. Values and attitudes that are important to soldiers will remain stable across PSOs, especially if these missions can provide good person-environment fit for the pursuit of values, goals, and needs.

The second main finding of the study demonstrated that in terms of *how* PSOs affect the individual soldiers, personality traits play a role in change in values, but not in attitudes. Hypotheses 5a to 5f proposed that the individual soldiers' personality structure influences their susceptibility to the events experienced while deployed. Evidence supports this assertion concerning values, since increasing levels of Openness to Experience correlate with increasing levels of change, and since increases in Conscientiousness and Emotional Stability predict increasing levels of value stability (in most models). The trait variables also perform relatively well in predicting change and stability when specific values are studied. These results demonstrate an influence of traits on values that had previously only been hypothesized but

never (to my knowledge) tested (see, e.g., Bardi & Goodwin, 2011; Roccas et al., 2002).

The soldier's personality traits, however, had less effect on change and stability in attitudes toward violence (hypotheses 5d to 5f). Higher levels of Conscientiousness negatively affect change in attitudes to war violence, but no other correlations were uncovered. In interpreting these differences in the influence of traits on values and attitudes, it is important to acknowledge that individual differences in susceptibility to stimuli have a basis beyond personality traits, such as a need for consistency and a positive self-perception (Briñol & Petty, 2005). Factors other than personality traits may thus assert influence that counters those thought to stem from traits. Other possible explanations may, however, be envisaged by taking into account the levels of cognitive control that individuals hold over attitudes and values respectively. As was discussed briefly in the theoretical chapter, values inhabit a different and more central location than attitudes in the network that makes up the self. Consequently, individuals rarely think about or actively challenge their values, which are most often "used" effortlessly and unconsciously (Bardi & Goodwin, 2011; Hitlin & Piliavin, 2004; Rohan, 2000). By contrast, individuals have more cognitive control over attitudes, which are also more often consciously challenged and ruminated over. Consequently, traits may assert a stronger effect on values, since they function unconsciously and under little cognitive control. Nonetheless, personality traits seem to play only a limited role in explaining changes in attitudes toward violence on PSO deployments.

The exception concerns Conscientiousness, which reduces the propensity toward change in attitudes toward war (while also being a sound predictor of stability in values). That this particular trait exerts these effects provides support for the relevance of the concept of "hardiness" in the sphere of changes in sociopolitical variables as well (Bartone et al., 1992; Britt et al., 2001; Kobasa, 1979). The relationship of Conscientiousness to this construct suggests that this is a key variable for understanding how soldiers adjust to military deployments. Consequently, in understanding how soldiers are affected by their deployment experiences, future research would do well to include measurements of personality traits.

The third main finding was that increasing levels of combat exposure do not cause higher levels of value and attitude change—something that contradicts the propositions of hypotheses 1 and 2. This finding may be construed as standing in stark contrast to much previous research, in which experiences of combat and violence are often identified as primary factors in changes in sociopolitical variables (e.g., Blattman, 2009; Grossman et al., 2014; Rohner et al., 2013). These results of the study should, however, be approached with caution. Levels of combat exposure in the two samples studied are low, which may mean that the hypotheses have not been satisfactorily evaluated, and/or that higher levels of exposure can have

stronger or different effects. An examination of the proposed causal mechanisms failed to identify the causal chain translating exposure into schema reconstruction by means of trauma, since exposure did not appear to reach levels associated with trauma. Consequently, I would argue that the theory has not truly been evaluated, and that the only available conclusion concerning exposure and value change is that variation within the lower end of the combat exposure spectrum has only a small effect on value change. Higher levels of exposure may, hence, still have the proposed effects.

A split sample analysis provides some (but not very strong) evidence of combat exposure increasing value change when soldier specialties are studied separately. In several models, increases in combat exposure correlated with increasing value change among non-combat soldiers. These results suggest that training for violence dampens the change-inducing effects of combat. In such an interpretation, combat causes change only when it exceeds an individual's threshold for violence, which varies according to training. This explanation is consonant with the strong effects in terms of change in sociopolitical orientations found among civilians exposed to war (Blattman, 2009; Canetti-Nisim et al., 2009; Rohner et al., 2013). Civilians commonly have little to no training for violence, and may therefore be expected to change more than soldiers.

As in the study of values, combat exposure failed to predict increases in the propensity and magnitude of change in attitudes toward violence as well. Instead, the opposite effect was found, in that increasing levels of combat exposure act as a buffer against change in attitudes toward violence. The interview material made it possible to study the causal process behind this effect. As posited by the mechanism translating exposure into change, experiences of combat exposure did induce heightened processing of stimuli and rumination in relation to these attitudes, but these processes did not translate into change. Instead, they sparked a newfound respect for the consequences of violence among the soldiers.

Although unexpected, similar effects of combat on soldiers have been noted by some researchers. Moskos, for instance, noted that "an exaggerated masculine ethic is much less evident among soldiers after their units have been bloodied" (Moskos, 1970, p.154, cited in Winslow, 1997). Although it is debatable how far the soldiers studied were "bloodied", their encounters with at least some violence and the prospect of combat appear to induce higher amounts of contemplation on the consequences of violence, and subsequent insulation against change. Again, however, this finding should be interpreted cautiously, owing to the low levels of exposure within the samples studied. As was concluded concerning exposure and value change, it is possible that higher levels of combat exposure can have effects that differ from those found here.

In conclusion, the combat and violence experienced on low-exposure PSOs do not appear to cause change in either the values of peace soldiers or

their attitudes toward violence. Concerning the *how* part of the research question, combat exposure consequently has only a minor role to play in change under low-exposure conditions. Although perhaps unexpected, this finding is in line with Grossman et al.'s (2014) contention that the political effects of exposure to violence and combat are strongly dependent on the intensity of the experience. It would thus seem that variation within the lower end of the combat exposure spectrum is much less hazardous to stability than higher levels. Future research would do well to further investigate where exposure shifts from relatively benign effects to having strong transformative powers.

Continuing on the track of *how* PSO deployments affect the sociopolitical orientations of soldiers, the analyses of change in attitudes toward violence reveal that group context in the form of soldier specialty plays a role. In these analyses, combat group membership is a strong predictor of increasing soldiers' positive attitudes toward violence. While it was not possible to delve deeper into a possible causal mechanism, it was speculated that the specific subcultures of deployed combat troops serve to enhance their warrior identity and thus appreciation of certain forms of violent attitudes. Viewing this finding in relation to the suggestion that combat exposure affects soldier specialties differently, means ascribing a stronger role than perhaps expected to the effects of micro-level contexts.

To conclude this discussion on how the findings relate to the study's research question, the main conclusions to be drawn are, first, that low-exposure PSO deployments have only a limited effect on the sociopolitical psychological orientations of the deployed soldiers. Since the proposed causal processes that feed stability were identifiable, this conclusion is likely to apply only when soldiers have self-selected into the mission deployment and the military profession, and thus experience good person-environment fit. Second, in terms of understanding how soldiers are affected by deployment, the individual's personality traits are an important factor to consider. Third, increasing levels of combat exposure have little effect on values and attitudes, at least when they are within the lower end of the spectrum. The possibility remains that PSOs with greater amounts of combat may well have stronger or different effects.

9.2 Implications of the Research Design

The design of this study has some implications for the veracity of the causal inferences and the generalizability of the findings. Some of these possible limitations have been mentioned in the discussion on methods, as well as during the analyses of the results. Some implications, however, warrant additional attention to conduct a full evaluation of the applicability and robustness of the study's results and contributions.

First, two conditions that relate to possible generalizations deserve further mention. The first of these concerns the generalizability of the study's results to soldiers of other nations. As argued in Chapter 4 (section 4.1), the results of the study are likely transferable to other European and Western soldiers, owing to similarities in values, selection and self-selection, and training. Many other nations, however, contribute to UN peacekeeping and do so well beyond the numbers of Western nations.[61] The experiences of soldiers from these nations may be very different, since values, attitudes, cultures, vetting, and training are likely to diverge (Soeters & Bos-Bakx, 2003). Generalizability beyond Western countries may, as a consequence, be questionable. More research will be necessary to reach any firm conclusions on this issue. Such future research would be highly relevant, since soldiers from Asia and Africa are the backbone of the UN's peacekeeping forces, but have received comparatively little attention in empirical research on peacekeepers.

A second condition concerned the ways in which the military mission in the Swedish AoR in northern Afghanistan may be seen as a case of the broad universe of PSO-type missions. It was argued in Chapter 4 that the case of northern Afghanistan can be fruitfully subsumed under the conceptual heading of PSOs, and that this case has the advantage of including elements of combat. The combat exposure experienced by the Swedish soldiers on tour was, however, low. As a consequence the results of the study are likely only applicable to PSOs with relatively low levels of exposure. As suggested already in the analysis, high-exposure PSOs may well have different consequences for the psychology of the peacekeeper.

A possibility also exists that both of the treatment effects (deployment and combat exposure) may have been "bundled", since many other treatments occur during the six-month deployment experience. Thus, as stated by Dunning (2010, p.301), it may be difficult to parse out the distinct effects of the many different stimuli encountered throughout the deployment. Over a six-month deployment, many differing explanatory variables may be at play. It was partly possible to study causal processes through the qualitative data (the interviews), and consequently somewhat strengthen the soundness of the causal inferences. However, it is difficult to exclude with certainty the possibility that, for instance, the effect of combat exposure is mitigated by other experiences that occurred concurrently during the mission.

Third, the measurement points for the dependent variables may be of importance for the results. This may be an issue especially for the survey, where a few days after homecoming may not be the optimal time for measuring if changes have occurred. At least two possibilities regarding the

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[61] In October 2014, the five largest troop contributors to UN military peacekeeping forces were Ethiopia, Pakistan, Bangladesh, India, and Rwanda (UN, 2014).

adverse effects of this measurement point can be identified. First, it is possible that value change is a slow-working process, and that effects of deployment only appear at a later point in time. I attempted to mitigate this possibility by timing the interviews six months after return, since a third point of measurement for the survey sample was not feasible. Still, a fruitful avenue for future research may be to conduct studies over multiple points of measurement after homecoming, to capture delayed change effects. Second, it is unknown whether the observed change and stability found in this study are of a long-term nature. In Bardi and Goodwin's theory of value change (Bardi & Goodwin, 2011), changes in schemas are necessary in order to create change that is not fleeting and transitory. If schemas are not altered by the experiences encountered, any changes will be reversed as the value system returns to its initial structure. It is thus possible that the few changes that were found will not be permanent, but decay over time. These are limitations of the approach of this study that should be kept in mind.

A fourth point concerns the length of the deployment. The Swedish contingent was deployed "only" for approximately six or seven months. Although this is a relatively common length of deployment for European peace soldiers, American and British soldiers often deploy for significantly longer periods. Since the amount of exposure to new stimuli is partly a function of deployment length, the time spent on mission is a probable factor for inducing change. Additionally, longer deployments increase the probability of experiencing salient events. Previous research has indeed found that deployment length is associated with increases in stress, independent of factors such as combat exposure (Wood, Britt, Wright, Thomas, & Bliese, 2012). It is thus likely that longer deployments cause stronger effects in terms of possible change in values and attitudes toward violence among soldiers. Studying the effects of more prolonged deployments would also be a fruitful avenue for future research.

A final limitation is that it was not possible to provide completely satisfactory tests of all of the theoretical mechanisms. It would, for instance, have been useful to use psychometric measures to determine how important attitudes toward violence were for the soldiers, instead of inquiring into this only through the qualitative data. Moreover, conducting tests of the mechanisms behind the effects of traits on values would have been a valuable addition. Finally, it would also have been of interest to be able to further investigate the strong effects of combat group membership on the propensity toward becoming more positively inclined toward violence.

9.3 Contributions to the Psychology of Peacekeeping

This study contributes new empirical and theoretical knowledge to the field labeled "the psychology of peacekeeping", by advancing our understanding

of how PSOs affect the sociopolitical psychological orientations of deployed peace soldiers. While the psychology of peacekeeping is an expanding research topic, several concepts from political and social psychology have gone relatively unstudied in this sphere of research. This study's main contribution is thus its presentation of the first broad examination (to my knowledge) of how PSOs affect both general (values) and specific (attitudes toward violence) sociopolitical psychological orientations. Such knowledge is critical since PSOs are the chief military missions embarked upon by many Western states. Understanding how these missions affect peace veterans' views of the social and political world is of consequence both for the individual soldiers, and for their host societies.

Turning to more specific contributions made to the literature on the psychology of peacekeeping, the finding on the limited effects on the values and attitudes of soldiers on PSOs is of interest. Most previous research on the psychology of peacekeeping has stressed the challenging nature of PSOs for the psychology of the soldier (Britt & Adler, 2003b; Langholtz, 1998; Sareen et al., 2010). Beyond the role of stress and salient events in causing PTSD, scholars have also pointed out that PSO experiences and life in conflict zones can contain threats and challenges to the individual's sense of self and views on the world, and be imposing challenges overall (Adler et al., 2003; Maguen et al., 2006; Schok et al., 2010). This study has demonstrated, however, that even if PSOs are challenging to the individual soldier's psychology, these missions (at least if combat exposure is low) do not appear to transform sociopolitical orientations. This finding should be viewed as a normatively positive outcome, especially in light of studies on the effects of war and violence on civilians. Findings in this sphere range from war and violence causing increasingly hostile attitudes toward out-groups (Canetti-Nisim et al., 2009; Dyrstad, 2013), over decreases in political trust and social capital (De Luca & Verpoorten, 2011; Hutchison & Johnson, 2011), and shifts toward authoritarian values (Bonnano & Jost, 2006; Echebarria-Echabe & Fernández-Guede, 2006). For soldiers deployed to peace support missions where levels of violence are comparatively low, such deleterious change appears limited.

Future research should, however, examine possible deployment effects on a broader range of variables than has been studied here, to ensure a fuller understanding of possible changes in basic orientations. Variables of particular interest are those that are not only important for political and social relations on the home front, but also affect the soldiers' interactions in the deployment zone. Chief candidates are, for instance, levels of prejudice, and both generalized and particularized trust, which may affect soldier-civilian interactions and prospects for peace building (see, e.g., Boniecki & Britt, 2003; Goldsmith & Harris, 2012; Miller & Moskos, 1995).

Second, the study's findings relate to and contribute to the field's preoccupation with how the identities of soldiers fit with the deployment

environment. Studies of this topic have covered several different outcome variables, from meaning-making and benefit-finding to identity transformation and effects on morale (Britt, 2003; Franke, 2003; Miller, 1997; Schok et al., 2008; Segal & Segal, 1993). An overall assumption in this literature is that a sound fit between the deployment environment and the attitudes, values, and identities of soldiers is vital in order to avoid negative outcomes such as lower cohesion, a decline in morale, and psychological maladjustment. This study provides more evidence of the necessity of taking this perspective into account in studies of PSO experiences, since good person-environment fit was shown to be crucial for understanding change and stability in values and attitudes toward violence as well. The study also, however, makes a theoretical contribution to this end, by demonstrating the usefulness of the cumulative continuity model for understanding change and stability in political psychological variables in PSOs (Caspi & Roberts, 2001; Caspi et al., 2005; Roberts & Caspi, 2003). Use of this model provides the researcher with a comprehensive approach toward understanding change and stability, by providing set pathways for how identity and personality interact with an individual's environment. As such, a wider application of the cumulative continuity model is a promising avenue for future studies on the influences of PSO missions on peace soldiers.

Third, the study's findings are relevant for the literature on how PSO experiences affect military institutions in the era of peacekeeping (Franke, 1999; Franke & Heinecken, 2001; Moskos, 1975). Values are important concepts for the identity, self-concept, and goals of individuals, and serve to motivate behavior and the attitudes an individual holds (Boninger, Krosnick, Berent, & Fabrigar, 2014; Hitlin, 2003; Rokeach, 1973; Schwartz, 1992). Possible changes in values among the military's members are consequently of concern for military institutions, since the military relies on certain sets of values for their common identity, cohesion, and performance (Dorn & Graves, 2000; Franke, 1999; Priest & Beach, 1998). PSO deployments with low levels of combat appear, however, to have no strong effects on the soldiers' values, and should consequently not be seen (through the perspective of general political psychology) as possible prominent threats to the unifying core of military beliefs and values.

Relatedly, scholars and practitioners studying peacekeepers have also concerned themselves with how PSOs affect soldiers' readiness to use force. While some have been concerned with whether PSOs make soldiers less prone to use of force, and consequently less fit to engage in warfare (Franke, 1999; Reed & Segal, 2000), others have studied whether experiences of violence foster more violent attitudes (Archer & Gartner, 1976; Calvert & Hutchinson, 1990; Grossman et al., 2014). This study, however, demonstrated that attitudes toward violence were mainly stable in the PSO environment, which means that willingness to use or support the use of force

was mainly unaffected. Likewise, no increases in the propensity toward violence were identifiable. Together, these findings suggest that low-exposure PSOs have little of the feared effect of disrupting soldiers' commitment to the military identity and the military as an institution.

Finally, the relatively consistent effects on change and stability in values demonstrated by the soldiers' personality traits indicate the importance of these variables in individual-level peacekeeping studies. The inclusion of personality variables is commonplace in studies of soldiers' mental health (Bartone et al., 1992; Dolan & Adler, 2008), as well as in analyses of military performance and job proficiency (Bartone, Eid, Johnsen, Laberg, & Snook, 2009; Bilgic & Sümer, 2009; Salgado, 1998). They are, however, less frequently studied in other individual-level military studies. Considering the comparatively strong effects displayed by these variables, studies of the social and political psychology of soldiers should take this perspective into account.

9.4 Contributions to the Study of Values

Several of the study's findings are also of relevance for the more general field of values and value change. A first contribution concerns the high levels of stability exhibited by the values, and how such stability comes about. Longitudinal correlations across the deployment not only were high when evaluated against common standards of correlational strength, but also exceeded or were in accord with those found in previous research (see, e.g., Bardi et al., 2009; Hofmann-Towfigh, 2007; Lönnqvist et al., 2011). These studies examined stability across time periods ranging from three months to two years, and did so in non-military environments. Consequently, the study confirms Rokeach's proposition that values are overall "relatively stable" also in one of the most challenging environments examined to date (Rokeach, 1973, p. 11). Demonstrating this stability of values in the face of such large-scale challenges as were examined in this study lends further credence to viewing values as important and stable aspects of personality and identity.

Second, the study provides further evidence of the importance of person-environment fit for an understanding of when values change and are stable. The importance of this perspective is underlined by the severity of the change in context experienced by the soldiers: good person-environment fit seems to induce stability despite a radical change in environment. The findings of this study are thus of importance for understanding how and why values change—questions that are yet to be fully answered by research (Bardi et al., 2014; Schwartz, 2011). Analyses of person-environment fit appear to be of key importance in advancing this field of inquiry. Relatedly, this study demonstrates the general applicability of the cumulative continuity

perspective to the value change field (Caspi & Roberts, 2001; Caspi et al., 2005; Roberts & Caspi, 2003). Although person-environment fit and value importance are mechanisms proposed to induce stability in many theories of value change, few, if any, studies have combined these theoretical ideas into such a comprehensive whole as cumulative continuity. Testing the applicability of this theory more broadly would be another worthwhile task for future research.

The person-environment fit perspective is also informative in terms of the applicability of the results to other samples. From this perspective, there is little to suggest that non-military samples in conflict environments would be influenced the same as soldiers. Since stability in values appears to be strongly affected by good person-environment fit (and thus person-context interaction), civilians experiencing the same types of events as soldiers are not likely to respond in similar ways. This relates to processes of self-selection: soldiers often freely choose their profession, and contexts of conflict are consequently relatively well-fitting environments. While there are no studies to date with which this study can be directly compared, studies on value change among civilians exposed to some form of conflict or terrorism have found effects that clearly differ from those in this study. Daniel et al. (2013), as well as Verkasalo et al. (2006), found that indirect exposure to the Israel-Hezbollah war and 9/11, respectively, caused mean-level increases in anxiety-based values (Security and Conformity). Thus, in other contexts, exposure to conflict has caused changes in specific values and in specific directions. Findings presented here are more congruent with a study by Bardi and colleagues (2009), where salient events predicted some change, but had little to say about which values would change. These different outcomes may be caused either by the soldiers' training for violence, and/or their already stronger attachment to values such as Conformity and Security—factors that fit better with an environment of conflict. Again, person-environment fit and overall social context is likely of high importance for understanding when value change occurs.

A third finding with a bearing on the study of values is the relatively strong influence exhibited by the soldiers' personality traits on value change. Several scholars have posited that this relationship should exist, but not yet presented any empirical evidence in support of this claim (Bardi & Goodwin, 2011; Zoellner & Maercker, 2006). This study was, however, able to demonstrate that the individual's scores on the personality traits of Conscientiousness, Openness to Experience, and Emotional Stability exerted an influence on their propensity toward value change. These findings demonstrate that traits are of importance for the study of value change, and suggest that the inclusion of these variables in future research can help us understand this phenomenon better. This finding contributes to a growing field of study—the interrelationships of values and traits (see, e.g., Olver & Mooradian, 2003; Roccas et al., 2002).

9.5 Contributions to the Study of Attitudes toward Violence

The findings of this study in the sphere of attitudes toward violence have implications beyond the psychology of the peacekeeper. The analyses demonstrated that in all probability, the stability of the soldiers' attitudes toward violence was grounded in the importance of these attitudes for the soldiers' identities, and due to person-environment fit. If this interpretation is correct, it implies that attitudes toward violence will be much more malleable among individuals in whom attitudes toward violence are less important to the self, and individuals who do not self-select into violence. Even if soldiers are different from civilians in important ways that likely mitigate the effects of exposure, this importance of the self-relevance of attitudes toward violence has applicability beyond this sample.

Of additional interest is the finding that not all exposure to combat and violence spawns change of a normatively negative nature. This is relevant to the study of changes in attitudes toward violence in general, since it demonstrates the importance of interactions between individual and context for understanding change in these attitudes. Much previous research has identified normatively negative effects of exposure on attitudes toward war, peace, and related issues (e.g., Canetti-Nisim et al., 2009; Canetti et al., 2013; Grossman et al., 2014). This did not apply to the soldiers on the PSO deployment studied here. This was demonstrated, first, by combat exposure not having the effect of increasing change in attitudes toward violence, nor making these more positive. Second, the overall deployment to a conflict zone lacked this type of influence on the soldiers as well. The absence of such effects presents something of a puzzle.

At least two factors may be important in explaining these outcomes. First, as suggested by Grossman and colleagues (Grossman et al., 2014), the political effects of exposure to violence are likely to be dependent on combat intensity. This explanation is consonant with the caveats pointed out in relation to combat exposure's effects on both values and attitudes: low levels of exposure may have different effects from more intense levels. A second factor of interest are the effects of context. Most previous studies have been conducted in contexts where those investigated have had clear stakes in and identities tied to the warring parties, such as studies on the Israel–Palestine conflict. Soldiers in PSOs are, however, usually not highly emotionally, historically, or culturally involved in the conflicts to which they are deployed. Experiences of destruction or violence are thus likely interpreted differently by peace soldiers than by those who have long resided in a conflict zone. Such contextual effects are likely to be of importance, and are not only one of the central tenets of social psychology (Ross & Nisbett, 1991), but also supported by studies on, for instance, the Israeli–Palestinian case (Bar-Tal & Labin, 2001; Canetti-Nisim, Ariely, & Halperin, 2008).

Future research will have to determine whether either—or both—of these explanations are applicable.

Lastly, the study demonstrated clear links between the two dimensions of violent attitudes. Not only are these strongly correlated when measured before deployment, but changes in the two dimensions were also correlated to a moderate degree. This lends further credence to the view of attitudes toward violence as interrelated dimensions, as found by previous research in civilian contexts (Anderson et al., 2006; Sahin et al., 2010; Velicer et al., 1989). The fact that changes to some degree occurred concurrently in the two dimensions also suggests that although the two dimensions track different types of violence, these types may to some extent be altered in concert via a domino principle (Eagly & Chaiken, 2014). Such an effect is not likely to be specific to the sample studied here, but may feature in any system of attitudes toward violence. This finding thus adds to our general knowledge regarding the configuration of attitude dimensions concerning violence, and also to our understanding of how these can change.

9.6 Practical Implications

The main conclusion to be drawn from this study is that low-exposure PSOs have relatively little effect on the values and the attitudes toward violence of the soldiers that deploy on such missions. What do these results mean for the peace soldiers themselves and the military authorities that deploy them on missions?

From the perspective of the individual peace soldiers, the finding of comparative stability in values across the deployment is encouraging in terms of the soldiers' well-being. Although the most important aspects of well-being are, arguably, mental health issues such as PTSD and depression (see, e.g., Brounéus, 2014; Halverson et al., 1995), rapid or large-scale shifts in values may also cause negative psychological effects. Such effects include discrepancies and incongruence in self-concept, which in turn may spark guilt, emotional distress, and decreased levels of self-esteem as the individual struggles to accommodate conflicting values, beliefs, and attitudes (Aronson, 1969; Higgins, 1989; Roberts & Caspi, 2003). Instead of experiencing such negative affect, a majority of soldiers remained psychologically similar across the deployment, and viewed their experiences as positive events in their lives. Although the study did not focus on the benefits that soldiers felt they had gained from the deployment, the study suggests that the majority of soldiers experienced many of the benefits identified by previous research. These include, for instance, a sense of personal development, improved military qualifications, and an appreciation of their lives at home (Britt, 2003; Johansson, 1997; Mehlum, 1995). Hence,

for the majority of individuals that deploy to PSOs, the benefits would seem to outweigh the costs.

From the viewpoint of military institutions, the results of the study point to the importance of sound vetting and training procedures for deploying soldiers. The findings concerning the personality traits of the individual soldiers as the primary individual-level factors for inducing change or stability in values may have consequences for recruitment. In order to circumvent any possible negative effects of value change on the individual level, it is vital to select soldiers whose personalities are not overly sensitive to new stimuli. This does not mean, however, that soldiers exhibiting high levels of the trait of Openness to Experience, for example, should be shunned in a vetting process. Those with comparatively high scores on this trait exhibit other attributes that are likely to be positive in a PSO environment, such as lower levels of racial and general prejudice (Ekehammar & Akrami, 2003; Flynn, 2005). The findings do, however, mean that if military authorities are concerned about the psychological well-being of their soldiers, care should be taken in the vetting process to avoid selecting certain types of individuals. PSOs can be taxing experiences even in the absence of large-scale violence due to negative interactions with the host population, for example. It is therefore important to rule out overly adverse effects on the soldiers' outlooks and perspectives on life.

The soldiers themselves, the military institutions, and perhaps society at large may also be encouraged by the finding that attitudes toward violence remained stable across the deployment. As mentioned repeatedly in this study, experiences of conflict and violence have often been found to spark more violent and exclusionist attitudes. This result was not, however, in effect in this study. Consequently, although war may harden the hearts of many caught in its midst, the same does not appear true of those who bear arms in the service of peace.

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Appendix A. Validation Procedures

A.1 Validating the Value Structure

One step toward an adequate research design is to validate the measurements used. Validation is conducted to control if the indicators chosen can identify the theoretical concepts of interests within the data. In other words, that acceptable data-to-theory fit is present. Conducting structural equation models and other statistical tests will be truly informative only if the empirical data are valid representations of the theoretical concepts.

There are several ways to analyze and validate data structures. The ones most relevant for validating values are, however, those that take into account that the indicators are thought to compose dimensions that are both theoretically and empirically meaningful. In practical terms this means that an analysis of the data's structure should reveal various forms of clustering and correlations as predicted by theory.

In order to validate data-to-theory fit the values data collected at t=1 (N=296) was submitted to Confirmatory Factor Analysis (CFA).[62] This is a method in which the analyst can test if data match a pre-determined theoretical structure. Although value theory predicts quasi-circular relations between the different value dimensions I settled for testing, per each value, that all items loaded significantly on the proposed latent variables and that—where applicable—model fits were acceptable. If the items do not load as expected, this implies that the measurements used are not tapping into the theorized value and that the data may not be useful for approaching Schwartz's theory.

CFA models for these analyses were constructed through allowing indicators proposed to measure each respective value to load on a single latent dimension (the value itself). Maximum likelihood estimation with missing values was used, and measurement errors were allowed to correlate where modification indices deemed this to be appropriate for significantly better model fit and where this was theoretically justified (Acock, 2013).[63] Note that values with only three indicators yield models with no degrees of

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[62] Stata 13.1 was used for all tests.
[63] Such grounds are, for instance, that two items thought to measure the same dimension follow each other directly in the survey, that wording is similar, or that—from a theoretical perspective—they share a conceptual basis with each other.

freedom, and goodness of fit statistics are thus not meaningful to interpret (Acock, 2013).

Table A.1.1 *Confirmatory Factor Analysis of Values*

Value	X^2 (df)	RMSEA	pclose	CFI	All items load?
Tradition	4.03 (2)	.06	.33	.95	Yes
Conformity	2.12 (1)	.06	.29	.99	Yes
Security	2.92 (2)	.04	.46	.99	Yes
Power	-	.00	-	1.00	Yes
Achievement	4.89 (2)	.07	.25	.99	Yes
Hedonism	-	.00	-	1.00	Yes
Stimulation	-	.00	-	1.00	Yes
Self-Direction	5.13 (2)	.07	.23	.97	Yes
Universalism	12.5 (7)	.05	.42	.99	Yes
Benevolence	.02 (2)	.00	.96	1.00	Yes

Note. Data from t=1, N= approx. 296.

Overall, the models showed relatively good fit, visible through the acceptable RMSEA scores (below .08), non-significant pclose scores, and CFIs above .95 (Kenny, 2014; Knoke, Bohrnstedt, & Potter Mee, 2002). Regrettably, these measurements of model fits cannot be evaluated for those models with only three indicators, as these models become just-identified. However, for all these values, the indicators load significantly on their specified latent constructs (the values). These results demonstrate that the data have a reasonably good fit to the theorized structure of values, at least in the form of the indicators measuring the proposed latent variables.

Schwartz's value theory is, however, also concerned with the circular structure of values. I.e., that values that are adjacent in the circular structure share similarities and are positively correlated, and that those that are polar opposites are negatively correlated. These conflicts and compatibilities between values can, however, not be tested via modelling each value and its

indicators separately. Table A.1.2 below instead displays a matrix of correlations between each value construct at t=1 (centered scores):

Table A.1.2 *Correlations between Values*

	TRA	CON	SEC	POW	ACH	HED	STI	SEL	UNI	BEN
TRA	1.0	-	-	-	-	-	-	-	-	-
CON	.30*	1.0	-	-	-	-	-	-	-	-
SEC	.05	.21*	1.0	-	-	-	-	-	-	-
POW	-.11*	-.14*	.01	1.0	-	-	-	-	-	-
ACH	-.17*	-.09*	-.01	.24*	1.0	-	-	-	-	-
HED	-.18*	-.23*	-.23*	-.06	-.08	1.0	-	-	-	-
STI	-.24*	-.38*	-.38*	-.03	-.05	.21*	1.0	-	-	-
SEL	-.35*	-.48*	-.29*	-.04	-.12*	.01	.26*	1.0	-	-
UNI	-.13*	-.19*	-.17*	-.33*	-.44*	-.25*	-.13*	.06	1.0	-
BEN	-.08	.06	-.14*	-.37*	-.24*	.04	-.19*	-.09*	.13*	1.0

Note. * $p < .05$

If the theorized structure is to be valid, an analysis of the correlation matrix should reveal that values which share a motivational basis (such as Tradition and Conformity) have positive correlations, that opposing values (such as Tradition and Self-Direction) have negative correlations, and that these correlations vary according to a predictable pattern as one moves around the circular structure. I.e., as one moves from one value to the next, positive correlations weaken and finally turn in to negative ones.

   The correlation matrix in Table A.1.2 is in general similar to those found in previous studies and provides some—but not perfect—support for the hypothesized circular structure (Schwartz, 2005). In terms of similarities, Tradition, for instance, correlates at .30 with Conformity with which it shares the motivational basis of Conservation, while correlating at −.35 with Self-Direction from the opposing basis of Openness to Change. Some notable discrepancies in comparison with theory are that Security does not correlate with Tradition or Power, that Self-Direction does not correlate with Universalism, and that Hedonism has only weak negative correlations with Conformity and Tradition. Overall, the correlation matrix, however, supports the existence of a circular structure to a large extent, albeit with some modifications. This implies that the values do indeed arrange themselves in a quasi-circular manner, and that data-to-theory fit is acceptable.

A.2 Validating Attitude Structures

Just as was argued concerning the validation of value structures, it is important to establish whether or not the proposed two-dimensional attitude structure is empirically relevant. In other words, if data-to-theory fit is acceptable. I again wish to see empirical outputs in which the indicators of each attitude dimension have significant loadings, and where model fit is at least acceptable. Since Cronbach's alpha for the attitude dimensions were lower than common standards, this becomes a crucial exercise. It is, additionally, necessary to examine if the hypothesized two-dimensional model is superior to a one-dimensional one, in which all indicators instead load on a general latent construct of "violence". If not, it is questionable if one can separate the indicators into two different variables. To validate the attitude dimensions I again subjected the data to a number of CFAs.

   I first subjected the proposed indicators of the two dimensions of violence to separate CFAs to check for model fits and loadings. Second, I tested if the proposed two-dimensional model had a superior fit to a one-dimensional one where all indicators load on an overarching concept of "violence". In the two-dimensional model the two latent factors (War violence and Penal violence) were allowed to correlate, as they are theorized to be both conceptually and empirically related. For all these models I used maximum likelihood estimation, and added correlations of measurement errors where these were suggested by modification indices to be large and where such correlations could be justified on theoretical or methodological grounds (Acock, 2013). Results are available in Table A.2.1 below.

Table A.2.1 *Confirmatory Factor Analysis of Attitudes*

Dimension	X^2 (df)	RMSEA	pclose	CFI	All items load?	BIC	AIC
War	27.7 (18)	.04	.62	.96	Yes	8666	8761
Penal	32.3 (19)	.05	.49	.95	Yes	8932	8840
One-dimensional	198.3 (100)	.06	.13	.86	Yes	17618	17426
Two-dimensional	184.1 (99)	.05	.44	.89	Yes	17599	17404

Note. Data from t=1, N=294.

The two models specified for the separate dimensions both showed relatively good model fits with acceptable loadings. For the war dimension all loadings

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were solidly above .3, while for penal violence two indicators were just below this cut-off point. Thus, despite relatively low alpha coefficients, both constructs appear to be empirically relevant for the study. As the overarching purpose of the study is neither to settle the question of the dimensionality of violence— nor to build new standard models of attitudes toward violence— models with acceptable fits and loadings will suffice.

Results for the one-dimensional versus two-dimensional models were not as clear-cut. Neither the one-dimensional or two-dimensional models show very good fits (CFI below .90), although both have reasonable RMSEA scores (below .08) (Kenny, 2014; Knoke et al., 2002). In both models all indicators load on the latent factors, but the two-dimensional model had, overall, stronger loadings between indicators and the respective assigned dimensions. Model comparison is, however, best carried out through an analysis of changes in BIC and AIC scores. Both BIC (Bayesian Information Criterion) and AIC (Akaike Information Criterion) are comparative measures of fit, which penalize models for increased complexity so as to balance accuracy and parsimony (Fox, 2006; Raftery, 1993). Lower scores suggest better fit. Both the BIC and AIC favor the more complex, two-dimensional model. This supports the idea of dimensionality also in this sample, as well as the possibility to empirically study these dimensions separately. As was expected from theory in Chapter 3, the dimensions were highly correlated. The war violence and penal violence dimensions correlated (as latent variables) at .77. Such strong correlations were expected, as the institutional, formalized, and collective nature of both these types of violence suggests much conceptual overlap.

In sum, the indicators used should be viewed as valid measurements of the theoretical concepts, as acceptable data-to-theory fit has been established.

Appendix B. Lists of Items and Variable Scoring

B.1 List of PVQ-40 items

(English, Swedish translation available on request. Note that all questionnaires were gender neutral. # denotes item placement in questionnaire)

Conformity

#7 He believes that people should do what they're told. He thinks people should follow rules at all times, even when no one is watching.

#16 It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.

#28 He believes he should always show respect to his parents and to older people. It is important to him to be obedient.

#36 It is important to him to be polite to other people all the time. He tries never to disturb or irritate others.

Tradition

#9 He thinks it's important not to ask for more than what you have. He believes that people should be satisfied with what they have.

#20 Religious belief is important to him. He tries hard to do what his religion requires.

#25 He thinks it is best to do things in traditional ways. It is important to him to keep up the customs he has learned.

#38 It is important to him to be humble and modest. He tries not to draw attention to himself.

Benevolence

#12 It's very important to him to help the people around him. He wants to care for their well-being.

#18 It is important to him to be loyal to his friends. He wants to devote himself to people close to him.

#27 It is important to him to respond to the needs of others. He tries to support those he knows.

#33 Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge.

Universalism

#3 He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.

#8 It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.

#19 He strongly believes that people should care for nature. Looking after the environment is important to him.

#23 He believes all the world's people should live in harmony. Promoting peace among all groups in the world is important to him.

#29 He wants everyone to be treated justly, even people he doesn't know. It is important to him to protect the weak in society.

#40 It is important to him to adapt to nature and to fit into it. He believes that people should not change nature.

Self-Direction

#1 Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.

#11 It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.

#22 He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things.

#34 It is important to him to be independent. He likes to rely on himself.

Stimulation

#6 He thinks it is important to do lots of different things in life. He always looks for new things to try.

#15 He likes to take risks. He is always looking for adventures.

#30 He likes surprises. It is important to him to have an exciting life.

Hedonism

#10 He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.

#26 Enjoying life's pleasures is important to him. He likes to "spoil" himself.

#37 He really wants to enjoy life. Having a good time is very important to him.

Achievement

#4 It's very important to him to show his abilities. He wants people to admire what he does.

#13 Being very successful is important to him. He likes to impress other people.

#24 He thinks it is important to be ambitious. He wants to show how capable he is.

#32 Getting ahead in life is important to him. He strives to do better than others.

Power

#2 It is important to him to be rich. He wants to have a lot of money and expensive things.

#17 It is important to him to be in charge and tell others what to do. He wants people to do what he says.

#39 He always wants to be the one who makes the decisions. He likes to be the leader.

Security

#5 It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.

#14 It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.

#21 It is important to him that things be organized and clean. He really does not like things to be a mess.

#31 He tries hard to avoid getting sick. Staying healthy is very important to him.

#35 Having a stable government is important to him. He is concerned that the social order be protected.

B.2 List of Items for Attitudes toward Violence

(English, with Swedish translation)

War violence (* denotes reverse-coded item)

- Military service should be compulsory

- It is acceptable for our government to stop violence in other countries with our troops

- One should seriously consider using the military also in domestic conflicts

- The threat of military force is often the best way to keep down aggressive states

- The killing of civilians should be accepted as an unavoidable part of war

- War in self-defense is perfectly right

- Our democracy must be protected by force if threatened either from the outside or from within

- War is unavoidable due to human nature

Penal code violence

- People should have the right to kill if their families are threatened

- Police are **not** respected because they have to treat people carefully

- Capital punishment should be reinstated

- When law enforcement is inadequate, people have the right to take the law into their own hands

- Generally, the sentences given to convicted criminals are too lenient

- Without a strong police force, society would disintegrate

- Police often treat peace demonstrators too roughly*

- Our prison system should emphasize rehabilitation rather than punishment*

B.3 Items and Scoring Procedure for the Modified CES

Original CES

1. Did you ever go on combat patrols or have other dangerous duty?
2. Were you ever under enemy fire?
3. Were you ever surrounded by the enemy?
4. What percent of the men in your unit were killed, wounded or missing in action?
5. How often did you fire rounds at the enemy?
6. How often did you see someone get hit by incoming or outgoing rounds?
7. How often were you in danger of being injured or killed in the line of duty?

Swedish version of CES (author Alf Ingesson-Thoor)

1. Har du genomfört patrullering i fientligt område eller motsvarande verksamhet?
2. Har du varit under fientlig beskjutning eller annan fientlig vapenverkan?
3. Har du varit omringad av fienden i en stridssituation?
4. Hur många av Dina kamrater har blivit skadade av fienden?
5. Vid hur många tillfällen sköt du mot fienden?
6. Har Du sett någon bli träffad av inkommande/utgående eld?
7. Hur ofta var Du nära att bli skadad eller riskerade att bli dödad? (ex: nära bli träffad av eld, trafikolycka, tillfångatagen)

Scoring key for Swedish version of CES

Did you ever go on combat patrols or have other dangerous duty?	1= Never, 2= 1–3 times, 3=4–12 times, 5= 13–20 times, 6=21+ times	Adjusted so that no exposure = 0. All scores then multiplied by 2
Were you ever under enemy fire?	1= Never, 2= 1 time, 3= 2–3 times, 4= 4–5 times, 5= 6+ times	Adjusted so that no exposure=0
Were you ever surrounded by the enemy?	1= Never, 2= 1 time, 3= 2–3 times, 4= 4–5 times, 5= 6+ times	Adjusted so that no exposure = 0. All scores then multiplied by 2.
What percent of the men in your unit were killed or wounded?	1 = None, 2= 1–10%, 3=11–20%, 4= 21–50%, 5= 51%+	Adjusted so that no exposure = 0. All scores then multiplied by 2
How often did you fire rounds at the enemy?	1= Never, 2= 1 time, 3= 2–5 times, 4= 6–10 times, 5= 11+ times	Adjusted so that no exposure=0
How often did you see someone get hit by incoming or outgoing rounds?	1= Never, 2= 1 time, 3= 2–3 times, 4= 4–5 times, 5= 6+ times	Adjusted so that no exposure = 0. All scores then multiplied by 2
How often were you in danger of being injured or killed in the line of duty?	1= Never, 2= 1 time, 3= 2–3 times, 4= 4–5 times, 5= 6+ times	Adjusted so that no exposure = 0. All scores then multiplied by 2

B.4 Control Variables

Age

Due to issues of anonymity, Age was scored only in ten-year intervals.

1= 1940–1949, 2=1950–1959, 3=1960–1969, 4=1970–1979, 5=1980–1989, 6=1990+

Sex

0= male, 1= female

Civil education (maximum educational attainment)

1= Grades 1–9

2= High school

3= Studies at college or university, but without degree

4= Studies at college or university, with a degree

5= Ph.D.

Military education

1= None

2= Basic training (3 months)

3= Swedish draft system (commonly 9–12 months)

4= Specialist officer

5= Military academy or higher

Socio‑economic background

Highest educational attainment of mother and father, divided by 2. Scored in the same manner as Civil education.

Previous Mission Experience

Count variable of number of ISAF and/or other peacekeeping missions

Table B.4.1 *Descriptive Statistics for Control Variables*

Variable	M (SD)	Min.	Max.
Age	4.7 (1.0)	2	6
Sex	.12 (.32)	0	1
Civil education	2.6 (.86)	1	4
Military education	3.4 (.94)	1	5
Socio-economic background	2.6 (.91)	1	4.5
Previous mission experience	.68 (1.1)	0	7

B.5 Correlation Matrix of Dependent Variables

Table B.5.1 *Correlation Matrix of Dependent Variables (used in Table 6.1)*

	Dichotomous	Magnitude 1	Magnitude 2	r	D^2
Dichotomous	1.0	-	-	-	-
Magnitude 1	.61*	1.0	-	-	-
Magnitude 2	.49*	.88*	1.0	-	-
r	−.33*	−.67*	−.68*	1.0	-
D^2	.34*	.76*	.84*	−.72*	1.0

Note. *p<.05

Appendix C. Statistical Appendix

C.1 Statistical Techniques and Mathematical Notations

The analyses of value and attitude change examine the following types of change and stability: rank-order stability, ipsative stability, individual-level change (using the Reliable Change Index method), and normative/mean-level change (only as a supplementary analysis). These methods of studying change and stability include change at the sample level, but are focused on individual-level, person-centered change. Good introductions to and comparisons of these types of change are available in work by Robins and colleagues (2001) and Roberts and colleagues (2001). In what follows I, however, explain in some detail how these methods work and how I apply them. Some mathematical notations are also made available.

Mean-Level Change
Assessing normative/mean-level change is straightforward and intuitive. Calculating this score is most often a matter of comparing the sample's mean scores on the variables of interest at t=1 and t=2. Such a measurement captures absolute increases in the group as a whole, showing if, for instance, a value or an attitude has become more important overall in the sample. We expect to see this type of change in cases where a treatment has a homogenous effect on a sample. In personality studies if often signifies maturation effects, in terms of changes that occur for practically all people as they, for example, grow older (Robins et al., 2001). When this type of change is assessed Structural Equation Models (SEM) are used to compare the means of the latent variables (the value or attitude dimensions).

Rank-Order Stability
Rank-order stability refers to the stability of individual differences between at least two points in time. Even if mean-levels of a value are stable across two points in time this does not necessarily mean that the rank-order of an individual within the sample is the same. I.e., if one person increases and another decreases on the same score, the mean-level score will be the same, while rank-order stability is low. Such changes occur when a treatment affects individuals differently, for example if one individual changes in one direction and another in the opposite direction (Lönnqvist et al., 2011; Robins et al., 2001). This type of change is commonly assessed via

longitudinal correlations between variable scores at t=1 and t=2. To study rank-order correlations SEM is applied to study between-time correlations of latent variables (the value or attitude dimensions).

Ipsative Stability
Ipsative stability is a form of person-centered change in that it is an intra-individual measurement. This type of stability concerns several dimensions within an individual over time, and is often approached through studying change in different measurements of profile stability (Roberts et al., 2001; Robins et al., 2001). Ipsative stability is related to the person itself, and is applied to examine the level of stability or change across all ten dimensions in the form of a value profile. Three elements are of interest in terms of profile stability: elevation, scatter, and shape. Elevation is an individual's mean across time, scatter the variance, and shape the structural similarity (Cronbach & Gleser, 1953). Figure C.1 below demonstrates two of these differences in types of profile similarity, and illustrates why these different measurements are of relevance.

Panel A. Same shape, same scatter, differing elevations
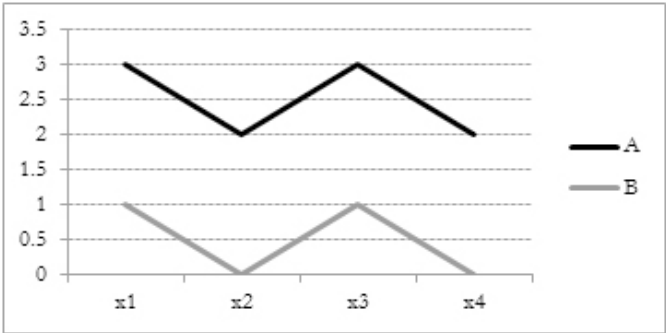
Panel B. Same scatter, same elevation, different shape
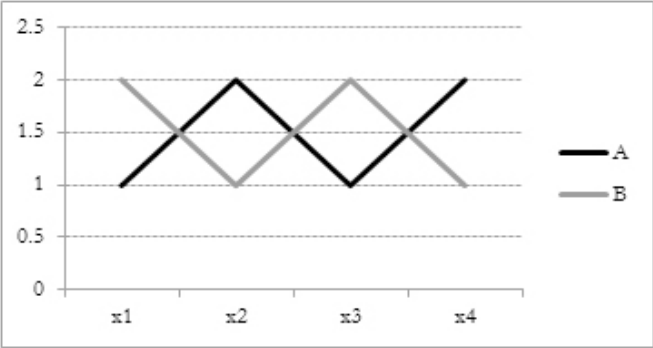
Panel A above displays a situation where an analyst would fail to track changes between point A and point B if he/she studied only shape and

scatter, which are the same across the two points of measurement. Only adding an analysis of elevation (mean) will show that substantial change had occurred. Panel B shows a similar situation, but where elevation and scatter are the same, but shape has been modified.

Four measurements are applied to analyze ipsative stability. First, I will make use of three different D-scores: D^2, D'^2, and D''^2 (Cronbach & Gleser, 1953). D^2 captures variations across all three of the abovementioned dimensions (elevation, scatter, and shape), D'^2 reflects changes in scatter and shape, and, D''^2 differences only in shape (Robins et al., 2001). The final way is to use a simple Pearson's r correlation, but for each individual's profile across t=1 and t=2. This score also captures differences only in shape. Low D^2s denote stability, as does a high profile stability r. A full walkthrough of mathematical notations are available in Cronbach and Gleser (1953).

Mathematical notation for D^2 variables

$$D_{t2t1}^2 = \sum_{v=0}^{n}(x_{vt2} - x_{vt1})^2 \ (1)$$

$$D'^2 = D_{t2t1}^2 - n\ (el_1 - el_2)^2 \ (2)$$

$$D''^2 = \frac{D'^2 - (\sigma_{t1}\sqrt{n} - \sigma_{t2}\sqrt{n})^2}{(\sigma_{t1}\sqrt{n})(\sigma_{t2}\sqrt{n})} \qquad (3)$$

While D-scores are often used to compare individuals to one another, these notations depict a longitudinal comparison of each individual with his/herself. In this notation el_1 and el_2 represent mean scores of the values and are called elevation scores, whereas σ_{tk} corresponds to the standard deviation of values at time = k. n is the number of values, which, in our case, is 10.

Reliable Change Index (RCI)
Finally, the study also addresses individual-level change via the Reliable Change Index (RCI) (Christensen & Mendoza, 1986; Jacobson & Truax, 1991). This method—originally developed for clinical studies—is similar to looking at mean-level change, but does so at the level of the individual. I classified each individual as having increased, decreased, or stayed the same on each value or attitude, based on a calculation of this index score. The RCI quantifies the probability of observing a change score of a certain magnitude

without actual change taking place. I followed Robins and colleagues (2001) in classifying an individual as having changed if the probability of observing an individual's change score was less than 5%; thus using a 95% confidence interval. A benefit of using the RCI, compared to other methods using a change/difference score, is that the RCI accounts for the level of unreliability, and can thus make adjustments for statistical artifacts such as regression toward the mean (Roberts et al., 2001).

Mathematical notation for RCI

$$RC = \frac{x_2 - x_1}{\sqrt{2\left(\sigma_{x\sqrt{(1-r_{xx})}}\right)2}}$$

Where x^2 is the value score at t=2, x^1 the value score at t=1, σ the standard deviation of the test score and r_{xx} the reliability of the test. Reliability scores are added to the equation to account for errors such as regression toward the mean-artifacts. When studying values I add four-week test-retest reliability scores from Schwartz (Schwartz, 2005), and when studying attitudes, test-retest reliabilities stem from a student sample (collection detailed in Chapter 4).

Correction for attenuation
At some stages in the study I conduct regular t-tests to be able to compare results with findings from studies that have not applied SEM techniques. When such tests are conducted I correct for attenuation. In short, disattenuating a correlation entails accounting for known measurement error before correlating items (Muchinsky, 1996). In correcting for attenuation it is commonplace to make use of either internal reliabilities or test-retest reliability. In this study I made use of test-retest reliabilities as attenuation over time was of primary interest. Additionally, the low Cronbach's alphas of some of the PVQ values may drive disattenuated correlations to exceed 1.

Mathematical notation for correction for attenuation

$$\rho_{xy} = \frac{r_{xy}}{\sqrt{r_{yy}}}$$

Where ρ_{xy} is the disattenuated correlation, r_{xy} the attenuated correlation, and the bottom part of the equation is the square root of the test-retest score.

Appendix D. Interview Templates

The sections below present the core questions posed at the interviews at t=1 (first section) and at t=2 (second section). Please note that most questions were followed by several rounds of probing. These probes most commonly asked how or why, and/or asked the respondent to elaborate on his thoughts and ideas around the core questions. Also note that the questions did not necessarily appear in the order listed below, which has been structured thematically.

D.1 Interview Template at t=1

(English, Swedish translation available on request)

Values and Motives

Q1. What were your main reasons for wanting to deploy to Afghanistan? And why did you want to work with the Armed Forces?
(probe until saturation)

Q2. Which of these reasons would you say are the most important?

Q3. I also have some question on what I said this interview would mainly be about—perspectives on life and values—so that I can get an idea of what you think is important in the world and in your life at present. Is that ok?

Q4. Could you tell me what goals you have in life? What are you working toward?
(probe until saturation)

Q5. Many have mentioned/you mentioned doing something good for the world, how important is that to you? I mean going out on a mission to do something good for the world?

Q6. Many have mentioned/you mentioned the challenge involved in going to Afghanistan, is that something you think is important in your life in general, to be challenged and stressed?

Q7. Many have mentioned/you mentioned that you wanted to go on a mission because of the experiences and the excitement it brings. Is this thing with excitement and risk something you think is important in general?

Q8. Many have mentioned/you mentioned that going to Afghanistan with the SAF is like working for the country, for Sweden. Is that something that is important to you?

Q9. Do you think it is important, in general, to understand how other people think, why they do the things they do?

Q10. Having a good career and making money, rising through the ranks, gaining status, are these things that are interesting to you?

Q11. If you think about becoming a leader, to be in charge, is that something that is important to you?

Q12. Do you think it is important to have stability and order in society in general?

Q13. If we think about Sweden, do you tend to think or worry about economic safety, or that Sweden should be stable and orderly?

Q14. Is it important to you that your job be stimulating?

Q15. What do you think is good with working within the SAF?

Q16. What do you think; should people in general be satisfied with what they have?

Q17. Do you think it's important to decide on your own what to do in life, or should one conform more?

Q18. What do you think in general regarding how people should act; do you think it's important to follow the social rules and norms in society?

Q19. A feeling of loyalty and the like, do you think loyalty with those who are close to you is important?

Q20. In general, do you think it's important to show your skills, to show that you know what you are doing?

Q21. Would you say that having a good time and enjoying yourself is important to you?

Q22. Out of these things we've been talking about, what do you think are the most important drivers in your life?

Q23. Let's talk about Sweden in general again. What type of disposition and attitude do you like and dislike among people?

Q24. Let's talk a little about human nature. Do you think that people are in general good, in general bad, in general strong, or in general weak?

Personality

Q25. I normally ask a few short questions to get an idea of what type of personality you have. This has nothing to do with psychological health, I would just like to know to understand you better.

Q26. Would you say that you are very orderly, or very disorderly?

Q27. Would you say that you are very emotionally stable, or are you easily aroused, more anxious?

Q28. Would you say that you are outgoing, or more of an introvert and a little shy around other people?

Q29. Are you reliable and disciplined? If you say that you are going to do something, does it get done?

Q30. Would you say that you are a little critical and argumentative, or are you just a nice, uncritical person?

Q31. And finally, would you say that you are a creative person who likes to come up with new ideas, or are you more the type who sticks to what he knows?

Feelings toward mission

Q32. The Swedish presence in Afghanistan, do you think we can make a difference?

Q33. You'll be spending a lot of time on base. What are your feelings about this?

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Q34. What reactions have you gotten when you tell people you are going on the mission?

Q35. In your experience, are Swedes more positive or more negative toward our deployment in Afghanistan?

Attitudes toward Violence
Q36. Being able to use force against an opponent, against an enemy, is described by some as part of the basic mission to Afghanistan. Would you agree with that?

Q37. What are your thoughts about using violence on the mission?

Q38. Have you experienced any moral dilemmas surrounding the use of force on the mission?

Q39. What general view do you have—if you have one—on when it is ok and when it is not ok to use violence?

Q40. In what situations on the mission do you think the use of force is acceptable or warranted?

Q41. Would you say that, when it comes to the possibility of experiencing TIC, that you would like to end up in TIC, or would you rather avoid it?

Q42. Are you one of those who is interested in combat, that something should happen?

Q43. Many have mentioned/you mentioned this thing with wanting to test and challenge oneself. The possibility of ending up in battle, what are your thoughts on this?

Q44. The military using force is a specific kind of issue. Many feel that there is a difference between when the military and the police should use force. What do you think?

Q45. Let's talk about violence at home in Sweden, in society in general. Some think that violence in society is horrible, while other have a more accepting view of it. What do you think?

Q46. In Sweden, only the police may legitimately use violence. What are your opinions on how the police use violence?

Q47. We've talked about different types of violence and when it is ok or not to use force. What do you think are the differences between the different types we've talked about?

Q48. Are there other thoughts you've had regarding violence?

What affects people who go on missions
Q49. From the perspective of what we just talked about, regarding what's important in your life, do you have any ideas on how the mission will affect you?

Q50. What factors do you think affect people in general—not you specifically, but people in general—the most when they deploy to a mission?

D.2 Interview Template at t=2

(English, Swedish translation available on request)

Values and Motives
Q51. The first thing that we talked about before you left for the mission were what motives you had for deploying, and at that point you said that [recapitulate what the respondent said at the first interview]. Now that you have returned, would you say that these motives were fulfilled?

Q52. In general, would you say that the mission was a positive or a negative experience for you?

Q53. Before you deployed we also talked a little about what was important in your life. Overall, do you think that in terms of your values, your goals in life and what is important to you, that you have changed since spending time in Afghanistan?

Q54. I've summarized what you said after our first meeting. What I thought seemed to be very important to you. [Recapitulate what was said at the first interview]. Would you say that these things are still the most important?

Q55. I've summarized the same thing for the least important things. [Recapitulate what was said at the first interview]. Would you say that these things are still the least important?

Experiences on the mission
Q56. Just so I can more clearly understand what you did on the mission, could you tell me what a normal week on the mission would look like?

Q57. How much free time would you have, across a week?

Q58. Some people remember relatively specific things that they thought affected them. It can BE anything from specific events to longer processes or thoughts you might have had. Did you have any such experiences?

Q59. The experience of a lot of stress, for example in the form of battle or being under fire or other types of high stress events when you are out of the camp; did you experience anything like that?

Q60. What would you say was the most stressful thing you experienced on the mission?

Q61. Let's talk about something less stressful; life on the base. How did you experience that, was that something that affect you in any way?

Q62. What is it like living in such close proximity to other people?

Attitudes toward Violence
Q63. We also talked a little bit about the use of violence and similar things. In general, do you think that you have changed your opinion on when you should and when you should not use force after having been on the mission?

Q64. Concerning violence we discussed [recapitulate summary from the first interview]. Do you think that these opinions have changed?

Q65. We also talked about the wish to end up in TIC or not. You were one of those who felt that [recapitulate the respondent's attitude from the first interview]. What are your present thoughts on this?

Q66. So, now that you did not end up in TIC, is that something you feel is missing from the experience?

Effects of Mission
Q67. We also talked more generally about how you think a mission might affect people, that is other people, not yourself. When on the mission, or now that you've returned home, do you think that your comrades have changed?

Q68. You said that you thought/did not think that people had been affected by the mission. Why do you believe this to be the case?

Q69. Would you like to go out on another mission?

[If yes] What is that is so appealing about this type of life?
[If no] Why not?

Q70. I really have only one question left. Would you say that you are proud of having been on a mission?

Q71. I don't have any more questions, unless there is something more you would like to tell me about what it is like going on a mission like this?

Appendix E. Supplementary Tables and Figures

E.1 Interaction Effects

Table E.1.1 *Interaction Models for Value change, Conscientiousness * CES*

	Model 1	Model 2	Model 3	Model 4	Model 5
	Dichotomous	Magnitude 1	Magnitude 2	r	D^2
CES	.49	.49	-1.7**	.25**	$-.45$**
	(1.6)	(1.6)	(.89)	(.12)	(.20)
Conscientiousness	$-.52$	$-.52$	$-.75$***	.12***	$-.22$***
(3 steps)	(.40)	(.40)	(.25)	(.12)	(.06)
CES *	.20	.20	.93**	$-.12$**	.21**
Conscientiousness	(.67)	(.67)	(.38)	(.05)	(.09)
(controls excluded	-	-	-	-	-
from table)					
Adj. R^2/Pseudo R^2	.10	.10	.07	.10	.10

Note. Matched sample used, N=129. *** p<.01,** p<.05, * p<.10. All coefficients are unstandardized.

Table E.1.2 *Interaction Models for Changes in Attitudes toward Violence, Conscientiousness * CES*

Variable	Increase in war	Increase in penal
CES	−1.1***	−2.4
	(.34)	(1.6)
Conscientiousness	−5.6***	−1.8
(3 steps)	(1.8)	(1.4)
CES * Conscientiousness	.44***	.62
	(.16)	(.53)
	-	-
(controls excluded from table)		
Pseudo R^2	.49	.57

Variable	Decrease in war	Decrease in penal
CES	.76**	.12
	(.36)	(.25)
Conscientiousness (3	4.6**	1.0
steps)	(2.1)	(1.2)
CES * Conscientiousness	−.4**	−.09
	(.18)	(.11)
(controls excluded from table)	-	-
Pseudo R^2	.34	.11

Note. Matched sample used, N=129. *** $p<.01$, ** $p<.05$, * $p<.10$.
All coefficients are unstandardized.

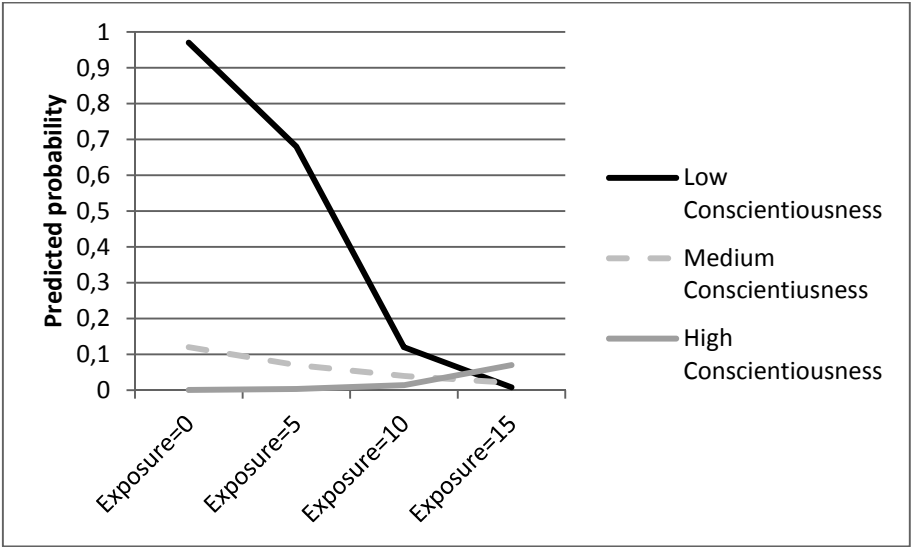Figure E.1.1 *Conscientiousness*CES and Positive Change in War Violence*

Table E.1.3 *Interaction Models for Changes in Attitudes toward Violence, Emotional Stability * CES*

Variable	Increase in war	Increase in penal
CES	−1.0***	*(omitted)*
	(.37)	
Emotional Stability (3 steps)	−1.4	*(omitted)*
	(1.26)	
CES * Emotional Stability	.35**	*(omitted)*
	(.14)	
(controls excluded from table)	-	-
Pseudo R^2	.46	*(omitted)*

Variable	Decrease in war	Decrease in penal
CES	.22	−.28
	(.24)	(.27)
Emotional Stability (3 steps)	1.3	-1.3
	(1.5)	(1.3)
CES * Emotional Stability	−.12	.11
	(.12)	(.12)
(controls excluded from table)	-	-
Pseudo R^2	.21	.12

Note. Matched sample used, N=129. *** $p<.01$,** $p<.05$, * $p<.10$. All coefficients are unstandardized.

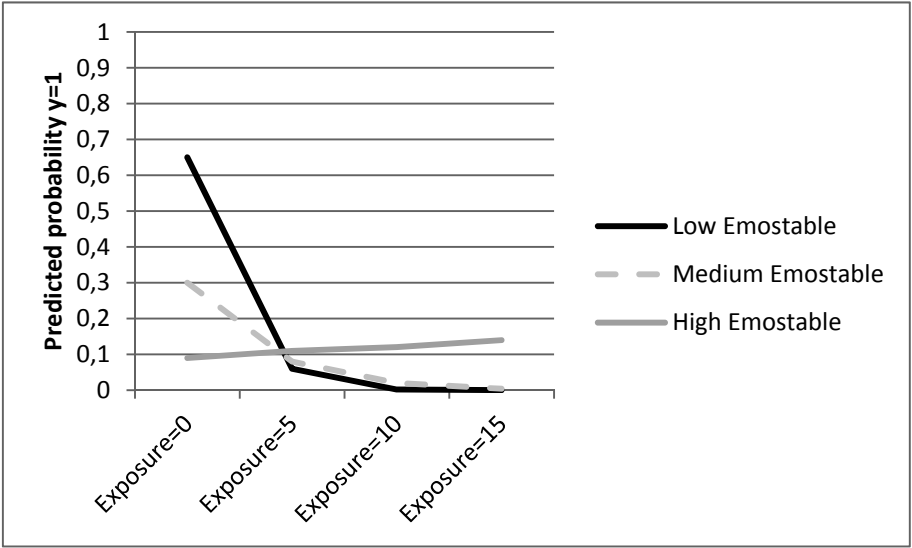Figure E.1.2 *Emotional Stability*CES for Positive Changes in War*

Table E.1.4 *Interaction Models for Changes in Attitudes toward Violence, Openness * CES*

Variable	Increase in war	Increase in penal
CES	−.83**	−1.5
	(.34)	(1.9)
Openness to experience	−.85	2.6
(3 steps)	(1.0)	(2.4)
CES * Openness to	.29**	.14
experience	(.13)	(.75)
(controls excluded from	-	-
table)		
Pseudo R^2	.43	.55

Variable	Decrease in war	Decrease in penal
CES	.007	.03
	(.29)	(.36)
Openness to experience	−.06	−.35
(3 steps)	(1.4)	(1.4)
CES * Openness to	−.03	−.04
experience	(.13)	(.17)
(controls excluded from	-	-
table)		
Pseudo R^2	.19	.10

Note. Matched sample used, N=129. *** $p<.01$, ** $p<.05$, * $p<.10$. All coefficients are unstandardized.

Figure E.1.3 *Openness*CES for Positive Change and War Violence*
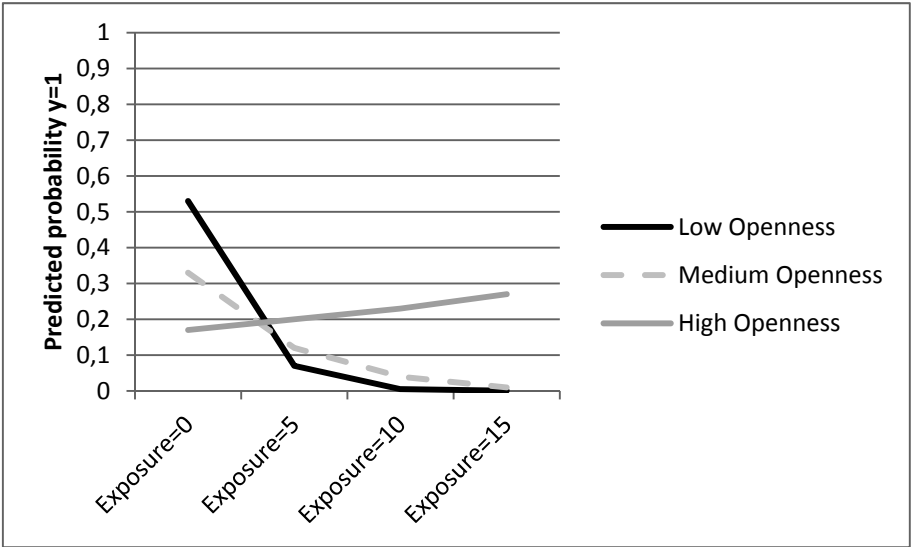
E.2 Mean-level Changes in Values

To study mean-level changes in values I employed the cross-sectional dataset at t=1 and t=2 in a latent means model (results do not differ if the panel dataset is used). In this setup I compare the means of the latent constructs that the indicators load on. Latent variable models were thus constructed for each specific Schwartz value. In these models constraints were set so that intercepts, loadings, and error variances were equal between the two points in time. In such a setup, the means at t=1 and t=2 can be compared (Acock, 2013). Results are available in Table E.2.1 below. Model fits were acceptable overall, and mostly ranged from excellent to decent. Maximum likelihood estimation with missing values was used.

Table E.2.1 *Mean-Level Changes in Values*

Value	Δ Diff.	X^2 *(df)*	RMSEA	CFI
Tradition	.08	27.1 (14)	.07	.86
Conformity	−.013	28.1 (14)	.06	.96
Security	.07	60.4 (18)	.09	.85
Power	.002	14.4 (7)	.06	.97
Achievement	.2**	27.6 (10)	.08	.97
Hedonism	.009	14.4 (7)	.06	.98
Stimulation	−.02	6.01 (7)	0.0	1.00
Self-direction	.03	19.9 (14)	.04	.98
Universalism	.08	252.5 (34)	.06	.97
Benevolence	.02	7.47 (14)	.00	1.00

Note. ***p<.01, **p<.05. The latent means model employed the full cross-sectional dataset (approx. N=510 across models)

E.3 Mean-level Changes in Attitudes toward Violence

Mean-level changes were analyzed as a comparison of means between t=1 and t=2. The cross-sectional dataset was used, and the means compared via the use of SEM. Latent variable models were created (one for each type of violence), in which intercepts, loadings, and error variances were set to be equal across the two points in time so as to compare the means (Acock, 2013). I created four parcels as indicators for these latent variables since the war violence and penal violence dimensions were each measured with eight items. Items were parceled via assigning the items with the four highest loadings to one parcel each, and then adding the items with the next highest loadings to each parcel using the same method of designation (fifth highest loading parceled with the highest loading and so on) until all indicators had been assigned to a parcel (Little et al., 2002). Maximum likelihood estimation with missing values was used, and model fits were good.

Table E.3.1 *Mean-Level Changes in Attitudes to Violence*

Dimension	Δ Diff.	X^2 *(df)*	RMSEA	CFI
War violence	$-.03$	5.46 (4)	.04	.99
Penal violence	.09	24.4 (10)	.07	.95

Note. N= approximately 510 across models.

E.4 Value Differences

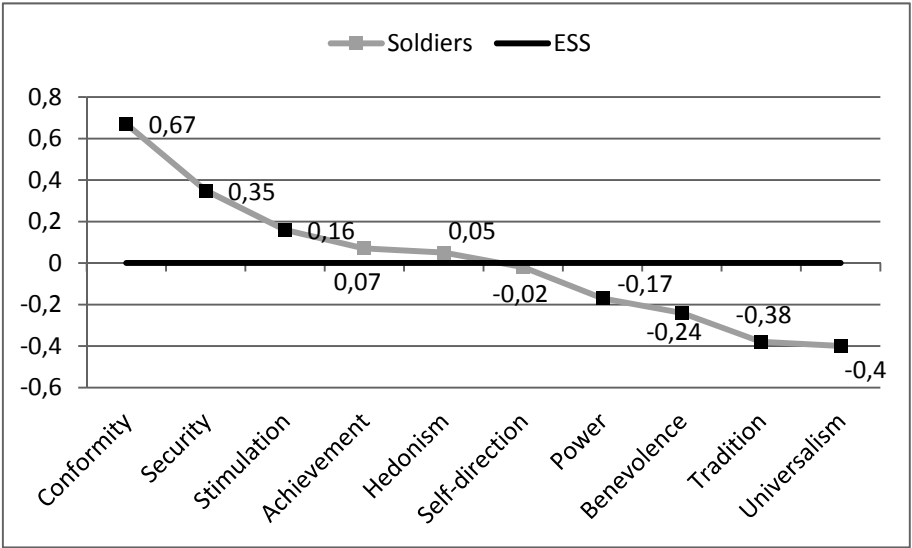Figure E.4.1 *Value Differences between Soldiers and Civilians*

Figure E.4.1 above displays differences in value rankings between the full soldier sample at t=1 (N= approx. 294) and a representative sample of Swedes (N= approx. 552). The black line signifies a baseline based on rankings in the representative sample, and the grey line the soldier sample's deviations from these rankings. Positive scores denote deviations that signify a higher appreciation of a value compared to the civilian sample. Black line-markers denote differences that are statistically significant in t-tests with assumptions of unequal variances.

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